DEVELOPING THE CURRICULUM

Eighth Edition

Peter F. Oliva

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PEARSON

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PEARSON

For my wife, Ruth;
our children, Eve and Marc;
and our grandchildren,
Gregory, Cory, Anthony, and Amanda

Peter F. Oliva

For my wife, Patty;
our children, Whitney and Trey;
and my mother and father,
Marcelyn and William; and my sister, Pam;
and my aunt, Mary

William R. Gordon, II

ABOUT THE AUTHORS

Peter F. Oliva, formerly professor and chairperson at Southern Illinois University, Florida International University, and Georgia Southern University, is the author of numerous articles in education journals and several textbooks and is co-author of *Supervision for Today's Schools,* now in its eighth edition. He has served as a high school teacher and guidance counselor and as a professor of education at the University of Florida, the University of Mississippi, Indiana State University, and the University of Hawaii. He has taught summer sessions at Portland State College (Oregon), Miami University (Ohio), and Western Michigan University. He has also served as a part-time instructor supervising interns at the University of Central Florida. He has traveled extensively on educational and/or governmental programs in Europe, the Middle East, and Latin America. *Developing the Curriculum* has been translated into Mandarin and Vietnamese and is being translated into Korean.

William R. Gordon II has served as a teacher and administrator in the Orange County, Florida, Public Schools for the past twenty-seven years. He began his administrative career at University High School twenty years ago as a founding member of the school. Additionally, he was an assistant principal at Glenridge Middle School, Metro West Elementary School, and Bonneville Elementary School before becoming principal at Killarney Elementary School. He then became principal of Winter Park High School. During his eleven-year tenure at Winter Park High School, the school was consistently named by the State of Florida as a "High-Performing School" due to the school's rigorous curriculum and outstanding student achievement. Also, *U.S. News and World Report* repeatedly ranked Winter Park High School in the top 1 percent of high schools in the nation. He is currently an Executive Area Director for Orange County Public Schools, where he is responsible for managing thirty-eight K–12 public schools. He also serves as an adjunct professor in the College of Education at the University of Central Florida.

PREFACE

The eighth edition of *Developing the Curriculum* continues to serve as a comprehensive analysis of curriculum development. We are grateful to the readers who continue to use it as a means to further the study of an area that continues to evolve due to the competitive nature of the global workplace. In providing a comprehensive view of the field of curriculum development by illuminating various historical and modern approaches to this field, we present a plethora of topics that are relevant to today's curriculum workers.

NEW TO THIS EDITION

Although the same basic overall structure of previous editions remains in place, a number of changes have been made in updating this edition to make the book more current and useful, both to instructors and students in a college or university classroom and to curriculum workers in the field:

- A new author, William R. Gordon, II, a practitioner in the field of education, shares his contemporary experience and knowledge in this eighth edition with that of Peter F. Oliva, the original author.
- A new chapter on Digital Curriculum, Chapter 14, addresses the changing education environment that technology creates by providing an understanding of new trends that allow students to compete in the global workplace. The concept of literacies is introduced and an analysis of areas such as online learning, blended learning, and mobile learning is provided. Additionally, an overview of how computer-based assessments are being used to gather student performance data to drive instructional practices and how they will be used to address the demands of the Common Core State Standards is presented. Furthermore, a new forum for free digital content, Open Education Resources, as well as a section on digital ethics, are featured in this new chapter.
- Previous Chapters 8 and 14 have been combined to improve the text organization and coverage of curriculum goals, objectives, and products. Additionally, Chapter 9 has been restructured to allow for newer content and to reorganize the material in a more user-friendly format.
- Material on Race to the Top and Common Core State Standards has been added to the book. Federal government roles in education are addressed to inform students of the dynamic political forces at play in curriculum matters.
- Material on Advanced Placement and International Baccalaureate is now included as a response to user requests. This new section, located in Chapter 9, adds to the comprehensive description of strengths and weaknesses of various plans and proposals for organizing and implementing the curriculum.
- Recent classification systems by Norman L. Webb, *Depth of Knowledge,* and Tony Wagner, *21st Century Classrooms,* are introduced in Chapter 10 and Chapter 7, respectively.
- Information on the changing nature of the workplace and the needs of 21st century learners that curriculum planners must address is now included in Chapter 7. This key information explains the paradigm shift educators must make to help students master skills necessary to become productive citizens in the 21st century.

- New material on professional learning communities has been added to Chapter 13. This material addresses collaborative teaming that is beneficial to all stakeholders who develop the curriculum.
- The appendix has been thoroughly updated with current references and includes many website references for easy access to research.
- In addition, MyEdLeadershipLab™ is integrated in the student text, enhancing the teaching and learning experiences.

Like preceding editions, this book is intended to address the learning needs of students in courses such as Curriculum Development, Curriculum Planning, Curriculum and Instruction, and Curriculum Improvement. District-level curriculum specialists, preservice and in-service curriculum coordinators, principals, assistant principals, curriculum resource teachers, department chairpersons, instructional team leaders, and grade-level leaders will benefit from this practical guide to curriculum development.

The five sections of the book follow a particular sequence and have numerous examples of practices of actual schools and school systems. The text begins with an examination of the theoretical dimensions of curriculum development, looks at the various personnel who have the primary responsibility to develop the curriculum, and describes various models of curriculum development, including the authors' model. The process of curriculum development is examined from stating philosophical beliefs and broad aims of education to specifying curriculum and instructional goals and objectives, implementing curriculum and instruction, and evaluating instruction and the curriculum.

The chapters are designed to provide in-depth information that relates to the cognitive objectives of the chapter. Each contains a great deal of information and suggestions as well as discussion questions and exercises that reinforce the objectives and extend the treatment of topics beyond the text. Key features of the chapters are additional references, including websites, multimedia, inquiry kits, and a bibliography of pertinent books and journals for further research and study. An appendix is also included so that students can further their research in the area of curriculum development. Lastly, the textbook also includes additional teacher resources, including PowerPoints and an online Instructor's Manual with Test Bank. These complementary resources can be downloaded by instructors from the Instructor Resource Center on the Pearson Higher Education website (www.pearsonhighered.com).

As in the past, we have tried to provide a synthesis of theory, research, and practice that is clear and readable. Furthermore, we have zealously researched and analyzed the content of this text to provide a quality learning experience for our readers. We acknowledge that we need more educators to take a leading role in the complex field of curriculum development. It is our goal to encourage and nurture such possibilities by providing a helpful teaching aid for those who are involved in the process of curriculum development.

MyEdLeadershipLab™

Help your students bridge the gap between theory and practice with MyEdLeadershipLab™. MyEdLeadershipLab™ connects your course content to video- and case-based real-world scenarios, and provides:

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ACKNOWLEDGMENTS

The authors of this text wish to express their deep appreciation to all the people who have contributed to the writing and publishing of this and earlier editions. Insights of the teachers, administrators, students, and colleagues with whom we have worked and of those who have reviewed the text have helped to shape our thinking on the challenging process of curriculum development. We wish especially to thank Meredith Fossel, our editor, and Kerry Rubadue, our project manager, for the encouragement and assistance they have rendered us.

We also would like to thank the reviewers of the eighth edition: Amy Conditt, Trevecca University; Robert M. Denn, Tennessee Technological University; and Dawn Parker, Texas A&M University.

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CONCEPTIONS OF CURRICULUM

Gaius Julius Caesar and his cohorts of the first century BC had no idea that the oval track on which the Roman chariots raced would bequeath a word used almost daily by educators twenty-one centuries later. The track—the *curriculum*—has become one of the key concerns of today's schools, and its meaning has expanded from a tangible racecourse to an abstract concept.

In the world of professional education, the word *curriculum* has taken on an elusive, almost esoteric connotation. This poetic, neuter word does possess an aura of mystery. By contrast, other dimensions of the world of professional education, such as *administration, instruction,* and *supervision*, are strong, action-oriented words. Administration is the *act* of administering; instruction is the *act* of instructing; and supervision is the *act* of supervising. But in what way is *curriculum* an act? While administrators administer, instructors instruct, and supervisors supervise, no school person *curricules,* and though we can find the use of the term *curricularist,*[1] it is only a rare *curricularist* who *curricularizes.*

The quest for a definition of curriculum has taxed many an educator. As long ago as 1976, Dwayne Huebner ascribed ambiguity and a lack of precision to the term *curriculum.*[2] In 1988, Madeleine R. Grumet labeled curriculum a "field of utter confusion."[3] At the turn of the century Arthur W. Foshay attributed a lack of specificity to the

curriculum.[4] Indeed, curriculum seems at times analogous to the blind men's elephant. It is the pachyderm's trunk to some; its thick legs to others; its pterodactyl-like flopping ears to some people; its massive, rough sides to other persons; and its ropelike tail to still others. Herbert K. Kliebard observed that "what we call *the* American curriculum is actually an assemblage of competing doctrines and practices."[5]

Though it may be vehemently denied, no one has ever seen a curriculum—not a real, total, tangible, visible entity called a curriculum. The interested observer may have seen a written plan that may have been called a curriculum. Somehow the observer knows, probably by word of mouth, that in every school in which teachers are instructing students a curriculum exists. A written plan provides the observer with an additional clue to the existence of a certain something called a curriculum. But if by some bit of magic the observer could lift the roof of a school in session and examine the cross-section thereof, the curriculum would not be apparent. What the observer would immediately perceive would be many instances of teacher–pupil interaction we call *instruction.*

The search for evidence of the mysterious creation called curriculum is not unlike efforts to track down Bigfoot, the Bear Lake Monster, the Florida Everglades Skunk Ape, Lake Champlain's Champ, the Yeti, the Almasty, South Bay Bessie, Scotland's Loch Ness Monster, or Sweden's Great Lake Monster. Bigfoot, the Yeti, and the Almasty have left their tracks in the mud and the snow; Champ, Bessie, and Nessie have rippled the waters of their lakes; but no one has yet succeeded in producing incontrovertible photographs of these reputed creatures.

Nor has anyone ever photographed a curriculum. Shutterbugs have instead photographed pupils, teachers, and other school personnel. Perhaps if someone videotaped every instance of behavior in every classroom, corridor, office, and auxiliary room of a school every day and then investigated this record as thoroughly as military leaders analyze air reconnaissance photos, a curriculum could be discerned.

Certification and Curriculum

State certification laws compound the problem of defining curriculum because few, if any, professionals can become certified in *curriculum.* Whereas all professionals in training must take courses of one type or another called *curriculum,* there is not a certifiable field labeled *curriculum.* Professionals are certified in administration, guidance, supervision, school psychology, elementary education, and many teaching fields. But in *curriculum* per se? Not as a rule, although courses in the field of curriculum are mandated for certification in certain fields of specialization, such as administration and supervision.

Nevertheless, numbers of curriculum workers, consultants, coordinators, and even professors of curriculum can be identified. These specialists, many of whom may hold state certification in one or more fields, cannot customarily hang on the wall a certificate that shows that endorsement has been granted in a field called *curriculum.*

Though a certifiable field of specialization called curriculum may be lacking, the word itself is treated as if it had tangible substance, for it can undergo a substantial variety of processes. Curriculum—or its plural, curricula or curriculums (depending on the user's penchant or abhorrence for the Latin)—is built, planned, designed, and constructed. It is improved, revised, and evaluated. Like photographic film and muscles, the curriculum is developed. It is also organized, structured, and restructured, and, like a wayward child, reformed. With considerable ingenuity the curriculum planner—another specialist—can mold, shape, and tailor the curriculum.

Interpretations of Curriculum

The amorphous nature of the word *curriculum* has given rise over the years to many interpretations. Depending on their philosophical beliefs, persons have conveyed these interpretations, among others:

- Curriculum is that which is taught in school.
- Curriculum is a set of subjects.
- Curriculum is content.
- Curriculum is a program of studies.
- Curriculum is a set of materials.
- Curriculum is a sequence of courses.
- Curriculum is a set of performance objectives.
- Curriculum is a course of study.
- Curriculum is everything that goes on within the school, including extra-class activities, guidance, and interpersonal relationships.
- Curriculum is that which is taught both inside of school and outside of school, directed by the school.
- Curriculum is everything that is planned by school personnel.
- Curriculum is a series of experiences undergone by learners in school.
- Curriculum is that which an individual learner experiences as a result of schooling.

In the foregoing definitions you can see that curriculum can be conceived in a narrow way (as subjects taught) or in a broad way (as all the experiences of learners, both in school and out, directed by the school). The implications for the school to be drawn from the differing conceptions of curriculum can vary considerably. The school that accepts the definition of curriculum as a set of subjects faces a much simpler task than the school that takes upon itself responsibilities for experiences of the learner both inside and outside of school.

A variety of nuances are perceived when the professional educators define curriculum. Let's trace how a number of writers between the early twentieth and early 21st centuries conceptualized curriculum. Franklin Bobbitt, one of the earliest writers on curriculum, perceived curriculum as

> . . . that series of things which children and youth must do and experience by way of developing abilities to do the things well that make up the affairs of adult life; and to be in all respects what adults should be.[6]

Hollis L. Caswell and Doak S. Campbell viewed curriculum not as a group of courses but as "all the experiences children have under the guidance of teachers."[7] Ralph W. Tyler's writings pointed the way to "educational objectives" that "represent the kinds of changes in behavior that an educational institution seeks to bring about in its students."[8] Hilda Taba, in a discussion of criteria for providing sets of learning opportunities for curriculum development, said, "A curriculum is a plan for learning."[9] She defined curriculum by listing its elements. Taba explained that every curriculum globally contains common elements, such as goals and objectives, and distinct content selections and organizational approaches that inform styles of learning and teaching, concluding with an assessment methodology to determine whether the objectives were met.[10]

A different approach to defining curriculum was taken by Robert M. Gagné, who wove together subject matter (content), the statement of ends (terminal objectives), sequencing of content, and preassessment of entry skills required of students when they begin the study of the

content.[11] Mauritz Johnson, Jr., agreed basically with Gagné when he defined curriculum as a "structured series of intended learning outcomes."[12] Johnson perceived curriculum as "the output of a 'curriculum development system' and as an input into an 'instructional system.'"[13]

Albert I. Oliver equated curriculum with the educational program and divided it into four basic elements: "(1) the program of studies, (2) the program of experiences, (3) the program of services, and (4) the hidden curriculum."[14] The programs of studies, experiences, and services are readily apparent. To these elements Oliver has added the concept of a hidden curriculum, which encompasses values promoted by the school, differing emphases given by different teachers within the same subject areas, the degree of enthusiasm of teachers, and the physical and social climate of the school.

J. Galen Saylor, William M. Alexander, and Arthur J. Lewis offered this definition: "We define curriculum as a plan for providing sets of learning opportunities for persons to be educated."[15]

As the years progress you will notice a broadening of some conceptions of the school curriculum. Geneva Gay, writing on desegregating the curriculum, offered a more expansive interpretation of curriculum:

> If we are to achieve equally, we must broaden our conception to include the entire culture of
> the school—not just subject matter content.[16]

Expressing the view that the word "'curriculum' has come to mean only a course of study," D. Jean Clandinin and F. Michael Connelly held curriculum to be no less than "a course of life" led by teachers as curriculum makers.[17]

Ronald C. Doll defined the curriculum of a school as:

> . . . the formal and informal content and process by which learners gain knowledge and understanding, develop skills, and alter attitudes, appreciations, and values under the auspices
> of that school.[18]

Departing from a definition of curriculum as "school materials," William F. Pinar, William M. Reynolds, Patrick Slattery, and Peter M. Taubman described curriculum as "symbolic representation."[19] Said these authors:

> Curriculum understood as symbolic representation refers to those institutional and discursive
> practices, structures, images, and experiences that can be identified and analyzed in various
> ways, i.e., politically, racially, autobiographically, phenomenologically, theologically, internationally, and in terms of gender and deconstruction.[20]

Have definitions changed in writings of the early 21st century? Let's examine a few. Allan C. Ornstein and Francis P. Hunkins considered curriculum as "a *plan* for action or written document that includes strategies for achieving desired goals or ends."[21]

Emphasizing the role of curriculum in the continuing growth of learning and learners, Daniel Tanner and Laurel N. Tanner proposed the following definition:

> The authors regard curriculum as that reconstruction of knowledge and experience that enables
> the learner to grow in exercising intelligent control of subsequent knowledge and experience.[22]

Jon Wiles and Joseph Bondi also saw "the curriculum as a desired goal or set of values that can be activated through a development process culminating in experiences for students."[23]

James McKiernan saw curriculum "concerned with what is planned, implemented, learned, evaluated, and researched in schools at all levels of education."[24]

Regarding the various interpretations of curriculum, Hlebowitsh commented, "When we begin to think about the curriculum as a strictly professional and school-based term, a number of different interpretive slants on what comprises the curriculum comes into play."[25]

Definitions by Purposes, Contexts, and Strategies

Differences in substance of definitions of curriculum, while they exist, are not as great or as common as differences in what the curriculum theorists include in their conceptions of the term. Some theorists elaborate more than others. Some combine elements of both curriculum and instruction, a conceptual problem that will be examined later in this chapter. Others find a definition of curriculum in (1) purposes or goals of the curriculum, (2) contexts within which the curriculum is found, or (3) strategies used throughout the curriculum.

PURPOSES.   The search for a definition of curriculum is clouded when the theoretician responds to the term, not in the context of what curriculum is, but in what it *does* or *should do*—that is, its purpose. On the purposes of the curriculum we can find many varying statements.

When curriculum is conceptualized as "the development of reflective thinking on the part of the learner" or "the transmission of the cultural heritage," purpose is confused with entity. This concept could be stated more correctly: "The purpose of the curriculum is transmission of the cultural heritage," or "The purpose of the curriculum is the development of reflective thinking on the part of the learner." A statement of what the curriculum is meant to achieve does little to help us sharpen a definition of what curriculum is.

CONTEXTS.   Definitions of curriculum sometimes state the settings within which it takes shape. When theoreticians speak of an essentialist curriculum, a child-centered curriculum, or a reconstructionist curriculum, they are invoking two characteristics of the curriculum at the same time—purpose and context. For example, an essentialistic curriculum is designed to transmit the cultural heritage, to school young people in the organized disciplines, and to prepare boys and girls for the future. This curriculum arises from a special philosophical context, that of the essentialistic school of philosophy.

A child-centered curriculum clearly reveals its orientation: the learner, who is the primary focus of the progressive school of philosophy. The development of the individual learner in all aspects of growth may be inferred, but the plans for that development vary considerably from school to school. The curriculum of a school following reconstructionist philosophical beliefs aims to educate youth in such a way that they will be capable of solving some of society's pressing problems and, therefore, change society for the better.

STRATEGIES.   While purpose and context are sometimes offered as definitions of curriculum, an additional complexity arises when the theoretician equates curriculum with instructional strategy. Some theoreticians isolate certain instructional variables, such as processes, strategies, and techniques, and then proceed to equate them with curriculum. The curriculum as a problem-solving process illustrates an attempt to define curriculum in terms of an instructional process—problem-solving techniques, the scientific method, or reflective thinking. The curriculum as group living, for example, is an effort at definition built around certain instructional techniques that must be used to provide opportunities for group living. The curriculum as individualized

learning and the curriculum as programmed instruction are, in reality, specifications of systems by which learners encounter curricular content through the process of instruction. Neither purpose, nor context, nor strategy provides a clear basis for defining curriculum.

Among prominent conceptions of curriculum is the classification of curriculum as performance or behavioral objectives. We have already noted Tyler's advocacy in mid-twentieth century of educational objectives written in behavioral terms. W. James Popham and Eva L. Baker held that "Curriculum is all the planned learning outcomes for which the school is responsible."[26] In designing the curriculum, planners would cast these outcomes or objectives in operational or behavioral terms.

The operational or behavioral objectives are, in effect, instructional objectives. According to the proponents of behavioral objectives, a compilation of all the behavioral objectives of all the programs and activities of the school would constitute the curriculum. The curriculum would then be the sum total of all instructional objectives. You will encounter in this text an approach that distinguishes curriculum goals and objectives from instructional goals and objectives. You will see later that curriculum objectives are derived from curriculum goals and aims of education, and instructional objectives are derived from instructional goals and from curriculum goals and objectives. Both curriculum objectives and instructional objectives can be stated in behavioral terms.

Some advocates of behavioral objectives seem comfortable with the notion that once the terminal objectives (the ends) are clearly specified, the curriculum has been defined. From that point on instruction takes over. This view of curriculum as specification of objectives is quite different, for example, from the concept of the curriculum as a plan, a program, or a sequence of courses.

In this text curriculum is perceived as a plan or program for all the experiences that the learner encounters under the direction of the school. In practice, the curriculum consists of a number of plans, in written form and of varying scope, that delineate the desired learning experiences. The curriculum, therefore, may be a unit, a course, a sequence of courses, the school's entire program of studies—and may be encountered inside or outside of class or school when directed by the personnel of the school.

RELATIONSHIPS BETWEEN CURRICULUM AND INSTRUCTION

The search to clarify the meaning of curriculum reveals uncertainty about the distinctions between curriculum and instruction and their relationships to each other. We may simplistically view curriculum as that which is taught and instruction as the means used to teach that which is taught. Even more simply, curriculum can be conceived as the "what," or ends, and instruction as the "how," or means. We may think of the curriculum as a program, a plan, content, and learning experiences, whereas we may characterize instruction as methods, the teaching act, implementation, and presentation.

Distinguishing instruction from curriculum, Johnson defined instruction as "the interaction between a teaching agent and one or more individuals intending to learn."[27] James B. Macdonald viewed curricular activity as the production of plans for further action, and instruction as the putting of plans into operation. Thus, according to Macdonald, curriculum planning precedes instruction, a premise with which we are in agreement.[28]

In the course of planning for either the curriculum or instruction, decisions are made. Decisions about the curriculum relate to plans or programs and thus are *programmatic,* whereas those about instruction (and thereby implementation) are *methodological.* Both curriculum and instruction are subsystems of a larger system called schooling or education.

Models of the Curriculum–Instruction Relationship

Definitions of the two terms are valuable but can obscure the interdependence of these two systems. They may be recognized as two entities, but like conjoined twins, one may not function without the other. That the relationship between the "what" and the "how" of education is not easily determined can be seen in several different models of this relationship. For lack of better terminology, the following labels are coined for these models: (1) dualistic model, (2) interlocking model, (3) concentric model, and (4) cyclical model.

DUALISTIC MODEL.   Figure 1.1 depicts the dualistic model. Curriculum sits on one side and instruction on the other and never the twain shall meet. Between the two entities lies a great gulf. What takes place in the classroom under the direction of the teacher seems to have little relationship to what the master plan says should go on in the classroom. The planners ignore the instructors and in turn are ignored by them. Discussions of curriculum are divorced from their practical application to the classroom. Under this model the curriculum and the instructional process may change without significantly affecting one another.

INTERLOCKING MODEL.   When curriculum and instruction are shown as systems entwined, an interlocking relationship exists. No particular significance is given to the position of instruction or curriculum in either of the versions of this model presented in Figure 1.2. The same relationship is implied no matter which element appears on the left or the right. These models clearly demonstrate an integrated relationship between these two entities. The separation of one from the other would do serious harm to both.

FIGURE 1.1
The Dualistic Model

Curriculum   Instruction
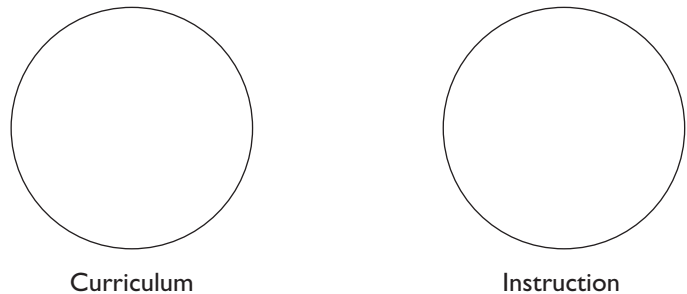
FIGURE 1.2
The Interlocking Model

A

B

Curriculum   Instruction   Instruction   Curriculum
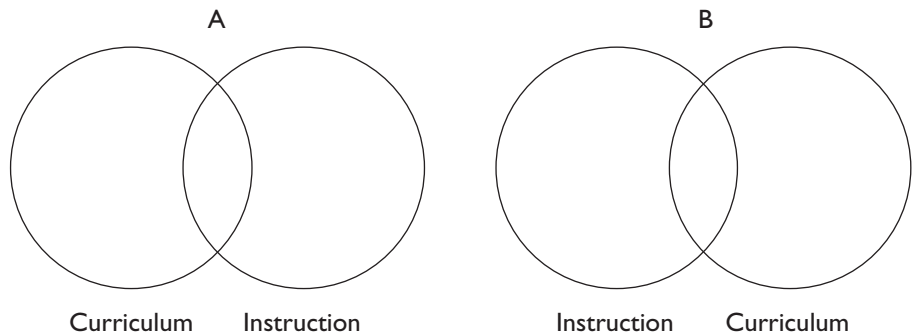
Curriculum planners would find it difficult to regard instruction as paramount to curriculum and to determine teaching methods before program objectives. Nevertheless, some faculties proceed as if instruction were primary by dispensing with advance planning of the curriculum and by letting it more or less develop as it unfolds in the classroom.

CONCENTRIC MODELS.   The preceding models of the relationship between curriculum and instruction reveal varying degrees of independence, from complete detachment to interlocking relationships. Mutual dependence is the key feature of concentric models. Two conceptions of the curriculum–instruction relationship that show one as the subsystem of the other can be sketched (Figure 1.3). Variations A and B both convey the idea that one of the entities occupies a superordinate position while the other is subordinate.

Concentric model A makes instruction a subsystem of curriculum, which is itself a subsystem of the whole system of education. Concentric model B subsumes curriculum within the subsystem instruction. A clear hierarchical relationship comes through in both these models. Curriculum ranks above instruction in model A and instruction is predominant in model B. In model A instruction is a very dependent portion of the entity curriculum. Model B makes curriculum subservient to and derivative from the more global instruction.

CYCLICAL MODEL.   The cyclical conception of the curriculum–instruction relationship is a simplified systems model that stresses the essential element of feedback. Curriculum and instruction are separate entities with a continuing circular relationship. Curriculum makes a continuous impact on instruction and, vice versa, instruction has impact on curriculum. This relationship can be schematically represented as in Figure 1.4. The cyclical model implies that instructional decisions are made after curricular decisions, which in turn are modified after instructional decisions are implemented and evaluated. This process is continuous, repetitious, and never-ending.
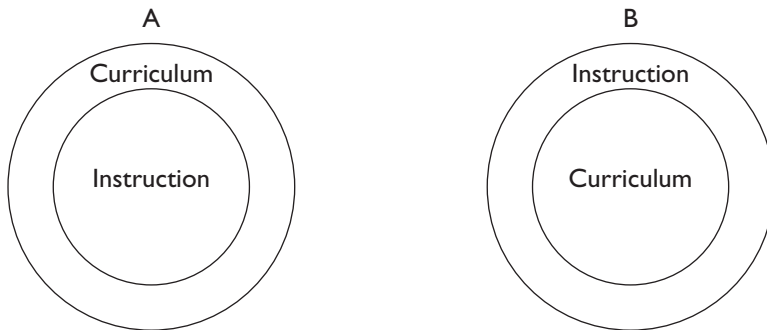
FIGURE 1.3
The Concentric Model
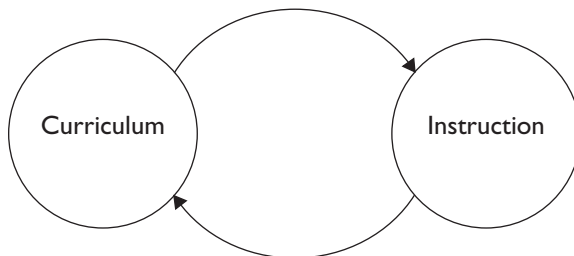
FIGURE 1.4
The Cyclical Model

The evaluation of instructional procedures affects the next round of curricular decision making, which again affects instructional implementation. While curriculum and instruction are diagrammed as separate entities, with this model they are not to be conceived as separate entities but as part of a sphere—a circle that revolves, causing continuous adaptations and improvements of both entities.

Each curriculum–instruction model has its champions who espouse it in part or in whole, in theory or in practice. Yet how can we account for these numerous conceptions, and how do we know which is the "right" one to hold?

COMMON BELIEFS.   As newer developments occur in education, as research adds new insights on teaching and learning, as new ideas are developed, and as times change, beliefs about curriculum and instruction also undergo transformation. The "rightness" or "wrongness" of concepts such as curriculum and instruction cannot be established by an individual educator or even by a group of educators. One index of "correctness" might be the prevailing opinion of most educators at a particular stage in history—a rather pragmatic but nevertheless viable and defensible position. Though no one to my knowledge has made a count of prevailing postulates regarding curriculum and instruction, most theoreticians today appear to agree with the following comments:

- Curriculum and instruction are related but different.
- Curriculum and instruction are interlocking and interdependent.
- Curriculum and instruction may be studied and analyzed as separate entities but cannot function in mutual isolation.

In our judgment, serious problems are posed by the dualistic conceptual model of the relationship between curriculum and instruction, with its separation of the two entities, and by concentric models that make one a subsystem of the other.

Some curriculum workers feel comfortable with an interlocking model because it shows a close relationship between the two entities. Of all the curriculum–instruction models that have crossed our paths, however, we feel that the cyclical model has much to recommend it for its simplicity and for its stress on the need for the continuous influence of each entity on the other.

CURRICULUM AS A DISCIPLINE

In spite of its elusive character, curriculum is viewed by many, including us, as a discipline—a subject of study—and even, on the graduate level of higher education, as a major field of study. Curriculum is then both a field within which people work and a subject to be taught. Graduate and, to some extent, undergraduate students take courses in curriculum development, curriculum theory, curriculum evaluation, secondary school curriculum, elementary school curriculum, middle school curriculum, community college curriculum, and—on fewer occasions—university curriculum.

Can there be a discipline called curriculum? Are the many college courses in curriculum mere frosting, as some of the critics of teacher education maintain, or is there cake beneath the surface? Is there a curriculum field or occupation to which persons can devote their lives?

The Characteristics of a Discipline

To arrive at a decision as to whether an area of study is a discipline, the question might be raised, "What are the characteristics of a discipline?" If the characteristics of a discipline can be spelled out, we can determine, for example, whether or not curriculum is a discipline.

PRINCIPLES. *Any discipline worthy of study has an organized set of theoretical constructs or principles that governs it.* Certainly, the field of curriculum has developed a significant set of principles, tried and untried, proven and unproven, many of which are appropriately the subjects of discussion in this text. Balance in the curriculum, discussed in Chapter 13, is a construct or concept. Curriculum itself is a construct or concept, a verbalization of an extremely complex idea or set of ideas. Using the constructs of balance and curriculum, we can derive a principle or rule that, stated in simple terms, says, "A curriculum that provides maximum opportunities for learners incorporates the concept of balance." Sequencing of courses, behavioral objectives, integrated studies, and multiculturalism are examples of constructs incorporated into one or more curriculum principles.

A major characteristic of any theoretical principle is its capacity for being generalized and applied in more than one situation. Were curriculum theories but one-shot solutions to specific problems, it would be difficult to defend the concept of curriculum as a discipline. But the principles of curriculum theory are often successful efforts to establish rules that can be repeated in similar situations and under similar conditions. Many people will agree, for example, that the concept of balance should be incorporated into every curriculum. We encounter more controversy, however, over a principle that might be stated as, "The first step in curriculum planning is the specification of behavioral objectives." Though some maintain this principle has become universal practice and therefore might be labeled "truth," it has been tried and accepted by many educators, rejected by some, and tried and abandoned by others.

KNOWLEDGE AND SKILLS. *Any discipline encompasses a body of knowledge and skills pertinent to that discipline.* The field of curriculum has adapted and borrowed subject matter from a number of pure and derived disciplines. Figure 1.5 schematically shows areas from which the field of curriculum has borrowed constructs, principles, knowledge, and skills. Selection of content for study by students, for example, cannot be done without referring to the disciplines of sociology, psychology, and subject areas. Organization of the curriculum depends on knowledge from organizational theory and management, which are aspects of administration. The fields of communications theory, supervision, systems theory, and technology are called on in the process of curriculum development. Knowledge from many fields is selected and adapted by the curriculum field.

The "child-centered curriculum" as a concept draws heavily on what is known about learning, growth, and development (psychology and biology), on philosophy (particularly from one school of philosophy, progressivism), and on sociology. The "essentialist curriculum" borrows from the subject areas of philosophy, psychology, and sociology, as well as the academic disciplines.

You might ask whether the field of curriculum contributes any knowledge of its own to that borrowed from other disciplines. Certainly, a good deal of thinking and research is going on in the name of curriculum. New curricular ideas are being generated continuously. These ideas, whether they be character education, computer literacy, or cooperative learning (to mention but three fairly recent concepts), borrow heavily from other disciplines.

The skills used by curriculum specialists are also borrowed from other fields. Let's take an example from the field of social psychology. Generally accepted is the notion that a curriculum changes only when the people affected have changed. This principle, drawn from the field of social psychology and applied in the field of curriculum development, was perhaps most dramatically demonstrated by the Western Electric research studies conducted by industry in the 1930s.[29] Here researchers discovered that factory workers assembling telephone relays

FIGURE 1.5
Sources of the Curriculum Field

Systems theory

Technology

Instruction

Evaluation

Communication theory

Sociology

History

Curriculum

Psychology

Philosophy

Supervision

Subject areas

Organizational theory

Management
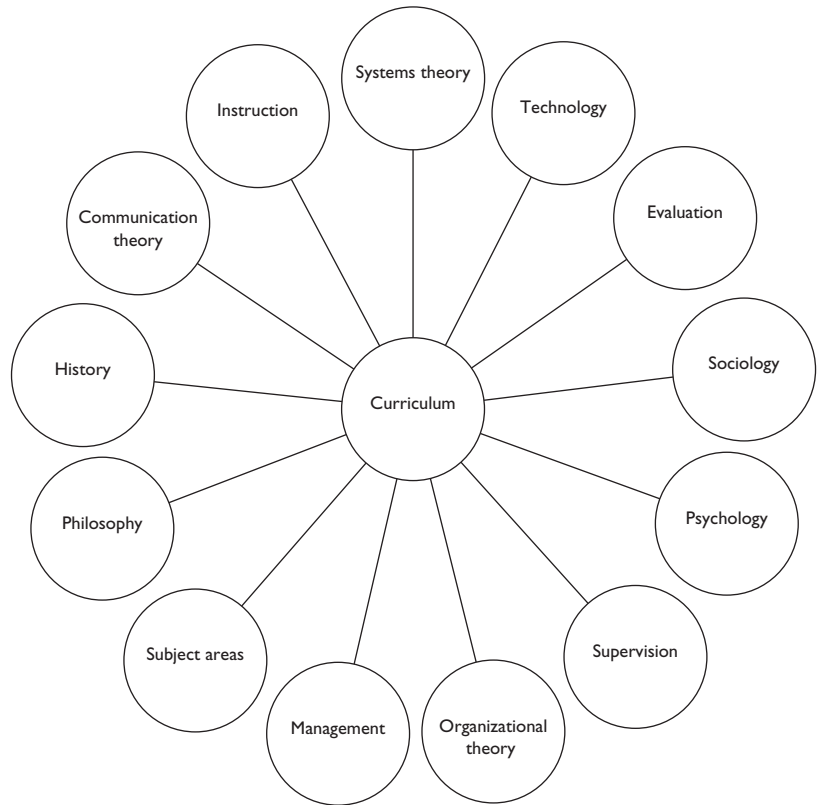
were more productive when they were consulted and made to feel of value to the organization. Making the workers feel important resulted in greater productivity than manipulating the physical environment (for example, lighting in the factory). The feeling of being part of the research studies also created its own aura, the so-called Hawthorne Effect, named for the Western Electric Hawthorne plant in Chicago. Because the feeling of involvement can in itself contribute to high productivity, this effect is one that researchers learn to discount, for it can obscure the hypothesized or real causes for change. However, the educational practitioner who is aware of the Hawthorne Effect may take advantage of it to promote learning.

Criticisms have been made of the Western Electric research studies.[30] In spite of the criticisms, however, the findings still appear generally sound. An instructional leader—let's call him or her a supervisor—is the person who acts as a catalyst or agent for bringing about change in people. How does the supervisor do this? He or she makes use of knowledge and skills from a number of fields: communication theory, psychology of groups, and other areas. How does the supervisor help teachers to carry out the change once they have subscribed to it? He or she applies principles and skills from management, from knowledge of the structure of disciplines, and from other areas.

Consequently, we can conclude that the field of curriculum requires the use of an amalgamation of knowledge and skills from many disciplines. That curriculum theory and practice are derived from other disciplines does not in any way diminish the importance of the field. The observation of its derived nature simply characterizes its essence. Curriculum's synthesis

of elements from many fields in some ways makes it both a demanding and an exciting arena in which to work.

In a cyclical fashion, the derived discipline of *curriculum* in turn makes its own potent impact on the disciplines from which it is derived. Through curricular research, experimentation and application, subject areas are modified; learning theories are corroborated, revised, or rejected; administrative and supervisory techniques are implemented or changed; and philosophical positions are subjected to examination.

THEORETICIANS AND PRACTITIONERS. *A discipline has its theoreticians and its practitioners.* Certainly, the field of curriculum has an array of workers laboring in its name. Mention has already been made of some of the titles they go by: planners, consultants, coordinators, directors, and professors of curriculum, to name but a few. We can include them under the generic title of curriculum specialist.

Curriculum specialists make a number of distinctive contributions to their field. Specialists know what types of curricula have worked in the past, under what conditions, and with what success. Since the name of the game is improvement, specialists must be well grounded in the historical development of the curriculum and must possess the capacity to use that knowledge to help the schools avoid historical pitfalls.

Curriculum specialists generate or help to generate new curriculum concepts. In this capacity specialists draw on the past and conceive new arrangements, adaptations of existing approaches, or completely new approaches. Alternative forms of schools, for example, are newer arrangements and approaches for the same general goal: education of the young.

While curriculum specialists are indulging in the "big think," hoping to bring to light new theories—a worthy goal not to be dismissed lightly—other, and perhaps more, curriculum specialists are experts in application of theory and research. They know the techniques of curriculum planning that are most likely to result in higher achievement on the part of learners. They are familiar with variations in the organizational patterns. They must be not only knowledgeable but also creative and able to spark innovations that give promise of bringing about higher achievement in learners.

The concept dating from the 1930s and the 1940s, for example, of "core" curriculum that integrated two or more subjects was a promising, creative innovation. In one of its shapes the core curriculum, which we will discuss in Chapter 9, fused English and social studies into a block of time—ordinarily two to three periods—at the junior high school level, using content based on adolescent needs and interests. But was this innovative concept truly original, unique to the field of curriculum, or was it adapted and drawn from a variety of disciplines? Examination of the subconcepts of the core curriculum shows that it owed a great deal to other disciplines. The adolescent-needs base followed in some core programs came from student-centered, progressive learning theories, as did the problem-solving approach used in instruction. One reason for the inauguration of this type of core curriculum in schools in the 1930s and 1940s could be attributed to dissatisfaction with the subject matter, as evidenced by, among other factors, the low holding power of the schools of the times.

CURRICULUM SPECIALISTS

Curriculum specialists often make a unique contribution by creatively transforming theory and knowledge into practice. Through their efforts a new approach, at first experimental, gradually becomes a widespread practice. As students of the discipline of curriculum, they also examine

and reexamine theory and knowledge from their field and related fields. Awareness of past successes and failures elsewhere helps those who work in the field of curriculum to chart directions for their own curricula.

Curriculum specialists are in the best position to stimulate research on curricular problems. Specialists carry out and encourage study of curricular problems, comparisons of plans and programs, results of new patterns of curriculum organization, and the histories of curriculum experiments, to indicate but a few areas of research. Specialists encourage the use of results of research to continue efforts to improve the curriculum.

While classroom teachers daily concern themselves with problems of curriculum and instruction, the curriculum specialist is charged with the task of providing leadership to the teachers. Since there are so many different types of specialists in so many different locations, you will find it difficult to generalize on their roles. Some curriculum workers are generalists whose roles may be limited to leadership in curricular or programmatic planning or whose roles may also encompass instructional planning and decision making.

Some curriculum workers confine their spheres of action to certain levels or subjects, such as elementary, middle, or secondary school curriculum; community college curriculum; special education; science education; early childhood education; and others. What can be observed is that the roles the curriculum leader plays are shaped by the job, by the supervising administrator, and by the specialist himself or herself. At varying times the curriculum specialist must be:

- a philosopher
- a psychologist
- a sociologist
- a human relations expert
- a technology expert
- a theoretician
- a historian
- a scholar in one or more disciplines
- an evaluator
- a researcher
- an instructor
- a systems analyst

Supervisors

An additional clarification should be made at this point—that is, the relationship between the roles of persons designated as curriculum specialists and those persons who are called supervisors. Some consider the titles synonymous.

In this text a *supervisor* is perceived as a specialist who works in three domains: instructional development; curriculum development; and staff, primarily teacher, development.[31] When the supervisor works in the first two domains, he or she is an instructional/curriculum specialist or is often referred to as an "instructional supervisor." Thus, the curriculum worker or specialist is a particular type of supervisor, one with more limited responsibilities than a general supervisor. Both the curriculum specialist and the supervisor fulfill similar roles when they work with teachers in curriculum development and instructional development, but the curriculum specialist is not primarily concerned with such activities as organizing in-service programs and evaluating teachers, which are more properly responsibilities of the general supervisors.

Role Variations

As with so many jobs in the field of education, difficulty arises in attempting to draw firm lines that apply under all conditions and in all situations. To understand more fully the roles and functions of educational personnel, we must examine local practice. Teachers, curriculum specialists, and supervisors all engage in activities to improve both curriculum and instruction. At times their roles are different and at other times their roles are similar. These personnel, all specialists in their own right, frequently trade places to accomplish the task of improvement. Sometimes they are one and the same person—the teacher who is his or her own curriculum specialist and supervisor. Whatever the structure of leadership for the improvement of curriculum and instruction, all teachers and all specialists must ultimately participate in this challenging task. Because curriculum and instruction are the mind and heart of schooling, all personnel, all students, and the community as well participate in the improvement of what is offered by the school and how it is implemented.

Chapter 3 will describe roles of personnel involved in curriculum development, including teachers, students, department heads, lead teachers, team leaders, grade coordinators, administrators, curriculum specialists, supervisors, and laypersons.

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Summary

Curriculum and instruction are viewed as separate but dependent concepts. Curriculum is defined in a variety of ways by theoreticians. This text follows the concept of curriculum as a plan or program for the learning experiences that the learner encounters under the direction of the school.

Instruction is perceived in these pages as the means for making the curriculum operational, that is, the techniques that teachers use to make the curriculum available to the learners. In short, curriculum is program and instruction is method.

A number of models showing the relationship between curriculum and instruction have been discussed. While all models have their strengths and weaknesses, the cyclical model seems to have particular merit for its emphasis on the reciprocity between curriculum and instruction.

Planning should begin with the programmatic—that is, with curriculum decisions, rather than with instructional decisions. Appropriate planning begins with the broad aims of education and proceeds through a continuum that leads to the most detailed objectives of instruction.

Curriculum is perceived as a discipline, albeit a derived one that borrows concepts and principles from many disciplines.

Many practitioners work in the field of curriculum, including specialists who make a career of curriculum planning, development, and research. Teachers, curriculum specialists, and instructional supervisors share leadership responsibilities in efforts to develop the curriculum.

As a discipline, curriculum possesses (1) an organized set of principles, (2) a body of knowledge and skills for which training is needed, and (3) its theoreticians and practitioners.

Questions for Discussion

1. Does it make any difference which definition of curriculum you adopt? Give examples of the effects of following different definitions.
2. In what fields must a curriculum specialist have expertise?
3. Does planning start with the curriculum or instruction? Why?
4. Should curriculum be an area certified (credentialed) by the state? Give a rationale for your position.
5. What model of the curriculum-instruction relationship do you accept? Why?

Exercises

1. Show the differences, if any, between the terms *curriculum specialist, curriculum coordinator, curriculum consultant,* and *instructional supervisor.*
2. Take each of the disciplines from which the field of curriculum borrows and describe at least one contribution (principle, construct, concept, or skill) borrowed from that discipline.
3. State what you believe is meant by the following terms: *curriculum planning, curriculum development,* *curriculum improvement, curriculum revision, curriculum reform,* and *curriculum evaluation.*
4. Report on the Western Electric researches mentioned in this chapter and explain their significance for curriculum development. Include in your report your description of the Hawthorne Effect. Evaluate some of the criticisms of the Western Electric researches.
5. Report on the meaning of the "hidden curriculum."

Website

Association for Supervision and Curriculum Development: ascd.org

Endnotes

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17. D. Jean Clandinin and F. Michael Connelly, "Teacher as Curriculum Maker," in Phillip W. Jackson, ed., *Handbook of Research on Curriculum: A Project of the American Educational Research Association* (New York: Macmillan, 1992), p. 393.

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20. Ibid.

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29. See F. J. Roethlisberger and William J. Dickson, *Management and the Worker* (Cambridge, Mass.: Harvard University Press, 1939) for discussion of the Western Electric researches.

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Principles of Curriculum Development

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CLARIFICATION OF TERMS

Education is one of the institutions the human race has created to serve certain needs, and, like all human institutions, it responds or should respond to changes in the environment. The institution of education is activated by a curriculum that itself changes in response to forces affecting it. The curriculum of the cave dweller, albeit informal and unstructured, was quite different from increasingly formal types of schooling that the human race invented over subsequent periods of history. Techniques for coping with the woolly mammoth may well have been of paramount concern to prehistoric man.[1] But the woolly mammoth has disappeared, and men and women today must learn to cope with other sources of anxiety, such as poverty, job insecurities, homelessness, environmental problems, crime, drug addiction, health problems, natural disasters, climate change, decreasing natural resources, intercultural and international conflicts, and the military and industrial hazards of nuclear power. At the same time humankind must learn to apply, adapt, and adjust to the technological tools that are proliferating in both number and complexity at an astronomical rate—a cause of both satisfaction and anxiety in itself. Although no educator—teacher, curriculum coordinator, administrator, or professor—would dream of arguing that techniques for coping with the woolly mammoth should be part of the curriculum of schools early in the 21st century AD, in the third century of the American

republic, the woolly mammoth syndrome still persists. Schools "woolly mammoth" children when they offer a curriculum that does the following:

- Allows learners to leave school without an adequate mastery of the basic skills.
- Ignores the health needs of children and youth.
- Ill equips learners to find and hold employment when they finish school.
- Fails to promote attitudes of respect for others, cooperation with others, responsibility for one's actions, tolerance for others, and preservation of the environment.
- Holds learners to low expectations.
- Uses materials that show all children as members of healthy, happy, prosperous, white, Anglo-Saxon, Protestant families joyously living in the suburbs.
- Leaves out the practical knowledge and skills necessary for survival and success in a complex, technological society, such as computer science, knowledge about insurance and taxes, writing a résumé and letter of application for a job, interviewing for a position, intelligent consumerism, and listening and discussion skills.
- Omits exposure to the fine arts, including the development of aesthetic appreciation.
- Distorts truths of the past ("Honest Abe had no faults"), the present ("Every person who is willing to work can find an adequate job"), and the future ("There is no need for residents of fast-growing sections of the country to worry about running out of potable water").
- Appeals to short-term interests of students and ignores long-range needs; or, vice versa, appeals to long-range needs and ignores short-term interests.

If the curriculum is perceived as a plan for the learning experiences that young people encounter under the direction of the school, its purpose is to provide a vehicle for ordering and directing those experiences. This process of providing the vehicle and keeping it running smoothly is commonly known as *curriculum development,* which includes (1) *curriculum planning,* the preliminary phase when the curriculum workers make decisions and take actions to establish the plans that teachers and students will carry out; (2) *curriculum implementation,* the translation of plans into action; and (3) *curriculum evaluation,* those intermediate and final phases of development in which results are assessed and the successes of both the learners and the programs are determined.

On occasion, *curriculum revision* is used to refer to the process for making changes in an existing curriculum or to the changes themselves, and is substituted for *curriculum development* or *curriculum improvement.* We shall return to the distinctions among curriculum planning, implementation, and evaluation when models of curriculum development are diagrammed and discussed in Chapter 5.

Through the process of curriculum development we can discover new ways for providing more effective pupil learning experiences. The curriculum developer continuously strives to find newer, better, and more efficient means to accomplish this task.

TYPES OF CURRICULUM DEVELOPERS

Some curriculum developers excel in the conceptualizing phase (planning), others in carrying out the curricular plan (implementation), and still others in assessing curriculum results (evaluation). Over the centuries the human race has had no shortage of curriculum developers. In a positive vein, Moses, Jesus, Buddha, Confucius, and Mohammed could all be called curriculum consultants. They had their respective conceptions of the goals of the human race and recommended behavior that must be learned and practiced to achieve those goals. On the negative side, at a

later period in history, Hitler and Stalin had definite notions and programs to train the young in what to believe and how to behave in a totalitarian society.

The ranks of the politicians in a democracy have produced many curriculum consultants, some more astute than others. To the weary professional curriculum worker, it sometimes seems that every federal, state, and local legislator is a self-appointed, self-trained curriculum consultant who has his or her own pet program to promulgate. The statutes of the state legislatures, as we shall see in Chapter 3, provide numerous examples of legislative curriculum making.

Singling out all the politicians who have turned themselves into curriculum consultants through the years would be impossible. But the kite-flier who experimented with electricity, invented a stove, created a new educational institution called the Academy, and in between found time to participate in a revolution—Benjamin Franklin—made some farsighted curriculum proposals for his academy. Franklin's statement of recommendations almost seems to have been drawn out of a report on a high school's program of studies by a present-day visiting committee of a regional accrediting association. Franklin proposed for his academy (later to become the University of Pennsylvania) a curriculum much more suited to its time than its predecessor, the Latin Grammar School.[2]

Curriculum advisers have been found not only among politicians but also among academicians, journalists, the clergy, and the public at large. Professional educators have received a great deal of both solicited and unsolicited help in shaping school curricula. An unending procession of advisers from both within and outside the profession of education over many decades has not been at a loss to advocate curriculum proposals. No matter how significant or minor, no matter how mundane or bizarre, all proposals have shared one common element: advocacy of change.

What has led so many people to be dissatisfied with so much of what education is all about? Why is the status quo rarely a satisfactory place to be? And why does it turn out, as will be illustrated, that yesterday's status quo is sometimes tomorrow's innovation? For answers to these questions, some general principles of curriculum development should be considered by those teachers and specialists who participate in efforts to improve the curriculum.

SOURCES OF CURRICULUM PRINCIPLES

Principles serve as guidelines to direct the activity of persons working in a particular area. Curriculum principles are derived from many sources: (1) empirical data; (2) experimental data; (3) the folklore of curriculum, composed of unsubstantiated beliefs and attitudes; and (4) common sense. In an age of science and technology, the attitude often prevails that all principles must be scientifically derived from the results of research. Yet even folklore and common sense can have their use. The scientist has discovered, for example, that some truths underlie ancient folk remedies for human maladies and that old wives' tales are not always the ravings of demented witches. While a garland of garlic hung around the neck may or may not fend off vampires, and asafetida on the end of a fishing line may or may not lure fish onto the hook, the aloe plant does, after all, yield a soothing ointment for burns, and the peppermint herb has reportedly relieved many a stomachache.

Common sense, which is often distrusted, combines folklore, generalizations based on observation, and learning discovered through experimentation with intuition and reasoned guesses. It can function not only as a source of curriculum principles but as a methodology as well. For example, in discussing the language of curriculum more than four decades ago, Joseph J. Schwab proposed a commonsense process he called "deliberation" to deal with curriculum problems. Minimizing the search for theoretical constructs and principles, his method depends more

on practical solutions to specific problems.[3] Schwab pointed out the pitfalls of relying on theory alone. He rejected "the pursuit of global principles and comprehensive patterns, the search for stable sequences and invariant elements, the construction of taxonomies of supposedly fixed or recurrent kinds" and recommended instead "three other modes of operation . . . the practical, the quasi-practical, and the eclectic."[4]

When curriculum planning is based on deliberation, judgment and common sense are applied to decision making. Some professional educators have faulted the application of common sense or judgment as a methodology, so imbued are they with a scientific approach to problem solving. In 1918 Franklin Bobbitt took note of scientific methodology in curriculum making, citing the application of measurement and evaluation techniques, diagnosis of problems, and prescription of remedies.[5] At a later date Arthur W. Combs was moved to warn against too great a reliance on science for the solution of all educational problems.[6] Whereas science may help us find solutions to some problems, not all answers to educational problems of the day can be solved using a scientific approach. Certainly, hard data are preferred over beliefs and judgments. But there are times when, in the absence of hard data, curriculum workers must rely on their intuition and make judgments on the basis of the best available evidence.

Unless a principle is established that is irrefutable by reason of objective data, some degree of judgment must be brought into play. Whenever judgment comes into the picture, the potential for controversy arises. Consequently, some of the principles for curriculum development provoke controversy, while others are generally accepted as reasonable guidelines. Controversy occurs as often as a result of differing values and philosophical orientations of curriculum workers as it does from lack of hard data for making decisions. Michael W. Apple directed us "to pay particular attention to the fact that the ways in which curriculum planning and selection are done, how curricula are taught and evaluated, and who is and should be involved are not isolated phenomena. Instead, they are best understood relationally, as intricately connected to the realities, good and bad, of the societies in which they exist."[7]

TYPES OF PRINCIPLES

Curriculum principles may be viewed as whole truths, partial truths, or hypotheses. Though all function as operating principles, they are distinguished by their known effectiveness or by degree of risk. It is important to understand these differences before examining the major guiding principles for curriculum development.

Whole Truths

Whole truths are either obvious facts or concepts proved through experimentation, and they are usually accepted without challenge. For example, few will dispute that students will be able to master an advanced body of content, as a rule, only after they have developed the prerequisite skills. From this principle come the practices of preassessment of entry skills and sequencing of content.

Partial Truths

Partial truths are based on limited data and can apply to some, many, or most situations, but they are not always universal. Some educators assert, for example, that student achievement is higher when students are grouped homogeneously for instruction. Some learners may achieve better results when placed in groups of like ability, but others may not. The practice of homogeneous or ability

grouping may be successful with some groups but not with others. It may permit schools to achieve certain goals of education, such as mastery of content, but prevent them from achieving other goals, such as enabling students to learn to live and work with persons of differing levels of ability. Partial truths are not "half-truths" containing falsehoods, but they do not always tell the whole story.

Hypotheses

Finally, some principles are neither whole nor partial truths but are *hypotheses* or tentative working assumptions. Curriculum workers base these ideas on their best judgments, folklore, and common sense. As one example, teachers and administrators have talked for many years about optimum size for classes and for schools. Educators have advocated class sizes of as few as twenty-five students in high school classes and fewer in elementary classes. They have been less certain as to how many pupils should be housed in a single school. Figures used as recommendations for class and school size are but estimates based on best judgments. School planners have reasoned that for purposes of economy and efficiency, class and school sizes can be too small. They also know from intuition or experience that class and school sizes can grow so large as to create situations that reduce educational productivity. However, the research delivers no magic number that will guarantee success in every course, classroom, and school.

While practice based on whole truth is a desideratum, the use of partial truths and the application of hypotheses contribute to the development of the field. Growth would be stymied if the field waited until all truths were discovered before any changes were made. Judgments, folklore, and common sense make the curriculum arena a far more stimulating place to work than if everything were already predetermined. If all theories, beliefs, and hypotheses could be either proved or disproved—a most improbable event—we would have reached that condition of perfection that would make life among the curriculum developers exceedingly dull.

TEN AXIOMS

Instead of talking in terms of whole truths and partial truths, since so many of the principles to which practitioners subscribe have not been fully tested, we might be more accurate if we speak of *axioms* or *theorems*. As students of mathematics know well, both axioms and theorems serve the field well. They offer guidelines that establish a frame of reference for workers seeking ways of operating and resolving problems. Several generally accepted axioms that apply to the curriculum field may serve to guide efforts that curriculum workers make for the purpose of improving the curriculum.

Inevitability of Change

AXIOM 1.   *Change is both inevitable and necessary, for it is through change that life forms grow and develop.* Human institutions, like human beings themselves, grow and develop in proportion to their ability to respond to change and adapt to changing conditions. Society and its institutions continuously encounter problems to which they must respond or perish. Forrest W. Parkay, Eric J. Anctil, and the late Glen T. Hass called attention to the following major contemporary problems facing society, all of which remain continuing issues:

- changing values and cultural diversity
- changing values and morality
- family
- Microelectronics Revolution
- changing world of work

- equal rights
- crime and violence
- lack of purpose and meaning
- global interdependence[8]

    To these we might add:

- regional wars and the threat of nuclear war
- national and international economic slowdown
- international natural disasters and food shortages
- national and international health needs
- global warming and ecological disasters

    The public school, one of our society's fundamental institutions, faces a plethora of contemporary problems, some of which threaten its very existence. We need to cite only the inadequate financing of public schools; intense competition from both secular and sectarian private schools; proposals for tax credits and vouchers that may be used at any school—public, private, or parochial; the advent of charter schools; and the increase in home schooling to illustrate the scope of problems currently confronting the public school. Change in the form of responses to contemporary problems must be foremost in the minds of curriculum developers.

Curriculum as a Product of Its Time

AXIOM 2.   The second axiom is a corollary of the first. Quite simply, a *school curriculum not only reflects but also is a product of its time.* Though it may seem to some that the curriculum is a tortoise moving infernally s-l-o-w-l-y, it has really undergone more transformations than the number of disguises assumed by a skilled master change artist.

    Prior to the advent of television, computer networks, and other sophisticated media, curriculum change came relatively slowly; in fact, it sometimes took decades. Today—due to ever-changing technology—news, opinions, and ideas flash instantaneously across the country, indeed across the world, through cell phone, Internet, and television. The world of film, too, contributes its own take on public education as evidenced by the 2010 documentary, *Waiting for Superman*, which highlighted problems in American education.[9] It did not take decades for thousands of schools throughout the country to put into practice (and, in some cases, later abandon) team teaching, instructional television, open-space education, values clarification, behavioral objectives, computer literacy, cooperative learning, and curriculum mapping—to mention only a few curricular innovations. Where will the movements to online education, charter schools, homeschooling, vouchers, and early-college programs take us?

    Clearly, the curriculum responds to and is changed by social forces, philosophical positions, psychological principles, accumulating knowledge, and educational leadership at its moment in history. Changes in society—such as, for example, the increased pluralism of our nation, the rapid growth of technology, and the need for health education—clearly influence curriculum development. You will note the pervasive effects of social forces when we discuss programs and issues in Chapters 9 and 15.

    The impact of the rapid accumulation of knowledge may be one of the more dramatic illustrations of forces affecting the curriculum. Certainly some adaptations in the school's program ought to be made as a result of discoveries of lifesaving vaccines and medications; inventions such as the computer, the laser, the smart phone, the digital camera, high-definition television, and interactive video; scientific accomplishments such as the moon landings, the Mars flights,

the Galileo probes, the Cassini and Genesis missions, the Hubble and Kepler Space Telescopes, and shuttles to and from the space station; and other land, sea, and space explorations.

The presence of persuasive educational groups and individuals has been responsible for the adoption of curricular innovations at given moments in history, and in numerous cases has caused permanent and continuing curriculum change. The effects of *Cardinal Principles of Secondary Education* by the Commission on the Reorganization of Secondary Education, *Education for All American Youth* by the Educational Policies Commission, and *A Nation at Risk* by the National Commission on Excellence in Education are illustrations of the impact persuasive groups have on the curriculum.

We may even point to individuals over the course of history, speaking either for themselves or for groups that they represented, who can be credited (or blamed, depending on one's perspective) for changes that have come about in the curriculum. Who can calculate the impact on education, for example, of aforementioned Benjamin Franklin in the eighteenth century or Horace Mann in the nineteenth? What would the progressive education movement of the early twentieth century have been without John Dewey, William H. Kilpatrick, and Boyd Bode? How many secondary schools in the late 1950s and early 1960s "Conantized" their programs on the recommendations of James B. Conant, the former president of Harvard University? What impact has Maria Montessori had on elementary school programs? What responses of the curriculum in the latter half of the twentieth century can be traced to the teachings of Jean Piaget and of B. F. Skinner? What changes will come about as a result of recommendations made by Mortimer J. Adler, Ernest L. Boyer, John I. Goodlad, and Theodore R. Sizer? (In Chapter 9 we will examine some of these recommendations.)

We could fashion for ourselves a little chart—see Table 2.1—to illustrate the effects of several forces during periods of history on both the curriculum and instruction. In barest skeletal form we might break American educational history into three periods: 1650–1750, 1750–1850, and 1850 to the present. We might then chart some of the curricular and instructional responses

TABLE 2.1	**Forces Affecting Curriculum and Instruction**		
Period	**Forces**	**Curricular Responses**	**Instructional Responses**
1650–1750	*Philosophy* Essentialism *Psychology* Faculty psychology—"mind as a muscle" *Sociology* Theocracy–Calvinist Male chauvinism Agrarian society Rich-poor dichotomy	Latin Grammar School: School for boys The Bible The three R's Classical curriculum	Strict discipline Rote learning Use of sectarian materials Mental discipline
1750–1850	*Philosophy* Essentialism Utilitarianism *Psychology* Faculty psychology *Sociology* Industrial Revolution Westward movement Rise of middle class Increased urbanization	Academy Education for girls Instruction in English Natural history Modern languages plus three R's and classical curriculum Tax-supported schools Kindergartens	Mental discipline Recitation Strict discipline Some practical applications

TABLE 2.1	(Continued)		
Period	**Forces**	**Curricular Responses**	**Instructional Responses**
1850 to Present	*Philosophy* Essentialism Progressivism *Psychology* Behavioristic Experimental Gestalt Perceptual	**1850–1925:** High schools **1925–1950:** Child-centered curriculum Experimentalism Centralization and consolidation of schools	Practical applications Problem-solving methods Attention to whole child

	Sociology
	Settling the West
	Mechanized society
	Urbanization
	Immigration
	Armed conflicts
	Civil rights
	Big business
	Big labor
	Equal rights
	Changes in family
	Environmental problems
	Diminishing resources
	Rapid growth of technology
	Space exploration
	Public demand for school
	  accountability
	Unemployment
	Drug and alcohol abuse
	Crime
	Homeless persons
	Racial tensions/ethnic conflicts
	Movements for human rights
	Persons with disabilities
	Aging population
	Sexual behavior
	Religious differences
	Growth of democratic
	  movements worldwide
	Economic crises
	Global warming
	End of Cold War
	AIDS
	Continuing health needs
	Globalization
	International tensions,
	  conflicts, and crises
	Terrorism
		Life adjustment
		1950 to present:
		Career education
		Open-space education
		Basic skills
		Alternative schooling
		Magnet schools
		Charter schools
		Home schools
		Middle schools
		Standards
		Computer education
		Values/character education
		Environmental education
		Multicultural education
		Global education
		Health education/clinics
		Sexuality education
		Adult education
		
		Literacy education
		Bilingual education
		Consumer education
		Cultural literacy (core
		  knowledge)
		Community service
		International Baccalaureate
		Advanced Placement
		Smaller schools/schools
		  within schools
		Technological education
		National standards
			Individualization and groupings
			  for instruction
			Mediated instruction
			Education for self-discipline
			Achievement testing
			Effective teaching models
			Cooperative learning
			Whole language
			Use of community resources
			Computer-assisted instruction
			Integrated studies
			State assessment/exit exams
			Online instruction
			Single-gender classes/schools

to the philosophical, psychological, and sociological forces of their time, as shown in the table. These forces and responses often overlap from one period to the next.

We could embellish the chart by refining the periods of history and adding other elements, but this skeletal description serves to illustrate that a curriculum is the product of its time or, as James B. Macdonald noted, "any reforms in institutional setting . . . are intricately related to multiple social processes and set in the context of a general cultural ethos."[10]

Observed Carol A. Mullen, "Predictions based on what students will need to know and be able to do continue to form the basis of curriculum planning today."[11] Consequently, the curriculum planner of today must identify and be concerned with forces that impinge on the schools and must carefully decide how the curriculum should change in response to these often conflicting forces.

Concurrent Changes

AXIOM 3. *Curriculum changes made at an earlier period of time can exist concurrently with newer curriculum changes at a later period of time.* The classical curriculum of the Latin Grammar School was continued in the Academy, in spite of the reluctance of Benjamin Franklin. Indeed, even the first high school, established in Boston in 1821, was known as the English Classical School. It was not until three years later that the English Classical School became the English High School.

Curriculum revision rarely starts and ends abruptly. Changes coexist and overlap for long periods of time. Ordinarily, curricular developments are phased in gradually and phased out the same way. Because competing forces and responses occur at different periods of time and continue to exist, curriculum development becomes a frustrating, yet challenging task.

Differing philosophical positions on the nature of humankind, the destiny of the human race, good and evil, and the purposes of education have existed at every period of history. The powerful schools of essentialism and progressive thought continually strive to capture the allegiance of the profession and the public. The college preparatory curriculum, for example, vies with the vocational curriculum for primacy. Instructional strategies that are targeted at the development of the intellect compete with strategies for treating the child in body, mind, and spirit. Even the discredited tenets of faculty psychology ("mind as a muscle," mental discipline) linger in school practices.

The competing responses to changing conditions have almost mandated an eclecticism, especially in the public schools. Curriculum developers select the best responses from previous times or modify them for future times. Except at the most trivial level, either/or choices are almost impossible to make in complex social areas such as education. Yet some people continue to look for and argue for either/or solutions. To some, instruction will suffer if all teachers do not write behavioral objectives. To others, the growth of preadolescents will surely be stunted unless they are educated in a middle school. Some elementary school administrators seek to provide a quality education with teaching teams. Others hold firmly to the traditional self-contained classroom. Public sentiment in early 21st century America has identified state and national assessments as the cure for the ills of public schooling.

Some themes are repeated through history. Critics have, for example, lambasted the schools periodically for what they conceive as failure to stress fundamental subject matter.[12] The history of curriculum development is filled not only with illustrations of recurrent philosophical themes, such as the subject-matter cacophony, but also with recurrent and cyclical curricular

responses. Many of our schools have changed from an essentialistic to a progressive curriculum and back again.

Schools have moved from self-contained to open space to self-contained; elementary schools have shifted from self-contained to nongraded to self-contained; schools have taught the "old math," then the "new math," and afterward reverted to a previous form, or more recently to "inquiry math"; they have followed the phonics method of teaching reading, changed to "look/say" methods, and then gone back to phonics. The late 1900s saw a rise in foreign language offerings. However, a survey conducted by the Center for Applied Linguistics revealed a decline in number of elementary and middle schools offering foreign languages between its last survey in 1997 and 2008. Signaling once again the effect of social, political, and cultural needs on the curriculum, Chinese and Arabic grew in those schools offering foreign languages whereas French, German, and Russian declined.[13] On the other hand, some schools, particularly the essentialistic, have remained unchanged while social transformations have swirled around them.

The schools of the early days in America stressed basic skills taught in a strict disciplinary climate. The early twentieth-century schools went beyond basic skills—some would say away from basic skills—to concern for pupils' diverse needs and interests in a more permissive environment. Schools of the present emphasize the basic skills, especially reading and mathematics; subject matter; academic achievement; pupil assessment; and codes of conduct as well as personal development in a culturally diverse society.

As curricular themes are often recapitulated, some teachers and curriculum developers are disposed to maintain the status quo, concluding that their current mode of operation, while it may be out of favor at the present moment, will be in style again sometime in the future. "Why change when we are probably going to eventually change back?" they ask.

When the status quo no longer serves the needs of the learners or of society, the maintenance of the status quo is inexcusable, for it prohibits responses appropriate to the times. Even if prior responses return at a later date, they should result from a reexamination of the forces of that particular time. Thus, the reemergence of prior responses will be new responses, not *old* in the sense of being unchanging and unchangeable.

Change in People

AXIOM 4. *Curriculum change results from changes in people.* Thus, curriculum developers should begin with an attempt to change the people who must ultimately effect curriculum change. This effort implies involving people in the process of curriculum development to gain their commitment to change. Experience over a long period of time has demonstrated that changes handed down from on high to subordinates do not work well, as a rule. Not until the subordinates have internalized the changes and accepted them as their own can the changes be effective and long lasting. Many school personnel lack commitment because they are denied this involvement in change and their contributions to change have been deprecated.

The importance of effecting change in people has been stressed by curriculum experts for many years. Alice Miel, for example, wrote:

> To change the curriculum of the school is to change the factors interacting to shape the curriculum. In each instance this means bringing about changes in people—in their desires, beliefs, and attitudes, in their knowledge and skill. Even changes in the physical environment, to the extent that they can be made at all, are dependent upon changes in the persons who have some control over that environment. In short, the nature of curriculum change should be seen for what it really is—a type of social change, change in people, not mere change on paper.[14]

A lack of enthusiastic support from those affected by change spills over to the students, who as a result often adopt negative attitudes.

Some curriculum planners interpret this axiom to mean that one hundred percent commitment of all affected parties must be achieved before a curriculum change can be implemented. Is it possible to obtain one hundred percent consensus on any issue in education? Somewhere between a simple majority and universal agreement would appear to be a reasonable expectation. Involvement of persons affected in the process itself will succeed in garnering some support even from those who may disagree with the final curricular product.

The curriculum planner should ensure that all persons have an opportunity to contribute to a proposed change before it is too far along and irreversible. No persons should be involved in the charade practiced in some school systems whereby teachers and others are brought into the planning process for window dressing when it is a foregone conclusion that the curriculum change will be implemented whether the participants accept it or not. The "curriculum planner knows best" attitude has no place in curriculum design and implementation.

Today we commonly witness the practice of empowering teachers and laypersons, which enables them to exercise a degree of control over what happens in their schools. For further discussion of empowerment, see Chapter 4, which expands on the process for instituting and effecting curriculum change.

Cooperative Endeavor

AXIOM 5. *Curriculum change is effected as a result of cooperative endeavor on the part of groups.*

Although an individual teacher working in isolation might conceivably, and sometimes actually does, effect changes in the curriculum by himself or herself, large and fundamental changes are brought about as a result of group decision. Numerous authorities over the years have underscored the group nature of curriculum development. George J. Posner and Alan N. Rudnitsky, for example, affirmed that "Curriculum development is typically done by teams of people working together on a common project."[15]

Several groups or constituencies are involved in curriculum development in differing roles and with differing intensities. Students and laypersons often, though perhaps not as frequently as might be desired, join forces with educational personnel in the complex job of planning a curriculum.

Teachers and curriculum specialists constitute the professional core of planners. These professionally trained persons carry the weight of curriculum development. They work together under the direction of the school administrator whose task it is to oversee their activities and to facilitate their efforts at all stages of development. The administrator may take the bows for the school's successful activities but by the same token will also receive the barbs for efforts gone awry.

Students enter the process of curriculum development as direct recipients of both benefits and harm that result from curriculum change, and parents are brought in as the persons most vitally concerned with the welfare of their young. More often than in days gone by, administrators, either willingly on their own or by directives from higher authority, invite students and parents to participate in the process of curriculum planning. Some school systems go beyond parents of children in their schools and seek representation from the total community, parents and nonparents alike. People from the community are asked more frequently now what they feel the schools should offer and what they believe the schools are omitting from their programs.

Generally, any significant change in the curriculum should involve all the aforementioned constituencies, as well as the school's noncertificated personnel. The more people affected by

the change, and the greater its complexity and costs, the greater the number of persons and groups that should be involved. The roles of various individuals and groups in curriculum development are examined in Chapter 4.

Although some limited gains certainly take place through independent curriculum development within the walls of a classroom, significant curriculum improvement comes about through group activity. Results of group deliberation are not only more extensive than individual efforts, but the process by which the group works together allows group members to share their ideas and to reach group consensus. In this respect group members help each other to change and to achieve commitment to change. Carl D. Glickman averred: "Any comprehensive changes made without the understanding and support of at least a core majority of educators and parents will fail, not necessarily because of the changes themselves but because of the way they came about."[16] . . . "Regardless of how insupportable is the case for keeping schools as they are, without a way for educators, parents, and citizens to understand, discuss, and participate in new possibilities, change efforts for the long term will be for naught."[17] Taking cognizance of the attitudes of varying groups that have a stake in curriculum development is a fundamental responsibility of the curriculum developer.[18]

Decision-Making Process

AXIOM 6.   *Curriculum development is basically a decision-making process.* Curriculum planners, working together, must make a variety of decisions, including the following:

1. *Choices among Disciplines.*   The absence of philosophy, anthropology, driver education, and sometimes art, foreign languages, music, and physical education from the curriculum of schools indicates that choices have been made about the subjects to which students will be exposed.
2. *Choices among Competing Viewpoints.*   Planners must decide, for example, whether they agree that bilingual education best serves the needs of segments of society. If they decide in the positive, they must further decide what type of bilingual education is appropriate for their schools. Planners must make decisions about programs such as interscholastic athletics for girls; whether pupils with learning disabilities should be assigned to special classes; and whether to group pupils by ability, achievement, age, gender, or heterogeneously.
3. *Choices of Emphases.*   Shall a school system, for example, give extra help to poor readers? Shall school systems provide programs for the gifted? Shall extra efforts be made for disadvantaged students? Should school funds be diverted from one group of students to aid another group?
4. *Choices of Methods.*   What is the best way, for example, to teach reading? Phonics? Look/say? "Systems" reading? Whole language? What is the best way to teach writing? Shall methods emphasize skills or creativity and self-esteem? What are the more effective materials to use? How do we eliminate ethnic and cultural bias from the curriculum? Does it matter if youth today lack the skill of cursive writing?[19]
5. *Choices in Organization.*   Is a nongraded school, for example, the better approach to an organizational arrangement that will provide maximum opportunities for learners? Should alternative forms of schooling within and outside the system be provided? Shall elementary programs be delivered in an open-space or pod setting, with totally self-contained classrooms, or with the use of resource persons to assist a teacher in a self-contained classroom? Should schools operate year-round and if so, shall they be single track or multitrack? What can we do to reduce class sizes?

Two necessary characteristics of a curriculum planner are the ability to effect decisions after sufficient study of a problem and the willingness to make decisions.[20] The indecisive person had best not gravitate to a career as a curriculum planner. Those persons for whom every *i* must be dotted and every *t* crossed before a move can be made are far too cautious for curriculum planning. Every decision involves calculated risk, for no one—in spite of what some experts may claim—has all the answers to all the problems or a single panacea for every problem. Some decisions will end in dismal failure. But unless the test is made, it can never be known what will succeed and what will not. The most that can be expected of a fallible human being is that decisions will be made on the basis of available evidence that suggests success for the learners and that promises no harm for them as a result of a decision taken. In the history of curriculum development we can find evidence of many roads that were not taken. Those roads might have turned out to be expressways to learning—though of course the pessimistic champion of the status quo would assure us that the roads not taken would have been overgrown ruts that ended at the brink of a precipice, or circular paths that would lead us right back to where we were.

Although the task of making curricular choices may be difficult in complex, advanced societies, the opportunity to make choices from among many alternatives is a luxury not found in every country.

Continuous Process

AXIOM 7.   *Curriculum development is a never-ending process.* Curriculum planners constantly strive for the ideal, yet the ideal eludes them. Perfection in the curriculum will never be achieved. The curriculum can always be improved, and many times better solutions can be found to accomplish specific objectives. As the needs of learners change, as society changes, as technology unfolds, and as new knowledge appears, the curriculum must change. Curriculum evaluation should affect subsequent planning and implementation. Curriculum goals and objectives and plans for curricular organization should be modified as feedback reveals the need for modification.

Curriculum development is not finished when a single curricular problem has been temporarily solved, nor when a newer, revised program has been instituted. Continual monitoring is necessary to assure that the program is on track and the problem does not recur. Further, adequate records should be kept by curriculum committees so that curriculum workers in future years will know what has been attempted and with what results.

Comprehensive Process

AXIOM 8.   *Curriculum development is a comprehensive process.* Historically, curriculum revision has been a hit-or-miss procedure: patching, cutting, adding, plugging in, shortening, lengthening, and troubleshooting. Hilda Taba made the same observation when she likened curriculum development to quilt making: the compilation of diverse individual contributions that are interconnected only by threads of similarity.[21]

Curriculum planning has often been too fragmentary rather than comprehensive or holistic. Too many curriculum planners have focused on the trees and not seen the forest. The popular expression that the whole is greater than the sum of its parts applies well to curriculum development. Although parts of the curriculum may be studied separately, planners must frequently and periodically view the macrocurriculum, that is, the curriculum as a whole, as distinguished from the sum of its parts.

Curriculum development spills not only into the forest but also beyond. A comprehensive view encompasses an awareness of the impact of curriculum development not only on the students, teachers, and parents directly concerned with a programmatic change, but also on the

innocent bystanders, those not directly involved in the curriculum planning but affected in some way by the results of planning. Sexuality education, for example, may affect not only teachers, students, and parents of students for whom the program is intended but also teachers, students, and parents of those who are not scheduled for the instruction. Some from the groups involved may not wish to be included. Some from the groups not in the program may wish to receive the instruction. Some from both groups may reject the subject as inappropriate for the school.

The comprehensive approach to curriculum planning requires a generous investment of physical and human resources. Curriculum workers must engage, without meaning to be redundant, in planning for curriculum planning or in what some people might refer to as "preplanning." Some predetermination must be made prior to initiating curriculum development as to whether the tangible resources, the personnel, and sufficient time will be available to allow a reasonable expectation of success. Not only must personnel be identified, but their sense of motivation, energy level, and other commitments must also be taken into consideration by the curriculum leaders. Perhaps one of the reasons that curriculum development has historically been fragmentary and piecemeal is the level of demand that the comprehensive approach places on the school's resources.

Systematic Development

AXIOM 9. *Systematic curriculum development is more effective than trial and error.* Curriculum development should ideally be made comprehensive by looking at the whole canvas and should be made systematic by following an established set of procedures. That set of procedures should be agreed upon and known by all those who participate in the development of the curriculum. Curriculum planners are more likely to be productive and successful if they follow an agreed-upon model for curriculum development that outlines or charts the sequence of steps to be followed.

If the curriculum worker subscribes to the foregoing axioms and consents to modeling his or her behavior on the basis of these axioms, will success be guaranteed? The answer is an obvious "no," for there are many limitations on curriculum workers, some of which are beyond their control. Among the restrictions on the curriculum planner are the style and personal philosophy of the administrator, the resources of the school system, the degree of complacency in the school system and community, the presence or absence of competent supervisory leadership, the fund of knowledge and skills possessed by the participants in curriculum development, and the availability of professional materials and resource persons.

One of the greatest limitations—sometimes overlooked because it is so obvious and encompassing—is the existing curriculum. Many treatises have been written by curriculum experts on the characteristics of different types of curriculum. The earmarks of an activity curriculum, a subject-matter curriculum, a broad-fields curriculum, and variations of core curricula are described in detail in the literature.[22] From a purely cognitive base such discussions are useful. But the inference is sometimes drawn that the choice of a type of curriculum is an open one: that if the planners know and believe in the characteristics of an activity curriculum, for example, they will have the option of organizing and implementing that type of curriculum. It is as if a curriculum planner could start from scratch and design a totally new curriculum—which is rarely the case, and which leads us to the tenth axiom.

Starting from the Existing Curriculum

AXIOM 10. *The curriculum planner starts from where the curriculum is, just as the teacher starts from where the students are.* Curriculum change does not take place overnight.

Few quantum leaps can be found in the field of curriculum, and this condition may be a positive value rather than a negative one, for slow but steady progress toward change allows time for testing and reflection.

Because most curriculum planners begin with already existing curricula, we would be more accurate if, instead of talking about curriculum development, we talked about curriculum redevelopment. The investment of thought, time, money, and work by previous planners cannot be thrown out even if such a drastic remedy appeared valid to a new set of planners. The curriculum worker might do well to follow the advice in the *Book of Common Prayer,* where the believer is told to "hold fast to that which is good."

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Summary

The system that we call education responds to change as conditions in its suprasystem (society) change. Curriculum change is a normal, expected consequence of changes in the environment.

It is the responsibility of curriculum workers to seek ways of making continuous improvement in the curriculum. The task of the curriculum worker is facilitated if the worker follows some generally accepted principles for curriculum development. Ten general principles or axioms are presented in this chapter as guidelines to curriculum developers. The principles stem not only from disciplines outside of professional education but also from the folklore of curriculum, observation, experimental data, and common sense.

Both teachers and curriculum specialists fill roles as curriculum workers in cooperation with other school personnel. Teachers, curriculum specialists, supervisors, administrators, students, parents, and other community representatives can all play significant roles in effecting curriculum change.

Curriculum developers start from the given and work within specific parameters. Ordinarily, change is relatively slow, limited, and gradual.

Questions for Discussion

1. What are some curriculum principles derived from common sense?

2. Are there any curriculum developments that have been based on whole truths? If so, give examples.

3. Are there any curriculum developments that have been based on false premises? If so, give examples.

4. In what ways does today's public school curriculum address the current times? In what ways does it not address the times?

5. How has technology impacted the practice of curriculum development?

Exercises

1. Develop your own chart of the effects of forces on curriculum and instruction by periods of the history of the United States.

2. Formulate and support one or two additional axioms pertaining to curriculum development. These may be original ones that you will be able to defend, or they may be axioms drawn and identified from the professional literature.

3. Look up and write a report on the contributions of one of the following persons to the development of curriculum thought or practice: Franklin Bobbitt, Boyd Bode, John Dewey, Robert Hutchins, William H. Kilpatrick, Jean Piaget, B.F. Skinner, and Ralph Tyler.

4. Look up and write a paper on one of the following groups, and describe its impact on curriculum development in the United States: the Committee of Ten, the Commission on the Reorganization of Secondary Education, the Educational Policies Commission, the National Science Foundation, and the National Commission on Excellence in Education.

5. Choose three social developments, events, pressures, or forces in the United States within the last twenty years that have caused changes in the school's curriculum, and briefly explain those changes.

Website

Phi Delta Kappa International: pdkintl.org.

Endnotes

1. For delightful reading, the little classic by Harold Benjamin (J. Abner Peddiwell) entitled *The Saber-Tooth Curriculum* (New York: McGraw-Hill, 1939) is recommended.

2. For discussion of the Academy, see Peter S. Hlebowitsh, *Foundations of American Education: Purpose and Promise,* 2nd ed. (Belmont, Calif.: Wadsworth, 2001), pp. 208–210.

3. Joseph J. Schwab, *The Practical: A Language for Curriculum* (Washington, D.C.: National Education Association, Center for the Study of Instruction, 1970).

4. Ibid., p. 2.

5. See Franklin Bobbitt, *The Curriculum* (Boston: Houghton Mifflin, 1918), pp. 41–42.

6. See Arthur W. Combs, *The Professional Education of Teachers* (Boston: Allyn and Bacon, 1965), p. 74.

7. Michael W. Apple, "Curriculum Planning: Content, Form, and the Politics of Accountability," in F. Michael Connelly, ed., *The Sage Handbook of Curriculum and Instruction* (Thousand Oaks, Calif.: SAGE Publications, 2008), p. 25.

8. Forrest W. Parkay, Eric J. Anctil, and Glen Hass, *Curriculum Planning: A New Approach,* 5th ed. (Boston: Allyn and Bacon, 2006), pp. 52–57.

9. *Waiting for Superman,* a documentary by Davis Guggenheim. The National Board of Review rated it as the best documentary of 2010. Available on DVD and Blu-Ray. See http://www.waitingforsuperman.com.

10. James B. Macdonald, "Curriculum Development in Relation to Social and Intellectual Systems," in Robert M. McClure, ed., *The Curriculum: Retrospect and Prospect,* 70th Yearbook, Part I, National Society for the Study of Education (Chicago: University of Chicago Press, 1971), pp. 98–99.

11. Carol A. Mullen, *Curriculum Leadership Development: A Guide for Aspiring School Leaders*

(Mahwah, N.J.: Lawrence Erlbaum Associates, 2007), p. 18.

12. See, for example, Arthur Bestor, *Educational Wastelands: The Retreat from Learning in Our Public Schools* (Urbana, Ill.: University of Illinois Press, 1953); Hyman Rickover, *Swiss Schools and Ours: Why Theirs Are Better* (Boston: Little, Brown, 1962); Richard Mitchell, *The Graves of Academe* (Boston: Little, Brown, 1981); and William J. Bennett, *The De-Valuing of America: The Fight for Our Children and Our Culture* (New York: Summit Books, 1992).

13. Nancy C. Rhodes and Ingrid Pufahl, *Foreign Language Teaching in U.S. Schools: Results of a National Survey, Executive Summary.* See http://www.cal.org/projects/executive-summary -08-09-10.pdf, accessed December 8, 2010.

14. Alice Miel, *Changing the Curriculum: A Social Process* (New York: D. Appleton Century, 1946), p. 10.

15. George J. Posner and Alan N. Rudnitsky, *Course Design: A Guide to Curriculum Development for Teachers* (Boston: Pearson/Allyn and Bacon, 2006), p. 13.

16. Carl D. Glickman, *Revolutionizing America's Schools* (San Francisco: Jossey-Bass, 1998), p. 38.

17. Ibid. p. 39.

18. For excellent survey of the public's attitudes toward the public schools, see *Phi Delta Kappan,* journal of Phi Delta Kappa International, 408 N. Union St., Bloomington, IN 47405-3800, annually in the fall.

19. See University of North Texas News Service, "Cursive handwriting falling by the wayside, educator says," http://web3.unt.edu/news/story.cfm?story=10067, October 26, 2006, accessed December 11, 2010.

20. For description of a decision-making process, see Chapter 13 of this text regarding material from Phi Delta Kappa Committee on Evaluation, Daniel L. Stufflebeam, committee chairman, *Educational Evaluation and Decision Making* (Itasca, Ill.: F. E. Peacock, 1971).

21. Hilda Taba, *Curriculum Development: Theory and Practice* (New York: Harcourt Brace Jovanovich, 1962), p. 8.

22. See B. O. Smith, William O. Stanley, and J. Harlan Shores, *Fundamentals of Curriculum Development,* rev. ed. (New York: Harcourt Brace Jovanovich, 1957). See also Chapter 9 of this text.

Curriculum Development
Role of School Personnel

Curriculum Planning: A Multilevel, Multisector Process

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ILLUSTRATIONS OF CURRICULUM DECISIONS

Daily, curriculum decisions such as the following are being made in some school district somewhere in the United States:

- An elementary school uses computer-assisted instruction in teaching the basic skills.
- Computer laboratories have been established in both the middle and senior high schools of the same school district.
- A middle school has decided to incorporate more material on the achievements of various ethnic groups into its social studies program.
- A school system has revised a plan for bilingual education.
- An elementary school has decided to replace its reading series with that of another publisher.
- A school district prepares pupils to take a state-mandated test.
- A school system has approved a plan for meeting the needs of the academically talented and gifted.
- The secondary schools of a district have put into operation a plan for increasing opportunities for girls to participate in team sports and for placing these sports on a par with boys' athletic activities.

Variations among Schools

Countless curricular decisions such as those in the preceding examples are made constantly. Some decisions are relatively simple—adding a

course here, deleting a course there, or making some minor changes to content. Other decisions are sweeping and far-reaching—for example, the creation of a magnet secondary school with emphasis on science, mathematics, and technology or the conversion of a 6–3–3 plan for school organization (six years of elementary school, three of junior high, and three of senior high) to a 4–4–4 plan (four years each of elementary, middle, and high school). These changes are both administrative and curricular decisions.

Some of the more dynamic school systems maintain a lively pace of curriculum decision making and are continuously effecting changes in the curriculum as a result of these decisions. Often more than one type of change occurs simultaneously in some districts and schools.

Some systems follow a reasoned, measured process for arriving at planning decisions and carrying out those decisions; others enter into an almost frenzied, superheated process in which dozens of curricular ideas are dancing around without decisions or resolution; other school districts demonstrate lethargy and apathy toward curricular decision making and are, for all intents and purposes, stagnant.

The foregoing illustrations of curriculum decisions are typical examples occurring within individual school districts. How can we account for the simultaneous development of similar curriculum plans in different parts of the country? Shall we attribute it to legal pressures from federal or state sources? Among the foregoing illustrations only three—bilingual education programs, increased opportunities for girls to participate in team sports, and preparation for a state test—may be said to have evolved as a result of legal processes. In 1974 the United States Supreme Court opened the doors to bilingual education programs with its decision in the *Lau v. Nichols* case.[1] As a consequence of this decision, the San Francisco school system was required to provide special instruction to children of Chinese ancestry who were having difficulty with the English language. Furthermore, federal funds have been appropriated to assist school systems in developing and implementing bilingual education programs. The participation of girls in team sports has been advanced through enactment by the U.S. Congress of Title IX of the Educational Amendments of 1972, which bars discrimination on the basis of gender. With added pressure from the No Child Left Behind Act of 2001, states, setting academic standards, have been instituting tests at the elementary through high school levels. Certainly, federal and state legislation and court decisions have brought about curricular change, as we will explore more fully later. But we must also look elsewhere for other causes or partial causes of simultaneous development of curricular plans.

Simultaneous Developments

Though it is unlikely, similar curriculum developments in different school systems may unfold at the same time by pure chance. It is more likely that our country's efficient systems of transportation and communication can be pointed to as principal reasons for concurrent curriculum development. These pervasive technological systems make possible the rapid transmission of the beneficial pollen (or not so beneficial virus, depending on one's point of view) of curricular ideas.

These gigantic systems have an impact on all the constituencies of a school district: the administrators, teachers, students, parents, and other members of the community. Transportation makes it possible for people from all parts of the country to get together in formal and informal settings and discuss contemporary problems of the schools. It would be interesting, for example, to measure the effects of national professional conferences on the spread of curricular innovation. Could not several of the preceding illustrations have come about through the exchange of ideas on a person-to-person basis at a state, regional, or national meeting?

With possibly an even greater impact, communication systems permit the dissemination of reports of educational and social problems in various parts of the country, as well as descriptions of how communities have sought to cope with these problems. The ubiquitous computer and a dazzling and seemingly never-ending array of technological devices keep us apprised of developments around the world. The commercial press and television consistently make the public aware of social problems that call for some curricular responses, such as military conflicts, AIDS, drug abuse, crime, unemployment, ethnic tensions, environmental hazards, and the lack of basic skills on the part of young people. The media have been instrumental in revealing widespread dissatisfaction with the public schools to the point where lay constituencies are demanding that curriculum changes be made or parents be issued vouchers so their children may attend nonpublic schools of their choice.

While the commercial media are pointing out social problems and, on occasion, educational responses to these problems, the professional media are engaged in healthy dialogue. The United States is blanketed with professional journals filled with educators' philosophical positions; proposals for change; and reports of projects, research, and experimentation. National and state professional organizations, the United States Department of Education, and state departments of education frequently release monographs, guides, and research reports of promising curricular projects. Both popular and professional books on education make their contributions to the quest for curricular solutions to many social and educational problems. Who is to assess, for example, the impact made on the schools by educators such as Earl Kelley, who stressed the importance of an individual's self-concept;[2] Ralph Tyler, who suggested a systematic way of arriving at instructional objectives;[3] Benjamin Bloom and his associates, who offered a way of classifying educational objectives and advocated mastery learning;[4] James B. Conant, who made recommendations that were widely adopted by secondary schools;[5] Jerome S. Bruner, who wrote on the structure of disciplines;[6] Theodore Sizer, who founded the Coalition of Essential Schools;[7] John I. Goodlad, who directed an extensive study of schools and made recommendations for improvement;[8] E.D. Hirsch, Jr., who initiated the "Cultural Literacy" concept leading to the "Core Knowledge Foundation" schools by identifying "what Americans need to know";[9] and Mike Feinberg and Dave Levin, who started the KIPP (Knowledge is Power Program) schools.[10]

Through modern means of communication and transportation, curriculum innovations—good, bad, and indifferent—are transmitted rapidly to a world thirsty for new and better ways of meeting its educational obligations to children and youth. It is often difficult in an enterprise as large as education to pinpoint the source of a particular curriculum change, and it is not usually necessary to do so. What is important to the student and practitioner in curriculum planning is to understand that processes for effecting change are in operation. These processes extend beyond the classroom, the school, and even the school district.

LEVELS OF PLANNING

Curriculum planning occurs on many levels, and curriculum workers—teachers, supervisors, administrators, or others—may be engaged in curriculum efforts on several levels at the same time. The levels of planning on which teachers function can be conceptualized as shown in Figure 3.1.[11] All teachers are involved in curriculum planning at the classroom level; most teachers participate in curriculum planning at the school level; some take part at the district level; and fewer and fewer engage in planning at the state, regional, national, and international levels. A few teachers, however, do participate in curriculum planning at all levels.
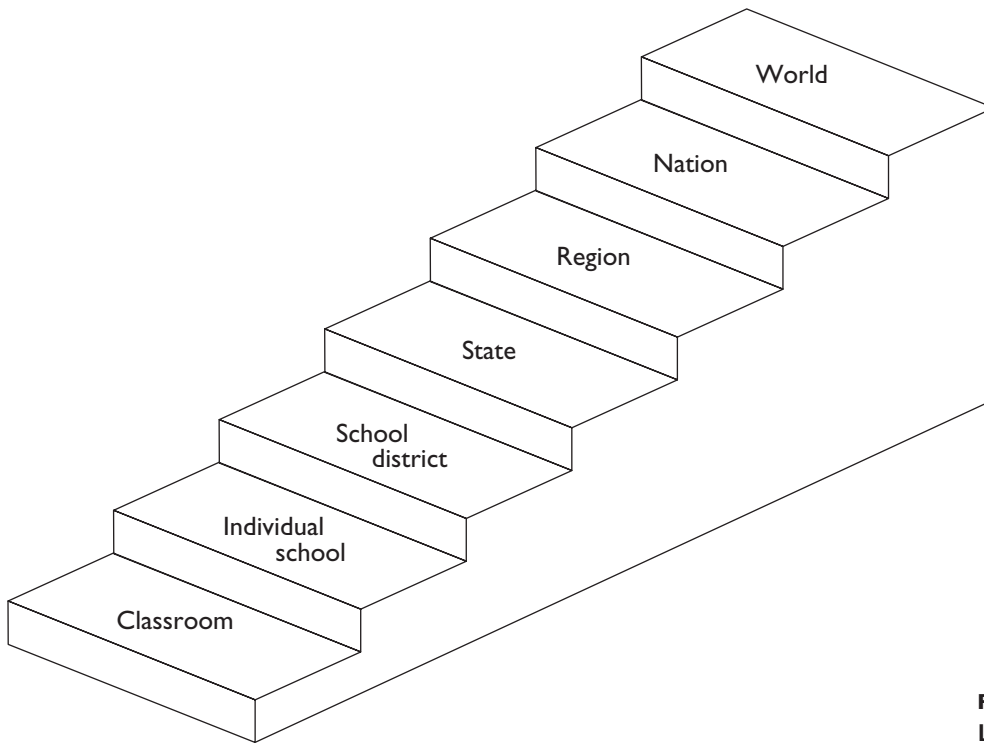
FIGURE 3.1
Levels of Planning

Importance of Classroom Level

The model in Figure 3.1, with its ascending stairs and especially with its use of the term "levels," may lead to some erroneous conclusions. You might decide, since the steps clearly sketch a hierarchy, that planning at the classroom level is least important and planning at each successive level is increasingly more important. Nothing could be further from the truth. If we are concerned about levels of importance—and indeed we are—we should concede that classroom planning is far more important than any of the successive steps. At the classroom level, the results of curriculum planning make their impact on the learners.

In some ways it would appear pertinent if we turned the model around and placed classroom planning at the top and international planning at the bottom. Unfortunately, reversing the step model would introduce another possible misinterpretation. Because the classroom is the focal point for curriculum planning and the main locale for curriculum development efforts, this stage is shown as the first step. Designating the international level as the initial step would be extremely inaccurate, as very few teachers or curriculum specialists work at that level and then usually only after they have demonstrated competence in the other levels.

The step model may convey to some readers that curriculum workers move through each stage or level in a fixed sequence. Although most teachers are involved in curriculum planning at both the classroom and school levels, some will proceed no further than those two levels. Some teachers and curriculum specialists work in sequence from one level to the next or simultaneously at all levels, whereas others may skip whole levels. Although curriculum planning usually begins in the classroom, it may start at whatever level curriculum workers feel a need to initiate change.

Since the steps in the preceding model are of equal width and rise, the model can give the impression that curriculum planners have an equal opportunity to participate at all levels and spend equal amounts of time in planning at each level. Opportunities for curriculum planning become fewer at each successive step up the staircase. Consequently, if the step model is retained to show the levels of planning, it would be better to visualize the rise between steps as progressively higher and the width of each step as progressively narrower.

The persons with whom we are most concerned in this textbook—the curriculum workers at the school and district levels—will be able to devote only limited time to curriculum planning at levels beyond the district.

As long as we conceptualize levels of planning as loci of work rather than levels of importance, and understand that curriculum specialists do not necessarily work at all levels or in a fixed sequence of levels, the concept of levels of planning is valid and useful.

SECTORS OF PLANNING

Some curriculum theorists might feel somewhat more comfortable if, instead of speaking of levels of planning, we talked of sectors of planning. The concept of sectors eliminates the hierarchical and sequence problems of the step model and says simply that curriculum planning goes on in eight sectors: the classroom, the team/grade/department, the individual school, the school district, the state, the region, the nation, and the world. The sector model, illustrated in Figure 3.2, shows teachers and curriculum workers spending the largest part of their time in the individual school and school district and decreasing amounts of their time in sectors beyond the district boundaries. The broken lines signify that an individual teacher or curriculum planner may work at separate times or simultaneously in more than one sector. On the other hand, the teacher or curriculum planner may confine himself or herself to the classroom sector.

Models of levels or of sectors of planning address the questions of where decisions are made and what organizational processes are used for developing plans. These models do not, of course, answer the question of why decisions are made, a topic explored in later chapters.

FIGURE 3.2
Sectors of Planning
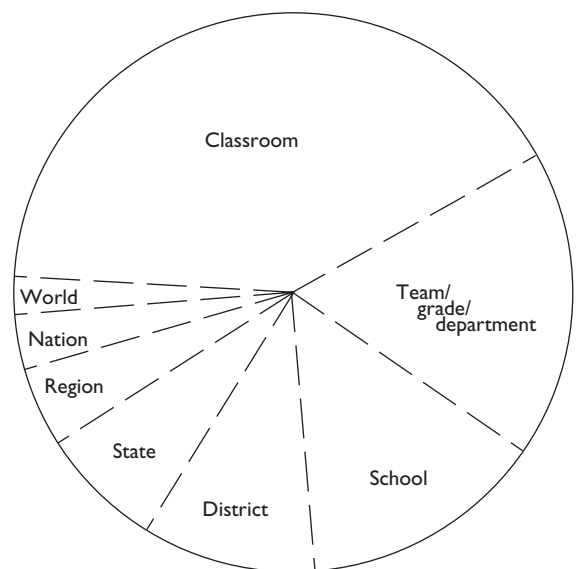
In discussing levels or sectors of planning, we should distinguish between levels or sectors in which individual planners work and those where decisions are actually made. These are not necessarily the same. Decisions about classroom curriculum that the individual teacher wishes to make must often be referred to a higher level of decision making, especially if these decisions will affect other teachers. For example, the individual teacher cannot unilaterally replace an adopted textbook that is part of an articulated series used at several grade levels. Decision making, then, will and must take place at higher levels, whether or not the individual teacher actively participates in them.

A Hierarchical Structure

Since many curriculum decisions must be, in effect, ratified at successive levels, we do have a hierarchical structure in operation throughout the United States. Each successive level of the hierarchy, up to and including the state level, possesses the power to approve or reject the curriculum proposals of the level below it.

In practice, responsibility for curriculum planning is spread across the levels of classroom, school, district, and state. Whereas teachers and curriculum specialists may participate in curriculum projects at the state level, their curriculum efforts at that level are purely advisory. Only the state board of education, the state department of education, or the state legislature can mandate incorporation of the projects' results in the schools' programs. School systems must follow specific state regulations and statutes after which, allowing for state curriculum mandates, they may then demonstrate initiative in curriculum planning.

Limitations of Hierarchical Structure

Beyond the state level, the hierarchical power structure does not hold true. In our decentralized system of education, authority for education is reserved to the states. The regional and international sectors may seek to bring about curriculum change, but only through persuasion by working through state and local levels.

The national level represents a unique blend of control through both authority and persuasion. Some maintain that in spite of our decentralized system, the federal government exercises too much control over the schools, including the curriculum of those schools.

The history of federal legislation in support of vocational education and education of the handicapped, for example, reveals that the national level exerts a potent influence on the curriculum of the schools throughout the country. The dollar distributed by the federal government is, of course, in itself a powerfully persuasive instrument. However, officials at the national level can intervene in state and local school matters only subsequent to federal legislation that they are empowered and required to enforce.

Consequently, we might design a model that shows the levels of curriculum planning through the state level and the sectors beyond the state level. Such a model is shown in Figure 3.3.

CURRICULUM EFFORTS AT THE VARIOUS LEVELS

Teachers and curriculum specialists work within and across many levels and sectors. Each level performs distinct curricular efforts and has its own organizational processes for making curriculum decisions. We will examine these levels more fully and examine the internal structures professionals have created to improve the curriculum. By contrast, you will see later in this book how external structures—those outside the teaching profession itself—impinge on internal structures.

FIGURE 3.3
Levels and Sectors of Planning
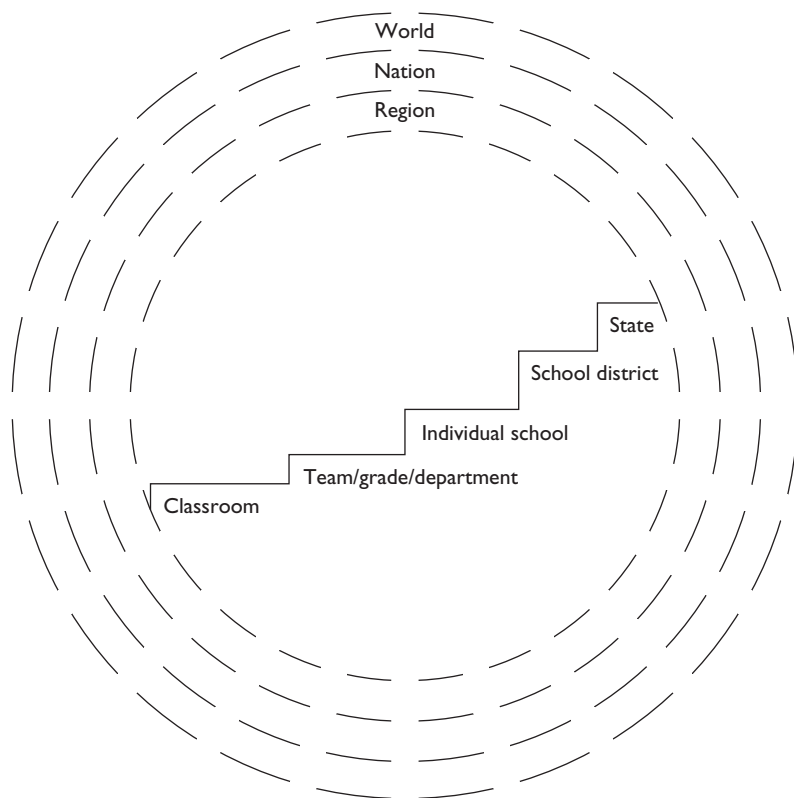
For curriculum decision making to take place, appropriate organizational structures are essential. In the following pages of this chapter we will examine such structures in some detail. In Chapter 4 you will find a fuller treatment of the roles of various individuals and groups in the curriculum development process.

The Classroom Level

At first blush it seems that all programmatic decisions have been made for the teacher at the time he or she is employed. A full-blown program is already in operation at the school where the teacher is to be assigned. The school board contracts with the applicant to fill an advertised position. The principal makes the teaching assignment and informs the teacher about school policies and regulations. If the school is large enough to require the services of supervisory personnel other than the principal, the teacher may be referred to one of the supervisors for further orientation. The supervisor designated by the principal (for example, the assistant principal, a grade coordinator, or a department head) acquaints the teacher with the adopted textbooks and whatever other curriculum materials are used, such as statements of objectives, syllabi, and curriculum guides.

The new teacher begins to feel, with some justification, as if all the important decisions about the curriculum have already been made by others—the school, the district, the state, the nation, the public. Have we not in our educational history encountered materials that were supposed to be "teacher-proof"? No need for a teacher at all with teacher-proof materials!

Perhaps the life of the teacher would be easier and less complicated if the curriculum were prescribed. On the other hand, it is safe to say that, were there no curriculum decisions to be made, the teacher's life would be immensely duller. If teachers subscribe to the axioms that change is inevitable and never-ending, they will come to view their role first and foremost as decision maker. The teacher then not only makes decisions or participates in shared decision making, but also gathers data on which to base decisions, implements decisions, and evaluates programs. In what specific curriculum endeavors, we may ask, is the individual classroom teacher likely to participate? Let's respond to that question in two ways.

TWO CASES.   First, let us take the hypothetical cases of two high-powered, experienced, highly motivated teachers—a fourth-grade teacher and a tenth-grade teacher of social studies. We will further posit that (l) the fourth-grade teacher is a male and the tenth grade teacher a female, (2) both are employed in the same school district, and (3) both participate in curriculum planning at all levels and sectors. Our fourth-grade teacher, whom we will refer to as Teacher F, is the grade coordinator in a school that houses three sections of the fourth grade. Our tenth-grade teacher, Teacher N, is a member of a social studies department numbering eight faculty members. We will examine their curriculum development activities at one point in time—the cold and windy month of March.

During this period Teacher F was selecting supplementary materials for his pupils' science lessons (classroom level). He was reviewing with the other teachers the next day's mathematics lesson for slower students in the classes and examining a new fourth-grade reading program (grade level). He was also participating in making recommendations for implementing a new human growth and development program in the school (school level), serving on a committee studying ways to implement federal legislation regarding the handicapped (district level), serving on a statewide committee to define minimal competencies in language arts (state level), taking part in a panel discussion at a regional conference on effective teaching (regional level), finishing a proposal for federal funding of a project for children-at-risk (national sector and local level), and planning activities for a program on contributions of immigrants to American culture (international sector and local level).

While Teacher F has been making his contributions toward keeping the curriculum of his school system lively, Teacher N has been no less occupied. She has just finished resequencing the content of a course in geography that she regularly teaches (classroom level); is working with all the tenth-grade social studies teachers on a new course in consumer economics (department level); will attend later in the week as her department representative a meeting of the school's curriculum council to discuss ways for the school to use community resources more effectively (school level); has been serving on the same district committee as Teacher F, which is charged with the task of making recommendations for an improved curriculum for the physically challenged (district level); has been invited to participate on a committee to consider changes in the state's minimal requirements for high school graduation (state level); served a week ago on a visiting committee for a distant high school that is seeking accreditation (regional sector); has been notified by the National Endowment for the Humanities that a proposal she submitted will be funded (national sector and local level); and has been invited by the World Council for Gifted and Talented Children to present a paper at a conference in Europe (international sector). While relatively few teachers have the opportunity, ability, or perhaps the inclination to participate in curriculum efforts at all levels and in all sectors as suggested by these two hypothetical cases, none of these curricular activities is beyond the realm of possibility. We can find teachers who have engaged in activities like these at some time or other.

A second way to respond to the question "In what specific endeavors is the individual classroom teacher likely to participate?" is to survey typical curriculum efforts that take place at each level and in each sector. An examination of some of the curriculum responsibilities at the classroom level reveals that the individual teacher has a rather large task cut out for him or her. A number of tasks in curriculum development at the classroom level may be identified.

TASKS OF TEACHERS.   Teachers carry out activities in curriculum design when they write curricular goals and objectives, select subject matter (content), choose materials, identify resources in the school and community, sequence or resequence the subject matter, decide on the scope of the topics or course, revise the content, decide on types of instructional plans to use, construct the plans, try out new programs, create developmental and remedial programs in reading or other subject matter, seek ways to differentiate the curriculum in the classroom, incorporate content mandated by levels above the classroom, and develop their own curricular materials.

Curriculum implementation is equated by some curriculum experts with instruction. Some hold the view that curriculum implementation does not start until the teacher interacts with the students. We would include in this concept the final stages of curriculum planning or design when the nitty-gritty decisions are made about how programs will be put into operation and how instruction will be designed and presented. Within this context teachers are occupied at the classroom level when they select appropriate emphases within the subjects, decide which students will pursue what subject matter, allot times for the various topics and units to be taught, determine if the facilities are appropriate and how they will be modified (if necessary), decide how materials and resources may best be made available to the learners, assign duties to volunteer aides, write instructional goals and objectives, and select and carry out strategies for classroom presentation and interaction.

Teachers have the responsibility of evaluating both the curriculum and the instruction. In some ways it is difficult to separate the two dimensions of evaluation and to tell where instructional evaluation ceases and curriculum evaluation begins. In a very real sense, evaluating instruction is evaluating curriculum implementation. We may clarify the distinctions between the two dimensions of evaluation in the following way: *Curriculum evaluation* is the assessment of programs, processes, and curricular products (material, not human). *Instructional evaluation* is (1) the assessment of student achievement before, during, and at the end of instruction and (2) the assessment of the effectiveness of the instructor. Thus, teachers work at the task of curriculum evaluation when they seek to find out if the programs are meeting the curriculum objectives; try to learn if the programs are valid, relevant, feasible, of interest to the learners, and in keeping with the learners' needs; review the choices of delivery systems, materials, and resources; and examine the finished curriculum products they have created such as guides, unit plans, and lesson plans. Teachers conduct instructional evaluation when they assess the learners' entry skills before the start of instruction; give progress tests; write, administer, score, and interpret final achievement tests; and permit students to evaluate their performance as instructors.

These examples of activities transpiring at the classroom level demonstrate that curriculum planning and development are complex and demanding responsibilities of the teacher. As we discuss curriculum planning at the various levels in the following pages of this chapter, it may seem that individual teachers have little autonomy. Surely, many hold that view, and to some extent there is truth in that belief. The impingement of federal, state, and local school system mandates that affect the teacher's prerogatives in the areas of curriculum and instruction is a serious concern. In spite of the infringement on the teacher's professional responsibilities, many curricular and instructional decisions remain to be made, especially in selecting delivery systems,

adapting techniques to students' learning styles, diagnosing student problems, and prescribing remediation when needed.

Teachers may take comfort from the fact that, at least as a group if not individually, they have considerable opportunity to shape curricular decisions at the classroom, local school, and district levels and some opportunity at the state level.

The Team, Grade, and Department Levels

One of the axioms in Chapter 2 stated that curriculum development is essentially a group undertaking. Once the teacher leaves the sanctuary of the self-contained elementary, middle, or secondary school classroom and joins other teachers, curriculum development takes a new turn. It calls for a cooperative effort on the part of each teacher, places a limit on solitary curriculum planning, and calls for a more formal organizational structure. It is at the team, grade, or department level that curriculum leadership begins to emerge, with the leaders coming to be distinguished from the followers.

For decades the graded school system, with its orderly hierarchical structure and self-contained classrooms, has been and continues to be the prevailing model of school organization. In the late 1970s, however, the self-contained classroom with its one teacher and one group of students was jostled by the appearance of open-space or open-area schools. Scores of elementary, middle, and junior high schools were built as or converted into open-space facilities. Into these schools, in place of walled, self-contained classrooms, came large open spaces in which the learning activities of a large group of youngsters were directed by a team of teachers assisted in some cases by paraprofessionals. A semblance of territoriality was created by assigning each of the members of the teaching team to a particular group of youngsters whose home base was a sector of the large open area. In theory and in practice, groups and subgroups were formed and reformed continuously depending on their learning needs, goals, and interests and on the teachers' individual competencies. Today, the movement has reversed itself, and in many cases open classrooms have been converted or reconverted into self-contained classrooms. Sentiment among teachers, parents, and students has continued to favor the self-contained classroom.

Specific curriculum innovations are discussed in this text primarily to delineate the process of curriculum development and to help the curriculum worker to effect and evaluate curriculum change. Organizational patterns appear in this chapter to illustrate teachers' participation in curriculum planning at various levels beyond the classroom. Teachers in schools organized into self-contained units participate at the grade or department level. Teachers in open-space elementary schools share curriculum planning responsibilities at both the team and grade levels. Teachers in middle schools customarily take part in curriculum development at the team (usually interdisciplinary), grade, and department levels. Secondary school teachers join with their colleagues in curriculum planning primarily at the department level, but also at the grade level, and, in the case of team teaching efforts, at the team level.[12]

With the children for whom they are specifically responsible in mind, the teachers in a team, a given grade, or a particular department are called on to make curricular decisions such as the following:

- determining content to be presented
- sequencing subject matter
- adapting instruction for exceptionalities
- establishing or revising team, grade, or departmental objectives
- selecting materials and resources suitable to the children under their supervision

- creating groupings and subgroupings of learners
- establishing a means of coordinating progress of students in the various sections and classrooms
- writing tests to be taken by students of the team, grade, or department
- writing curriculum materials for use by all teachers
- agreeing on team-wide, grade-wide, and department-wide programs that all students and teachers will attend
- agreeing on ways students can learn to demonstrate socially responsible behavior and self-discipline
- agreeing on or reviewing minimal standards that pupils must demonstrate in the basic skills
- cooperating in the establishment and use of laboratories and learning centers
- choosing technological aids to be used in instruction
- agreeing on implementation of the school's marking practices
- agreeing on the institution of new programs and abandonment of old programs within their jurisdiction
- planning tutorial programs for students who do not do well on state exams
- evaluating their programs, students, and instructors

These are but a sampling of the many kinds of cooperative decisions that members who constitute the team, grade, or department must make. Team leaders or lead teachers, grade coordinators, or chairpersons are generally free to make many, though not all, decisions that affect only their own classes. When a decision is likely to have an impact on teachers other than the individual classroom teacher, it becomes a matter for joint deliberation by the parties to be affected or, at higher levels, by their representatives.

To enable the decision-making process to become more efficient, curriculum leaders either emerge or must be designated. Team leaders or lead teachers, grade coordinators, or chairpersons are appointed by the principal or elected by the teachers themselves. Those administrators who are inclined to a bureaucratic approach to administration prefer the former system, and those who are disposed to a collegial approach permit the latter system. In either case, if the most experienced and skilled teachers are chosen for leadership positions, they may establish themselves as curriculum specialists, key members of a cooperating group of curriculum workers.

Patterns of organizational interaction with the principal vary among teachers, teams, grades, and departments, from school to school and from school district to school district. Curriculum matters that can be settled and contained within a team, grade, or department are handled at that particular level. However, curriculum planning sends out waves that affect, sometimes even engulf, persons beyond the planners and the client group for whom the plans were made. Hence, we must look to the next level—the school level—for curriculum decision making that transcends the team, grade, or department.

The School Level

Although many curriculum decisions may be made at the classroom or team/grade/department level, other decisions can be reached only at a schoolwide level. The institution must provide some mechanism whereby the curriculum is articulated and integrated. The administrator must ensure a process whereby the implications of curriculum decisions made anywhere within the institution will be understood and, hopefully, agreed to by the faculty as a whole.

Of all the levels and sectors of curriculum planning, the individual school has emerged as the most critical. Current administrative philosophy promotes an approach to school administration

known generally as "school-based (or site-based) management" in which authority is decentralized and the school principal is granted considerable autonomy over not only curriculum planning but also the budget, hiring and firing of school personnel, in-service education of staff, and supervision and evaluation of staff.[13] Several writers have identified the individual school as the primary locus for curriculum change. Alice Miel long ago observed, "If really widespread participation is desirable, there appears to be no better way than to make the individual school the unit of participation, the primary action agency in curriculum development."[14] Almost forty years later Goodlad endorsed the concept of the school as the unit for improvement.[15] That the principle of the school as the primary unit continues strong is seen in the observations made by Evelyn J. Sowell for school- or department-based curriculum decision making.[16]

The decade of the 1980s, with its quest for reform of the schools, saw many states shift more and more decision making to the state level as they grappled for ways to improve their schools. Local schools felt the pressure of state curricular mandates that in some cases went beyond the specification of subjects and units to the specification of instructional objectives to be accomplished at every level in every course.

Emphasis in the 1990s shifted away from heavy centralized state and district administration toward more responsibility for operation of the schools on the local school level. Tight state budgets, as well as educational reasons such as espousal of the principles of school-based management, accelerated the move toward decentralization from the state to local level. Today, however, pressures from especially the federal level's No Child Left Behind Act of 2001 and incentives from the Race to the Top program of 2009 have caused states to make changes in their educational systems.

The preceding chapter demonstrated that curriculum specialists conceive of curriculum development as a cooperative group undertaking. Given the many dimensions of the school administrator's job, intensified by the concept of school-based management, a participatory approach to administration is sound not only philosophically but also practically. Shared decision making, whether in respect to curriculum planning or to other aspects of the administrator's job, makes for a more efficient and effective school.

Foreign observers are often amazed, if not shocked, by the uniqueness of each American school. Two elementary schools in the same community, for example, may be completely different in ambience, student body, staffing, scheduling, resources, and to some extent, curricula. Achievement levels, motivation of the students, enthusiasm of the faculty, leadership skills of the principal, the neighborhood, support from the parents, and curricular emphases make for differences from school to school. Consequently, Americans are not surprised when they find that organizational arrangements differ school by school—within the nation, within the state, and indeed within the same locality. Educational diversity is both a blessing and a dilemma for curriculum planners. It is a strength of our system of education in that it permits schools to respond to needs evidenced in the individual school and locality. It presents a problem in the light of state and national standards that specify commonalities, minimal competencies, and proficiency levels.

CONSTITUENCIES OF THE SCHOOL.   To varying degrees, the democratic process is accepted more and more in school systems across the country. Nowhere is its presence more clearly felt than in the participatory procedures that seek to involve the major constituencies of the school in curriculum development. Usually identified as the principal constituencies are the administrators and their staffs, teachers, students, and citizens of the community. On occasion, nonprofessional employees of the school system are acknowledged in this way and become involved in the planning process—but rarely as major participants.

Some time ago Jack R. Frymier and Horace C. Hawn stated a principle that summarizes the belief in the necessity for involving persons in curriculum planning on a broad scale:

> *People Who Are Affected Must Be Involved.* Involvement is a principle fundamental to democracy and to learning theory. The very essence of democracy is predicated upon the assumption that those who are affected by any change should have some say in determining just what that change shall be . . . Significant and lasting change can only come about by such involvement. All who are affected by curriculum development and change must have a genuine opportunity to participate in the process.[17]

Robert S. Zais raised a question, however, about the validity of the participatory model of curriculum decision making. Speaking of the democratic "grass-roots model,"[18] Zais said:

> The grass-roots model of curriculum engineering[19] . . . is initiated by teachers in individual schools, employs democratic group methods of decision making, proceeds on a "broken front," and is geared to the specific curriculum problems of particular schools or even classrooms.
>
> The intensely democratic orientation of the grass-roots model is responsible for generating what have probably become the curriculum establishment's two least-questioned axioms: First, that a curriculum can be successfully implemented only if the teachers have been intimately involved in the construction and development processes, and second, that not only professional personnel, but students, parents, and other lay members of the community must be included in the curriculum planning process. To deny the validity of either of these claims (neither of which has been satisfactorily demonstrated) is not necessarily to deny *any* role to teachers or lay participants; rather it is to suggest the need to define more precisely the *appropriate* role that administrators, teachers, curriculum specialists, and nonprofessionals should play in curriculum engineering.[20]

DECISIONS AND ORGANIZATIONAL PATTERNS.   Curriculum committees or councils exist in many schools. The school's curriculum committee meets and makes recommendations on such matters as the following:

- adding new programs for the school, including interdisciplinary programs
- deleting existing programs
- revising existing programs
- increasing classroom use of computers throughout the school, including online instruction and research
- conducting schoolwide surveys of teacher, student, and parental opinion
- evaluating the school's curriculum
- planning ways to overcome curricular deficiencies
- planning for school accreditation
- choosing articulated series of textbooks
- using library and learning centers
- planning for exceptional children
- verifying the school's compliance with state mandates and federal legislation
- sanctioning schoolwide events such as career days and science fairs
- supervising assessment of student achievement
- reviewing recommendations of accrediting committees and planning for removal of deficiencies
- reducing absenteeism
- increasing the holding power of the school

Although curriculum specialists may not agree on to what degree they should encourage or permit the involvement of various constituencies, how each group will be constituted, and which group has the primary role, the literature on curriculum development almost unanimously endorses the concept of the democratic, participatory approach. Although it is possible that the collective judgment of specialists in the field could be in error, their judgments—based on experience, training, observation, and research—provide a foundation for accepting the validity of the democratic approach to curriculum development.

Several organizational arrangements exist on the school level for considering curriculum matters. Patterns differ regarding the degree to which the administrator shares decision making with teachers. We should not forget that in any organizational model in which decision making is shared, groups other than the duly appointed administrators serve only in advisory capacities. Both professionally and legally, the administrator does not and cannot surrender "line" authority for making ultimate decisions and supervising the staff. Patterns of organizing for curriculum development at the local school level maintain the customary line-and-staff relationship that exists at the team/grade/department level and at the school district level.

In some school districts citizens of the community and students join forces with the faculty and administrators to produce collaborative patterns. Some principals keep the three constituencies separate. Others integrate all three constituencies into one expanded curriculum committee and incorporate the total faculty within the model.

Integrated, collaborative models appear the most democratic, but it would be wrong to conclude that these are, therefore, the most efficient. As anyone who has grappled with the concept of "parity" as dictated by some federal programs—including public school teachers, university specialists, and laypeople working together as equal partners from proposal stage to final evaluation—has discovered, "parity" is not necessarily the most efficient way to do business. In reference to the expanded curriculum committee, the professionals—the teachers and administrators—must often talk a language filled with concepts that must be explained to lay citizens and students and must make distinctions between desired outcomes and processes. Technical decisions that must be made are often beyond the competence of lay citizens and students. Only if an expanded curriculum committee is composed of persons who are well informed about the processes of education and are highly motivated can this pattern meet with any degree of success.

Students and laypeople often participate with teachers and administrators on school-level committees. In the next chapter, we will examine the roles of these constituent groups in curriculum development. We might ask at this point: What are typical curriculum tasks of the school-wide curriculum committee? The school curriculum committee or council must articulate its work with curriculum development efforts at the classroom and team/grade/department levels and, in effect, coordinate the work of lower levels. It receives proposals for curricular change from the lower levels, especially the proposals that affect more than one team, grade, or department or that are interdisciplinary in nature.

The school curriculum council considers proposals that require human and material resources, budgetary expenditures, and changes in staffing. The council conducts or supervises assessment of the educational needs of pupils. It coordinates the development of a statement of school philosophy. It specifies and regularly reviews curriculum goals and objectives for the school.

The curriculum council plans the evaluation of the curriculum. It studies results of student assessment and proposes changes based on the data gathered. The council studies the educational needs of the community and implements programs to meet legitimate needs. The council seeks solutions to short-range curricular problems while also establishing and refining long-range plans.

The council is both proactive and reactive in its manner of operating. Whereas it may react to proposals presented by both the principal and the faculty, it also generates its own proposals and possible solutions to curricular problems.

At the time of a pending school evaluation by a regional accreditation team, the curriculum council may act as a steering committee and assign specific tasks to various committees. The council coordinates an intensive self-study prior to the visit of the accrediting team.

The council must ensure articulation between and among the various teams, grades, and departments of the school, making certain that teachers are following agreed-upon sequences and meeting minimal prescribed objectives. Requests from higher levels and various sectors for the school's cooperation on curriculum projects are routed to the curriculum council.

The local school curriculum council occupies a strategic position and fulfills a key role in the process of curriculum development. Of all groups at all levels and sectors of planning, the schoolwide curriculum council is in the best position to make significant contributions to curriculum improvement.

LIMITATION TO DECENTRALIZATION.   A decentralized site-based approach to management, per se, is no greater guarantee of successful curriculum making than is a centralized approach orchestrated by the district or state level. Michael G. Fullan called attention to the need for coordinating top-down and bottom-up strategies.[21] Site-based management and shared decision making should not be perceived as the delegation of all authority and responsibility to the individual school. A bottom-up approach without cooperation of higher levels may be no more successful in effecting lasting curriculum improvement than a top-down approach without cooperation of lower levels. Commented Fullan, "In sum, decentralized initiatives, as far as the evidence is concerned, are not faring much better than centralized reforms."[22] Efforts toward empowerment at the local level have sought to balance the heavier control formerly exerted by district and state levels. However, the local school cannot work in isolation. Collaboration among levels and sectors remains essential.

The School District Level

None of the previously discussed levels—classroom, team/grade/department, or individual school—can work as isolated units. They function within the context of the school district under the direction of the duly constituted school board and its administrative officer, the superintendent. Their efforts must be coordinated among themselves and with the central district office. Goals and objectives of the subordinate units must mesh with those of the district level. Consequently, the superintendent must provide a mechanism whereby district-level curriculum planning may be conducted.

Curriculum planning on a districtwide level is often conducted through the district curriculum council composed of teachers, administrators, supervisors, laypersons, and, in some cases, students. The size of the district curriculum council and the extent of its representation depend on the size of the school district. Representatives may be either elected by members of their respective groups or appointed by district-level administrators, frequently on the recommendation of school principals.

DECISIONS AND ORGANIZATIONAL PATTERNS.   Districtwide committees meet to consider problems such as these:

- adding new programs for the district
- abandoning districtwide programs

- reviewing student achievement in the various schools and recommending ways to improve the programs of any deficient schools
- writing or reviewing proposals for state and federal grants
- gathering data on student achievement for presentation to parent groups and lay advisory councils
- supervising district compliance with state mandates and federal legislation
- recommending distribution of technological equipment among schools of the district
- evaluating programs on a districtwide basis
- articulating programs between levels
- instituting smaller schools and single-sex schools and classes

Patterns of organization at the school district level increase in complexity as the size of the school district increases. Some districts use a curriculum council composed of only professionals—the administrators and supervisors named by the superintendent and teachers selected by their principals or elected by their faculties to represent them on the council. Subcommittees of professionals from anywhere in the school system are appointed by the curriculum council to conduct specific phases of curriculum development. The community advisory council serves in an advisory capacity to the superintendent and may or may not consider curriculum matters. Subordinate school units are responsible to the superintendent through the principals.

Some school districts extend membership on the curriculum council to students and laypersons. Large urban school districts often break the organizational pattern into subordinate areas headed by area superintendents.

SEQUENCE OF DECISION MAKING.   We might visualize the sequence of decision making by the curriculum groups at the various levels within a school system in the form of waves starting in the individual teacher's classroom and terminating with the district curriculum council, as pictured in Figure 3.4.

Teachers new to a school system should be informed by curriculum supervisors and/or mentors of the district's structures for curriculum development. Teachers should be aware not only of the process of curriculum development in the district but also of the opportunities for curricular leadership.
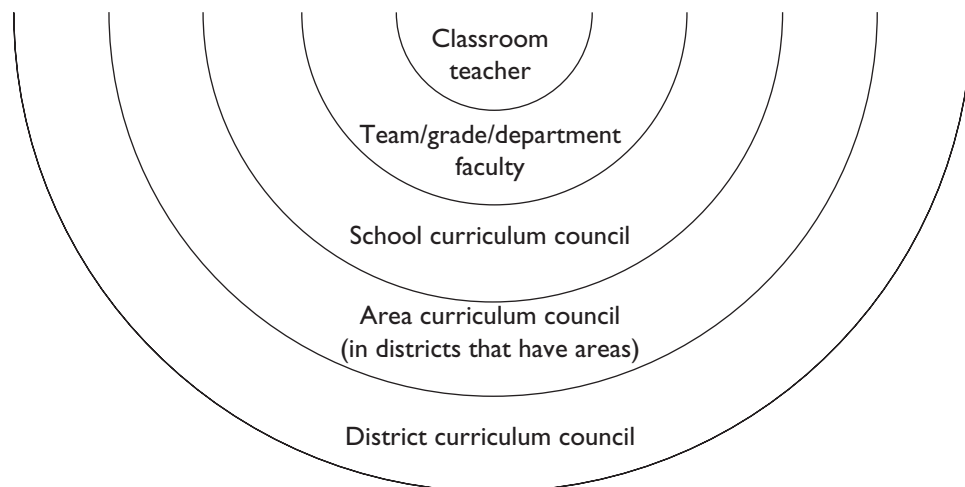
FIGURE 3.4 Sequence of Decision Making

Classroom teacher

Team/grade/department faculty

School curriculum council

Area curriculum council (in districts that have areas)

District curriculum council

Each level receives information, ideas, and proposals from the lower levels and, in turn, sends information, ideas, and proposals to them. Each level acts within the limitations of its own "territory." Councils at any level may initiate action as well as react to suggestions made to them. Councils must be responsive to both subordinate and higher levels. If a council wishes to initiate a plan that affects lower levels, it must involve persons from those levels beginning at the earliest planning stages. If a council wishes to initiate or endorse a plan that goes beyond its "territory" or that might be likely to create repercussions anywhere in the system, it must seek approval at higher levels.

Before we discuss curriculum development at the next level—the state—we should consider the following observations about varying organizational patterns or models for curriculum development:

- Although an administrator—the principal or superintendent—is ordinarily depicted in schematics at the top, organizational patterns should not be considered simply administrative models in which orders are given by the administrator to his or her subordinates. From administrator to curriculum committees, exchange should be a two-way rather than a one-way process. No worthy administrator can turn over the decision-making process completely to others, yet every administrator can seek to obtain the widest possible participation of people in that process.
- Organizational patterns are but models that reflect the work of curriculum development to be carried out by the professionals in the school system and by others whose aid they solicit. Many patterns exist. Zais, for example, analyzed a number of existing and proposed models for curriculum development.[23]
- Realistically, we must admit that a significant amount of curriculum change is brought about *outside* of the established structure. Individual teachers and small committees often effect changes that are well received and disseminated through the school system and sometimes beyond. B. Frank Brown observed many years ago that a few teachers, by their example, may be instrumental in bringing about curriculum revision, a process he referred to as "spinning out."[24] The public and teachers' organizations are often ahead of the designated curriculum leaders.
- Patterns mentioned in this chapter are models of structure—the organizational arrangements whereby the professionals and those who assist them may apply their knowledge and skills to curriculum improvement. We should distinguish these organizational patterns from models for the process of curriculum development, which we will consider in Chapter 5.

The State Level

To many curriculum workers on the local and district levels, participation in curriculum development beyond their boundaries seems like a remote undertaking. Administrators, teachers, and others are aware, sometimes painfully, that curriculum revision does go on outside the school district and that it does have an impact on the schools of the district. Although state involvement in curricular and instructional development has varied over the years, relatively few school personnel in proportion to the number of employees are actively involved in curriculum making outside the district and even then, rarely on a sustaining basis.

As we move further and further away from the district level, the percentage of school personnel actively and continuously participating in curriculum development shrinks in size. Were the state not in a superordinate position over the local school districts and were the state not

directly responsible for the educational system within its borders, we should classify the state as a sector rather than a level. Clearly, however, under the Tenth Amendment to the U.S. Constitution and under the state constitutions, the state holds primary power over education.

CHANNELS WITHIN EDUCATION.   The state operates in the arena of curriculum development through a number of channels within the education profession. The state department of education and school people from the various districts of the state who are called on to assist the state department of education constitute the professional channel for curriculum development under the aegis of the state.

State Departments of Education.   The state department of education, often a large bureaucracy that is sometimes criticized for its size and power, exercises direct responsibility over the curriculum of the schools of the state. Led by a chief state school officer (superintendent or commissioner of education), the state department of education—an agency of the executive branch of the state government—consists of a number of assistant superintendents, heads of branches, curriculum specialists, and other staff members. The state department of education provides general leadership to the schools; it interprets, enforces, and monitors legislated regulations as well as its own regulations that hold the force of law.

The state department of education wields great power over the districts of the state. In curriculum matters it accredits and monitors school programs, disburses state and federal-through-state moneys for specific programs, sets specifications for amounts of time to be devoted to specific content areas, creates and monitors state assessments, enforces standards for high school graduation, and judges and publicizes the academic success of its schools. The state department of education develops statewide standards of philosophy, goals, and objectives. Additionally, the state department of education makes available consultant help to the individual schools and districts and conducts evaluation of school programs.

At times, decisions are made on the state level without advance consultation with the local school personnel of the state. At other times, however, the state department of education seeks advice and assistance from individuals and from ad hoc committees that they create for the purpose of studying specific problems and recommending solutions. Administrators and teachers are often asked to participate in organizing, conducting, or attending conferences and workshops held throughout the state on specific topics. The state department of education takes a leadership role in disseminating information regarding curriculum innovations and practices among the schools of the state. It issues both regular and periodic bulletins, monographs, and newsletters, frequently containing articles written by persons from local school districts, to keep school personnel throughout the state up-to-date on recent developments in curriculum, instruction, and other matters.

The state's presence in all school matters is a commanding one, especially in an era of emphasis on standards and testing.

State Professional Organizations.   In a less formal way, curriculum workers find opportunities for curriculum planning and consideration of curriculum problems through activities of the state professional organizations. Conference programs of such organizations as the state chapters of the National Council of Teachers of English, the National Council for the Social Studies, and the Association for Supervision and Curriculum Development customarily focus on curriculum concerns. Although conference participants may engage in curriculum planning in only the most rudimentary and often passive way, the sharing of curriculum ideas often lays the groundwork for subsequent curriculum reform. This type of

curriculum activity cannot, of course, be equated with more structured efforts under the state department of education. Nor can we truly label the examination of curriculum problems by state professional organizations as a level of planning, as no element of authority exists in this type of voluntary activity. More appropriately, the state professional organizations constitute a sector that seeks to effect curriculum change through research, example, and persuasion. Nevertheless, we would be remiss if we did not credit state professional organizations for the influence they often exert in bringing about changes in the curriculum of the local school systems of the state.

CHANNELS OUTSIDE OF EDUCATION.   Other departments of the executive branch, the state legislature, and the state judicial branch form channels outside the profession of education that have an impact on the curriculum of all the schools of the state. Within the executive branch the governor and the state board of education wield tremendous power over the state educational system. The governor presents a budget to the legislature in which he or she recommends supporting or curtailing programs. The state board sets policies that bind all the schools of the state.

Legislative Decisions.   State legislatures throughout the country consistently demonstrate a penchant for curriculum making. Mandates from the state legislatures—in some cases with leadership from the executive branch—were the prime movers for educational reform in the 1980s and early 1990s. Since the 1990s states have been reviewing their educational system, making modifications, for example, in requirements for high school graduation and assessments of educational achievement.

The legislature of the state of Florida provides an example of legislative curriculum making. Among the many curriculum prescriptions are the following extractions from Florida statutes.

FLORIDA STATUTE 233.061, addressing a wide variety of designated needs, required instruction on the following:

Declaration of Independence

Arguments in support of a republican form of government

U.S. Constitution and its relation to government structure

Flag education, including proper display and salute

The elements of civil government

History of the Holocaust

History of African Americans

The elementary principles of agriculture

The true effects of all alcoholic and intoxicating liquors, beverages, and narcotics

Kindness to animals

The history of the state

The conservation of natural resources

Comprehensive health education

The study of Hispanic contributions to the United States

The study of women's contributions to the United States

FLORIDA STATUTE 233.0612, authorized school districts to provide the following instruction:

> Character development and law education
>
> The objective study of the Bible and religion
>
> Traffic education
>
> Free enterprise and consumer education
>
> Programs to encourage patriotism and greater respect for country
>
> Drug abuse resistance education
>
> Comprehensive health education
>
> Care of nursing home patients
>
> Acquired immune deficiency syndrome
>
> Voting instruction, including the use of county voting machines
>
> Before-school and after-school programs

In mandating character-development education in the spring of 1999, the Florida legislature became very specific, stipulating for the elementary schools a secular character-development program similar to those of Character Counts![25]

FLORIDA STATUTE 229.57, made sweeping provision, later modified, for state assessment of student progress when it directed the state commissioner of education to:

> Develop and administer in the public schools a uniform, statewide program of assessment to determine, periodically, educational status and progress and the degree of achievement of approved minimum performance standards. The uniform statewide program shall consist of testing in grades 3, 5, 8, and 11. . . .

Although some legislation is a result of grassroots movement within the state and some statutes evolve from recommendations made by the state superintendent of public instruction and the state department of education, many acts of the state legislature stem from the personal beliefs and desires of the legislators themselves. Even the state judicial branch finds itself entangled in curriculum decision making from time to time. Two famous cases may serve to illustrate involvement of the state courts in curriculum making.

The Supreme Court of Michigan ruled in 1874, in a case brought against the school district of Kalamazoo by a taxpayer of that community, that the school board of Kalamazoo could, indeed, spend public funds to provide a secondary school education for the youth of their district.[26]

In 1927 the Supreme Court of Tennessee replied to the appeal of defense attorneys of John Thomas Scopes of the world-famous "monkey trial" by upholding the constitutionality of the Tennessee law that forbade teaching in the public schools any theory that denied human creation by a Divine Being.[27] Periodically, state legislatures have attempted to mandate the teaching of "scientific creationism" or, more currently, "intelligent design" in the public schools as a counterbalance to the theory of evolution. The scientific creationism/evolution issue, to which we will return in Chapter 15, continues to surface in some state executive and legislative bodies.

SECTORS BEYOND THE STATE

When curriculum planners leave the state level and move onto the broader scene, they work in quite a different context. Participation in planning in the regional, national, and international sectors is ordinarily a voluntary activity. Except in the cases of federal legislation and federal judicial decisions, which we discuss in the following pages, information sharing and persuasion rather than statutory power are the tools of the regional, national, and international sectors. No assurance of any kind exists that curriculum decisions reached in these sectors can or will be put into operation in the schools.

Although fewer opportunities exist for curriculum workers to engage in planning in the regional, national, and international sectors, the opportunities that do arise can be exciting for the participants.

The Regional Sector

Participation in planning in the regional, national, and international sectors is not comparable to that in the previously described levels. On occasion, curriculum specialists of a particular region of the United States, from around the nation, or even from a number of foreign countries may assemble and develop curriculum materials that they will then disseminate or try out in their own schools. Notable illustrations of this type of cooperative endeavor were the efforts of the scholars from various parts of the country who in the late 1950s developed the so-called *new math* and *new science* programs.

As a general rule, curriculum activities in the regional, national, and international sectors are more likely to consist of sharing problems, exchanging practices, reporting research, and gathering information. Conferences of the professional organizations—for example, the South Atlantic Modern Language Association—are the most common vehicle whereby school personnel participate in regional curriculum study. With considerable frequency teachers, administrators, and curriculum specialists are invited to take part in the activities of the regional associations (New England, Middle States, North Central, Northwest, Southern, and Western)[28] that accredit schools and colleges. This participation consists of three types. First, participants are elected or invited to serve on various committees and commissions of the associations—for example, the Commission on Elementary Schools, the Commission on Secondary Schools, and the regional associations' state committees. Second, committees of professionals review, revise, and write for each subject area the criteria that schools follow in evaluating their programs. The third and most extensive of the three types of participation is service on accreditation visiting committees that go into schools in the region to ascertain the strengths and weaknesses of the schools' programs and to make recommendations for improvements and accreditation of the schools.

Much of the participation in which school personnel take part in the regional sector falls into the category of curriculum evaluation, in contrast to planning or implementation of the curriculum.

The National Sector

THE U.S. CONGRESS.   Although education in the United States is a function reserved to the states by the Tenth Amendment to the Constitution, we cannot minimize the profound effect of congressional legislation on the administration and curriculum of our schools. The Congress has engaged in curriculum development with passage of laws related to reading, bilingual education, vocational education, individuals with disabilities, exceptionalities, and gender, to name but a few areas of congressional interest.

The Congress occasionally takes focus on topics that it wishes included in the curriculum; for example, a notice was slipped into an omnibus appropriation bill in 2004 requiring all schools to conduct a program every year on Constitution Day (September 17, or during the preceding or following week if September 17 falls on a weekend or holiday), to teach about the U.S. Constitution.

U.S. DEPARTMENT OF EDUCATION.   The national scene is peppered with a variety of public, private, and professional curriculum activities, and school personnel from the state level and below play key roles in some of these activities. In the public governmental sector, the Department of Education exercises a strong influence. Called the United States Office of Education until education was separated from the U.S. Department of Health, Education, and Welfare in 1979 during President Jimmy Carter's administration, the Department of Education with its large bureaucracy gathers data, disseminates information, provides consultative assistance, sponsors and conducts research, funds projects, and disburses money appropriated by Congress. Local school people find the opportunity to participate in national curriculum efforts by writing and submitting proposals for grants to conduct curricular research or to put particular programs into operation in their school systems.

FEDERAL FUNDING.   To choose recipients of funds for proposals awarded competitively, the Department of Education calls in readers who are specialists in the particular fields in which grants are being given. These readers evaluate and make recommendations on proposals to be awarded by the specific office within the Department of Education. Persons from all over the United States journey to Washington (or sometimes to other sites) to read proposals. In so doing, they grow professionally and bring back new ideas for curriculum development in their own institutions.

Federal funding permits numerous committees to carry out curriculum projects that the U.S. Congress deems significant. Title I of the Elementary and Secondary Education Act of 1965 (which later became Chapter 1 of the Education Consolidation and Improvement Act of 1981), for example, provided for programs to aid the culturally disadvantaged. The No Child Left Behind Act of 2001 (NCLB), an extension of the Elementary and Secondary Education Act, included among its titles an initiative known as *Reading First,* which provided grants to the states to improve reading standards. To promote the Reading First Program, the U.S. Department of Education conducted three Reading First Leadership Academies during the winter of 2002 for state policymakers and educational leaders. Possible loss of federal funding under NCLB has motivated—some would say "pressured"—school systems throughout the country to strive to raise all students to "proficiency level" as determined by state tests, to secure "highly qualified" teachers, and to offer alternative arrangements for children who are not making "adequate yearly progress."

Grants from the federal government over the years have enabled national study groups to prepare curriculum materials, some of which (as in foreign languages, mathematics, and science) have been used extensively.

Federal aid has stimulated and resulted in the involvement of curriculum workers both directly as participants and indirectly as consumers of products and services of the Educational Resources Information Center (ERIC), the Regional Educational Laboratories, Research and Development Centers, and the National Centers within the U.S. Department of Education's Institute of Education Sciences.[29]

Local schools in various regions of the country have participated in curriculum evaluation on a national scale through the National Assessment of Educational Progress (NAEP), which

is funded by the Institute of Education Sciences. Under the direction of NAEP, objectives have been specified, criterion-referenced measurement instruments have been created, and assessments have been conducted in a number of subject areas.[30] From these data curriculum developers in the local school systems can draw inferences about appropriate objectives of the areas tested, achievements of pupils in their region as compared to other regions, and their own state and local assessment programs.

Historically, the U.S. Department of Education has exercised a degree of leadership in curriculum development for the schools of the nation. Downsizing of government for budgetary and political reasons set in with such force at the federal level during the 1990s that in the spring of 1995 the survival of the U.S. Department of Education was in doubt. Sentiment still exists for abolition of the U.S. Department of Education.

U.S. SUPREME COURT. In this discussion of curriculum efforts on a national scale, we have mentioned the executive branch of the U.S. government (the Department of Education) and the legislative branch (the Congress). We should not neglect to note that on occasion the judicial branch of the federal government assumes the role of curriculum maker. For example, the U.S. Supreme Court has ruled that public schools may not conduct sectarian practices,[31] that released time for religious instruction under certain conditions is permissible,[32] that the theory of evolution may be taught,[33] that special instruction in English must be given to non-English-speaking pupils,[34] that prayer in the public schools is a violation of the First Amendment of the U.S. Constitution,[35] that Cleveland's school voucher program does not infringe on the principle of separation of church and state,[36] and that the school district must reimburse parents of a child with learning disabilities for appropriate private schooling when the pubic school does not provide such schooling for the child.[37] The U.S. Supreme Court justices do not seek the role of curriculum specialists but by virtue of the cases that come before them sometimes find themselves in that role.

PROFESSIONAL EDUCATION ASSOCIATIONS. The professional education associations afford opportunities for educators to engage in curriculum deliberations. The National Education Association (NEA) has repeatedly called together influential groups to evaluate purposes and programs of the schools. The NEA's Committee of Ten, for example, issued a report in 1893 that recommended the same courses (foreign languages, history, mathematics, and science) and the same allotment of time for each course for both college-bound and non-college-bound students.[38] Decker F. Walker and Jonas F. Soltis commented on the influence of the Committee of Ten's report:

> Even today, the college preparatory high school curriculum in most schools strongly resembles the recommendations made by this Committee a hundred years ago.[39]

One of the more significant attempts at curriculum decision making at the national level was the National Education Association's appointment of the Commission on the Reorganization of Secondary Education, which produced in 1918 one of the most influential and foresighted documents in the history of American education. The document, *Cardinal Principles of Secondary Education,* made nineteen generalizations or principles, some of which applied at all levels of education. In speaking of the role of secondary education in achieving the main objectives of education, the Commission listed (in Principle IV) seven objectives that have become widely known and discussed as the *Seven Cardinal Principles.*[40] Among these objectives were maintenance of good health, proficiency in the basic skills, and vocational education.

The Commission's report, possessing no authority other than its persuasiveness, was broadly received and accepted as a valid statement of goals for the secondary education of its time. Many high schools have attempted to implement the Commission's Cardinal Principles. Although some criticism of the Seven Cardinal Principles exists, many educators feel that this statement of the purposes of secondary education is as relevant today as it was when first issued so many years ago.[41]

In 1938 the Educational Policies Commission defined the purposes of education as four-fold:[42] developing a healthy self-image, nurturing positive relationships, learning fiscal responsibility, and acting responsibly toward one's community.

Six years later, in the midst of World War II, the Educational Policies Commission released its report *Education for All American Youth,* which set forth ten imperative needs of American youth.[43] Refining the earlier Seven Cardinal Principles, the Educational Policies Commission in 1944 defined the purposes of secondary education as teaching young people useful skills, physical fitness, the importance of emotional well-being, civic and social responsibility, the value of family and consumer sciences, the need for relaxation time, values education, and core academics, such as art, literature, music, language arts skills, and the physical sciences.[44]

Later, this time in 1961, the Educational Policies Commission once again turned its attention to the purposes of education and decided that the central purpose of American education was to develop the ability to think.[45]

On the current scene, the Association for Supervision and Curriculum Development (ASCD), a professional association with a special interest in curriculum improvement, engages its members and others in numerous curriculum studies. It disseminates the results of studies through its journals, yearbooks, and monographs. Of special help to persons interested in the curriculum field are the ASCD's National Curriculum Study Institutes, in which participants under the leadership of recognized experts focus on particular curriculum problems. Its online newsletters *SmartBrief* and *SmartBrief on EdTech* provide, five days a week, links to articles in the press on significant up-to-the-minute educational events and issues and uses of technology in the schools.

Development of curricula in certain specialized fields has been made possible by the National Science Foundation in cooperation with professional associations. The National Science Foundation, the American Mathematical Society, the National Council of Teachers of Mathematics, and the Mathematical Association of America joined forces in the 1950s to produce the School Mathematics Study Group (SMSG) program for grades four through twelve. Involved in the production of this program were mathematicians, mathematics educators, and high school teachers. At about the same time and through a similar collaborative effort, the American Institute of Biological Sciences, with financial backing by the National Science Foundation, brought forth the Biological Sciences Curriculum Study (BSCS) programs (in three versions) for high school biology.

Professional education organizations have made and continue to make significant contributions to the curriculum field.

PRIVATE FOUNDATIONS AND BUSINESS CORPORATIONS.   Over the years a goodly number of private foundations and organizations sponsored by business and industrial corporations have demonstrated a keen interest in supporting projects designed to improve education in the United States. The Ford Foundation has given generous backing to experimentations with novel staff patterns in the schools and the use of educational television. The Kellogg Foundation has zeroed in on studies of educational administration. As examples of foundations' interest in the curriculum of the schools, we might mention the Carnegie Corporation's support in the field of mathematics

and the Alfred P. Sloan Foundation's aid in the field of science. In the early 1950s the Carnegie Corporation financially aided professors in arts and sciences, education, and engineering at the University of Illinois to develop a school mathematics program for grades nine through twelve, which became known as the *University of Illinois Committee on School Mathematics (UICSM) math.* Shortly thereafter, in the late 1950s, the Carnegie Corporation funded another mathematics project: the development of a program for grades seven and eight by teachers of mathematics, mathematicians, and mathematics educators at the University of Maryland.

The Alfred P. Sloan Foundation entered into curriculum development in the late 1950s by supporting, along with the National Science Foundation and the Ford Foundation's Fund for the Advancement of Education, the production of a new program for high school physics known as *Physical Science Study Committee (PSSC) physics.*

Several observations can be made about these illustrations of national curriculum development in mathematics and science. First, these programs were created through the collaboration of scholars and practitioners, professors and teachers, combinations that have been tried, unfortunately, with a rather low frequency. Second, all these undertakings took considerable effort and cost a significant amount of money. Without the largesse of the federal government, public and private foundations, and professional organizations, these materials would most probably never have seen the light of day. Third, as you may have already noted, all these aforementioned developments occurred in the decade of the 1950s and continued into the early 1960s. The 1950s were a time when there was a great deal of ferment in education, and money flowed into educational pursuits as if from the proverbial horn of plenty. As a response to the technology of the former Soviet Union and in the name of national defense, the availability of funds for educational projects and research made the 1950s a heady time for educators. No such concerned collaborative activity on such a broad scale has occurred since, and we may well ponder whether it is ever likely to happen again. Finally and most significantly, in spite of the curriculum fervor of the 1950s (or could it be *because* of the fervor of the 1950s?), some of the new math and new science programs have gone into eclipse, causing us to muse with François Villon, "Where are the snows of yesteryear?"

In the 1980s the Carnegie Corporation with the Atlantic Richfield Foundation funded the study of American high schools directed by Ernest L. Boyer, president of the Carnegie Foundation for the Advancement of Teaching.[46] Six philanthropic foundations—the Charles E. Culpepper Foundation, the Carnegie Corporation, the Commonwealth Fund, the Esther A. and Joseph Klingenstein Fund, the Gates Foundation, and the Edward John Noble Foundation— supported Theodore R. Sizer's study of the American high school. Cosponsors of Sizer's study were the National Association of Secondary School Principals and the National Association of Independent Schools.[47]

Funds for John Goodlad's study of schooling in America were provided by eleven foundations, including the Danforth Foundation, the Ford Foundation, the International Paper Company Foundation, the JDR 3rd Fund, the Martha Holden Jennings Foundation, the Charles F. Kettering Foundation, the Lilly Endowment, the Charles Stewart Mott Foundation, the Needmore Fund, the Rockefeller Foundation, and the Spencer Foundation; funding was also provided by Pedamorphosis, Inc., the National Institute of Education, and the U.S. Office of Education.[48]

The Danforth Foundation, which long concerned itself with professional growth and development of secondary school administrators, has over the years also taken an interest in promoting international education in the schools. The John D. and Catherine T. MacArthur Foundation aided the Paideia Group, which issued the *Paideia Proposal,* calling for the same course of study for all students in the twelve years of basic schooling, the only exception being the choice of a second language.[49]

In recent years Microsoft Corporation has made available without charge to K–12 schools software to enable them to become familiar with the Internet. Microsoft joined forces with MCI to offer schools the opportunity to establish an informative Web page or to register Web pages with Global SchoolNet Foundation's *Global Schoolhouse.* Presently, the Bill and Melinda Gates Foundation lends support in the fields of education (as, for example, with its Gates Millennium Scholars Program and efforts to promote smaller schools), and global health (as, for example, in combating AIDS). The Oklahoma Foundation for Excellence has directed efforts to prevent students from dropping out of school and made awards recognizing excellence among students and teachers in the public schools of Oklahoma, while the Steppingstone Foundation has sought to help scholars in Boston and Philadelphia schools. The DeWitt Wallace–Reader's Digest Fund has extended grants to nonprofit charitable organizations that seek to improve opportunities and services for youth in the areas of education and career development. In the fall of 2010 Mark Zuckerberg, CEO of the social-networking website *Facebook,*[50] donated $100 million to improve the Newark, New Jersey, public schools, an initial gift in the formation of a foundation to improve education in the United States.

You can readily see that private foundations and business corporations play a significant role in promoting change in the school's curriculum.

OTHER INFLUENTIAL VOICES. In 1990 President George H. W. Bush and the National Governors Association set forth six national educational goals that resulted in the America 2000 legislation. Expanding on the Bush reform efforts, the U.S. Congress in 1994 enacted President Bill Clinton's educational reform package known as the Goals 2000: Educate America Act, which added two goals beyond the earlier six and authorized funding to promote achievement of those goals. The No Child Left Behind Act passed by the U.S. Congress in 2001 and signed into law by President George W. Bush in January 2002 has introduced a number of measures to raise student academic proficiency. Further educational reform has been sought through competitive grants to the states in President Barack Obama's Race to the Top initiative, with the first awards made by the U.S. Department of Education to Delaware and Tennessee in the spring of 2010. We will return to these goals and initiatives and their significance in Chapter 6.

TESTS AND TEXTS. Before we leave the national sector, we should mention an aspect of curriculum development that has evoked considerable discussion. Standardized tests of achievement and textbooks used in the schools have played a great part in molding the contemporary curriculum. Combined with the movement toward specification of competencies for high school graduation, achievement tests profoundly affect what is being taught and how it is being taught. Under these conditions, curriculum decisions have been, in effect, put into the hands of the test makers and textbook writers. Some curriculum experts see the reliance on tests and textbooks marketed throughout the country as constituting a "national curriculum." As long ago as 1985, Elliot W. Eisner expressed concern about the influence of the testing movement:

> One may wax eloquent about the life of the mind and the grand purposes of education, but must face up to the fact that school programs are shaped by other factors as well. Communities led to believe that the quality of education is represented by the reading and math scores students receive come to demand that those areas of the curriculum be given the highest priority. When this happens, teachers begin to define their own priorities in terms of test performance. Indeed, I do not believe it is an exaggeration to say that test scores function as one of the most powerful controls on the character of educational practice.[51]

State testing required under the terms of NCLB today reinforces Eisner's observation. Other educators identify federal aid for specific categories as creating types of national curricula. Considerable activity in planning, implementing, and evaluating curriculum transpires in the national sector. Well under way in the summer of 2010, for example, was the movement toward national adoption of the Common Core State Standards in English and mathematics, promoted by the National Governors' Association Center for Best Practices and the Council of Chief State School Officers.[52] Although curriculum activities on the national scene are many and diverse, opportunities for personal involvement are rather limited for the rank-and-file teacher and curriculum specialist. Their roles are more often as recipients of curriculum plans developed by others, implementers of plans, and sometimes evaluators.

THE PUBLIC.   We would be remiss if we did not include the public in our survey of groups that influence curriculum development. We have but to examine some of the controversial issues discussed in Chapter 15 as evidence of public participation in efforts to change the curriculum.

Most often the public's efforts are diffuse, with certain subgroups advocating change of one type whereas other subgroups take opposite positions. The public's views, however, succeed in effecting change when the issues are put before them, albeit from legislator-curriculum planners, in the form of proposals to be voted on by the voting public.

The International Sector

INTERNATIONAL PROFESSIONAL ASSOCIATIONS.   Involvement of American curriculum workers on the international scene is made possible through membership in international professional associations, primarily those based in the United States. The International Reading Association, for example, attracts reading specialists from around the world but primarily from the United States and Canada. The World Council for Gifted and Talented Children holds conferences in various parts of the world. Two of the more pertinent international organizations for individuals interested in curricular activities on a cross-national scale are the World Council for Curriculum and Instruction and the International Association for the Advancement of Curriculum Studies. The American Association for the Advancement of Curriculum Studies is a member of the latter. Sponsoring periodic conferences in various parts of the world, these international organizations offer opportunities for individuals interested in curriculum studies to exchange ideas and develop an understanding of one another's educational systems and problems.

If teachers and administrators are willing to spend a period of time abroad, they can become intimately involved in curriculum development overseas by accepting employment in the U.S. Department of Defense Schools (which have decreased in number over the years) or in the private American Community/International Schools, whose curricula are mainly those offered stateside. Or they may become active in developing curricula of foreign national schools through employment with the Peace Corps or the Agency for International Development.

The United Nations Educational, Scientific, and Cultural Organization (UNESCO), with headquarters in Paris, affords opportunities for curriculum study, research, teaching, and technical assistance from members of the United Nations. The Institute of International Education in New York City directs an international exchange of students and teachers supported in part by Fulbright funds. The Council for International Exchange of Scholars in Washington, D.C., administers Fulbright grants that enable faculty from institutions of higher education to conduct research and teach in foreign countries.

Opportunities for firsthand participation in actual curriculum construction on a cross-national basis are rare, and this dearth of opportunity is, perhaps, to be expected. The curricular needs and goals of education in various countries are so divergent as to make impractical the building of a particular curriculum that will fit the requirements of the educational system of every country.

INTERNATIONAL STUDIES OF STUDENT ACHIEVEMENT.   Significant efforts, primarily in the realm of assessment of student achievement, should be noted. Studies comparing achievement of students in a number of countries and in a variety of disciplines have been conducted by the International Association for Evaluation of Educational Achievement (IEA), the International Assessment of Educational Progress (IAEP), and the Organisation for Economic Co-operation and Development's (OECD) Programme for International Assessment (PISA). You will find discussion of international comparative studies in Chapter 12 of this text.

COMPARATIVE TEXTBOOK STUDIES.   One of the more interesting international curriculum studies of modern times was the United States and the then USSR's Textbook-Study Project sponsored by the National Council for the Social Studies, the Council of Chief State School Officers, the Association of American Publishers, the Association for the Advancement of Slavic Studies, and the former Soviet Union's Ministry of Education.[53] Begun in 1977 as a phase of cultural exchange agreements between the two countries, the project ceased functioning after the Soviet march into Afghanistan in 1979. The project resumed operation in 1985, drafted a report in 1987, and presented a subsequent report on the conclusion of a seminar in Moscow in 1989.

Educators from both countries examined history and geography textbooks used in the secondary schools of each country to ascertain what one nation's students were taught about the other nation. These educators searched for errors of fact and distortions in the textbooks. Project efforts pointed to the need for textbooks published in each country to present a more accurate picture of the other country. This exciting approach to international curriculum study could well furnish a model that the United States could and, we believe, should replicate with other countries.

GLOBAL AWARENESS.   The frenzied pace of economic and technological globalization increases the need for a curriculum and international exchange of students and teachers to foster global awareness and understanding.

Various commissions and organizations such as the President's Commission on Foreign Languages and International Studies (1970s)[54] and the National Commission on Excellence in Education (1980s)[55] have promoted the teaching of foreign languages as one dimension of global education. Problems on an international scale ranging from global warming to military conflicts have caused Americans to recognize the necessity for learning about the cultures of other peoples, sharing ideas, and working cooperatively.

A rationale for global education was the focus of the 1991 Yearbook of the Association for Supervision and Curriculum Development. The Yearbook includes descriptions of ways to introduce global studies into the curriculum.[56] More recently, Vivien Stewart, calling attention to the pace of globalization, stressed the necessity for integrating international education throughout the curriculum.[57]

Although opportunities for actual curriculum development on the international scene are limited, many opportunities exist for school personnel to study and compare curricula of the world's nations. Professional organizations such as Phi Delta Kappa, the National Education Association, the Association for Supervision and Curriculum Development, and the Comparative and International Education Society conduct frequent study tours for those interested in

examining firsthand the curricula of other countries and meeting their educational leaders. Many teachers have taken advantage of opportunities to serve as leaders of educational study tours abroad. Furthermore, development of both awareness and understanding of other cultures (both within and outside of our borders) remains a high priority of our elementary and secondary curricula. Through exchange of personnel, countries come to realize that they have much to learn from each other not only in education but in other dimensions of living as well.

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Summary

Curriculum planning is viewed as occurring on five levels: classroom, team/grade/department, individual school, school district, and state. Each level in ascending order exercises authority over levels below it.

In addition, planning takes place in regional, national, and world sectors. Sectors are distinguished from levels because powers of the sectors over the five levels are nonexistent or limited.

Teachers and curriculum specialists will find their most frequent opportunities to participate actively in curriculum development at the first four levels. Some curriculum workers are called on by the state to serve on curriculum projects. A limited number of school-based persons take part in a variety of curriculum efforts sponsored by regional, national, and international organizations and agencies.

This chapter discusses a variety of organizational patterns for carrying out curriculum activities in the individual school and school district. A teacher or curriculum specialist may be requested to serve on a number of curriculum committees and councils within a school system.

Forces outside the schools also influence curriculum decision making. Curriculum development is perceived as a multilevel, multisector process and as a collaborative effort.

Questions for Discussion

1. To what degree should teachers be involved in curriculum planning at the individual school level? At the district level?

2. What are the strengths and limitations of the concept of levels of planning?

3. What are the strengths and limitations of the concept of sectors of planning?

4. What do you believe is the best way to organize a curriculum council on the individual school level?

5. What do you believe is the best way to organize a curriculum council on the school district level?

Exercises

1. Chart the organizational pattern for curriculum development in your school and district.

2. Explain how curriculum committees and councils, if any, are selected and constituted in your school or a school that you know well.

3. Describe any curricular changes within the last three years brought about in your school or in a school that you know well, and account for their origin.

4. Report on the purposes and recent activities of at least two state, two national, and two international professional organizations concerned with curriculum development.

5. Describe what Michael W. Apple meant by "Curriculum . . . is the social product of contending forces." (See Bibliography.) See also Chapter 4, "Understanding Curriculum as Political Text" in William F. Pinar et al. (See Bibliography.)

Organizations

Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, VA 22311-1714. Journals: *Educational Leadership* and *Journal of Curriculum and Supervision.* Website: ascd.org.

National Education Association, 1201 16th St., N.W., Washington, DC 20036. Journal: *NEA Today.* Website: nea.org.

Phi Delta Kappa, Box 789, Bloomington, IN 47402. Journal: *Phi Delta Kappan.* Website: pdkintl.org.

Websites

American Association for the Advancement of Curriculum Studies: aaacs.org

American Association of School Administrators: aasa.org

Association for Middle Level Education: amle.org

Association for Supervision and Curriculum Development *SmartBrief* and *SmartBrief on EdTech:* smartbrief.com/ascd/index.jsp and smartbrief.com/edtech/index.jsp

Coalition of Essential Schools: http://essentialschools.org

Comparative and International Education Society: cies.us

The Core Knowledge® Foundation: coreknowledge.org

Council for International Exchange of Scholars: cies.org

Bill and Melinda Gates Foundation: gatesfoundation.org

Global School Net Foundation: globalschoolnet.org

Institute of International Education: iie.org

International Association for the Advancement of Curriculum Studies: curriculumstudies.net

International Association for the Evaluation of Educational Achievement: iea.nl

Knowledge is Power Program: kipp.org

National Assessment of Educational Progress: nces.ed.gov/nationsreportcard

National Association of Elementary School Principals: naesp.org

National Association of Independent Schools: nais.org

National Association of Secondary School Principals: nassp.org

National Council of Teachers of English: ncte.org

National Council for the Social Studies: socialstudies.org

South Atlantic Modern Language Association: samla.gsu.edu

United Nations Educational, Scientific, and Cultural Organization: unesco.org

U.S. Department of Education: ed.gov

World Council for Curriculum and Instruction: wcci-international.org

World Council for Gifted and Talented Children: world-gifted.org

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14. Alice Miel, *Changing the Curriculum: A Social Process* (New York: D. Appleton Century, 1946), p. 69.
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16. Evelyn J. Sowell, *Curriculum: An Integrative Approach,* 3rd ed. (Upper Saddle River, N.J.: Pearson Merrill Prentice Hall, 2005), pp. 30–31.
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Curriculum Planning: The Human Dimension

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THE SCHOOL AS A UNIQUE BLEND

Let us for a few moments step into the shoes of the superintendent of a hypothetical school district. It is mid-May. The school year is almost over and summer school plans are ready to be implemented. The superintendent has just concluded a meeting with his principals on the budget and staffing needs for next year. In thirty minutes he will meet with an assistant superintendent and one of the principals of the district, who intend to bring charges of insubordination against one of the teachers in the principal's school. For a half hour the superintendent muses on what improvements in curriculum and instruction have been accomplished in the school district this year. Since his energies have been channeled into public relations, budgeting, personnel problems, transportation, new buildings, and other administrative matters, he has delegated responsibility for curriculum and instruction. He holds in his hands the assistant superintendent's report updating developments in the district this year.

The superintendent is struck by the large amount of time and effort that the school district is expending toward improving curriculum and instruction. He is impressed by the sizable number of people involved in this activity. He notes that most teams of teachers meet practically daily; most grade faculties or departments meet as groups regularly, some of them on a weekly basis; every school has its own

curriculum council, which meets at least once a month; a number of curriculum committees meet at various times on district wide problems of curriculum and instruction. The superintendent certainly cannot fault the quantity of effort expended by the professionals in curriculum development.

As to quality, he is less certain. He reviews some of the accomplishments to date and is struck by the unevenness of developments from school to school. The accomplishments at some schools far outshine those of others. Several innovative programs are in experimental stages in some schools. Other schools have defined their philosophies, goals, and objectives. Some have conducted thorough reexaminations of their curricula, whereas others have been content with the status quo. Several groups of teachers have revised their particular curricula. Other groups have developed some new curriculum guides. Some schools have responded to previously unmet curricular needs of their students, and others have failed to come up with solutions to some of their more pressing curricular problems. The superintendent is surprised (though he realizes that he should not be) that a few schools obviously surpass the others in both quantity and quality of curriculum efforts. A few schools have tackled curriculum development with a vigor that has effected significant change. He finds repeated references in the report to positive changes made by a few schools. He concludes that some schools are imbued with the spirit of change and are willing to move forward and out, while others find the established ways of operating more comfortable. The superintendent wonders why such great variations in curriculum development exist from school to school. Whom should he credit in those schools that seem to be engaged in productive curriculum efforts? The principals? The teachers? The curriculum leaders, whoever they are? The students? The parents? The signs of the zodiac? Just plain luck? Or a combination of all these factors?

The superintendent is aware that schools in his district differ considerably from one another. Their physical facilities, resources, and locales all differ. Yet these more or less tangible factors do not explain the great differences in strides made by schools in curriculum and instruction. Yes, we may say that schools differ in many ways, but schools are only brick, concrete, mortar, steel, wood, glass, and a host of other building materials. It is not the schools that differ as much as the people who either support them or operate within them. The superintendent must credit not the schools in the abstract but the people who make them function. In his short period of reflection, the superintendent reinforces a long-held, verified belief: that curriculum development is a "people" process, a human endeavor. Curriculum development is a process in which the human players accept and carry out mutually reinforcing roles. Given a predisposition to change and a subtle blending of skills and knowledge, a faculty can achieve significant successes in curriculum improvement even in a substandard physical environment. The "people" factor far outweighs the physical setting.

Differences among Faculty

Let's leave the meditating superintendent and focus our attention on another place, another time. It is early in the school year. The principal of a medium-size secondary school is presiding over the initial organizational meeting of the school's curriculum council. Representatives of the nine departments of the school are about to elect their chairperson. With freshness, high spirits, and a modicum of levity, the curriculum council is getting under way. The principal wonders what progress the school will make this year in curriculum improvement. She realizes as she looks around the room that success in improving the curriculum depends largely on human differences among individual curriculum workers and between curriculum groups.

Each school is characterized by its own unique blend of persons, each with different skills, knowledge, experience, and personality. The principal mentally lists some of the ways

individuals within the curriculum council, which represents the faculty, differ. Certainly, the philosophical beliefs of the various council members diverge greatly. It will take considerable effort to reach some kind of consensus on the goals of this school, let alone the general goals of education. The council members differ in their knowledge about and ability to apply learning theory. Some are outstanding instructors, others only passable. Variations exist in the members' knowledge of curriculum history and theory and in their experience in curriculum development.

Some younger members, new to teaching and this particular school, are less knowledgeable about children in general and about this setting than veteran teachers who have taught several years, many of them in this school. As soon as the council settles down to work it becomes apparent that there are great differences in individuals' skills in interacting with others; in the leadership skills of the various council members; in their followership skills; and in organizational, writing, and oral skills.

Some of the council members will show themselves as being more perceptive of parental roles and the needs of the community. Personal traits such as friendliness, reliability, motivation, sense of humor, enthusiasm, and frustration level are significant differences among individuals that contribute to the success or failure of group efforts such as curriculum development. Outside commitments, family obligations, and allocations of time differ from person to person and can affect the process of curriculum planning.

The human variables in the process are many and complex. Success or failure will depend to a great extent on how the council members relate to one another, on how each member relates to other teachers on the faculty, and how they, in turn, relate to one another. The way the council and faculty interact with parents, others in the community, and the students can make or break curriculum efforts.

Dependent Variables

The differences among individuals and groups participating in curriculum development are dependent rather than independent variables. The presence or absence of a particular skill or trait and the degree to which an individual possesses it have an impact on all other individuals who take part in the process. Not only are the leaders' leadership skills and the followers' followership skills significant in themselves, but even more important is the manner in which they come together. Competence in leadership must ideally be met with competence in followership. Whether in military service, industry, or education, a superb leader is going nowhere without committed followers. In the same manner, superb followers are going nowhere without competent leadership.

In accounting for success or failure in a cooperative enterprise, we should also look to differences among groups as well as among individuals. It is trite but pertinent to say that the whole is greater than the sum of its parts. A group is not simply the addition of each individual member to make a sum, but instead is something more than the sum, something special created by an inexplicable meshing of the human elements. Working together, members of a group must become unified as they move toward common goals in a spirit of mutual respect. Thus, a curriculum council *as a group* can demonstrate competence in leadership. Success in curriculum development is more likely to be achieved when the leadership skills of the council interface with those of the faculty, resulting in a total team approach to the solution of curriculum problems. When we compare schools' achievements in curriculum improvement, we quickly discover great variations in the leadership skills of (1) the person or persons directing the curriculum study,

(2) the curriculum committees or councils, (3) the total faculty, and (4) the preceding three entities working together. The contributions to curriculum improvement that may be made by students, parents, and others from the community enhance the work of the professionals.

THE CAST OF PLAYERS

We would not be far off the mark if we perceived the process of curriculum development as a continuing theatrical production in which actors play specific roles. Some of these roles are determined by society and the force of law; others are set by players themselves. Some roles are mandated, whereas others spring out of the players' personalities.

When discussing the roles of various groups, J. Galen Saylor and William M. Alexander applied the analogy of drama to the process of curriculum planning:

> In addition to leading roles of students and teachers in the curriculum planning drama, important supporting actors include the members of lay advisory groups, curriculum councils and committees, teacher teams, and curriculum development units. . . . [A]ll of these roles are affected by their interaction with various groups and agencies outside the curriculum theatre.[1]

Although the metaphor of curriculum planning as drama can be overworked, we must admit that a good deal of role-playing does occur, much of it unconsciously, in the group process itself. For the moment, let's talk about the conscious roles the curriculum participants are called on to play. For purposes of analysis we will focus our attention on roles of constituent groups (administrators, students, laypeople, curriculum workers, teachers, curriculum consultants, and supervisors). To achieve clarity we will focus on the individual school level. When we discuss later the roles of administrators, teachers, and students in curriculum development, we should keep in mind the interactions among these constituencies not only in curriculum development but also in the total life of the school. We should be developing, as Roland S. Barth termed it, a "community of learners," striving for high standards in an atmosphere of low anxiety.[2]

Addressing the concept of schools as communities—indeed, the concept of "community as curriculum"[3]—Thomas J. Sergiovanni and Robert J. Starratt drew the inferences from "conditions of late or post-modernity" that "there needs to be a curriculum *of* community, a curriculum that intentionally and explicitly attends to the building up of knowledge, skills, and dispositions which constitute the work of becoming and sustaining a community."[4]

Role of the Administrator

As long ago as the mid-1950s the Southern States Cooperative Program in Education, sponsored by the W. K. Kellogg Foundation, listed "instructional and curriculum development" as the number one critical task for administrators.[5] With research on effective teaching and effective schools that pointed to the crucial importance of effective leadership, the decade of the 1980s brought a plethora of articles and speeches stressing the role of the principal as *instructional leader*—the term in this context being shorthand for both curriculum and instruction. We are concerned at the moment about the administrator's role in curriculum development.

Whether the chief administrator of the school, the principal, serves actively as leader in the process of curriculum development or passively by delegating leadership responsibilities to subordinates, efforts are doomed to failure without his or her support. Although some school administrators claim, in keeping with some current conceptions of the administrator's role, that they are instructional leaders, others admit that they are primarily managers.

Although the role of the principal as instructional leader is recognized by many, perhaps most, administrators as an important task, instructional and curriculum development do not head the list of priorities of many school principals. Thelbert L. Drake and William H. Roe observed that the principal is torn between his or her desired role as instructional leader and his or her actual role as administrator and manager.[6]

The reasons for the low priority assigned by many principals to what used to be their main raison d'être are found both within the personality of the principal and in the pressure from outside forces. Some of the factors that lead principals away from spending time on instructional leadership are the priority that the higher officers place on efficiency of operation; limitations placed on principals' fields of operation by teachers' organizations; and preservice programs for administrators that emphasize business and personnel management, minimizing curriculum and instructional development.

Glenys G. Unruh observed that training programs for administrators may be at least partially at fault for the lower priority placed on curriculum and instruction by some principals.[7] With continuing emphasis on the individual school as the locus of change, on public demand for improvement in students' achievement, on state and federal mandates, and on the assessment of teacher performance, there are signs that the principals' priorities have shifted somewhat. Professional associations for administrators recognize the importance of instructional leadership. Preservice and in-service education programs for school administrators are incorporating training in the technical, supervisory, and human relations skills needed by the instructional leader. Thus, more and more principals will be able to play a direct, central role in curriculum development. Hopefully, instructional leadership will eventually top the list of tasks actually performed by all principals.

Whether the principal plays a direct or indirect role, his or her presence is always keenly felt by all the players. The participants are aware that the principal by both tradition and law is charged with responsibility for conducting all the affairs of the school and for decision making in that school. In that sense, all curriculum groups and subgroups of the school are advisory to the principal.

"THEORY X" AND "THEORY Y".   Through management style the principal exerts a force on all operations within the school. The success of the curriculum developers may depend to some extent on whether the principal is a "Theory X" or "Theory Y" person. Douglas McGregor has classified into the categories Theory X and Theory Y two sets of assumptions that he believes managers have about people. These theories are widely quoted in the literature on management. According to McGregor, managers following Theory X believe the following:[8]*

- The average person dislikes work and tries to avoid it.
- Most people must be forced to work and threatened with punishment to get them to work.
- The average person lacks ambition and avoids responsibility.
- The average person must be directed.
- The need for security is the chief motivation of the average person.

Authority, control, task maintenance, and product orientation dominate the thinking of the Theory X administrator. On the other hand, the administrator who subscribes to Theory Y holds these beliefs:

- The average person welcomes work.
- The average person seeks responsibility.

*Figure from HUMAN SIDE OF ENTERPRISE by Douglas M. McGregor. Copyright © 1960 by The McGraw-Hill Companies, Inc. Reprinted with permission.

- Most people will demonstrate self-reliance when they share a commitment to the realization of common objectives.
- The average person will be committed to an organization's objectives if he or she is rewarded for that commitment.
- Creativity in problem solving is a trait found rather widely among people.

Whereas the typical administrator will be more inclined toward one theory, he or she will manifest behavior that will at times lean toward the other. There are occasions, for example, when the Theory Y administrator must exercise authority and follow Theory X principles. Nevertheless, the position among many specialists in curriculum development, supervision, and administration is that a Theory Y approach is recommended. Thomas J. Sergiovanni and Fred D. Carver counseled: "In our view, the unique role of the school as a humanizing and self-actualizing institution requires that school executives adopt the assumptions and behavior manifestations of Theory Y."[9]

The human relations–oriented principal nurtures the curriculum development process by establishing a climate in which the planners feel valued and in which they satisfy, to use Abraham Maslow's term, "the need for self-actualization."[10] The principal must encourage and facilitate the process. Because the principal holds the power for final decision making within the school, he or she must give serious consideration to recommendations made by the school's curriculum study groups. Further, the principal must always demonstrate sincere interest in the curriculum development process. Personal traits such as a negative attitude or indifference by the school's chief administrator will effectively block progress in improving the school's curriculum. The principal's personality may, indeed, be a more powerful determinant of progress than his or her training, knowledge, or conscious intentions.

Theory Y principals might well find compatible with their views of administration some of the principles of Theory Z organizations.[11] Based on practices traditionally followed by Japanese business and industry, Theory Z organizations emphasize collective decision making and responsibility over individual decision making and responsibility. Theory Z organizations welcome the establishment of "quality control circles," or simply, "quality circles," small groups of employees whose task it is to study and propose ways of solving problems and improving the effectiveness of the organization.[12]

Regardless of their style or approach—and here we may generalize to all levels of the school system—administrators and their assistants must assume responsibility for providing leadership in many areas. They must establish the organizational framework so that curriculum development may proceed, secure facilities and needed resources, coordinate efforts of the various groups, offer consultative help, keep the groups on task, resolve conflicts, communicate school needs to all groups, maintain a harmonious working climate, assure collection of needed data, provide for communication among groups, advise groups on the latest developments in education, and make final decisions for their particular level.

Role of Students

Before turning our attention to the main participants in the curriculum development process (the curriculum leaders and their fellow workers), let's briefly consider the roles of two supporting groups: the students and the adult citizens from the community. With increasing frequency, students, depending upon their maturity, are participating both directly and indirectly in the task of improving the curriculum. In some cases, notably at the high school level (and above), students are accorded membership on curriculum councils. More commonly, student input is sought in a

more indirect fashion. There are still many administrators and teachers who take a dim view of sharing decision making with the student clientele. On the other hand, it is becoming increasingly more common for administrators and teachers to solicit student reactions to the curriculum. Surveys are conducted to obtain student perceptions of their programs; individual students and groups are interviewed. Suggestions for improvement in the curriculum and for ways of meeting students' perceived needs are actively sought.

The recipient of the program—the student—is often in the best position to provide feedback about the product—the curriculum. Advice from the student constituency of the school may well provide clues for intelligent curriculum decision making.

Some schools seek information and advice from the chosen student leaders—the student government—whereas others look toward a wider sampling of opinion about programs. Even in those schools in which student input is not actively sought and in which channels have not been established for gathering data from students, the learners speak loudly by their achievements in class. When standardized and state assessment test scores are consistently below grade level, the faculty can conclude that some adjustments are necessary with respect to either the curriculum or instruction. When diagnostic tests reveal deficiencies on the part of learners, something is being conveyed about the school's program.

In Chapter 7 we will consider the student as a source of the curriculum. Here we are primarily concerned with the student's role as a participant in curriculum development.

STUDENT INVOLVEMENT.   Student involvement in curriculum improvement has grown in recent years along with the concomitant movement toward students' rights. Ronald Doll spoke of the connection between student participation in curriculum development and the students' rights movement as follows:

> The revolutionary movement in colleges in the 1960s had almost immediate effect on many high schools and indeed on some elementary schools. Student rights came to include the right to participate with adults in planning the uses to which pupils' time in schools was to be put. . . . To some teachers and principals, pupils' newly acquired status represented a refreshing view of human potential and a deserved position in the educational hierarchy; to others it seemed an especially time-consuming and plaguing form of contemporary insanity.[13]

Students can help out greatly by indicating to the professional curriculum planners how they perceive a new proposal or program. They can provide input from the standpoint of the recipients of the program, the persons for whom the program was designed. The more alert students can point out pitfalls that the professional planners might be able to avoid. The students can communicate reactions of their peers and they can further relate the nature and purpose of curriculum changes to their parents and other citizens of the community. Students can excel in describing how they perceive a development and how they feel about it.

The degree to which students may participate and the quality of that participation depend on a number of variables such as intelligence, motivation, and knowledge. The most significant variable is the students' maturity. For that reason, students in senior high schools and in higher education find more opportunities to take part in curriculum development than students in elementary, middle, and junior high schools.

A particularly valuable contribution to curriculum improvement that students can make is to evaluate the teachers' instruction. Although some teachers resist student evaluations of their performance, evaluations done anonymously by the learners can provide valuable clues for modifying a curriculum and improving methods of instruction.

Although students do enter actively into the process of curriculum development in some school systems, their involvement by and large still tends to be sporadic and ancillary. Also sporadic are opportunities for students to provide input by serving on local district and state school boards. We find inconsistencies throughout the country in the practice of student service on school boards.

Some states prohibit outright student membership and voting rights on district or state school boards. Some allow membership on district or state school boards without the right to vote. Others allow membership and voting on district but not state school boards. California, however, permits students to serve and vote on both district and state school boards.

Membership and voting rights on district and state school boards enable students to make known their views on curricular, instructional, and other needs of their school systems.[14]

Role of Residents of the Community

The roles of parents and other members of the community in the affairs of the school have changed considerably over the years. Historically, the community *was* the school. Parents tutored their young at home for lack of or in preference to a formal school; the well-to-do imported tutors from Europe to live in their homes and to instruct their children. The church provided instruction in its religious precepts, and young men learned trades as apprentices on the job. Women in colonial America would bring youngsters into their homes and for a small payment from each of their families, teach them the three R's.[15]

As formal schools evolved, the community turned the task of educating the young (for many years only the young white males) over to the school. A gap opened between the community and the school. Both the community and the institution it established developed the attitude that the community should get on with its business and leave teaching to those who know how to do it best—the school personnel. An invisible wall was erected between community and school, resembling the one between church and state.

Some parents, with their state's consent, have turned in recent years to instructing their children at home. Today, the homeschool movement, discussed in Chapter 15, is significant enough to be of concern to the public schools.

EROSION OF THE WALL BETWEEN SCHOOL AND COMMUNITY.   Although some school administrators prefer to cling to an outmoded concept of community/school relationships, the wall separating school from community has crumbled. The process of erosion began slowly and has accelerated in recent years. The involvement of parents and other community members can be readily observed in school affairs today. The literature on professional education is filled with discussions of the necessity for involving the community in the educational process.

For the greater part of the twentieth century, community involvement was interpreted as passive support for the schools. The school would send bulletins and notices home to inform parents about issues and activities. The Parent-Teacher Association (PTA) would meet and discuss educational issues, hear about the school's achievements, and plan a rummage sale to raise funds for some school improvement. With much fanfare the school would conduct a "Back-to-School Night," which brought in parents in record numbers. Booster clubs would raise money for athletics and the band. During this period the community rarely participated in decision making even of an advisory nature. The old sentiment prevailed that school matters were best left to the school people. The community's role was to support and strengthen decisions made by the school.

Erosion of the wall between school and community was hastened when administrators and teachers began to realize that the community might supply the schools with certain types of information that could aid in decision making. Consequently, still resorting to a somewhat passive role for the community, the school sent home questionnaires for parents to fill out and return. While the school and community were taking careful, modest steps toward bridging the gap between them, American society through the twentieth century was bubbling. First the sociologists and then the educators began to subject the American community to intense scrutiny, identifying networks of influential persons who are referred to in the literature as "the power structure."[16] Educators started to give attention to the politics of education as they realized that the school was as much a part of the total political structure as other social institutions. The astute school administrator became intensely conscious of public relations and sought to involve community members in support of the school. Some might say that the educators' attention to community concerns was more effect than cause, as discontent, anxiety, and pressure on educators from outside the schools had been growing and increasing in intensity for several decades.

SOCIAL PROBLEMS.   Wars, terrorism, revolutions, the greying of the population, high unemployment rates, the collapse of business icons, the prevalence of illicit drugs, increased international tensions, and the ascendance of the United States as the world's only superpower all created problems for the schools—problems that could no longer be solved by the schools themselves. Along with America's social and economic problems came disenchantment with the programs of the schools and the low achievement of the pupils. From this dissatisfaction arose the concept of accountability of school personnel for the success or failure of their products—the students.

Today, community involvement in school activities—beyond the duly constituted boards of education—is widespread, encouraged, and generally valued. Members of the community aid in curriculum development in a variety of ways. Parents and other citizens serve on numerous advisory committees. Schools frequently call on parents and others to serve as resource persons and volunteer aides. Across the country, especially in urban areas, local businesses have entered into partnerships with the schools, supplementing and enriching the schools' curricula by providing expertise, materials, and funds.

The school principal always faces a dilemma in deciding how laypeople should be involved and who these people should be. Some principals seek the participation of parents of children in their own schools. Some try to involve a broader spectrum of the community, including parents and nonparents and representatives from all socioeconomic levels of the area served by the schools. Some limit participation by plan or by default to parents who happen to be available to attend meetings during the day. The chief participants under this condition tend to be middle-class homemakers. Some principals seek out the community decision makers from among the citizens who make up the power structure.

STATE AND NATIONAL INITIATIVES.   State and national efforts have supplemented local initiatives to involve the community in school affairs. States have empowered schools and school districts to create advisory councils. The Florida legislature, for example, in 1976 not only established school advisory councils but also charged the principal of every public school in the state with the responsibility of publishing, by November 1 of each year, an annual report of school progress that must be distributed to the parent or guardian of each student in the school.[17]

Amending the 1976 legislation on school advisory councils, the Florida legislature in 1993 required school boards to establish school (or district in the case of student populations of less

than 10,000) advisory councils whose task it is to assist in preparation and evaluation of mandated school improvement plans and to help the principal on request in preparing the school's annual budget. The statute set forth the composition of the councils to reflect the socioeconomic demographics of the community.

> Each advisory council shall be composed of the principal and an appropriately balanced number of teachers, education support employees, students, parents, and other business and community citizens who are representative of the ethnic, racial, and economic community served by the school.[18]

Local, state, and federal initiatives have promoted the involvement of members of the community in affairs of the school. The universal use of program advisory groups in connection with federally funded vocational education programs, for example, has exerted a significant influence on the curriculum of local school systems.

Looking to the future, Roald F. Campbell, Luvern L. Cunningham, Raphael O. Nystrand, and Michael D. Usdan identified community groups with which administrators must be concerned and made the following prediction:

> Interest groups representing blacks, American Indians, and other ethnic groups will continue to focus on the schools as a major mechanism for equalizing educational, social, and economic opportunities for their constituencies.

Taxpayer groups, concerned about periodic inflation, recession, and energy shortages in an uncertain economy, will continue to scrutinize school expenditures.[19]

Hispanics, comprising the fastest-growing minority group as shown by data of the U.S. Census Bureau, are projected to constitute 30 percent of the U.S. population by July 1, 2050.[20] The U.S. Census Bureau projects minorities as comprising 54 percent of the U.S. population by 2050.[21]

The wise administrator realizes that strong community support can make his or her job much simpler and for that reason devotes considerable time to building that support. Some schools have been turned into community schools in which the resources of the school are shared with the community, and vice versa.

Models for community participation in school affairs differ widely from state to state. In some communities residents play a purely advisory role; in others they share directly in the decision-making process. In some localities members of the community serve on standing committees that meet regularly; in other locations they serve on ad hoc groups that undertake a specific task and are then disbanded. In some school districts parents and others are invited to address themselves to any and all problems of the schools, whereas in other communities their areas of responsibility are clearly defined.

Members of the community can serve the schools in a variety of ways. They may be consulted in the curriculum designing stage. They may participate as resource persons, volunteer tutors, and school aides. The resources of individuals, businesses, institutions, and other agencies are tapped to enhance the learning experiences of the students.

With guidance from the school, parents can assist their children in their studies at home. By posting school news, electronic grades, and homework assignments on the Web, schools strengthen ties with the community.

Parents and others share in curriculum development by responding to surveys sent out by the school. They are able to describe the effect of new programs on their children and can be very specific in telling teachers about problems their children are experiencing. They may invite

children to their places of work and thereby contribute to the children's knowledge of the world around them. They may supervise student work experiences in the community.

Parents and others can inform the professional planners about potential conflicts that are likely to arise in the community over teaching of controversial issues. They can help the school authorities review instructional materials and books for bias and distortion. Parents and other residents are often able to suggest programs that would help meet certain educational needs in the community. By actively seeking citizen participation, the principal is able to develop a reservoir of goodwill toward the school that will stand him or her in good stead when problems inevitably develop. The principal is more readily able to gain support for new programs and to defuse potential controversies if parents and others perceive the school as their institution and as a place where their voices may be heard and their opinions valued. Community participation in curriculum development is a natural consequence of the American public's political power.[22]

Role of the Curriculum Workers

Primary responsibility for curriculum development is assigned to teachers and their elected or appointed leaders, both of whom we will refer to as "curriculum workers." This group of persons working together carries the heaviest burden in seeking to improve the curriculum. In Chapter 3 we saw that curriculum groups function at several levels and in several sectors. To make the following discussion clearer, however, let's conceptualize the curriculum council of a particular school. Let's choose an elementary school with grades kindergarten through six that is fortunate enough to have a full-time curriculum coordinator on its staff. By agreement of the total faculty, the grade coordinators (seven of them) join with the curriculum coordinator (appointed by the principal) to form the school's curriculum council. In our hypothetical school, by tacit understanding between the principal and the faculty, the coordinator serves as chairperson or leader of the council.

Let's imagine that we are neutral observers watching this council at its first session of the year. We watch the group get organized; we listen to its discussion; we study the faces of the council members; and we observe the interplay between the coordinator and the council members and among the council members themselves. We cannot help speculating about whether this curriculum group will have a productive year. The question crosses our mind, "What conditions make for a productive year in curriculum development?" We wonder, "Could we predict whether a curriculum council is likely to be productive?"

After a great deal of thought, we might conclude that success in terms of productivity is more likely to come about if the group:

- sets its goals at the beginning of its work
- is made up of compatible personalities
- has members who bring to the task expertise, knowledge, and technical competence
- is composed of persons who are motivated and willing to expend time and energy
- accepts its appropriate leadership and followership roles
- has persons who can communicate with each other
- has developed skills in decision making
- has members who keep their own personal agendas in appropriate relationship to the group's goals

What are the roles, we may ask, of those persons whom we call curriculum workers? How do teachers function in curriculum development? What role does the curriculum leader play?

ROLE OF THE TEACHERS.   Throughout this text teachers are repeatedly seen as the primary group in curriculum development. Numerous examples are given of teacher involvement in curriculum development. Teachers constitute either the majority or the totality of the membership of curriculum committees and councils. Teachers participate at all stages in curriculum development. They initiate proposals and carry them out in their classrooms. They review proposals, gather data, conduct research, make contact with parents and other laypeople, write and create curriculum materials, evaluate resources, try out new ideas, obtain feedback from learners, and evaluate programs. Teachers serve on committees mainly at the classroom, team/grade/department, school, and district levels or sectors and on occasion may serve at other levels or sectors.

New teachers typically view themselves primarily as instructors and are often scarcely aware of the responsibilities that are likely to be expected of them in the curriculum area. Beginning teachers' lack of awareness of their professional obligations in curriculum development is not surprising given that preservice teacher education programs, understandably and as a rule, emphasize the mastery of instructional skills over curriculum development competencies.

At the very least, preservice teachers should be oriented to the obligations and opportunities they will encounter in curriculum development. Part of their training should be becoming aware that they will serve on various councils and committees; that curriculum development takes place at many levels and in many sectors; and that instruction and curriculum are different domains, both worthy of involvement. Thus, the teachers, in cooperation with the administrators and other professionals, can bring appropriate knowledge and skills to bear in efforts to improve the curriculum. *Only* the teachers, by their presence at the classroom level, can ensure that curricular plans are carried out.

Assumption of a primary role by teachers not only in curriculum development but also in the general affairs of the school is the goal of efforts at "empowerment," which permits teachers as professionals to take part in the decision-making process.[23] The empowerment movement, which gained momentum in the 1980s and 1990s, seeks to raise the status of teachers and thereby improve the school's program and effectiveness.

Empowerment of teachers is a fundamental and essential aspect of the more recent conception of school administration referred to as "site-based management." Following the practices of site-based management, administrators literally share their power with teachers.[24]

Although critics of empowerment argue that teacher involvement in decision making is an unnecessary demand on teachers' time, an inappropriate role, or an infringement on administrative authority, industrial research of the 1930s and the success of Japanese quality circles in helping rebuild Japanese industry have revealed that meaningful involvement in decision making enhances worker morale and consequently increases production.[25] Translated into school terms, this principle indicates that when teachers find themselves to be valued professionals whose opinions carry some weight, they will be more satisfied with their profession. This improvement in teacher morale, in turn, will increase school productivity—that is, student achievement. George H. Wood connected the empowerment of teachers to the empowerment of students when he said, "Only by linking democracy to empowerment, that is, working for the democratic empowerment of *students* will teachers find a genuine sense of empowerment themselves."[26]

ROLE OF THE CURRICULUM LEADER.   As we consider the complexities in carrying out curriculum development, we become keenly aware of the curriculum leader's responsibility for the success or failure of the work of a curriculum committee or council. The curriculum leader most often is a member of the faculty but can be an outsider. It is perhaps inaccurate here to refer to a

curriculum leader as *the* curriculum leader. A person may serve as a leader for a period of time and then give way to another leader for any number of sound reasons. Some teachers may serve as leaders at one level, such as the grade, whereas others may serve as leaders at another level, such as the school. In a democratic organization individuals serve as either leaders or followers as the situation demands.

The curriculum leader (coordinator) may also come from outside the teacher group, as in the case of central office supervisors, curriculum consultants, directors of instruction, and assistant principals for curriculum. Perhaps even in these cases it would be useful to think of the teachers and leaders from outside the faculty as constituting the "extended family," for they are all colleagues, albeit with different functions and duties. The leadership position is filled either by appointment by an administrator or supervisor, election by the group's members, or self-selection from within the group.

The principles discussed in the following pages apply to all curriculum leaders regardless of whether they come from inside or outside the teacher group. We may begin to look at the role of the curriculum leader by asking ourselves what special knowledge and skills the leader must bring to the task. The curriculum coordinator must:

- possess a good general education
- have a good knowledge of both general and specific curricula
- be knowledgeable about resources for curriculum development
- be skilled in research and knowledgeable about locating pertinent research studies
- be knowledgeable about the needs of learners, the community, and the society
- be a bit of philosopher, sociologist, and psychologist
- know and appreciate the individual characteristics of participating colleagues

Most significantly, the curriculum coordinator must be a specialist in the group process, possessing a unique set of skills. Many treatises on the functioning of groups reveal that managing groups effectively is not a trivial task. It is an enormously complicated effort that brings into play all the subtleties of environment and personality. Curriculum development is an exercise in group process, a human endeavor that can lead to both joy and frustration.

Success in curriculum improvement depends, of course, on the concerted effort of both group members and leaders. We will focus our attention, however, on the curriculum leader; no matter how well intentioned, motivated, and skilled the followers of the group are, group effort cannot succeed without competent leadership.

THE CURRICULUM LEADER AND GROUP PROCESS

Neither technical expertise nor knowledge about curriculum theory can substitute for a curriculum leader's knowledge of and aptitude for group process. What, then, we might ask, are some of the basic principles from the research on group process that would help those who take a leadership role in curriculum development? What skills and knowledge about group process are essential to the job? Four sets or clusters of group process skills appear to be of particular significance:

1. *The change process.* The leader must be knowledgeable about the process of effecting change and be able to translate that knowledge into practice with the group. He or she must demonstrate effective decision-making skills and be able to lead group members in learning to use them.

2. *Interpersonal relations.* The leader must be knowledgeable about group dynamics. He or she must exhibit a high degree of human relations skills, be able to develop interpersonal skills among members of the group, and be able to establish a harmonious working climate.

3. *Leadership skills.* The leader must demonstrate leadership skills, including organizational skills and the ability to manage the process. He or she must help members of the group to develop leadership skills so that they may assume leadership roles when necessary.

4. *Communication skills.* The leader must communicate effectively and be able to lead members of the group in communicating effectively. He or she must be a proficient discussion leader.

The Change Process

Axiom 1 in Chapter 2 presented the proposition that change is both inevitable and desirable. Human institutions, like human beings, must change if they are to continue growing and developing. Institutions, however, tend to preserve the status quo.

Gail McCutcheon cited the ease and comparative safety of the status quo, the requirements of time and effort, the lack of rewards, established school policies, and routines as impediments to change.[27] Nevertheless, neither the status quo nor regression to outmoded practices is a defensible position for living institutions like the schools. They must constantly seek to better themselves.

Curriculum development is the planned effort of a duly organized group (or groups) that seeks to make intelligent decisions in order to effect change in the curriculum. Planned change, far different from trial and error or natural evolution, implies a systematic process to be followed by all participants. Let's begin our examination of the change process by looking at the variables that exist within organizations and that have an impact upon that process.

FOUR VARIABLES. Harold J. Leavitt and Homa Bahrami identified four organizational variables: "structure," "information and control methods" (i.e., the technology of managing), "people," and "task."[28]

Every organization establishes its own *structure.* In Chapter 3 we considered some of the organizational patterns that schools have adopted to carry out curriculum development. As already noted, structures differ considerably among school systems and among individual schools. A school's organizational structure is shaped not only by the tasks to be accomplished, but also by the idiosyncrasies of administrators, supervisors, and teachers. No single organizational structure will satisfy the personal and professional needs of participants in every school system. Determination of the appropriate organizational structure is one of the prior decisions that curriculum developers must make.

The element of *technology of managing* encompasses both the technological equipment at the school's disposal and the procedures followed to accomplish the school's task.

The human variable—*the people*—sets the operation in motion and carries on the task. The differences in people make each school's efforts at curriculum development a unique undertaking. The persons essential to the curriculum development process have been discussed earlier in this text. Experts in the social science of human behavior refer to the main characters in the change process as the *change agent* and the *client system.* In their language a change agent is a person trained in the behavioral sciences who helps an organization change. The client system consists of those persons in the organization with whom the change agent works and who themselves may undergo change. This point reinforces Axiom 4 in Chapter 2, which postulates that curriculum change results from changes in people.

Although behavioral scientists argue about whether the change agent must come from within or outside the system, in practical terms schools will ordinarily use their own personnel for developing the curriculum.

Robert J. Alfonso, Gerald R. Firth, and Richard F. Neville identified change theory as one of four theoretical fields assumed to have implications for the behavior of instructional supervisors. They took the position that a school system should designate the supervisor responsible for promoting change and that the supervisor be conversant with change theory and willing to devote "a significant amount of time, effort, and creative thought to the change process."[29] If an outside change agent is brought in, they warned:

> Simply "importing" a change agent will not assist the supervisor markedly unless teachers perceive such a person as connected to the system or to the supervisor in some acceptable way.[30]

What are the typical functions of a change agent? Warren G. Bennis listed normative goals of change agents, including such tasks as improving interpersonal relationships among managing personnel, helping in resolving conflicts, and reducing tensions among workers.[31]

The *task* of the school is set out in numerous pronouncements of mission, aims, goals, and objectives, including, for example, the cardinal principles, the ability to think, the transmittal of the cultural heritage, and so on. More accurately, we should speak of the *tasks* rather than *task* of the school. The school performs many tasks in a number of curriculum development areas and provides a vital service: the education of the young. Although the school is not engaged in the tasks of manufacturing and selling products for profit, it does turn out products—a quite different kind of product—the learners themselves, human beings whose behavior is modified as a result of exposure to the school curriculum. Leadership calls for the judicious integration of these four variables.

Kurt Lewin viewed organizations as being in a state of balance or equilibrium when forces of change (driving forces) and forces of resistance (restraining forces) are equal in strength.[32] Changes occur when the organization is forced into a state of disequilibrium. This state of imbalance may be accomplished by augmenting the driving forces or by reducing the restraining forces; either action breaks or *unfreezes* the force field that maintains the organization in equilibrium.

Following his concept of the force field, Lewin proposed a simple strategy consisting of three steps. Or was it so simple? Lewin suggested that existing targets of change be unfrozen, then changes or innovations made, and finally the new structures refrozen until the start of a new cycle.

How shall we go about unfreezing old programs and practices—in effect, changing old habits? How would we move, for example, from the junior high school to the middle school; from independent to cooperative learning; from discrete linguistic concepts to whole language; from exclusive stress on cognitive learning to provision for cognitive, affective, and psychomotor learning; from emphasis on convergent thinking to more on divergent thinking; or from rote learning to critical thinking? How do we thaw out old patterns?

When we identify the barriers or impediments to change and eliminate those barriers, we can set the organization into disequilibrium. Table 4.1 lists several commonly encountered barriers and suggest tactics for overcoming them. Uppermost in the minds of curriculum planners must be the purpose of change: improvement in the organization—neither change for change's sake nor change for creating an image of newness per se, but change instead for bettering the products of the school.

TABLE 4.1   Common Barriers to Change

Barriers	Tactics
Fear of change on the part of those likely to be affected	The group should proceed slowly. Leader gives repeated reassurance to those affected by change. Involvement of those affected in decision making. The changed status must be made more attractive than the old pattern.
Lack of clear goals	The group must set clear goals before proceeding further.
Lack of competent leadership	Superiors must appoint or peers must elect persons as leaders who are most qualified. Leaders who prove to be incompetent should be removed.
Lack of ability of group members to function as a group	Training in group process should be conducted.
Lack of research on problems before the group	The leader should have the ability to conduct research, to locate pertinent research data, and to interpret research studies to the group.
A history of unsuccessful curriculum efforts	The group must be made to feel that progress is being made continuously.
Lack of evaluation of previous curriculum efforts	Efforts should be made to evaluate previous efforts, and an evaluation plan for current efforts must be designed.
Negative attitudes from the community	School personnel must call parents and citizens in for discussion, involve them in the process, and try to change their attitudes.
Lack of resources	Adequate resources both to carry out curriculum planning and to implement plans decided on must be made available. Needed personnel must also be available.
External pressures such as state and federal legislation, regional accreditation, and regulations of the state departments of education	Efforts must be made to work within the framework of laws and regulations or to try to get the laws and regulations changed. Responses to laws and regulations, which are broad and general, may vary from school to school.
Lack of experience or knowledge about a particular curricular problem	The group may call in consultants for assistance, or the school may provide training for its personnel.

DECISION MAKING.   Axiom 6 of Chapter 2 takes the position that curriculum development is basically a decision-making process. A lack of skills in decision making on the part of a curriculum leader and group can be a formidable barrier to change.

Are there any principles of decision making that could be helpful to curriculum study groups? Let's turn to Daniel L. Stufflebeam and the Phi Delta Kappa National Study Committee on Evaluation, which Stufflebeam chaired, for guidance on the process of decision making.[33]

Stufflebeam and his committee ventured that the process of decision making consists of four stages—awareness, design, choice, and action—during which four kinds of decisions must be made—planning, structuring, implementing, and recycling.

Planning decisions are made "to determine objectives." They "specify *major changes that are needed in a program.*" Structuring decisions are made "to design procedures."

They "specify the *means to achieve the ends* established as a result of planning decisions." Implementing decisions are made "to utilize, control, and refine procedures." Decisions on implementation are "those involved in *carrying through the action plan.*" Recycling decisions are made "to judge and react to attainments." "These are decisions used in determining the relationship of attainments to objectives and whether to continue, terminate, evolve, or drastically modify the activity."[34]

From the time a perceptive staff member in a school first starts to feel uneasy about a program and senses that something is not right and change is needed, decisions must be made constantly. Because decision making never ends, skills in the process need to be developed.

Concluding that "any kind of educational innovation, including curriculum change, is never a simple matter," Colin J. Marsh and George Willis pointed to differences in organizational climate, staff, student body, and community views as affecting the change process.[35]

CREATIVE INDIVIDUALS.   Although the literature on change stresses the necessity of group involvement, change can be and often is brought about by creative individuals and small groups working independently. Many of our great inventors, for example, have been individualists.

What sometimes happens is that an individual experiments and "pilots" a new idea; a few others who like the idea adopt it; success with the idea builds on success and the idea is widely translated into practice. Creative individual enterprise, or piloting, should be encouraged by administrators and faculty as long as the implications of the activity (1) do not invade areas outside the individual's own sphere, (2) are steeped in sound pedagogical practices, and (3) success can be proven with data. The activity should not be replicated or continued without proof that it is an effective practice or pilot. When creative endeavor begins to force demands on others, without data to support it or without sanction or involvement of the administrator or other teachers, independence may bring unwanted practices into the school environment.

In summary, curriculum leaders guide cooperating workers in bringing about change. In so doing they must exhibit skill in directing the change process. Both leaders and followers must have skill in decision making if positive curricular changes are to be effected.

Interpersonal Relations

The principal's reminder, "Faculty meeting today at 3:30 PM," is normally greeted with less than enthusiasm. The typical teacher responses are likely to be "Oh, no, not again!" "I hope it's short," and "Faculty meetings are such a waste of time." At best these group meetings are received with quiet resignation. Why does a group effort such as a faculty meeting, which should be such a potent instrument for group deliberation, provoke such widespread dissatisfaction?

Let's try to answer that question by picturing a typical faculty meeting of a secondary school. Some fifty faculty members shuffle into a classroom and take their seats while the principal stands at the desk at the front of the room.

We observe the faculty meeting in session and take some notes:

- The classroom is crowded and the pupils' desks are uncomfortable for some of the faculty, particularly the heavier teachers.
- The straight rows are not conducive to group discussion.
- No refreshments were provided to help set a pleasant tone for the meeting.
- It is difficult to understand the purpose of the meeting. Is it information giving on the part of the principal? A sermon from the principal on responsibilities? An effort to gain faculty approval of policies? An attempt to get faculty opinion on an issue?

- One teacher in the back was reading the daily newspaper.
- One teacher by the window was grading papers.
- Two teachers were talking about an incident that took place in one of the teachers' classrooms that day.
- One teacher, tired, sat with her eyes closed during the meeting.
- The football coaches were absent.
- A couple of teachers spoke repeatedly, whereas the majority remained silent.
- Several teachers watched the clock on the wall.
- The principal became visibly annoyed with the comments of one teacher.
- A restlessness among the teachers was apparent after the first thirty minutes.
- The group rushed out of the room as soon as the meeting ended.

None of the behaviors at this hypothetical meeting was unusual. The behaviors were quite predictable and to a great extent preventable. The general faculty meeting is but one of many group configurations in which teachers and administrators will participate. If the administrator fosters a collegial approach to administration, teachers will find themselves working on a number of committees for a variety of purposes, including curriculum development.

Most new teachers do not fully realize the extent to which teaching is a group-oriented career. Training in group process, for example, is conspicuous by its absence from preservice programs. The mind set that novice teachers have developed about teaching pictures the teacher as an *individual* planner, presenter, and evaluator. When they begin teaching, they are unaware of the degree to which teaching involves *group* activities in which responsibilities must be shared.

Whereas beginning teachers realize from student teaching that they work with groups of children, they are often not ready to work cooperatively with their professional colleagues. A preparation program for teachers should seek to develop an appreciation of the necessity of working in groups, an attitude of willingness to work cooperatively, an understanding of the working or dynamics of a group, and the skills of group participation. If these cognitive and affective objectives are not achieved in preservice teacher education, their attainment should be sought in in-service education programs.

Let's try to improve our understanding of the composition and functioning of groups by examining some of the salient characteristics of group dynamics. We shall not belabor the question of defining *group* but will simply call two or more persons working together for a mutual purpose a group. The faculty as a body, curriculum councils, departments, advisory committees, and teams are illustrations of formal groups.

Informal groups are self-constituted, ad hoc, impromptu collections of individuals who gather together for some immediate purpose and later disband. Protest groups and cliques of teachers are illustrations of informal groups. Although we are primarily concerned with the functioning of formally constituted groups, we should not overlook the possible impact of informal groups. It is quite possible, for example, for the formal and informal groups within a school to be working at cross-purposes. The wise curriculum leader seeks to identify informal groups that may have an impact on curriculum development efforts and seeks to channel their energies into the deliberations of the formal structure.

Recall that in the illustration of the hypothetical secondary school faculty meeting, the sense of purpose was unclear. Both the general purpose and the specific goals of the group must be known. Groups are organized most frequently for the following purposes:

- To receive instructions or information. Faculty meetings are often used for this purpose.
- To help individuals develop personally or professionally. Sensitivity groups, study groups, and workshops in pedagogy are examples of groups with this purpose.

- To recommend solutions to problems. Making such recommendations is a major purpose of curriculum improvement groups.
- To produce something. Curriculum committees, for example, may be charged with the task of creating new programs or writing curriculum guides.
- To resolve conflicts. Curriculum development efforts sometimes result in disagreements among factions, necessitating new groups to resolve these differences.

To some extent all these purposes operate in curriculum development. However, the latter three are the primary purposes, which make curriculum committees action- or task-oriented rather than ego- or process-oriented groups. In all human groups we find individuals who are there to serve the social needs of the organizations—that is, the fulfillment of the group's task—and others who are there to satisfy their own ego needs.

One of the great difficulties for the curriculum leader is keeping a group "on task." Challenging this goal are the many individuals who are impelled to satisfy their own personal needs in a group setting, behavior referred to as "processing." Some processing is essential in any group, particularly early in the group's activity when individuals are getting to know each other and trying to analyze the task. The curriculum leader must ensure some, though not equal, balance between "task orientation" and "process orientation." He or she must see to it that a group moves on with its task while permitting individuals to achieve personal satisfaction as members of the group. Excessive stress on either approach can lead to frustration and withdrawal.

The curriculum leader who is, of course, a key—or *the key*—member of a curriculum planning group, must be aware of the presence of three types of behavior within a group. First, each group is composed of individuals who bring their own individual behaviors to the group. Some will maintain these behaviors, sometimes consciously and at other times subconsciously, regardless of the group setting. Thus, the teacher who is habitually punctual, conscientious, confident, or complaining is likely to bring those traits into the group setting. Some traits have a positive impact on the group; others, a negative one.

Individuals bring their motivations, often covert, into group efforts—their personal desires, feelings, or goals, commonly referred to as the "hidden agenda." Individuals may react negatively to a curriculum proposal, for example, not because they object to the proposal per se but because they dislike the person who made the proposal. Individuals may attack a proposal because they feel their ideas have not been adequately considered. Individuals may strive to ask a group member embarrassing questions because they perceive that person as a potential rival for a leadership position. The curriculum leader must constantly attempt to channel negative behaviors into constructive paths or to eliminate them where possible. He or she must often act as mediator to ensure that the individuals' hidden agendas do not sabotage the official agenda.

Second, individuals in groups often behave in ways that are quite different from their individual behaviors. We have only to turn to studies of mob psychology to demonstrate that individuals change their behavior in group situations. Have we never observed, for example, a group of otherwise sweet, innocent elementary school youngsters taunting a classmate? Have we never seen an otherwise cautious adolescent driver become reckless when driving a car filled with friends? The presence of companion human beings who read and evaluate an individual's behavior causes that individual to behave in a way in which he or she perceives the group members wish him or her to act.

We see great contrasts in behavior between the individual who relies on his or her own inner resources (the inner-directed personality) and the individual who takes cues from those around him or her (the outer-directed personality). Although few individuals are completely

immune to outer-direction in our society, some individuals are more adept than others at weighing external influences before acting on them. Some individuals are aware when they are being manipulated by others, whereas others are highly subject to suggestion. Not only do personal behaviors sometimes change in a group setting, but also individuals assume, as we shall soon see, special roles that they do not and cannot perform in isolation.

Third, the group itself assumes a personality of its own. We already noted that the functioning of the group is more than the sum of the functioning of each of the individuals who make up the group. The individuals interact with and reinforce each other, creating a unique blend. In this respect some departments of a school are perceived as being more productive (or pick your own word: creative, enthusiastic, reactionary, innovative, obstreperous) than others, just as schools are perceived as being different from one another.

The curriculum leader must try to develop pride in the group as a team organization by promoting group morale and by helping the group feel a sense of accomplishment. The group concept is fostered when:

- interaction among group members is frequent, on a high professional level, friendly, and harmonious
- personal conflicts among group members are infrequent or nonexistent
- leadership is allowed to develop from within the group so that the group capitalizes on the strengths of its members
- constructive dissent is encouraged
- the group realizes that it is making progress toward meeting its goals, which points out again the necessity for clearly specifying the goals the group expects to attain
- the group feels some sense of reward for accomplishment

Perhaps the most satisfying reward for a group is to see its recommendations translated into practice. A word of appreciation from the administrator also goes a long way in securing the continuous motivation of teachers to participate in curriculum development.

RESPONDING TO TEACHER CONCERNS.   Fundamental to successful change, be it curricular or other, is an understanding of concerns of individuals who form a group. The Concerns-Based Adoption Model (CBAM) developed at the Research and Development Center for Teacher Education at the University of Texas illuminates the necessity for analyzing concerns among individuals in a group that intends to effect change. CBAM targets the personal concerns of individuals in the group.[36]

Gene E. Hall and Susan Loucks described seven stages of concern during the change process, from simple awareness of an innovation to be considered to refocusing on benefits of the innovation.[37] The perceptive curriculum leader is aware of these concerns and guides the members constituting the group through the seven stages to shifting concerns away from themselves to successful implementation of the innovation.

ROLES PLAYED BY GROUP MEMBERS.   Many years ago Kenneth D. Benne and Paul Sheats developed a most creative classification system for identifying functional roles of group members.[38] They organized their classification system into three categories: group task roles, group building and maintenance roles, and individual roles. Group members take on task roles when they seek to move the group toward attaining its goals and solving its problems. Among ten group task roles are those of information seeker, information giver, and energizer. Group members play group building and maintenance roles when they are concerned with the functioning

of the group. Included in the seven group and maintenance roles are those of encourager, harmonizer, and gatekeeper. Group members indulge in individual roles to satisfy personal needs. Aggressor, blocker, and recognition-seeker are among eight individual roles.

A group will be more effective if the individual and negative roles are minimized or eliminated. Groups can be helped by the leader or by an outside consultant through exposing them to group dynamics theory and a classification system such as the Benne-Sheats model. Help of a more personal nature can be achieved through group interaction that permits feedback to its members. This feedback could be in the form of simple analysis of interaction skills possessed by the various members. Certainly, a group will be more productive if its members already possess a high degree of interaction skill. If, however, a group appears to lack skills in interaction or human relations, it may be advisable to depart from the group's task long enough to seek to develop some fundamental interpersonal skills.

A trained observer who records the performance of individuals participating in a group can provide valuable feedback. To record the performance of individuals in a group, the observer can create a simple check sheet by listing the task, building/maintenance, and individual roles in a column on the left and the names of members across the top. The observer then records with a tally the frequency with which a participant plays a particular role.

After the observation period members would be furnished feedback about their performance. The observer must exercise great tact in how he or she presents the information. Some of the individual roles are particularly unflattering, and it will be difficult for some individuals to accept the fact that they behave in this way. Therefore, negative feedback should be supplied to individuals only on request and in confidence.

TASK-ORIENTED GROUPS. Curriculum development groups are or should be essentially task-oriented groups. They are given a specific job to do, carry it out, and then either accept another job or cease to function. Their productivity should be measured first in the quality of improvement that takes place in the curriculum and second in the personal and professional growth of the participants.

Curriculum development consists of a continuing series of interpersonal experiences. Both leaders and followers are obligated to make the process successful. With a modicum of training, professional persons should be able to bury their hidden agendas and to eliminate or suppress negative behaviors that disrupt the group's effort. Fortunately, some human beings have learned during their formative years to demonstrate human relations skills such as warmth, empathy, valuing others' opinions and beliefs, intellectual honesty, patience, mutual assistance, and respect for others as persons. They have learned to accept responsibility and to refrain from blaming others for their own deficiencies. They have learned to put aside their own ego needs in deference to the needs of the group. They have learned to enjoy and take pride in group accomplishments. Others who demonstrate a low level of performance in these skills should be encouraged to participate in a human relations training program to improve their interpersonal skills.

Remember that curriculum development is ordinarily a voluntary undertaking. Curriculum workers might ask themselves what motivated them to agree to serve in a group devoted to curriculum improvement. They might uncover motives such as the following:

- a desire to please the administrator
- a desire to work with certain colleagues
- a desire to be where the action is
- a desire to grow professionally

- a desire to make a professional contribution to the school system
- a desire to make use of one's skills and talents
- a desire for a new experience
- a desire to socialize
- a desire to use the group as a sounding board for personal beliefs and values

The reasons why individuals agree to participate in group activity are many and varied, sometimes verbalized but often not; sometimes valid in terms of the group's goals, sometimes not. Individuals who are motivated and possess the necessary personal and professional skills should be encouraged to take part in curriculum development.

CHARACTERISTICS OF PRODUCTIVE GROUPS.   From examining the wealth of literature on group dynamics and group process, how might we summarize the characteristics that make for group effectiveness or productivity? We have already noted in Chapter 1 that research conducted in the Hawthorne plant of the Western Electric Company in Chicago produced evidence that involvement of workers in planning and carrying out a project led to greater productivity. Research by Kurt Lewin, Ronald Lippitt, and Ralph K. White on groups of eleven-year-old children showed their productivity to be greater in a democratic group climate than in an authoritarian or laissez-faire one.[39] Rensis Likert saw a supportive environment, mutual confidence and trust among group members, and a sharing of common goals as contributing to group effectiveness.[40] Ned A. Flanders's studies of classroom verbal interaction led users of his instrument for observing this process to conclude that group leaders need to decrease their own verbal behavior and stimulate members of the group to interact more.[41] John Dewey[42] and Daniel L. Stufflebeam and associates[43] wrote of the importance of the skills of problem solving and decision making. Warren G. Bennis, Kenneth D. Benne, and Robert Chin advocated skill in planning for change.[44] Fred E. Fiedler concentrated on the effectiveness of the leader,[45] and Kimball Wiles gave attention to skill in communication as essential to group effectiveness.[46] These latter two sets of skills will be discussed in the next section, but first, based on the foregoing principles, we might conclude that a group is effective when

- leaders and members support each other
- trust is apparent among members
- goals are understood and mutually accepted
- adequate opportunity exists for members to express their own feelings and perceptions
- roles played by group members are essentially positive
- hidden agendas of members do not disrupt the group
- leadership is competent and appropriate to the group
- members possess the necessary expertise
- members have the necessary resources
- members share in all decision making
- communication is at a high level
- leadership is encouraged from within the group
- progress in accomplishing the task is noticeable and significant
- the group activity satisfies members' personal needs
- leaders seek to release potential of the members
- the group manages its time wisely

Leadership Skills

Let's attend the meeting of a school's curriculum committee as a guest of the curriculum coordinator who is serving as chairperson. It is early in the year. We take a seat in the back of the room and in the course of less than an hour we observe the following behaviors:

- Two teachers are discussing an action of the principal.
- Each person speaks as long as he or she wishes, sometimes going on at length.
- The coordinator engages in dialogue with one individual, ignoring the group.
- Several members ask whether this discussion is in keeping with the group's purposes.
- The coordinator pushes his ideas and is visibly annoyed when someone disagrees with him.
- Two teachers become involved in arguing with each other.
- The coordinator steers the group toward a proposal that he has offered.
- The meeting breaks up without closure and without identifying next steps.

We might conclude that this session of the curriculum committee was less than productive. Would we attribute this lack of productivity to deficiencies on the part of the group members? To lack of leadership on the part of the coordinator? To both? Certainly, group productivity arises from a harmonious blend of skills by group members and the group leader, yet a heavy burden for the productivity of the group rests with the leader. This person has been chosen to set the pace, to provide expertise, and to channel the skills of others. The skilled leader would have been able to avoid and resolve some of the unproductive situations that developed in this curriculum committee.

TRAITS OF LEADERS.   When asking ourselves and others what traits a leader should possess, we would probably garner the following responses:

- intelligent
- experienced
- assertive
- articulate
- innovative
- dynamic
- charismatic

Some would say, "You must be in the right place at the right time." Others, perhaps more cynical, would say a leader must be:

- a politician
- a climber
- a friend of a person in power

Like Laurence J. Peter, Jr., some people would observe that persons rise to their level of incompetence.[47]

What the research has found, however, is that it is almost impossible to ascribe any single set of traits to all persons in positions of leadership. Generalizing that leaders tend to possess, among other traits, slightly above average intelligence as well as requisite personal and administrative skills, Ralph B. Kimbrough and Michael Y. Nunnery concluded that the

possession of certain traits does not guarantee success as an administrator, nor does their absence rule out success.[48]

Commenting on trait theory, the attempt to predict successful leaders through judging their personal, social, and physical characteristics, Robert H. Palestini noted the theory's popularity in the 1940s and 1950s.[49]

Two Approaches.   Leaders tend to lean toward one of two basic approaches to administration: the bureaucratic or the collegial. The first approach has been labeled autocratic; the second, democratic. Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller discussed the assumptions that underlie these two approaches. According to these authors, leaders who follow what they termed the "traditional, monocratic, bureaucratic approach" hold to a line-and-staff plan of organization that places responsibility and authority at the top, that encourages competition, and that allows individuals to be expendable.[50] On the other hand, according to Morphet, Johns, and Reller, leaders who follow what they called the "emerging, pluralistic, collegial approach" believe that power, authority, and decision making can be shared, that consensus leads to unity within the organization, and that individuals are not expendable.[51]

In contrasting these two approaches to administration, Morphet, Johns, and Reller noted that the traditional approach operates in a closed climate, whereas the democratic approach functions in an open climate. The traditional approach relies on centralized authority with a fixed line-and-staff structure. Authority is spread out and shared under the pluralistic approach; the structure, while sometimes more complex than the traditional structure, is more flexible to allow for maximum participation of members of the organization. The flow of communication is much different under these two approaches. The autocratic or authoritarian approach is imbued with the philosophy of going through channels. Messages may originate from the top of the echelon, which is most common, or from the bottom. Messages from the top pass down through intermediate echelons but may not be stopped by these echelons. On the other hand, messages originating from the bottom proceed through intermediate echelons and may be stopped by any echelon. Subordinates are required to conduct business through channels and may not with impunity "go over the head" of their immediate supervisor. Under a pluralistic approach communications may flow in any direction—up, down, circularly, or horizontally. They may skip echelons and may be referred to persons outside the immediate chain of command. The pluralistic administrator is not "hung up" on channels and personal status. It is the traditional approach that begets the "organization man."

Morphet, Johns, and Reller cautioned, in comparing these two approaches, "It should not be inferred, however, that democratic administration is *ipso facto* good and that authoritarian administration is *ipso facto* bad. History provides numerous examples of successful and unsuccessful democratic administration and successful and unsuccessful authoritarian administration."[52] They noted, though, that some studies reveal monocratic organizations to be less innovative than pluralistic ones.

Some people would identify the traditional leader as an adherent to Theory X; they would classify the pluralistic leader as a follower of Theory Y. Leaders in organizations of the Theory Z type are largely Theory Y practitioners who structure their organizations to secure maximum involvement and commitment from the workers. The pluralistic assumption that the individual is not expendable, for example, has been interpreted in Japanese Theory Z organizations as a guarantee of lifetime employment in the organization in return for full commitment to that organization in the realization of its goals.[53] This guarantee has become less certain given the economic stresses of the last two decades.

Leadership style is a potent factor in the productivity of groups. A classic study of the impact of leadership is the previously mentioned research conducted by Lewin, Lippitt, and White, who studied the effects of three different styles of adult leadership on four groups of eleven-year-old children. They examined the effects of "authoritarian," "democratic," and "laissez-faire" leadership.

Among traits of children under the authoritarian leadership were more dependence upon the leader, more expressions of discontent, and lack of group initiative. The laissez-faire atmosphere resulted in greater reliance on the leader, greater discontent among the group, and reduced conversation related to the work. Children were not productive in the absence of the laissez-faire leader. The converse of these situations was true for the democratic group climate. In addition, children remained productive in the democratic leadership atmosphere. Under the democratic leadership children relied more on each other. Further, in the absence of the leader of the democratic group children were able to proceed with their work.[54*]

Thus, if a curriculum leader seeks commitment from a group, the authoritarian and laissez-faire approaches are not likely to be effective. The curriculum leader's power (what little there is) is conferred by the group, especially if the leadership is encouraged from *within* the group. The democratic approach is, indeed, the only viable approach open to the curriculum leader who is a staff and not a line person propped up by external authority.

Task- and Relationship-Oriented Leaders.   Fiedler studied the age-old question of whether successful leadership results from personal style or from the circumstances of the situation in which the leader finds himself or herself.[55] Fiedler spoke of the need for an appropriate match between the leader's style and the group situation in which he or she must exercise leadership. Developing what is called a "contingency model," Fiedler classified leaders as task-oriented or relationship-oriented. We might substitute human relations–oriented for the latter term. In some respects this classification resembles the dichotomy between the autocratic and democratic leader. The task-oriented leader keeps the goals of the organization always in front of him or her and the group. The needs of the organization take precedence over the needs of individuals. The superordinate–subordinate relationship is always clear. The relationship-oriented leader is less task oriented and more concerned with building harmonious relationships among the members of the organization. He or she possesses a high degree of human relations skill and is less conscious of status.

Persons exhibiting either of these two styles may find themselves in organizations that are either structured or unstructured, or in mixed situations possessing elements of both structure and lack of structure. Successful leadership depends on the fortuitous combination of both style and circumstance. Fiedler found that task-oriented leaders perform better than relationship-oriented leaders at both ends of the continuum from structure to lack of structure. They perform well in structured situations where they possess authority and influence and in unstructured situations where they lack authority and influence. Relationship-oriented persons function best in mixed situations in which they possess moderate authority and influence.

Leadership, then, arises from the exigencies of a situation. Stephen J. Knezevich, for example, espoused a situational view of leadership when he said:

> A person is selected to perform the leadership role because of possessing a set of sensitivities, insights, or personal qualities the group may require for realization of group objectives and decisions. . . . The leader is selected and followed because of being capable to achieve what

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the followers need or want. A leader successful in one community with a unique set of educational needs may not experience similar success when moved to another with a markedly different set of educational problems, personnel, and value orientations. Changing the situation, or group's nature and purposes, results in a significant variation in leader characteristics desired that upsets all but the broadest interpretations of personal attributes.[56]

When a group member who has been in the role of follower assumes the role of leader, that person is then expected to demonstrate democratic behaviors associated with his or her new status of leadership. If the original leader remains a part of the group, he or she then assumes the role of follower. Some status leaders find it difficult to surrender power and are compelled to be constantly on center stage. Such behavior will effectively prevent leadership from developing within the group and is likely to impede its progress. When the original leader resists being replaced, the leader's superior with executive, line power may have to correct the situation by urging changes in the original leader's behavior or by removing him or her from the scene. The research on leadership thus suggests that the leader in curriculum development should:

- seek to develop a democratic approach
- seek to develop a relationship-oriented style
- move between a task-oriented and relationship-oriented style as the situation demands (Jacob W. Getzels, James M. Lipham, and Roald F. Campbell called this flexible style "transactional"[57])
- keep the group on task and avoid excessive processing
- avoid a laissez-faire approach
- encourage the development of leadership from within the group
- maintain openness and avoid a defensive posture
- fulfill his or her role as a change agent by serving as:

adviser	interpreter
expert	reinforcer
mediator	spokesperson
organizer	intermediary
explainer	summarizer
discussion leader	team builder

Even with the best leadership some groups experience great difficulties in moving toward accomplishment of their goals. Without effective leadership little can be expected of groups in terms of productivity.

W. Edwards Deming, whose ideas on management are credited with helping Japan's rise as an industrial power, blended industrial management principles into a concept known as Total Quality Management (TQM). Although Deming's ideas applied to industry, TQM when applied to education would incorporate principles of shared management, the notion that quality should be determined in process rather than tested at the end of the process, the idea that learners should share responsibility in evaluating their own work, abandonment of performance ratings of individuals, and participation of group members in finding solutions to problems. You have encountered some of these principles earlier in this chapter when we discussed quality circles.[58] William Glasser, in a vein similar to Deming's, pointed out obstacles to quality schools in the presence of too much "boss-management," too much coercion, not enough cooperative learning, too much traditional testing, too little emphasis on enhancing the ability to use knowledge, and too little opportunity for learners to evaluate the quality of their work.[59] Neither American industry nor education has fully implemented all principles of quality management. However, we see some

evidence in performance assessment, cooperative learning, and constructivist psychology, which encourages the learners to take responsibility for formulating their own knowledge under the guidance of the teacher.

Communication Skills

Curriculum development is primarily an exercise in verbal behavior—to some degree written but to a greater degree oral. Through the miraculous gift of language one human being is able to communicate his or her thoughts and feelings to another. Much of the world's business—particularly in a democratic society—is transacted through group discussions. Sometimes it seems as if most administrators, including school personnel, spend the majority of their hours participating in groups, for the standard response to callers is "Sorry, he's [she's] in a meeting."

Thoughts are communicated verbally in the form of oral activity; handwritten, printed, or electronic documents; visually in the form of pictures, diagrams, charts, and the like; and nonverbally in the form of gestures and actions. Styles of oral communication differ from individual to individual and from group to group. Styles vary among ethnic, regional, and national groups. The choice of words, the loudness or softness of speech, and the rapidity of the spoken language differ from person to person and from group to group. We find differences in "accent" and in tone or intonation. The flexibility of language, both a strength and a problem, can be seen in a simple example. By using the same words but by varying the intonation or stress pattern, a speaker can convey different meanings as follows:

- *They* said that.
- They *said* that.
- They said *that.*
- They said *that*?

Individuals from some cultures are said to "talk with their hands," indicating frequent use of nonverbal behavior, whereas individuals from other cultures are taught not to be so expressive. Proficiency in communication skills by both the leader and the group members is essential to successful curriculum development. They must demonstrate proficiency in both oral and written communication. At the same time, they must be aware of their own nonverbal behavior and be skilled at reading other people's.

The leader must demonstrate proficiency in two ways: He or she must possess a high degree of communication skill and must also be able to help group members to increase their proficiency in communicating.

For purposes of our discussion, we will assume that the school or district curriculum committees, in which we are most interested, operate through the medium of the English language and that, although they represent a variety of ethnic groups and national origins, they possess at least average proficiency in English language usage. What we have to say about communication goes beyond the mere mechanics of grammar, syntax, spelling, vocabulary, and sentence structure. Deficiencies in the linguistic aspects of communication can be remedied perhaps more easily than some of the more complex psychological, social, and cultural aspects.

It is safe to conjecture that even in a group in which all members possess an excellent command of the language, communication leaves something to be desired. Have you ever sat, for example, in group meetings where

- two people talk at the same time?
- one member consistently finishes sentences for other members?

- one member jumps into the discussion without recognition from the chair, elevates his or her voice, and continues to do so until he or she has forced others to be silent?
- one member, angered with the way the discussion is going, gets up and stomps out of the room?
- members snicker and make snide remarks whenever a particular member of the group speaks?
- one member drones on *ad infinitum*?
- one member cannot resist displaying his or her advanced knowledge of the subject under discussion?
- one member becomes sullen when another disagrees with his or her ideas?
- the leader has to explain a point three times before all group members seem to understand?

Do you recognize any of these people? Some of them are, of course, playing roles such as those described in the Benne-Sheats classification system. It is possible that many, even most, of the members thought they were communicating something to the group while they were speaking. It is highly probable that what they were communicating was much different from what they thought they were.

Two people vying for the floor may communicate that they both are individuals who demand attention. Or shall we say that they possess a trait, lauded by some, called "assertiveness"? The member who finishes others' sentences may communicate that it is necessary for him or her to think for others. The member who stomps out of the room might attempt to convey that he or she is a person who sticks to his or her principles. More likely, in rejecting the group, the person will be perceived as a "sore loser." We communicate not only through words but through our actions as well.

COMMON MISUNDERSTANDINGS.   We should clear up some common misunderstandings about communication. First, skill in speaking is sometimes mistaken for communication skill. The ability to respond quickly and fully—to think on one's feet—is an attribute desired, some say required, of a leader. However, facility in speaking does not ensure that a message is getting across. One need only listen to some political leaders to make the distinction between the ability to articulate and the ability to communicate. People place great stress on oral skills, often to such an extent that they do not realize they are accepting form in the place of substance. A glib tongue may obfuscate a topic under discussion. A speaker should strive to be both articulate and communicative.

Second, group interaction is sometimes taken for communication. Comments such as "We had a lively discussion" are meaningless unless we know whether the discussion led to understanding and decision making. Processing, the sharing of personal feelings and opinions, is sometimes equated with communication. Interaction for interaction's sake cannot be accepted as a legitimate activity for work in curriculum development.

Third, the assumption that communication is full, clear, and completely understood is often made without sufficient evidence. Alfonso, Firth, and Neville advised supervisors against making such an assumption: "Communication will always be inaccurate because sender and receiver can never share common perceptions. Supervisors often operate on the assumption that communication is perfect. Instead, they should function on the basis that communication is imperfect and must always be so."[60]

How many times have we heard the words of a speaker, understood them all, yet not comprehended what the speaker was saying? How many times have we heard a member of a group tell another, "I hear you," but mean, "Even though I hear you, I do not know what you are saying"?

What are some common problems people experience in trying to communicate and what can be done to solve them? Let's create three categories: (1) problems with oral communication or those that oral and written communication share, (2) problems with written communication, and (3) problems brought about by nonverbal behavior or the absence thereof.

Oral Communication. Difficulties in oral communication can arise in the following situations:

1. *Members of the group either unintentionally or deliberately fail to come to the point.* They talk around instead of to an issue. Sometimes they engage in avoidance behavior—that is, they resist coming to grips with the issue. The curriculum leader must help group members to address the issues and to come to the point. When some group members prattle on, others in the group become bored and frustrated. The burden of keeping the group's attention on the issues falls on the group leader.

2. *Members of the group use fuzzy, imprecise language.* They use words with many interpretations, like "relevance," without defining them. They use "psychobabble" such as "Tell me where you're coming from" and "I'm into behavioral objectives." They employ without defining low-frequency words, such as "nomothetic," "synergy," and "androgogy," that some members of the group may not understand. They lapse into "pedagese" or "eduspeak" such as "Each child must develop his or her personal curriculum," without venturing to explain how this may be done. They borrow Madison Avenue jargon such as "Let's run it up the flagpole," or they turn to sports analogies such as "What's the game plan?" The group leader must be alert to difficulties members may have in following a discussion. He or she must ask speakers to repeat and clarify statements and questions as necessary. The leader must keep in mind that some members hesitate to ask for clarifications themselves, feeling that in so doing they may expose their own ignorance.

3. *Members of the group select out of a discussion those things that they wish to hear.* It is a well-known fact that we hear and see selectively. We hear and see those people and things that we wish to hear and we see and reject those people and things that we do not wish to see or hear. The leader must help group members to see all facets of a problem, calling attention to points they may have missed.

4. *Members fail to express themselves, particularly if they disagree with what has been said.* Some persons hold back their views from a sense of insecurity. They feel that their opinions are not worthwhile, or they fear embarrassment or ridicule. They may not wish to seem in disagreement with status persons who are in a position to reward or punish them. The group leader must assure members that dissent is possible and encouraged. The leader must foster a climate in which each person can express himself or herself without fear.

5. *Members fail to follow an orderly process of discussion.* Communication is impossible when group members are unwilling to discipline themselves and do not take turns in discussing, listening to each other, and respecting each other's views. The group leader must enforce order during the discussion process to ensure that everyone who wishes to be heard has an opportunity.

6. *Discussion is shut off and the group presses for a premature vote.* The group should be striving to reach consensus on issues. The goal is commitment of as many persons as possible. The group leader should keep the goal of consensus in front of the group. Close votes on issues should be reexamined, if possible. A vote may (or may not) secure compliance on the part of the people affected; it does not guarantee, however, the commitment that is so necessary to curriculum improvement.

7. *Sessions break up without some sort of closure.* If next steps are not clear, members leave the group sessions confused. The leader has the responsibility for seeking closure on issues when possible, for summarizing the group's work, and for calling the group's attention to the next steps.

8. *The communication flow is primarily from leader to members.* The leader should resist the temptation to dominate a discussion and to foist his or her views on the group. He or she should ensure that communication is initiated by members of the group to the leader and to each other as well as from the leader to group members.

9. *Acrimony, hostility, and disharmony exist within a group.* When these conditions occur, the leader must spend time developing a pleasant, harmonious group climate before positive communication can take place among members. Members must learn to work together in an atmosphere of trust and mutual respect. The leader should seek to promote a relaxed, threat-free atmosphere.

Written Communication.   In the course of a group's activity there will be occasions on which the leader and members of the group will wish and need to communicate in written form between group sessions. They will also need to communicate in writing with persons outside the work group. Difficulties arise with this form of communication when the following situations occur:

1. *The writer cannot sense the impact of his or her words in a written communication.* Extra care must be taken when structuring a written message. Writers of memos must weigh their choice of words and manner of phrasing their thoughts. Some messages are unintentionally blunt or curt and cause negative responses in the receivers. A message when put in writing may give a far different impression from what the writer intended. The writer should review any written communication in the light of the impact it would have on him or her if he or she were the recipient.

2. *Written communications are excessive in number.* Some persons indulge in memorandum writing with almost the same frequency as some individuals write letters to the editor of a newspaper. Some vent their own frustrations in memo after memo. Some people believe that every thought, word, and deed must be committed to writing in order to (a) preserve them for posterity, (b) maintain an ongoing record for current use, or (c) cover one's posterior, as is crudely suggested. Some recipients—or intended recipients—will not take any action unless they have information in written form. Some organizations have almost immobilized themselves with the ubiquitous memo to the point where there are many communiqués but little communication. The leader should encourage the use of memoranda and other written communications as needed but discourage their excessive use. Courtesy, clarity, and brevity should be earmarks of written communications.

3. *The use of English is poor.* Many memoranda, particularly from professional people, lose their impact because of poor English usage. Inaccurate spelling, improper grammar, and poor sentence structure can detract from the messages contained in the memoranda and

can subject the writers to unnecessary criticism. Special precautions must be taken when the medium of e-mail is used to deliver messages. E-mail conventions (e.g., the avoidance of sending messages in all capital letters that can be interpreted as shouting) must be observed to prevent misunderstandings. They also can be misconstrued by the reader due to the reader's disposition at the time. Further, writers of e-mail must keep in mind that there is no clarifying, correcting, or softening of a message once they've hit the *Send* button.

The writing of intelligible memoranda that do not create negative responses on the part of recipients is an art that, at least in a cooperative activity such as curriculum development, should serve only to supplement, not replace, oral communication. Face-to-face communication is ordinarily—barring the need for complex or technical data—a far more effective means than writing for conveying ideas among members of small groups of peers such as a typical curriculum development group. Even in the case of complex or technical data presented in written form, follow-up discussion is usually necessary.

Nonverbal Behavior.   Human beings communicate with each other without the use of words. A smile, a frown, a wave, a shrug, and a wink all say something. Nonverbal behavior is shaped both biologically and culturally. Most human beings start out life with basically the same physiological equipment—two eyes, arms, legs, and so on. But what they do with that equipment is shaped by the culture in which they grow and develop. Thus, it is possible for every human being to smile, but some individuals within a single culture are more prone to smiling than others, and members of a particular culture are more prone to smile than members of another culture. South American Indians, for example, are much more stoic and reserved than the more expressive Latinos of Spanish origin.

Nonverbal behavior, or Human Ethology, is less studied and less understood than verbal behavior. We have great need in our teacher education programs for training in understanding the differences in nonverbal behavior between members of the U.S. culture and foreign cultures in the United States. In our pluralistic society many social and work groups are composed of persons from varying subcultures: white, black, Hispanic, Native American, and Asian, among others. Every individual brings to a group his or her culturally determined ways of behaving. While some cultures prize assertiveness, others stress deference. Signs of respect are accorded to age, status, and experience more often in some cultures than in others. Attitudes of both males and females toward children and of one gender toward the other vary among cultures. Some cultures value physical closeness among individuals and gregariousness. Other cultures strive to maintain distance among individuals both physically and socially. These attitudes are shown in both verbal and nonverbal behavior. Accepted styles of dress vary from culture to culture and even from subculture to subculture.

We need to learn to perceive what our colleagues are trying to communicate to us by the expression on their faces, by the look in their eyes, by the way they hold their mouths or heads, by the movement of their hands, and by the fidgeting of their legs. A group leader should be able to detect fatigue, boredom, hostility, and sensitivity on the part of members of the organization. He or she should be able to sense when one individual is stepping on another's toes and turn the discussion to constructive paths. He or she should strive to effect signs of pleasure, not pain, among members of the group. The leader must be especially cautious of nonverbal signals he or she gives and must make every effort to ensure that those signals are positive. Finally, for successful curriculum development both the leader and group members must exhibit a high degree of skill in all modes of communication.[61]

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Summary

This chapter focused on the roles played by various persons and groups participating in curriculum development at the individual school level. Some principals perceive themselves as instructional leaders and take an active part in curriculum development, whereas others delegate that responsibility. A Theory X administrator emphasizes authority and control, whereas a Theory Y administrator follows a human relations approach. Theory Y leaders may adopt Theory Z principles.

Students in some schools, depending on their maturity, participate in curriculum improvement by serving on committees and by providing data about their own learning experiences.

Parents and other citizens participate in curriculum work by serving on advisory committees, responding to surveys, providing data about their children, and serving as resource persons in school and out.

The professional personnel—teachers and specialists—share the greatest responsibility for curriculum development. Both leaders and followers need to develop skills in group process. Among the competencies necessary for the curriculum leader are skills in producing change, in decision making, in interpersonal relationships, in leading groups, and in communicating.

Questions for Discussion

1. What evidence is there that today's principals either are or are not instructional leaders?
2. What are some community groups with which school administrators and supervisors should be concerned?
3. What are the characteristics of a school as a community of learners?
4. Should students be allowed to participate on district or state curriculum councils and boards and, if so, should they be allowed to vote?
5. How would you as a curriculum leader proceed to bring about change in the curriculum?

Exercises

1. Write a paper stating the pros and cons and showing your position on the role of the principal as instructional leader.
2. List qualities and qualifications needed by a curriculum leader.
3. Explain what is meant by Theory X, Theory Y, and Theory Z, and discuss implications of these theories for curriculum development.
4. Report on ways students, parents, and others from the community are involved in curriculum development in a school district with which you are familiar.
5. Prepare a written or oral report on the Concerns-Based Adoption Model (CBAM) developed by the University of Texas Research and Development Center for determining stages of teacher concerns about an innovation and levels of teacher use of innovations. See references to Gene E. Hall and Susan Loucks and to Hall, Loucks, Rutherford, and Newlove in the bibliography. See also a description of this model in John P. Miller and Wayne Seller (see bibliography).

Websites

Center on Education Policy: cep-dc.org

Concerns-Based Adoption Model: nationalacademies.org/rise/backg4a.htm

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Curriculum Development
Components of the Process

Models for Curriculum Development

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SELECTING MODELS

The current literature of education is replete with discussions of modeling. Models, which are essentially patterns serving as guidelines for action, can be found for almost every form of educational activity. The profession has models of instruction, of administration, of evaluation, of supervision, and others. We can even find models of *curriculum* as opposed to models of *curriculum development*.[1]

Unfortunately, the term *model* as used in the education profession often lacks precision. It may be a tried or untried scheme. It may be a proposed solution to a piece of a problem, an attempt at a solution to a specific problem, or a microcosmic pattern for replication on a grander scale.

Some faculties have been *modeling* for years. They have been devising their own patterns for solving educational problems or establishing procedures, though they may not have labeled their activity as *modeling*.

Variation in Models

Some of the models found in the literature are simple; others are very complex. The more complex ones border on computer science, with charts that consist of squares, boxes, circles, rectangles, arrows, and so on. Within a given area of specialization (such as administration,

instruction, supervision, or curriculum development), models may differ but show great similarities. The similarities may outweigh the differences. Individual models are often refined or revised according to the current trends that are affecting the educational climate.

Practitioners to whom a model is directed, therefore, have a responsibility to understand the essential components of curriculum models. If the practitioners are not disposed to apply the models they discover, they may either design their own—by no means a rare event—or reject all models that prescribe order and sequence. They may thus proceed intuitively without the apparent limitations imposed by a model. After proceeding intuitively, the practitioners may then "put it all together" and come out with a working model at the end of the process instead of starting with a model at the beginning.

Three models of curriculum development are presented in this chapter. We believe that using a model in an activity such as curriculum development can result in greater efficiency and productivity.

By examining models for curriculum development, we can analyze the phases their originators conceived as essential to the process. The purpose of presenting two of the models (Tyler and Taba) is to acquaint the reader with a basis for curriculum development. The third model (Oliva) demonstrates how curriculum models have evolved due to the current trends in education. Two of the models (Tyler and Oliva) are deductive. They proceed from the general (e.g., examining the needs of society) to the specific (e.g., specifying instructional objectives). On the other hand, Taba's model is inductive and more "grass roots," starting with the actual development of curriculum materials and leading to generalization. The exercises at the end of the chapter will direct you to an additional model.

The three models described in this chapter are linear; that is, they propose a certain order or sequence of progression through the various steps. We use the term *linear* for models whose steps proceed in a more or less sequential, straight-line method from beginning to end. Perhaps the term "mostly linear" would be more accurate, since some doubling back to previous steps can take place even in "mostly linear" models. For simplicity's sake we will use the term *linear.* A nonlinear approach would permit planners to enter at various points of the model, skip components, reverse the order, and work on two or more components simultaneously. You might say that the ultimate in a nonlinear approach is the absence of any model, as when curriculum planners operate intuitively. Actually, linear models should not be perceived as immutable sequences of steps. Curriculum workers would exercise judgment as to the entry points and interrelationships of components of the models.

The three models presented in this chapter are prescriptive rather than descriptive. They suggest what ought to be done (and what is done by many curriculum developers). A descriptive model takes a different approach. Proposing a descriptive model, which he termed *naturalistic,* Decker F. Walker included three major elements: platform, deliberation, and design.[2] By *platform,* he meant the beliefs or principles that guided the curriculum developers. Platform principles lead to *deliberation,* the process of making decisions from the alternatives available. From deliberation comes the curriculum *design.* Walker contrasted the naturalistic or descriptive model with the classical or prescriptive model as follows:

> This model is primarily descriptive, whereas the classical model is prescriptive. This model is basically a temporal one; it postulates a beginning (the platform), an end (the design), and a process (deliberation) by means of which the beginning progresses to the end. In contrast, the classical model is a means-end model; it postulates a desired end (the objective), a means for attaining this end (the learning experience), and a process (evaluation)

for determining whether the means does indeed bring about the end. The two models differ radically in the roles they assign to objectives and to evaluation in the process of curriculum development.

In the classical model objectives are essential. . . . In the naturalistic model, on the other hand, objectives are only one means among others for guiding our search for better educational programs. . . .

Evaluation in the classical model is a self-corrective process for determining whether learning experiences lead to the attainment of given objectives. . . . In the naturalistic model this kind of evaluation is not *logically* necessary. Design decisions *can* be justified by reference to the platform only. . . . In the naturalistic model evaluation is a useful tool for justifying design decisions, even though it is quite possible and not nonsensical (although probably unwise) for a curriculum developer to neglect systematic formal evaluation.[3]

All of these models specify or depict major phases and a sequence for carrying out these phases. The models, including ours, show *phases* or *components,* not *people.* The various individuals and groups involved in each phase are not included in the models per se. To do so would require a most cumbersome diagram, for we would have to show the persons involved in every component. For example, if we showed the people involved in the component "specification of curriculum goals," we would need to chart a progression of steps from departmental committee to school faculty curriculum committee or extended school committee to principal to district curriculum committee to superintendent to school board. The roles of individuals and groups in the process are discussed elsewhere in this text.

MODELS OF CURRICULUM DEVELOPMENT

Curriculum development is seen here as the process for making programmatic decisions and for revising the products of those decisions on the basis of continuous and subsequent evaluation.

A model can give order to the process. As Taba expressed, curriculum development should be approached systematically. When considering both structure and strategy in curriculum development, the curriculum continually and authentically evolves in a relevant context.[4]

The Tyler Model

Perhaps the best—or one of the best-known—models for curriculum development with special attention to the planning phases can be found in Ralph W. Tyler's classic little book, *Basic Principles of Curriculum and Instruction,* which he wrote as a syllabus for his classes at the University of Chicago. "The Tyler rationale," a process for selecting educational objectives, is widely known and practiced in curriculum circles. Although Tyler proposed a rather comprehensive model for curriculum development, the first part of his model (selection of objectives) received the greatest attention from other educators.

Tyler recommended that curriculum planners identify general objectives by gathering data from three sources: the learners, contemporary life outside the school, and the subject matter. After identifying numerous general objectives, the planners refine them by filtering them through two screens: the educational and social philosophy of the school and the psychology of learning. The general objectives that successfully pass through the two screens become what are now popularly known as instructional objectives. In describing educational objectives, Tyler referred to them as "goals," "educational ends," "educational purposes," and "behavioral objectives."[5]

STUDENT AS SOURCE.   The curriculum worker begins his or her search for educational objectives by gathering and analyzing data relevant to student needs and interests. The total range of needs—educational, social, occupational, physical, psychological, and recreational—is studied. Tyler recommended observations by teachers, interviews with students, interviews with parents, questionnaires, and tests as techniques for collecting data about students.[6] By examining the needs and interests of students, the curriculum developer identifies a set of potential objectives.

SOCIETY AS SOURCE.   Analysis of contemporary life in both the local community and in society at large is the next step in the process of formulating general objectives. Tyler suggested that curriculum planners develop a classification scheme that divides life into various aspects such as health, family, recreation, vocation, religion, consumption, and civic roles.[7] From the needs of society flow many potential educational objectives. The curriculum worker must be something of a sociologist to make an intelligent analysis of needs of social institutions. After considering this second source, the curriculum worker has lengthened his or her set of objectives.

SUBJECT MATTER AS SOURCE.   For a third source the curriculum planner turns to the subject matter, the disciplines themselves. Many of the curricular innovations of the 1950s—the "new math," audio-lingual foreign language programs, and the plethora of science programs—came from the subject-matter specialists. From the three aforementioned sources curriculum planners derive general or broad objectives that lack precision and which we would prefer to call instructional goals. These goals may be pertinent to specific disciplines or may cut across disciplines.

Mauritz Johnson, Jr., held a different perspective about these sources. He commented that the "only possible source [of the curriculum] is the total available culture" and that only organized subject matter—that is, the disciplines, not the needs and interests of learners or the values and problems of society—can be considered a source of curriculum items.[8]

Once this array of possibly applicable objectives is determined, a screening process is necessary, according to Tyler's model, to eliminate unimportant and contradictory objectives. He advised the use of the school's educational and social philosophy as the first screen for these goals.

PHILOSOPHICAL SCREEN.   Tyler advised teachers of a particular school to formulate an educational and social philosophy. He urged them to outline their values and illustrated this task by emphasizing our democratic goals:

- the recognition of the importance of every individual human being regardless of race or national, social, or economic status;
- opportunity for wide participation in all phases of activities in the social groups in the society;
- encouragement of variability rather than demanding a single type of personality; and
- faith in intelligence as a method of dealing with important problems rather than depending on the authority of an autocratic or aristocratic group.[9]

In his discussion about the formulation of an educational social philosophy, Tyler personified the school. He talked about "the educational and social philosophy to which the school is committed," "when a school accepts these values," "many schools are likely to state," and "if the school believes."[10] Thus, Tyler made of the school a dynamic, living entity. The curriculum worker will review the list of general objectives and omit those that are not in keeping with the faculty's agreed-on philosophy.

PSYCHOLOGICAL SCREEN. The application of the psychological screen is the next step in the Tyler model. To apply the screen, teachers must clarify the principles of learning that they believe to be sound. "A psychology of learning," said Tyler, "not only includes specific and definite findings but it also involves a unified formulation of a theory of learning which helps to outline the nature of the learning process, how it takes place, under what conditions, what sort of mechanisms operate and the like."[11] Effective application of this screen presupposes adequate training in educational psychology and in human growth and development by those charged with the task of curriculum development. Tyler explained the significance of the psychological screen:

- A knowledge of the psychology of learning enables us to distinguish changes in human beings that can be expected to result from a learning process from those that cannot.
- A knowledge of the psychology of learning enables us to distinguish goals that are feasible from those that are likely to take a very long time or are almost impossible of attainment at the age level contemplated.
- The psychology of learning gives us some idea of the length of time required to attain an objective and the age levels at which the effort is most efficiently employed.[12]

After the curriculum planner has applied this second screen, his or her list of general objectives will be reduced, leaving those that are the most significant and feasible. Care is then taken to state the objectives in behavioral terms, which turns them into instructional, classroom objectives. We will return to the writing of behavioral objectives in Chapters 7, 8, and 10.

Tyler did not make use of a diagram in describing the process he recommended. However, W. James Popham and Eva L. Baker cast the model into the illustration shown in Figure 5.1.[13] In applying the Tyler rationale, Popham and Baker, advocates for the use of behavioral objectives, referred to the stage after the philosophical and psychological screenings as specification of "precise instructional objectives." Tyler saw that stage as the identification of a small number of important objectives that, although general in nature, are still specific enough to incorporate content and behavioral aspects. Tyler left room, however, for curriculum workers to determine educational objectives in keeping with what they believe about learning.[14] In this respect Tyler's

FIGURE 5.1
Tyler's Curriculum Rationale

Figure from W. James Popham and Eva L. Baker, *Establishing Instructional Goals* (Englewood Cliffs, NJ: Prentice-Hall, 1970), p. 87. Based on the work of Ralph W. Tyler, *Basic Principals of Curriculum and Instruction* (Chicago: The University of Chicago Press, 1949), pp. 3–85. Reprinted by permission of the University of Chicago, publisher.
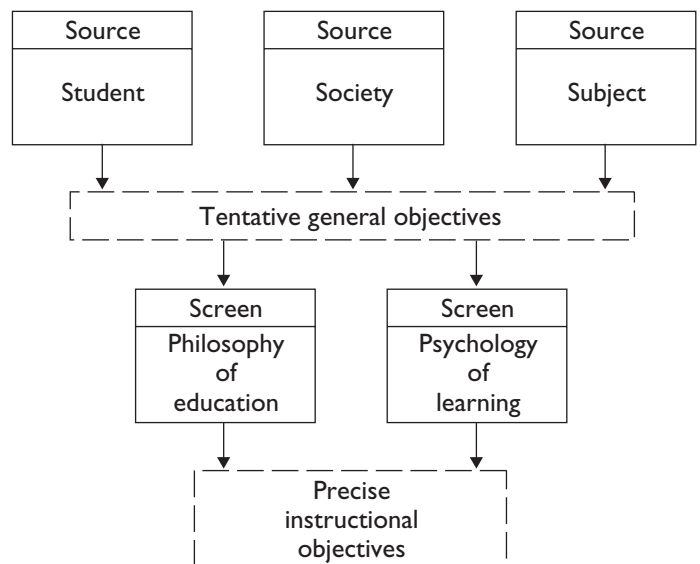
objectives, though behavioral in nature, may be somewhat less precise than those proposed by other behavioral objectives advocates.

For some reason, discussions of the Tyler model often stop after examining the first part of the model—the rationale for selecting educational objectives. Actually, Tyler's model goes beyond this process to describe three more steps in curriculum planning: selection, organization, and evaluation of learning experiences. He defined learning experiences as "the interaction between the learner and the external conditions in the environment to which he can react."[15] He suggested teachers give attention to learning experiences

- that will "develop skill in thinking"
- that will be "helpful in acquiring information"
- that will be "helpful in developing social attitudes"
- that will be "helpful in developing interests."[16]

He explained how to organize the experiences into units and described various evaluation procedures.[17] Although Tyler did not devote a chapter to a phase called direction of learning experiences (or implementation of instruction), we can infer that instruction must take place between the selection and organization of learning experiences and the evaluation of student achievement of these experiences.

EXPANDED MODEL.   We could, therefore, modify the diagram of Tyler's model by expanding it to include steps in the planning process after specifying instructional objectives. Figure 5.2 shows how such an expanded model might appear.

In discussing the Tyler rationale, Daniel and Laurel Tanner noted its debt to the progressive thought of John Dewey, H. H. Giles, S. P. McCutchen, and A. N. Zechiel.[18] The Tyler rationale, however, is not without its critics. As long ago as 1970, Herbert M. Kliebard took issue with Tyler's interpretation of the notions of needs, philosophical screens, selection of learning experiences, and evaluation.[19] Commenting that the Tyler rationale "has been raised almost to the status of revealed doctrine,"[20] Kliebard concluded, "But the field of curriculum . . . must recognize the Tyler rationale for what it is: Ralph Tyler's version of how a curriculum should be developed— not *the* universal model of curriculum development."[21]

Although acknowledging that "the influence of Ralph Tyler on the history of curriculum development cannot be underemphasized," Patrick Slattery took the position that "postmodern curriculum development is challenging the traditional curriculum development model of Ralph Tyler."[22] He observed that "postmodern curriculum development is concerned with biographical and autobiographical narrative. . . ."[23]

The apparent linear nature and lack of interdependence among the various components are criticisms of the Tyler rationale. If curriculum planners consider the components to be separate and fail to understand the interaction among the sources, curriculum development can become too mechanical a process. Tyler himself did not perceive the rationale as a strictly prescribed sequence of steps to be followed without fail by curriculum planners. Evidence of this can be seen in a lesser-known, but more complex, model of the rationale presented with coauthor Mario Leyton Soto. This rendition of the rationale reveals the integration and interdependence of the various components.[24]

Tanner and Tanner observed that Tyler's *Basic Principles* has been stubbornly present in curriculum literature since discussions began to take place, from the mid twentieth century to present day.[25] And, according to Decker F. Walker and Jonas F. Soltis, the importance of Tyler's rationale has not waned despite serious criticisms.[26] See Figure 5.2 for a detailed visual of Tyler's expanded rationale.

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┌──────────┐   ┌──────────┐   ┌──────────┐
│  Source  │   │  Source  │   │  Source  │
│          │   │          │   │          │
│ Student  │   │ Society  │   │ Subject  │
└────┬─────┘   └────┬─────┘   └────┬─────┘
     │              │              │
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                    ▼
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     Tentative general objectives
└─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
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┌────────────┐          ┌────────────┐
│   Screen   │          │   Screen   │
│ Philosophy │          │ Psychology │
│     of     │          │     of     │
│ education  │          │  learning  │
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   ┌─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
         Precise
         instructional
         objectives
   └─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
                │
                ▼
        ┌──────────────┐
        │ Selection    │
        │ of           │
        │ learning     │
        │ experiences  │
        └──────┬───────┘
               │
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        ┌──────────────┐
        │ Organization │
        │ of           │
        │ learning     │
        │ experiences  │
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          Direction
          of
          learning
          experiences
        └─ ─ ─ ─ ─ ─ ─ ┘
               │
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        │ Evaluation   │
        │ of           │
        │ learning     │
        │ experiences  │
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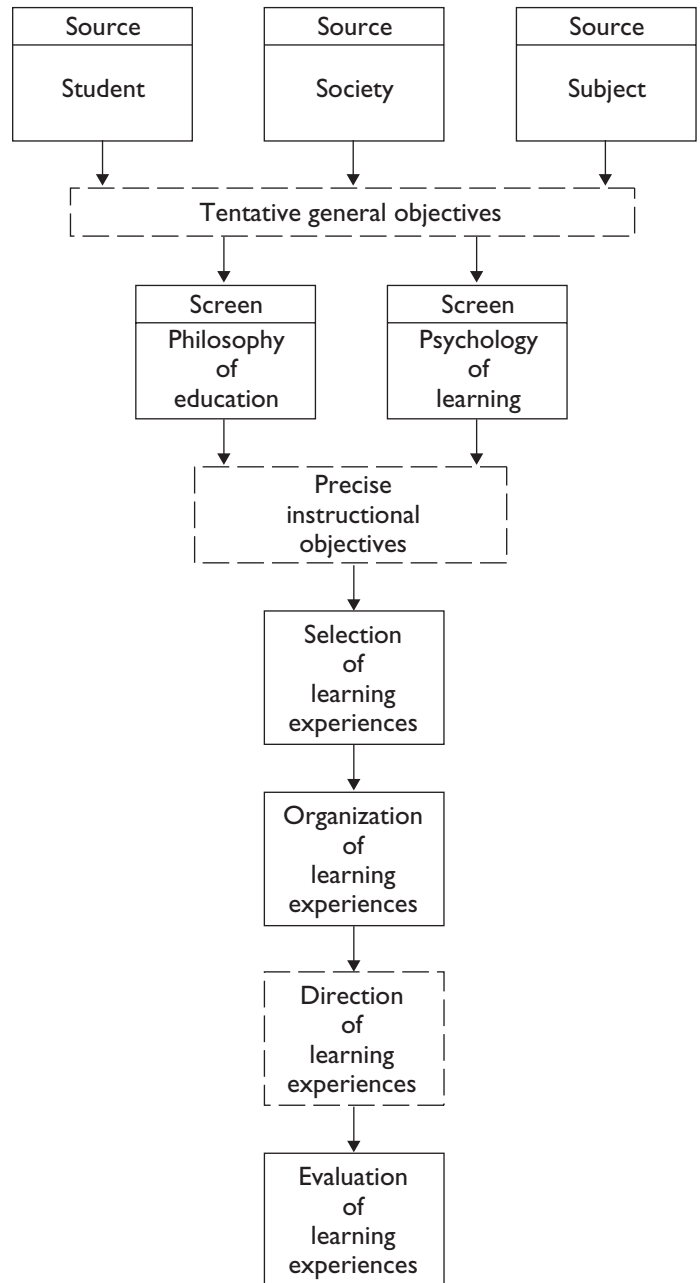
The Taba Model

Hilda Taba believed that the curriculum should be designed by the teachers rather than handed down by higher authority. Further, she felt that teachers should begin the process by creating specific teaching-learning units for their students in their schools rather than by engaging initially in creating a general curriculum design. Taba, therefore, advocated an inductive approach

to curriculum development, starting with the specifics and building up to a general design as opposed to the more traditional deductive approach of starting with the general design and working down to the specifics.

FIVE-STEP SEQUENCE.   Eschewing graphic exposition of her model, Taba listed a five-step inductive sequence for accomplishing curriculum change, as shown in Figure 5.3.[27] The first
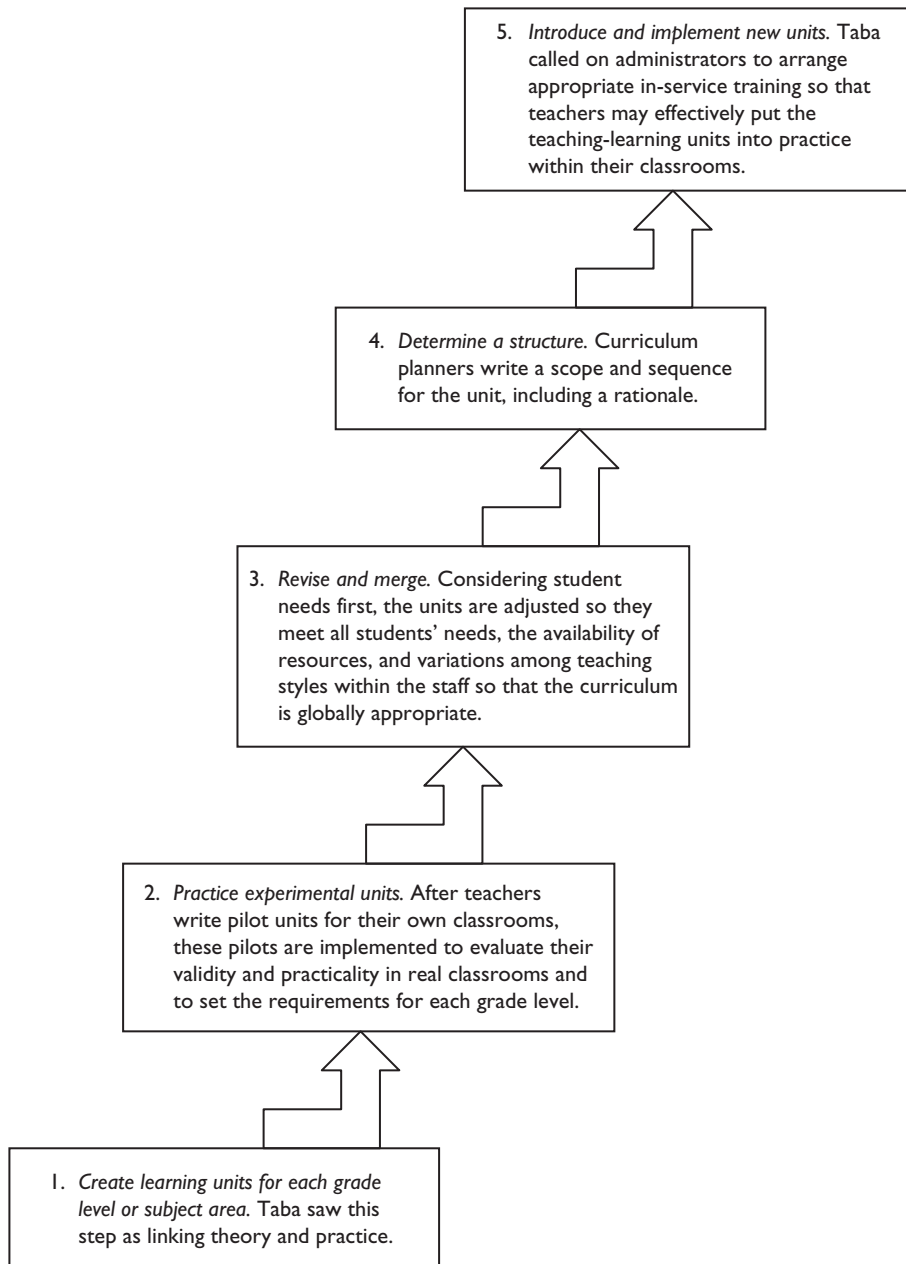
FIGURE 5.3
The Taba Model

Based on Hilda Taba, Curriculum Development: Theory and Practice (New York: Harcourt, Brace, Jovanovich, 1962), pp. 456–459.

5. *Introduce and implement new units.* Taba called on administrators to arrange appropriate in-service training so that teachers may effectively put the teaching-learning units into practice within their classrooms.

4. *Determine a structure.* Curriculum planners write a scope and sequence for the unit, including a rationale.

3. *Revise and merge.* Considering student needs first, the units are adjusted so they meet all students' needs, the availability of resources, and variations among teaching styles within the staff so that the curriculum is globally appropriate.

2. *Practice experimental units.* After teachers write pilot units for their own classrooms, these pilots are implemented to evaluate their validity and practicality in real classrooms and to set the requirements for each grade level.

1. *Create learning units for each grade level or subject area.* Taba saw this step as linking theory and practice.

step, *Create learning units for each grade level or subject area,* is comprised of eight substeps, which include diagnosing student needs to identify gaps, deficiencies, and variations among students; formulating objectives that emerge from the diagnosis; selecting content; organizing that content; selecting the specific learning experiences to meet the objectives; and determining the assessment for the unit, all the while ensuring that scope and sequence are in place.

After creating the unit, the curriculum developers will implement the unit, make necessary revisions, and determine a structure and sequence for optimum learning. Finally, school administrators will hold in-service training for teachers so they can effectively implement the units in their classrooms.

The Oliva Model

In the following pages we will look briefly at a deductive model that consists of twelve components. The subsequent chapters of Part III elaborate on each component. This model appears in Figure 5.4.

THE TWELVE COMPONENTS.   The model charted in Figure 5.4 illustrates a comprehensive, step-by-step process that takes the curriculum planner from the sources of the curriculum through evaluation. In Chapters 6 through 13, we will examine each part of the model. Each component (designated by Roman numerals I through XII) will be described and illustrations will be given to guide curriculum planners and their coworkers. Let us now undertake a cursory overview of the model.

You will note that both squares and circles are used in the model. The squares are used to represent planning phases; the circles, operational phases. The process starts with component I, at which time the curriculum developers state the aims of education and their philosophical and psychological principles. These aims are beliefs that are derived from the needs of our society and the needs of individuals living in our society. This component incorporates concepts similar to Tyler's "screens."

Component II requires an analysis of the needs of the community in which the school is located, the needs of students served in that community, and the exigencies of the subject matter that will be taught in the given school. Sources of the curriculum are seen as cutting across components I and II. Whereas component I treats the needs of students and society in a more general sense, component II introduces the concept of needs of particular students in particular localities, because the needs of students in particular communities are not always the same as the general needs of students throughout our society.

Components III and IV call for specifying curricular goals and objectives based on the aims, beliefs, and needs specified in components I and II. A distinction that will be clarified later with examples is drawn between goals and objectives. The tasks of component V are to organize and implement the curriculum and to formulate and establish the structure by which the curriculum will be organized.

In components VI and VII an increasing level of specification is sought. Instructional goals and objectives are stated for each level and subject. Once again we will distinguish between goals and objectives and will show by illustration how the two differ.

After specifying instructional objectives, the curriculum worker moves to component VIII, at which point he or she chooses instructional strategies for use with students in the classroom. Simultaneously, the curriculum worker initiates preliminary selection of evaluation techniques, phase A of component IX. At this stage the curriculum planner thinks ahead and begins to consider ways he or she will assess student achievement. The implementation of instructional strategies—component X—follows.
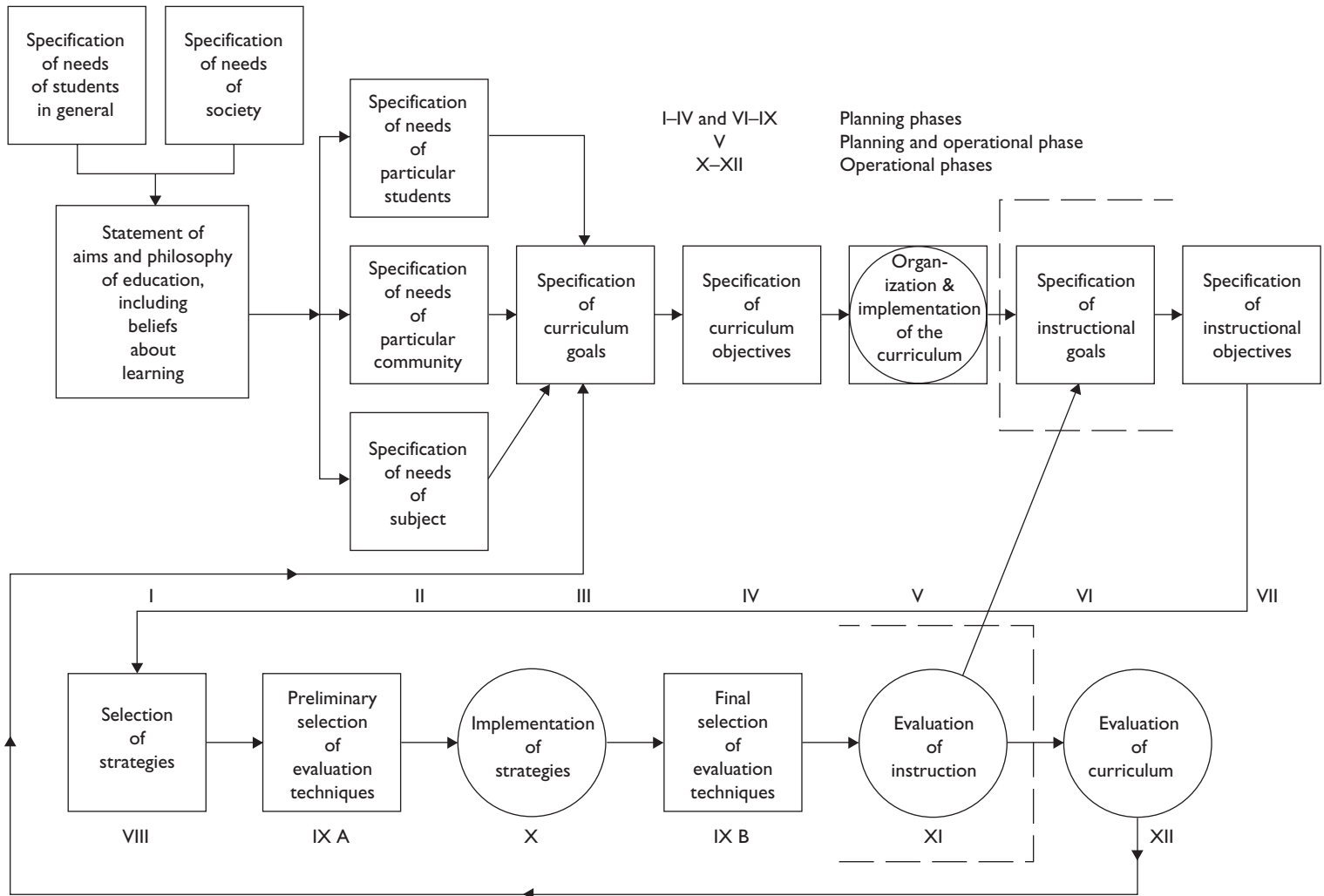
FIGURE 5.4 The Oliva Model for Curriculum Development

The following labels appear within the diagram:

Specification of needs of students in general

Specification of needs of society

Specification of needs of particular students

I–IV and VI–IX   Planning phases
V   Planning and operational phase
X–XII   Operational phases

Statement of aims and philosophy of education, including beliefs about learning

Specification of needs of particular community

Specification of curriculum goals

Specification of curriculum objectives

Organ-ization & implementation of the curriculum

Specification of instructional goals

Specification of instructional objectives

Specification of needs of subject

I   II   III   IV   V   VI   VII

Selection of strategies

Preliminary selection of evaluation techniques

Implementation of strategies

Final selection of evaluation techniques

Evaluation of instruction

Evaluation of curriculum

VIII   IX A   X   IX B   XI   XII

After the students have been provided appropriate opportunity to learn (component X), the planner returns to the problem of selecting techniques for evaluating student achievement and the effectiveness of the instructor. Component IX, then, is separated into two phases: the first *precedes* the actual implementation of instruction (IXA) and the second *follows* the implementation (IXB). The instructional phase component (component X) provides the planner with the opportunity to refine, add to, and complete the selection of means to evaluate pupil performance.

Component XI is the stage at which evaluation of instruction is carried out. Component XII completes the cycle with evaluation not of the student or the teacher but rather of the curricular program. In this model components I–IV and VI–IX are planning phases, whereas components X–XII are operational phases. Component V is both a planning and operational phase.

Like some other models, this model combines a scheme for curriculum development (components I–V and XII) and a design for instruction (components V–XI).

Important features of the model are the feedback lines that cycle back from the evaluation of the curriculum to the curriculum goals and from the evaluation of instruction to the instructional goals. These lines indicate the necessity for continuous revision of the components of their respective subcycles.

USE OF THE MODEL.   The model can be used in a variety of ways. First, the model offers a process for the complete development of a school's curriculum. The faculty of each special area—for example, language arts—can, by following the model, fashion a plan for the curriculum of that area and design ways in which it will be carried out through instruction, or the faculty may develop school wide, interdisciplinary programs that cut across areas of specialization.

Second, a faculty may focus on the curricular components of the model (components I–V and XII) to make programmatic decisions. Third, a faculty may concentrate on the instructional components (VI–XI).

TWO SUBMODELS.   This twelve-phase model integrates a general model for curriculum development with a general model for instruction. Components I–V and XII constitute a curriculum development submodel that we will refer to as the *curriculum submodel*. Components VI–XI constitute an *instructional submodel*. To distinguish between the curricular and instructional components, we have enclosed the instructional submodel within broken lines.

When the curricular submodel is followed, the curriculum planners must keep in mind that the task has not been completed until the curriculum goals and objectives are subsequently translated by them or by others into instruction. Furthermore, when the instructional submodel is followed, the instructional planners must be aware of the curriculum goals and objectives of the school as a whole or of a given subject area or areas.

At this point, in order to keep the model as uncluttered as possible, we have not attempted to show all the nuances of the model. At several places in subsequent chapters, certain refinements and embellishments of the model will be described.

For those who prefer a model in the form of steps instead of a diagram, the following is a listing of the steps shown in the model in Figure 5.4:

1. Specify the needs of students in general.
2. Specify the needs of society.
3. Write a statement of philosophy and aims of education.
4. Specify the needs of students in your school(s).
5. Specify the needs of the particular community.
6. Specify the needs of the subject matter.
7. Specify the curriculum goals of your school(s).

8. Specify the curriculum objectives of your school(s).
9. Organize and implement the curriculum.
10. Specify instructional goals.
11. Specify instructional objectives.
12. Select instructional strategies.
13. Begin selection of evaluation techniques.
14. Implement instructional strategies.
15. Make final selection of evaluation techniques.
16. Evaluate instruction and modify instructional components.
17. Evaluate the curriculum and modify curricular components.

Steps 1–9 and 17 constitute a curriculum submodel; steps 10–16, an instructional submodel.

Similarities and Differences among Models

The models discussed reveal both similarities and differences. Tyler, Taba, and Oliva outlined certain steps to be taken in curriculum development. Tyler's model is inductive and the concept of sources and screens stands out in his model. Taba's model is deductive and she advocated starting with specifics and then building to a general design. Oliva's model is inductive and he recognized that the needs of students in particular communities are not always the same as the general needs of students throughout our society.

Models are inevitably incomplete; they do not and cannot show every detail and every nuance of a process as complicated as curriculum development. In one sense the originator of a model is saying, often in graphic form, "These are the most important features." To depict every detail of the curriculum development process would require an exceedingly complex drawing or several models. One task in building a model for curriculum development is to determine what the most salient components in the process are—no easy task—and to limit the model to those components. Model builders feel themselves caught between the Scylla of oversimplification and the Charybdis of complexity to the point of confusion.

In looking at various models we cannot say that any one model is inherently superior to all other models. For example, some curriculum planners have followed the Tyler model for years with considerable success. On the other hand, this success does not mean, for example, that the Tyler model represents the ultimate in models for curriculum development or that any model, including Tyler's, is universally accepted as a basis for curriculum development. Before choosing a model or designing a new model—certainly a viable alternative—curriculum planners might attempt to outline the criteria or characteristics they would look for in a model for curriculum improvement. They might agree that the model should show the following:

1. major components of the process, including stages of planning, implementation, and evaluation
2. customary but not inflexible "beginning" and "ending" points
3. the relationship between curriculum and instruction
4. distinctions between curriculum and instructional goals and objectives
5. reciprocal relationships among components
6. a cyclical pattern
7. feedback lines
8. the possibility of entry at any point in the cycle
9. an internal consistency and logic
10. enough simplicity to be intelligible and feasible
11. components in the form of a diagram or chart

We would agree that these are reasonable criteria to follow, and, to this end, we will now propose a model incorporating these guidelines. The model will accomplish two purposes: (1) to suggest a system that curriculum planners might wish to follow, and (2) to serve as the framework for explanations of phases or components of the process for curriculum improvement.

The proposed model is not presented as the be-all and end-all of models for curriculum development, but rather as an attempt to implement the aforementioned guidelines. The proposed model may be acceptable in its present form to curriculum planners, especially those who agree with a deductive, linear, and prescriptive approach. It may, at the same time, stimulate planners to improve the model or to create another that would better reflect their goals, needs, and beliefs.

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Summary

Three models of curriculum development are presented in this chapter. Models can help us to conceptualize a process by showing certain principles and procedures. Whereas some models are in the form of diagrams, others are lists of steps that are recommended to curriculum workers. Some models are linear, step-by-step approaches; others allow for departure from a fixed sequence of steps. Some models offer an inductive approach; others follow a deductive approach. Some are prescriptive; others, descriptive.

Those who take leadership in curriculum development are encouraged to become familiar with various models, to try them out, and to select or develop the model that is most understandable and feasible for them and for the persons with whom they are working.

We have presented for consideration a model consisting of twelve components. This model is comprehensive in nature, encompassing both curricular and instructional development.

Questions for Discussion

1. On what basis would you choose a model for curriculum development?
2. Who should decide which model for curriculum development to follow?
3. In your opinion which is better: an inductive or a deductive model for curriculum development?
4. What are the strengths and limitations of a linear model for curriculum development?
5. In your opinion which is better: a prescriptive or a descriptive model for curriculum development?

Exercises

1. Explain why Tyler's model has been referred to as "linear" in nature and identify the presence or absence of linearity in each of the other models in this chapter.
2. Write a brief position paper, giving reasons for your position, on the question: "Is the Tyler rationale a suitable basis for current curriculum development?"
3. Explain how the Tyler and Taba models for curriculum development differ from each other.

4. Explain why components X, XI, and XII of the Oliva model are shown as circles whereas the other components, except for component V, are shown as squares. Explain why component V is depicted with both a square and a circle.
5. Write a report on the curriculum development model of J. Galen Saylor, William M. Alexander, and Arthur J. Lewis (see bibliography). Explain their concepts of goals, objectives, and domains.

Websites

Association for Supervision and Curriculum Development: ascd.org

National Staff Development Council: nsdc.org

Tyler e Hilda Taba: Modelo Racional Normativo: educacion .idoneos.com/index.php/363731 (click on "Translate this page to English," found at the bottom of the article)

Endnotes

1. For a model of *curriculum,* see Mauritz Johnson, Jr., "Definitions and Models in Curriculum Theory," *Educational Theory* 17, no. 2 (April 1967): 127–140.
2. Decker F. Walker, "A Naturalistic Model for Curriculum Development," *School Review* 80, no. 1 (November 1971): 51–67.
3. Ibid., pp. 58–59.
4. Hilda Taba, *Curriculum Development: Theory and Practice* (New York: Harcourt Brace Jovanovich, 1962), pp. 11–12.
5. Ralph W. Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: The University of Chicago Press, 1949), pp. 3, 37, 57.
6. Ibid., pp. 12–13.
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8. Johnson, "Definitions and Models," p. 132.
9. Tyler, *Basic Principles,* p. 34.
10. Ibid., pp. 33–36.
11. Ibid., p. 41.
12. Ibid., pp. 38–39.
13. W. James Popham and Eva L. Baker, *Establishing Instructional Goals* (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 87.
14. Tyler, *Basic Principles,* pp. 43, 50, 57.
15. Ibid., p. 63.
16. Ibid., Chapter 2.
17. Ibid., Chapters 3 and 4.
18. Daniel Tanner and Laurel Tanner, *Curriculum Development: Theory into Practice,* 4th ed. (Upper Saddle River, N.J.: Merrill/Prentice-Hall, 2007), p. 134.
19. Herbert M. Kliebard, "The Tyler Rationale," *School Review* 78 (February 1970): 259–272.
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25. Tanner and Tanner, *Curriculum Development,* p. 134.
26. Decker F. Walker and Jonas F. Soltis, *Curriculum and Aims* (New York: Teachers College Press, 2004), pp. 55.
27. Taba, *Curriculum Development,* pp. 456–459.

Philosophy and Aims of Education

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USING THE PROPOSED MODEL

A comprehensive model for the process of curriculum development, consisting of twelve phases or components, was presented in Chapter 5. For a moment, let's take another look at it (see Figure 5.4), and then we will underscore some of its characteristics.

Examining the model reveals the following special characteristics:

1. *The model flows from the most general (aims of education) to the most specific (evaluation techniques).* Beginning here and in the remaining chapters of Part III, we will describe each component and define its terms in such a way as to show this flow.

2. *The model can be followed by curriculum planning groups (or even to some extent by individuals) in whole or in part.* The model allows for a comprehensive, holistic study of the curriculum. Given the many demands on the time of teachers, administrators, and others, it is likely that a complete look at the curriculum—from the aims of education (component I) to evaluation of the curriculum (component XII)—will be carried out only periodically. Although somewhat arbitrary, reassessment and revision of the various phases might be considered on the schedule shown in Box 6.1.

BOX 6.1	Suggested Schedule for Reassessing Curriculum Development Components		

	In Depth	Limited
Aims of education	Every 10 years	Every 5 years
Assessment of needs	Every 3 years	Every year
Curriculum goals	Every 2 years	Every year
Instructional goals	Every year	Continuously
Instructional objectives	Every year	Continuously
Organization and implementation of the curriculum	Every 10 years	Every year
Other components	Continuously	Continuously

Faculties may wish to set their own schedules for considering the various components. Those components that are closest to the faculty, involve fewer persons, are more easily managed, and are less costly in time and money might be reassessed with greater frequency than those components that are more remote, involve many persons, are more difficult to manage, and are more costly.

3. *A single curriculum group, such as the curriculum committee of an individual school, department, or grade, will not carry out all phases of the model by itself.* Various groups, subgroups, and individuals will assume responsibility for different parts of the model. One group (for example, the school's curriculum council) may work on the first component, the aims of education. A subgroup may conduct a needs assessment and study the sources of curricular needs. The school's curriculum council may attempt to define schoolwide curriculum goals and objectives while committees within the various disciplines identify curriculum goals and objectives within particular fields. Individual faculty members and groups in various grades and departments will be engaged in specifying instructional goals and objectives. Decisions at any phase that have relevance to the entire school may be presented to the total faculty for its information and support or rejection. Throughout the process, decisions made by any of the subgroups must be presented so that relationships among the various components are clearly understood. In this respect the curriculum council of the school will serve as a coordinating body.

4. *With modifications, the model can be followed at any level or sector of curriculum planning.* Parts of the model may also be applied at the various levels and sectors that were discussed in Chapter 3.

AIMS OF EDUCATION

Proliferation of Terms

The educational literature uses a proliferation of terms, rather loosely and often interchangeably, to signify terminal expectations of education. Educators speak of "outcomes," "aims," "ends," "purposes," "functions," "goals," and "objectives." Although these terms may be used synonymously in common language, it is helpful if distinctions are made in pedagogical language.

In this book the term "outcome" applies to terminal expectations generally. "Aims" are equated with "ends," "purposes," "functions," and "universal goals." The aims of education are

the very broad, general statements of the purposes of education; they are meant to give general direction to education throughout the country. Decker F. Walker and Jonas F. Soltis likened aims of education to wishes for "something desirable for people in general *that is only possible for them to have because of something they learn.*"[1]

In this text "curriculum goals," "curriculum objectives," "instructional goals," and "instructional objectives" are separate entities of special relevance to the local school or school system. Curriculum goals are defined as general, programmatic expectations without criteria of achievement or mastery, whereas curriculum objectives are specific, programmatic targets with criteria of achievement and, therefore, are measurable. The curriculum objectives stem from the curriculum goals.[2] Both curriculum goals and curriculum objectives trace their sources to the school's philosophy and the statement of aims of education.

Instructional goals are statements of instructional targets in general (i.e., nonobservable terms formulated without criteria of achievement), whereas instructional objectives are expected learner behaviors that are formulated, with possible exceptions for those behaviors in the affective domain, in measurable and observable terms.[3] Instructional objectives are derived from instructional goals, and both instructional goals and instructional objectives originate from the curriculum goals and objectives.

The aims of education have special relevance to the nation as a whole. We will talk about aims of our educational system, society, and country. Presumably, in former days we could have set forth regional aims for the North, South, Midwest, and West. In the twenty-first century, however, it would seem an anachronism to promote regional aims as if the broad purposes of education in California, for example, were different from those in New York or the purposes of education in Indiana different from those of Mississippi.

Global Aims

It is possible, even desirable, to define aims of education on a global scale, and sometimes such definitions are attempted. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) is the foremost exponent of attempts on a worldwide scale to state aims of education for humanity. Among the aims of education that UNESCO seeks to promote are these:

- fostering international understanding among all peoples of the world
- improving the standard of living of people in the various countries
- solving continuing problems that plague humanity, such as war, disease, hunger, and unemployment[4]

Similar organizations, such as the Organization of American States,[5] are also concerned with the aims of education on an international scale. The few Americans who participate in such organizations find some opportunity for expressing aims of education that can apply across national boundaries. More common are statements of aims of education by the respective nations of the world to guide the development of their own educational systems.

In any discipline, the field of curriculum notwithstanding, the specialist seeks to find or develop generalizations or rules that apply in most situations. On the other hand, the specialist must always be aware that exceptions may be found to most rules. Although we may hold to the view that curriculum development is a group process and is more effective as a result of that process, we must admit that individuals can carry out any of the components of the suggested model of curriculum development. It would seem at first sight, for example, that defining aims of education to which the entire country might subscribe would certainly be a group project. However,

as we shall see, several significant statements of aims of education have been made over the years by prominent individuals. When statements are generated by individuals instead of groups, members of the social structure for which the aims are intended become, in effect, consumers and interpreters of the ideas of individuals—certainly a tenable procedure.

That statements of aims, goals, and objectives may originate from individuals rather than groups should not invalidate them. It might be said that "while individuals propose, the group will dispose." Groups should react to coherent statements in a deliberative manner. The model of curriculum development should not be construed to eliminate spontaneous, individual efforts at curriculum development. Some of the most successful innovations in schools have been effected as the result of the work of independently motivated mavericks on the school's staff.

Statements of Purposes

We are confronted with aims of education when we read statements of purposes promulgated by various societies at various times around the world, for example:

- to inculcate family values
- to prepare youth to fit into a planned society
- to promote free enterprise
- to promote the Judeo-Christian heritage
- to create citizens who will serve the fatherland
- to prepare an enlightened citizenry
- to nurture the Islamic culture
- to correct social ills
- to further the glorious revolution

We encounter aims of education in a descriptive form when someone makes declarations such as the following:

- Education is life, not preparation for life.
- Education is the molding of the young to the values of the old.
- Education is the transmission of the cultural heritage.
- Education is vocational training.
- Education is the liberal arts.
- Education is training in socialization.
- Education is intellectual development.
- Education is personal development.
- Education is socialization of groups and individuals.
- Education is the development of technological skills.

We can even find implied aims of education in slogans such as these:

- If you think education is expensive, try ignorance.
- If you can read this sign, thank a teacher.
- A sound mind in a sound body.

Presumably ever since primitive peoples discovered that the flint axe was more effective for killing game than a wooden club, that animal skin protected their bodies against the elements, and that roast boar was superior to raw, they continually discussed what training they must provide their Neanderthal young so that they could cope with their environment. In their own primitive way they must have dealt with the heady topic of the purposes of education in Neanderthal Land.

Today, many thousands of years later, people still affirm coping with the environment as a central purpose of education. The common term to express this purpose is "survival skills." Instead of learning coping skills like stalking a gazelle, frightening a tiger, and spearing a fish, today's children must master the basic academic skills, learn to conserve resources, learn to live on a more densely populated planet (numbering seven billion people by late 2011), develop computer literacy, and know how to earn a legitimate living. Sometimes, as has been the case throughout the history of humankind, the martial arts become survival skills. Not only do the martial arts become a priority when a nation is confronted by an enemy from beyond its borders, but it is a revealing commentary on today's civilization that many Americans feel it is necessary to enroll in self-defense and weapons classes to protect themselves from predators on the streets of urban areas; some even advocate carrying guns onto college campuses.[6]

Derivation of Aims

The aims of education are derived from examining the needs of children and youth in our American society, from analyzing our culture, and from studying the various needs of our society. Given the historic development of nations with their own institutions, mores, and values, and often their own language, no two countries exhibit exactly the same needs. One does not have to be an anthropologist to recognize that the needs of Chinese, English, Japanese, Mexican, Russian, or Tahitian youngsters are not identical to those of American youth. The automobile, for example, has become a "need" of American high school youth if we judge by the school parking lot crammed with students' vehicles. Today it's an everyday occurrence to see young people and adults with the ubiquitous cellular phone glued to their ears. Laptop computers and smart phones, all with up-to-the-minute WIFI access and electronic apps, are perceived as "needs" in today's society.

Few countries have such a heterogeneous population as the United States. A comment often heard about people in the Sunbelt cities of America, "Everybody here is from someplace else," might be extended to America in toto. We are a nation of immigrants who have brought, as some say, both the best and the worst traits of the societies that we left. We cannot even claim the Native Americans, who were here first, as indigenous to America, for theory holds that they themselves migrated out of Asia across the Bering Strait.

Such heterogeneity makes it extremely difficult to reach consensus on aims of education and particularly on values central to aims. Many years ago the National Education Association attempted to identify moral and spiritual values that it believed should be taught in the public schools.[7] They listed ten values, among which were moral responsibility, common consent, and the pursuit of happiness.

The assumption was made that these were common values held by a majority of the people of the society at that particular time. On how many of these values could we still reach consensus?[8] The specter of indoctrination has loomed so large that educators are often hesitant to identify broad-based, common, secular values to which Americans as a whole can subscribe.

We are witnessing renewed interest in character education in the schools and community organizations. Michael S. Josephson, founder of the Josephson Institute Center for Youth Ethics, sponsors CHARACTER COUNTS! promoting ethical decision making.[9] The U.S. Congress gave added emphasis to the teaching of values when it proclaimed in 1997 a National Character Counts Week to be celebrated each year in October.[10] The extensive list of committees, educational and service organizations, and schools and school districts subscribing to the principles of CHARACTER COUNTS! attests to the broad public support for teaching values to young people in school and out.[11]

Affirming the importance of character education, the Character Education Partnership annually chooses winners of its National Schools of Character awards.[12] Finding common ground may prove somewhat difficult considering results of polls of moral views and values that reveal the gap between values held by Americans on the morality of a number of behaviors and social policies.[13]

We will return to the question of teaching values when we examine the issue of religion in the schools in Chapter 15.

SALAD BOWL VERSUS MELTING POT.   As our heterogeneous population reveals plural rather than common values, the "salad bowl" concept now challenges the old "melting pot" idea. Some people argue that since few, if any, common values exist in our society, we should no longer strive to assimilate values, but should collect and assemble the diverse values in a salad-like concoction that preserves the essence of each. If we make this dilemma an either/or question, we create a false dichotomy. We need the salad bowl concept to preserve the values on which Americans are divided, such as materialistic versus nonmaterialistic goals, "pro-choice" versus "right to life," and sectarian versus secular goals. On the other hand, we need the melting pot concept to preserve fundamental, overarching values that guide us as a nation.

In recent years the salad bowl/melting pot controversy has intensified. Whether to promote multicultural values or common values of American society is a highly charged issue both in public schools and on college campuses. As we examine statements of aims of education, we soon discover that these statements are, in effect, philosophical positions based on some set of values and are derived from an analysis of society and its children and youth.

Statements by Prominent Individuals and Groups

To gain a perception of statements of educational aims, let's sample a few of the better known ones proffered by various individuals and groups over the years. In 1916 John Dewey described the functions of education in a number of ways, including its socialization of the child and its facilitation of personal growth.[14] Putting these concepts into the form of aims of education, we could say that, according to Dewey, the aims of education are (1) to socialize the young, thereby transforming both the young and society; and (2) to develop the individual in all his or her physical, mental, moral, and emotional capacities.

Dewey made it clear that the school is an agency for socializing the child when he noted both psychological and sociological sides to the process of education and viewed the school as primarily a social institution.[15] Dewey elaborated on his conception of education as growth when he observed, "Since in reality there is nothing to which growth is relative save more growth, there is nothing to which education is subordinate save more education."[16]

The National Education Association's Commission on the Reorganization of Secondary Education in 1918 spoke to the role of education in our democratic society in this way: "Education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward even nobler ends."[17]

The Educational Policies Commission of the National Education Association in 1937 related the aim of education to democracy as follows:

> In any realistic definition of education for the United States, therefore, must appear the whole philosophy and practice of democracy. Education cherishes and inculcates its moral values, disseminates knowledge necessary to its functioning, spreads information relevant to its institutions and economy, keeps alive the creative and sustaining spirit without which the latter is dead.[18]

In 1943—in the midst of World War II—James B. Conant, president of Harvard University, appointed a committee of professors from the fields of education and the liberal arts and sciences to examine the place of general (i.e., required, liberal) education in American society. The Harvard Committee on General Education took the position that the aim of education was "to prepare an individual to become an expert both in some particular vocation or art and in the general art of the free man and the citizen."[19] To accomplish this aim the Harvard Committee recommended a prescribed set of subjects, including English, science, mathematics, and the social studies, for all secondary school pupils.[20]

Statements of aims of education repeatedly address great themes such as democracy and the progress of humanity. In 1961 the National Education Association's Educational Policies Commission elaborated on the role of education in solving the problems of humanity:

> Many profound changes are occurring in the world today, but there is a fundamental force contributing to all of them. That force is the expanding role accorded in modern life to the rational powers of man. By using these powers to increase his knowledge, man is attempting to solve the riddles of life, space, and time which have long intrigued him.[21]

Before the Committee on Appropriations of the United States House of Representatives of the Eighty-Seventh Congress in 1962, Vice-Admiral Hyman G. Rickover, generally acknowledged as the father of the nuclear submarine, testified on distinctions between American and British educational systems and formulated for the committee the aims of education as he saw them:

> There is general agreement abroad that a school must accomplish three difficult tasks: First, it must transmit to the pupil a substantial body of knowledge; second, it must develop in him the necessary intellectual skill to apply this knowledge to the problems he will encounter in later life; and third, it must inculcate in him the habit of judging issues on the basis of verified fact and logical reasoning.[22]

Mortimer J. Adler expressed the aim of education and schooling as follows: "The ultimate goal of the educational process is to help human beings become educated persons. Schooling is the preparatory stage; it forms the habit of learning and provides the means for continuing to learn after all schooling is completed."[23]

John I. Goodlad addressed the themes of social purposes served by the schools, educational goals and aims, and school goals. He divided the school goals into four categories: academic, vocational, social and civic, and personal. He and his colleagues analyzed approximately a hundred goals from various sources and refined them into a list of ten categories that they saw as encompassing generally accepted goals for schooling in the United States: mastery of basic skills and fundamental processes, intellectual development, career education–vocational education, interpersonal understandings, citizenship participation, enculturation, moral and ethical character, emotional and physical well-being, creativity and aesthetic expression, and self-realization.[24]

Theodore R. Sizer, who was instrumental in the formation of the Coalition of Essential Schools in 1984, wove into his narrative of the fictitious Franklin High School the purposes of schooling and at the same time pointed out an American dilemma: "some Americans do not see the schools as engines both of information and of intellectual liberation. Indeed, they find the latter—especially when so described—to be intolerable."[25]

Conflict over what education should be like dates back to ancient times, as Herbert M. Kliebard pointed out in quoting from Aristotle's *Politics:*

At present opinion is divided about the subjects of education. All do not take the same view of what should be learned by the young, either with a view to plain goodness or with a view to the best life possible; nor is opinion clear whether education should be directed mainly to understanding, or mainly to moral character. If we look at actual practice, the result is sadly confusing; it throws no light on the problem whether the proper studies to be followed are those which are useful in life, or those which make for goodness, or those which advance the bounds of knowledge. Each sort of study receives some votes in favor.[26]

This amazingly pertinent observation from ancient Greece more than 2000 years ago might well have come from the word processor of an author in the twenty-first century. In Chapter 9 you will encounter additional beliefs of individuals and groups about the aims of education when we examine some of the recommendations made in recent years for reform of the schools. You will also encounter, in Chapter 15, philosophical and often conflicting positions and recommendations of other individuals and groups demanding reform and restructuring of the schools.

Statements from the Federal Government

In recent years the federal government has issued several influential statements of aims in the form of statutes: America 2000 (1990), Goals 2000: The Educate America Act (1994), the No Child Left Behind Act (2001), and the American Recovery and Reinvestment Act (2009).

AMERICA 2000.   In September 1989 at the University of Virginia, President George H. W. Bush and the National Governors' Association developed a statement of six performance goals. The president presented this statement to the nation in his State of the Union address in January 1990 and announced in the following spring proposals for implementing the goals. Known as *America 2000,* the proposals included the creation of 535 experimental schools (one in each congressional district) for the purpose of demonstrating effective curricula and instructional techniques; voluntary national examinations in English, mathematics, science, history, and geography at the fourth-, eighth-, and twelfth-grade levels; and parental choice of school.

The six performance goals to be reached by the year 2000 were as follows:

1. All children in America will start school ready to learn.
2. The high school graduation rate will increase to at least ninety percent.
3. American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter, including English, mathematics, science, history, and geography, and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.
4. U.S. students will be first in the world in science and mathematics achievement.
5. Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and to exercise the rights and responsibilities of citizenship.
6. Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning.[27]

The proposals for implementing the goals were in keeping with recommendations of the 1990 Commission on the Skills of the American Workforce, which advocated national standards and national examinations.[28] Many educators welcomed realization of these noble goals but doubted very much that they could be reached in the short time to the year 2000. Educators

expressed concern about the lack of federal funding to implement the proposals, the effects of parental choice on the public schools, the expenditure of more than 500 million dollars for experimental schools, and the burden of new national examinations. Some educators wondered about the need for new national examinations, since the National Assessment of Educational Progress already assessed student achievement in thirty-seven states.[29] Objecting to national assessment tests, some educators feared that national tests could lead to a national standardized curriculum which they found unacceptable in principle.

The Congress moved to implement America 2000 by creating the National Council on Education Standards and Testing. Its duty was to oversee development of (1) national standards, beginning in the five disciplines: English, mathematics, science, history, and geography, with the possibility of adding other disciplines at a later date; and (2) a voluntary system of national assessment based on the standards.

Piloting of new examinations began in seventeen states in the spring of 1992 under the direction of the New Standards Project formed by the University of Pittsburgh's Research and Development Center and the National Center on Education and the Economy. The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation provided substantial financial support to the New Standards Project. That not all curriculum theorists subscribed to America 2000 can be seen in the remarks of Henry A. Giroux:

> Under the guise of attempting to revitalize the language of leadership and reform, these reports signify a dangerous attack on some of the most fundamental aspects of democratic public life and the social, moral, and political obligations of responsible, critical citizens.[30]

GOALS 2000: THE EDUCATE AMERICA ACT.   Following the initiative begun in the Bush administration, in the spring of 1994 the Congress passed and President Bill Clinton signed the *Goals 2000: The Educate America Act* authorizing federal support to the states for plans to improve the schools, reiterating in slightly edited form the six national goals earlier proposed, and adding the following two goals calling for staff development for teachers and increased parental involvement:

- The nation's teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills needed to instruct and prepare all American students for the next century.
- Every school will promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children.[31]

Addressing the Goals 2000: The Educate America Act, Maxine Greene saw problems with this "new national agenda for education" that called for achievement of subject-matter standards and for national assessment: (1) the presumption that "it is realizable, poverty and inequality notwithstanding"; (2) "the implication that standards and tests can simply be imposed"; and (3) the "untapped diversity among American youth today."[32] Said Greene, "The familiar paradigms seem still to be in use; the need for alternative possibilities in the face of economic and demographic changes is repressed or ignored."[33]

Citing the family as the crucial element in raising educational standards, critics of the legislation decried the expenditure of millions of dollars, which they maintained would not guarantee improvement in the schools. They objected to involvement of the federal government in education, which they believed takes autonomy away from the local schools and deprives them of their uniqueness.

It did not take a soothsayer to predict that the goals of the ambitious America 2000 and Goals 2000: The Educate America Act would not be realized by the year 2000. In fact, none of the goals had been fully achieved by that date.

NO CHILD LEFT BEHIND ACT OF 2001 (NCLB).   Recognizing continuing deficiencies in education, the U.S. Congress ventured once again into the field of K–12 education, reauthorizing the Elementary and Secondary Education Act of 1965 in the form of the comprehensive PL 107-110, the No Child Left Behind Act of 2001. It was signed into law by President George W. Bush in January 2002. State educational agencies receive federal funding through grants to address the ten titles of the act, which are briefly listed as follows:

Title I: Improving the academic achievement of the disadvantaged with special attention to reading and literacy.

Title II: Preparing, training, and recruiting high-quality teachers and principals.

Title III: Providing language instruction for limited English-proficient and immigrant students.

Title IV: Promoting 21st Century Schools: Safe and Drug-Free Schools and Communities.

Title V: Promoting informed parental choice and innovative programs.

Title VI: Improving academic achievement through accountability, flexibility, voluntary partnerships among the states, and the development of state assessments and standards.

Title VII: Meeting the educational and culturally related academic needs of American Indian, Native Hawaiian, and Alaska Native students.

Title VIII: Payments related to federal acquisition of real property and grants for school repairs and modernization.

Title IX: Provision regarding daily membership and attendance and definition of the terms used.

Title X: Provisions related to repeals, redesignations, and amendments to other statutes.[34]

NCLB has been up for either reauthorization, revision, or termination by the U.S. Congress. However, since the Congress had not taken action by 2011, President Obama by executive order in September 2011 gave states the opportunity to opt out of some of the requirements of NCLB. The states in return must demonstrate efforts to improve academic achievement.[35]

American Recovery and Reinvestment Act of 2009 (ARRA)

In February of 2009 President Barack Obama signed into law the American Recovery and Reinvestment Act, which offered financial incentives for states to improve academic performance by creating the Race to the Top Fund. This 4.35-billion-dollar fund was established to reward states that increase student achievement and demonstrate that they have a plan to sustain growth. Specifically, the federal government seeks to reward states that achieve significant improvement in student outcomes, including making substantial gains in closing achievement gaps, improving high school graduation rates, ensuring student preparation for success in college and careers, and in implementing ambitious plans in four core education reform areas as follows:

- Adopting standards and assessments that prepare students to succeed in college and the workplace and to compete in the global economy.
- Building data systems that measure student growth and success, and inform teachers and principals about how they can improve instruction.

- Recruiting, developing, rewarding, and retaining effective teachers and principals, especially where they are needed most, and
- Turning around our lowest-achieving schools.[36]

The first states to receive Race to the Top grants were Delaware and Tennessee,[37] followed in the second round by nine states (Florida, Georgia, Hawaii, Maryland, Massachusetts, New York, North Carolina, Ohio, and Rhode Island) plus the District of Columbia.[38]

The federal government obviously plays and will continue to play a fundamental role in identifying and promoting the aims of education in America. You will note that the statements of aims of education cited in this chapter vary from advocacy of cognitive competencies alone to concern for the development of cognitive, affective, and psychomotor competencies. We will revisit the issues of national standards and national assessment in Chapter 15.

PHILOSOPHIES OF EDUCATION

Greene defined philosophy as "a way of framing distinctive sorts of questions having to do with what is presupposed, perceived, intuited, believed, and known."[39] "Educational philosophy," wrote Greene, "is a matter of doing philosophy with respect to the educational enterprise as it engages the educator. . . . To do educational philosophy is to become critically conscious of what is involved in the complex business of teaching and learning."[40]

Statements of aims of education are positions taken that are based on a set of beliefs—a philosophy of education. Clearly, the authors of the illustrations of aims cited in the preceding section held certain assumptions about education, society, and how young people learn. An aim of education, then, is a statement of beliefs central to the author's philosophical creed that is directed to the mission of the school.

Four major philosophies of education have demanded the attention of educators. Only two of these philosophies appear to have large followings in today's schools. The four philosophies discussed in these pages are *reconstructionism, progressivism, essentialism, and perennialism.*

These four schools of thought can be charted from the most liberal to the most conservative as shown in Figure 6.1. Reconstructionism at the far left is the most liberal of these four philosophies, and perennialism at the far right is the most conservative. Although essentialism and progressivism have been widely accepted and practiced by educators, neither reconstructionism nor perennialism has found widespread endorsement in the schools. The American public appears to be far too conservative to espouse reconstructionism as a prevailing philosophy, and at the same time far too liberal to accept perennialism. Since reconstructionism and perennialism have had less impact on the schools than the two other philosophies, we will discuss them first and then come back to the two more pervasive philosophies, essentialism and progressivism.

FIGURE 6.1
Four Philosophies
of Education
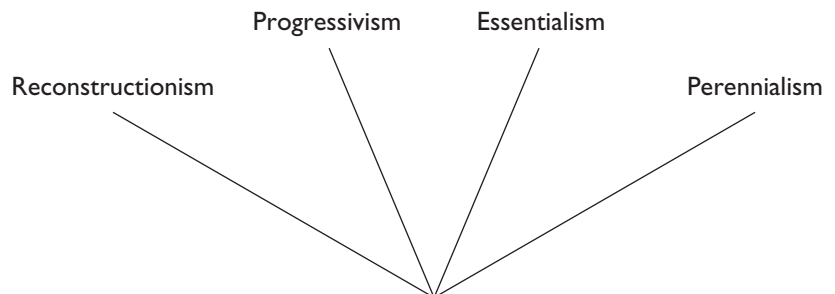
A word of explanation about the following discussion: although this text chooses to elaborate on *philosophies of education,* we must recognize that *philosophies of education* stem from more general *philosophies of life.* As J. Donald Butler commented, "aims of education cannot just be pulled out of a hat, but must be derived from more fundamental and general thinking about value, reality, and knowledge."[41] Allan C. Ornstein and Francis P. Hunkins attributed the curriculum worker's philosophy to "his or her life experiences, common sense, social and economic background, education, and general beliefs about himself or herself and people."[42] Discussion of general philosophies is beyond the scope of this text. Numerous books describe various schools of philosophy. We would recommend two excellent, readable references:

> J. Donald Butler (see bibliography). Butler described naturalism, idealism, realism, and pragmatism. He included also treatments of existentialism and language analysis.

> Will Durant (see bibliography). Durant described the thinking of fifteen great philosophers.

Reconstructionism

Hilda Taba pointed out that John Dewey viewed the **function** of the school through a psychological and social lens. Taba contends that Dewey and his disciples viewed education as an artist might view clay: as the medium through which culture can continually be shaped and reshaped, as the impetus of social reconstruction, moving from maintaining the status quo to igniting change.[43]

Branching out from Dewey's philosophy, the reconstructionists followed a path that led them to propose using the school to achieve what they considered to be improvements in society. George S. Counts, in his much-discussed book, *Dare the School Build a New Social Order?*, challenged educators to reconsider the role of schools in our society.[44] In essence, reconstructionism holds that the school should not simply transmit the cultural heritage or simply study social problems, but should become an agency for solving political and social problems. The subject matter to which all youngsters should be exposed consists of unsolved, often controversial, problems of the day such as unemployment, health needs, housing needs, and ethnic problems. Group consensus is the methodology by which solutions to the problems are sought.

Theodore Brameld made clear the values of the reconstructionists, referring to twelve needs including companionship, health, nourishment, and shelter.[45]

Some educators agree that young people should consider pressing social, economic, and political problems and even attempt to reach consensus on possible solutions. They do take exception, however, when teachers propose their own specific solutions, raising the specter of indoctrination, a practice unacceptable to most schools of philosophy. With its heavy emphasis on controversial social issues and its major premise to make the school a primary agency for social change, reconstructionism has not made great inroads into the largely middle-class, centrist schools of the United States.

Perennialism

In the tradition of Plato, Aristotle, and the scholasticism of the Catholic thinker St. Thomas Aquinas, the contemporary perennialists see the aims of education as the disciplining of the mind, the development of the ability to reason, and the pursuit of truth. Unlike progressivists, who, as we shall see later, hold that truth is relative and changing, the perennialists believe that truth is eternal, everlasting, and unchanging. In their pursuit of truth, the secular perennialists joined hands with the sectarian perennialists. The secular perennialists advocated a highly academic

curriculum with emphasis on grammar, rhetoric, logic, classical and modern languages, mathematics, and—at the heart of the perennialist curriculum—the great books of the Western world. In the great books of the past, one searched for truth, which in perennialist thinking is the same today as it was then and always shall be. To these academic disciplines the sectarian perennialists would add study of the Bible and theological writings.

Robert M. Hutchins, former president of the University of Chicago, was perhaps the best known exponent of the philosophy of perennialism in America. Hutchins and other perennialists eschewed immediate needs of the learners, specialized education, and vocational training. Hutchins made these points clear when he stated: "The ideal education is not an ad hoc education, not an education directed to immediate needs; it is not a specialized education, or a preprofessional education; it is not a utilitarian education. It is an education calculated to develop the mind."[46]

The perennialist agrees with the essentialist that education is preparation for life but opposes the progressivist who holds that education *is* life. If taken seriously, perennialism would afford an education suitable to that small percentage of students who possess high verbal and academic aptitude.

The perennialist looks backward for the answers to social problems. We must wonder, for example, how useful Lucretius's *De Rerum Natura* is for this and future generations in solving environmental problems. One criticism that appears to be overlooked in most critiques of perennialism is its ethnocentricity. The perennialist showcase features the great books of the Western world, considered by some as the greatest works of all humanity. Excluded are the great writings of the Eastern world, of which many of us are abysmally ignorant. An outstanding curriculum project would bring together, perhaps under the auspices of UNESCO, a group of world scholars who would draw up a set of great books of the entire world. East and West have much to say to each other.

In conclusion, perennialism has not proved an attractive philosophy for our educational system.

Essentialism

Historically, essentialism and progressivism have succeeded in commanding the allegiance of the American public. Both have been and remain potent contenders for public and professional support. Walker and Soltis highlighted the conflict between the two schools of thought when they said:

> The first half of the twentieth century witnessed a running battle between progressive educators, who saw in the ideas of Dewey and other progressives new ways to think about the curriculum, and the traditionalists, who were sure that the basic curriculum did not need change because it had proven itself essential to the education of individuals who would maintain an intellectually sound and civilized society. Many battles were fought over these opposing views, leaving a profound mark on elementary school practices especially and curriculum theory generally that is still visible today.[47]

With only slight inaccuracies, we can mark the periods of supremacy of one school over another. From 1635 with the establishment of the Boston Latin School to 1896 with the creation of John Dewey's Laboratory School at the University of Chicago—a period of 261 years—the doctrines of essentialism (with a patina of sectarian perennialism from 1635 to the advent of the English High School in 1824) held sway. Starting in 1896, moving slowly and gathering steam in the 1930s and 1940s until 1957 (the year of *Sputnik*), progressivism emerged for a short time as the most popular educational philosophy. Its path was somewhat rocky, however, strewn as

it was with the loss of the Progressive Education Association and with essentialist criticisms from sources such as the Council on Basic Education, Arthur Bestor, Max Rafferty, John Keats, Albert Lynd, and Mortimer Smith. Since 1957 essentialism has reclaimed its predominant position. However, since the late 1990s the fostering of pupil self-esteem has been strongly emphasized—contemporary essentialist critics of education would say "overemphasized."

The aim of education according to essentialist tenets is the transmission of the cultural heritage. Unlike the reconstructionists, who would actively change society, the essentialists seek to preserve it. Again, unlike the reconstructionists, who would seek to adjust society to its populace, the essentialists seek to adjust men and women to society.

COGNITIVE GOALS.   The goals of the essentialist are primarily cognitive and intellectual. Organized courses are the vehicles for transmitting the culture, and emphasis is placed on subject matter. The three R's and the "hard" (i.e., academic) subjects form the core of the essentialist curriculum. In one sense the essentialist tailors the child to the curriculum, whereas the progressivist tailors the curriculum to the child.

The subject-matter curriculum, which we will examine in Chapter 9, is an essentialist plan for curriculum organization, and the techniques of Assign-Study-Recite-Test are the principal methods. Erudition, the ability to reproduce that which has been learned, is highly valued, and education is perceived as preparation for some future purpose—for college, vocation, and life.

In spite of the mitigating influence of Jean Jacques Rousseau, Johann Pestalozzi, and Friedrich Froebel, essentialism has for generations dominated European education and all the areas of the globe to which it has been exported. Essentialist thinking fits in well with centralized administrative structures as represented in the European and most colonial ministries of education. The ministries, following essentialist concepts, can select, proffer, and control the content to which young people are exposed. They can reward and promote the young in respect to their mastery of subject matter. They can screen youth for the universities on the basis of stringent examinations that call for recapitulation of subject matter.

William C. Bagley, one of the foremost advocates of essentialistic philosophy, strongly criticized the child-centered approach and urged teachers to follow essentialistic principles.[48] Championing emphasis on the academic disciplines, James B. Conant, in a series of reports on the junior and senior high school conducted in the late 1950s and mid-1960s, revealed an essentialistic outlook in his major recommendations.[49]

BEHAVIORISTIC PRINCIPLES.   The essentialists found the principles of the behavioristic school of psychology to be particularly harmonious with their philosophical beliefs. V. T. Thayer called attention to the urbanization of America and immigration taking place in the late 1800s and the early 1900s in explaining the reason for the essentialists' espousal of behavioristic principles:

> The changes in American society to which we have drawn attention affected education on all levels. But the contrast between programs of education—keyed, on the one hand, to the inner nature of the young person and, on the other hand, to the demands of society—were most obvious on the junior high school level. Here genetic psychology was emphasizing the dynamic and distinctive potentialities of the young person, with the clear implication that nature was to be followed; whereas life outside the school, in the home and community, in business and industry, stressed the importance of education for adjustment, one that would give specific and detailed attention to the formation of desirable habits and skills and techniques. Confronted with this necessity of choice, educators turned to a psychology that would further education for adjustment.[50]

Behaviorism casts the learner in a passive role as the recipient of the many stimuli to which he or she must respond. Known in its variants as connectionism, association, S-R (stimulus-response) bond, and conditioning, behaviorism brought into the classroom drill, programmed instruction, teaching machines, standardized testing, and, of course, behavioral objectives. The movement toward specification and demonstration of competencies in both general and teacher education owes a debt to the behaviorists. Selection of content by the adult for the immature learner and reinforcement, preferably immediate and positive, are central to behavioristic thought. Noted among the behaviorists are Ivan Pavlov, the Russian scientist who performed the classic experiment in which a dog was taught to salivate at the ringing of a bell; John B. Watson, who maintained that with the right stimuli he could shape a child into whatever he wished; Edward L. Thorndike, who is considered by many to be the father of the controversial standardized test; and B. F. Skinner, who popularized teaching machines.

Teachers of the behavioristic-essentialist school fragment content into logical, sequential pieces and prescribe the pieces the learner will study. Typically, they begin instruction by giving the learners a rule, concept, or model (for example, the formula for finding the area of a rectangle) and then provide many opportunities to practice (drill) using this guide. With adequate practice the learner can presumably use the rule, concept, or model whenever he or she needs it. The learning has become a habitual part of the individual's behavior. Though human beings are prone to forget content not used regularly, the behaviorists and essentialists maintain that if the content has been thoroughly mastered, it can easily be retrieved. Current and continuing emphasis on the basic skills and the academic disciplines clearly derives from the essentialists. Thus, present educational programs and practices maintain a strong essentialistic orientation.

Progressivism

In the late nineteenth and early twentieth centuries progressivism swept through the educational structure of America, challenging the time-honored doctrines of essentialism. Led by John Dewey, William H. Kilpatrick, John Childs, and Boyd Bode, the progressivists maintained that it was time to subordinate subject matter to the learner. Borrowing from some European philosophers like Rousseau, who advocated rearing a child in a relaxed environment without forcing learning, the progressivists created the child-centered school. Its prototype was the University of Chicago Laboratory School. Moving east from Chicago to New York, John Dewey formulated progressive beliefs in a series of publications that included *Democracy and Education,*[51] *Experience and Education,*[52] *How We Think,*[53] and *My Pedagogic Creed.*[54] By insisting that the needs and interests of learners must be considered and by recognizing that learners bring their bodies, emotions, and spirits to school along with their minds, progressivism captured the attention and allegiance of educators.

Dewey clearly stated the differences between the essential and the progressive curriculum:

> The fundamental factors in the educative process are the immature, underdeveloped being; and certain social aims, meanings, values incarnate in the matured experience of the adult. The educative process is the due interaction of these forces. . . . From these elements of conflict grow up different educational sects. One school fixes its attention upon the importance of subject matter of the curriculum as compared with the contents of the child's own experience. . . . Hence the moral: ignore and minimize the child's individual peculiarities, whims, and experiences. . . . As educators our work is precisely to substitute for these superficial and casual affairs stable and well-ordered realities; and these are found in studies and lessons.

Subdivide each topic into studies; each study into lessons; each lesson into specific facts and formulae. Let each child proceed step by step to master each one of these separate parts, and at last he will have covered the entire ground. . . . Problems of instruction are problems of procuring texts giving logical parts and sequences, and of presenting these portions in class in a similar definite and graded way. Subject matter furnishes the end, and it determines method. The child is simply the immature being who is to be matured; he is the superficial being who is to be deepened; his is narrow experience which is to be widened. It is his to receive, to accept. . . .

Not so, says the other sect. The child is the starting point, the center, and the end. His development, his growth, is the ideal. It alone furnishes the standard. To the growth of the child all studies are subservient; they are instruments valued as they serve the needs of growth. Personality, character, is more than subject matter. Not knowledge or information, but self-realization, is the goal. . . . Moreover, subject matter never can be got into the child from without. Learning is active. It involves reaching out of the mind. It involves organic assimilation starting from within. . . . It is he and not the subject matter which determines both quality and quantity of learning.

The only significant method is the method of the mind as it reaches out and assimilates. Subject matter is but spiritual food, possible nutritive material. It cannot digest itself; it cannot of its own accord turn into bone and muscle and blood. The source of whatever is dead, mechanical, and formal in schools is found precisely in the subordination of the life and experience of the child to the curriculum. It is because of this that "study" has become a synonym for what is irksome, and a "lesson" identical with a task.[55]

To the progressives then, education is not a product to be learned—for example, facts and motor skills—but a process that continues as long as one lives. To their way of thinking a child learns best when actively experiencing his or her world, as opposed to passively absorbing preselected content. If experiences in school are designed to meet the needs and interests of individual learners, it follows that no single pattern of subject matter can be appropriate for all learners. Brameld explained this point of view held by progressivists such as Dewey and Harold Rugg:[56]

The proper subject matter of a curriculum is any experience that is educative. This means that the good school is concerned with every kind of learning that helps students, young and old, to grow. No single body of content, no system of courses, no universal method of teaching is inappropriate. For, like experience itself, the needs and interests of individuals and groups vary from place to place, from time to time, from culture to culture.[57]

The progressivist position that the child should undergo educative experiences in the here and now has led to the cliché-like indicators of progressive philosophy: "education is life" and "learning by doing." The progressivists urged schools to provide for learners' individual differences in the broadest sense of the term, encompassing mental, physical, emotional, spiritual, social, and cultural differences. In both thought and practice, progressivism shows concern for the student, society, and subject matter, placing the student at the center of the learning process.

At the heart of progressive thinking is an abiding faith in democracy. Hence, the progressivists see little place for authoritarian practices in the classroom and the school. They do not hold with the essentialists that the learners are immature subjects of adult preceptors and administrators, but rather consider them partners in the educational process. Teachers influenced by progressive thinking see themselves as counselors to pupils and facilitators of learning rather than expounders of subject matter. Cooperation is fostered in the classroom rather than competition. Individual growth in relationship to one's ability is considered more important than growth in comparison to others.

A concern for the many unresolved problems of democracy led to a split in the progressive camp, with reconstructionists advocating that the schools become the instrument for improving society. It has been mentioned that the perennialist considers truth to be absolute, enduring, and found in the wisdom of the past; the essentialist presents the cultural heritage as truth; in contrast, the progressivist holds truth to be relative and changing and, in many cases, as yet to be discovered. Espousing principles of pragmatism, progressivists see education as a continuing search for the truth utilizing whatever sources are needed to discover that truth.[58]

SCIENTIFIC METHOD.   The scientific method, known also as reflective thinking, problem solving, and practical intelligence, became both a goal and a technique in the progressive school. The scientific method was both a skill to be achieved and a means of finding solutions to problems. In its simplest elements the scientific method consists of five steps:

- identifying a problem
- forming a hypothesis or hypotheses
- gathering data
- analyzing data
- drawing conclusions

The progressivists proposed the scientific method as a general method to be applied in any area of human endeavor. It is generally accepted for both unsophisticated problem solving and for sophisticated research. Taba offered a very legitimate caution about accepting this method of problem solving as complete training in the ability to think: Attempting to solve all problems using the scientific method ignores other critical thinking skills, such as analysis, synthesis, application, and inference. Reducing all problem solving to the scientific method short changes the importance of abstractions and the formation of theory, law, and axioms.[59]

EXPERIMENTALIST PSYCHOLOGY.   In behaviorism the essentialists found learning theories harmonious with their philosophy. The progressivists did not have to look far for theories of learning compatible with their views on education. They found a wealth of ideas in the experimentalist psychology of Charles S. Peirce and William James; in the field (gestalt) psychology of Max Wertheimer, Wolfgang Köhler, Kurt Koffka, and Kurt Lewin; and in the perceptual psychology of Earl Kelley, Donald Snygg, Arthur Combs, Abraham Maslow, and Carl Rogers.

The experimentalists encourage the active involvement of the learner in all his or her capacities in the educational process. Noting the influence of James throughout the twentieth century, Brameld credited James's *Principles of Psychology* as "still, in various respects, the foremost single achievement in the field by any American scholar–scientist."[60]

GESTALT PSYCHOLOGY.   In contrast to the behaviorists' presentation of subject matter in parts, the gestaltists concentrated on wholes, the "big picture," so to speak. They advised teachers to organize subject matter in such a way that learners could see the relationships among the various parts. This advice fit in perfectly with the progressivists' concern for "the whole child." The unit method of teaching in which content from all pertinent areas is organized into a holistic plan in order to study a particular topic or problem became a popular and enduring instructional technique. Writing unit plans is common practice among teachers today.

The gestaltists pointed out that the learners achieve insight when they discern relationships among elements of a given situation. The gestaltists encourage inquiry or discovery learning in order to sharpen the skill of insight. Both the experimentalists and gestaltists agree that the closer

content to be mastered is to real-life situations and the closer problems are to the previous experiences of the learner, the more likelihood there is for successful mastery of the material.

PERCEPTUAL PSYCHOLOGY.   Of more recent vintage, perceptual psychology focused on the development of the learner's self-concept. The goal of the perceptualists is the development of the "self-actualizing" or "fully functioning" personality. Abraham H. Maslow defined self-actualization as follows:

> Self-actualization is defined in various ways, but a solid core of agreement is perceptible. All definitions accept or imply: (a) acceptance and expression of the inner core of self, i.e., actualization of these latent capacities and potentialities, "full functioning," availability of the human and personal essence; and (b) minimal presence of ill health, neurosis, psychosis, or loss or diminution of the basic human and personal capacities.[61]

The perceptualists concentrate their efforts on developing persons who feel adequate. Arthur W. Combs listed the following "four characteristics of the perceptual field which always seem to underlie the behavior of truly adequate persons":[62] (1) a positive view of the self, (2) identification with others, (3) openness to experience and acceptance, and (4) possession of a rich field of perceptions gained from both formal schooling and informal sources.[63]

According to the perceptual psychologists, teachers must be willing to help young people to develop an adequate concept of themselves and to deal with both their perceptions of the world and the world as it is. The perceptualist maintains that it is more important to know how the learner perceives the facts than what the facts of a given situation are. We all have a tendency to selectively perceive our environment. We recognize familiar faces before we pay attention to unfamiliar persons. We pick out words we know and ignore those that we do not know. We are sure that our version of the truth of any situation is the right one, for that is the way we perceive it. The perceptualists emphasize dealing with people's perceptions of the world around them.

An individual's feeling of adequacy or inadequacy can often be attributed to other people's perceptions. If a child is told by a parent that he or she is a weakling, the child may agree that it is so. If a child is told by teachers that he or she has an artistic talent, the child may seek to develop that ability. If a child is told that he or she is a poor reader, lacks aptitude for mathematics, or is short on musical talent, the child may accept these perceptions and internalize them. The child is exemplifying then what is referred to in the literature as the self-fulfilling prophecy. We are not only what we eat, as health food devotees tell us—we are what others have made us, as the perceptual psychologists maintain. Combs described how the self-concept is learned in the following passage:

> People *learn* who they are and what they are from the ways in which they have been treated by those who surround them in the process of their growing up. . . . People discover their self-concepts from the kinds of experiences they have had with life; not from telling, but from experience. People develop feelings that they are liked, wanted, acceptable, and able from *having been* liked, wanted, accepted, and from having been successful. One learns that he is these things, not from being told so, but only through the experience of *being treated as though he were so.* Here is the key to what must be done to produce more adequate people. To produce a positive self, it is necessary to provide experiences that teach individuals they are positive people.[64]

The perceptualists attacked the notion that children must experience failure. Said Combs, "Actually, the best guarantee we have that a person will be able to deal with the future effectively

is that he has been successful in the past. People learn that they are able, not from failure, but from success."[65]

The progressive philosophers identified readily with the experimentalist, gestalt, and perceptual schools of psychology. Their combined efforts to humanize education captured the imagination of educators (particularly those in teacher education), flourished for a relatively brief period, and peaked—but left an indelible mark on our educational system. Because of progressivism, essentialism will never be the same.

CRITICAL INQUIRY.   You will encounter in your readings discussions of *critical inquiry*. According to Kenneth A. Sirotnik,

> critical inquiry is a rigorous, time-consuming, collaborative, informed, school-based dialectic around generic questions such as: What is going on in the name of X? (X is a placeholder for things like educational goals and schooling functions; instructional practices like the use of time, tracking students, and achievement testing; organizational practices like leadership, decision making, and communication, etc.). How did it come to be that way? Whose interests are being served (and not being served) by the way things are? What information and knowledge do we have—and need to get—that bear upon the issues? . . . Is this the way we want it? . . . What are we going to *do* about all this?[66]

Noting that goal statements for the public schools often differ from classroom realities, Sirotnik would view the following as more accurate statements of what goes on: "to develop in students abilities to think linearly, depend on authority, speak when spoken to, work alone, become socially apathetic, learn passively and nonexperientially, recall information, follow instructions, compartmentalize knowledge, and so on."[67]

"At the heart of critical inquiry, therefore," said Sirotnik, "is the willingness and ability of people to engage in competent discourse and communication."[68]

CONSTRUCTIVIST PSYCHOLOGY.   Like experimentalist, gestalt, and perceptual psychology, constructivism complements progressive philosophy. Constructivists hold that the teacher is a facilitator of learning; students must be taught to take responsibility for their own learning; learning is an active process (recall the progressives' "learning by doing"); learning must be presented in ways meaningful to students; and basic skills will be learned in authentic situations, not by separate concentration on the skills themselves. Kenneth T. Henson defined constructivism as "the belief that learning occurs only when the learner ties newly acquired information to previously gained understandings."[69] Numerous programs and practices in schools today follow constructivist doctrine. Nell Noddings noted, "Constructivists in education trace their roots . . . to [Jean] Piaget."[70]

Like other schools of psychology, constructivism does not dictate any particular program or method of instruction to accomplish its aim: the development of thinking individuals able to use knowledge effectively in society. Constructivism is accepted by many educators, rejected by others. As examples of constructivist practices we can cite whole language, authentic assessment, guided discovery, holistic grading, and integrated curriculum. Karen H. Harris and Steve Graham pointed out that the "back-to-basics" movement was a backlash against constructivist practices.[71] As often happens, teachers blend elements of constructivism with more traditional approaches.

THE EIGHT-YEAR STUDY.   The cause of the progressives was boosted by the Eight-Year Study, conducted by the Progressive Education Association between 1933 and 1941. Many educators recognize this study as one of the most significant pieces of educational research ever conducted

in the United States. There have been few longitudinal studies that followed subjects over a period of years. Few studies have been as sweeping or have involved as many people. Students, high school teachers and administrators, curriculum consultants, researchers, and college professors all played significant roles in the study.

The Progressive Education Association was disenchanted with the typical high school college preparatory curriculum with its customary prescribed constants required for college admission. The Association wanted to see more flexibility in the secondary school curriculum but realized that such a change would not be possible as long as the colleges demanded a prescribed set of courses. It therefore enlisted the cooperation of more than 300 colleges and universities that agreed to accept graduates from a limited number of high schools without regard to the usual college entrance requirements. Obtaining the cooperation of so many colleges and universities for an experiment of this nature—which might shatter traditional notions of what is needed to succeed in college—was a feat in itself. Wilford M. Aikin, H. H. Giles, S. P. McCutchen, Ralph W. Tyler, and A. N. Zechiel were instrumental in conducting the study.[72]

The colleges and universities consented to admit graduates from thirty public and private schools regardless of their programs for a five-year period, from 1936 to 1941. Beginning in 1933 these thirty experimental schools were able to modify their programs in any way they saw fit.

Once admitted to cooperating colleges and universities, graduates of the experimental schools were matched with counterparts in the same institution who came from conventional high schools, and their performance in college was analyzed. More than 1,400 matched pairs of students were involved in this study. The findings of the Eight-Year Study are summarized as follows:

> The graduates of the experimental schools, as it turned out, did as well as or better than their counterparts in college in all subjects except foreign languages. The graduates of the experimental schools excelled their counterparts in scholastic honors, leadership positions, study habits, intellectual curiosity, and extra class activities. The Eight-Year Study showed rather conclusively that a single pattern of required courses is not essential for success in college.[73]

The Eight-Year Study gave impetus to novel curriculum experiments such as the core curriculum, which, along with the progressivist experience curriculum, will be discussed in Chapter 9.

DECLINE OF PROGRESSIVISM.   In spite of its contributions—placing the child at the center of the educational process, treating the whole child, appealing to children's needs and interests, providing for individual differences, and emphasizing reflective thinking—progressivism has declined in acceptance by both the public and educators. It is probably not too far from the truth to maintain that the public was never completely enamored of progressive doctrines.

It was not the Soviet Union's *Sputnik* in 1957 per se, followed by the panicky rush to the "substantive" courses—science, mathematics, and foreign languages—that caused the turn away from progressivism. Trouble had been brewing for a number of years prior to the Soviet achievement in space.

The essentialist curriculum has always been the easiest to understand and the simplest to organize and administer. It appears clear-cut and can be readily preplanned by teachers and administrators drawing on their knowledge of the adult world. We must not overlook the force that tradition plays in our society. The essentialist curriculum has been the one to which most Americans have been exposed and the one, therefore, they know best and wish to retain.

There can be no doubt that some of the so-called progressive schools went to extremes in catering to the needs and interests of children. The high school graduate who must write in block printing because he or she was not required to master cursive writing raised eyebrows among the American public. Appealing to the child's immediate needs and interests, some progressive schools seemed to sacrifice long-range needs and interests of which the immature learner was scarcely aware.

A feeling developed that the graduates of progressive schools were not learning the basic skills or the elements of the nation's cultural heritage. The public was uncomfortable with assertions from educators such as "The child should be taught to read only after he or she expresses a felt need for reading" or "There's no need to memorize the multiplication tables, you can always look them up or use a calculator."

Compared to the apparent tidiness of the essentialist curriculum and the relative ease of measuring achievement of subject matter, the progressivist curriculum appeared at times disorganized and impossible to evaluate. In attempting to deal with the whole child, the progressive school seemed to many parents to be usurping the functions of the home, and many harried teachers agreed with them.

Some of the more zealous progressivists led even Dewey to warn:

> Apart from the question of the future, continually to appeal even in childhood to the principle of interest is eternally to excite, that is, distract, the child. Continuity of activity is destroyed. Everything is made play, amusement. This means overstimulation; it means dissipation of energy. Will is never called into action. The reliance is upon external attractions and amusements. Everything is sugar-coated for the child, and he soon learns to turn everything that is not artificially surrounded with diverting circumstances.[74]

Mass education alone has contributed to the decline of progressive practices. What might work in small classes will not necessarily work in large classes. Criticisms of progressive education by the essentialists, the behaviorists, and the scholastics converged to restore essentialism to its currently strong position. However, the numerous reports on educational reform in the 1970s and 1980s, some of which will be discussed in Chapter 9, revealed dissatisfaction with the essentialist curriculum. Some contemporary curriculum theorists characterize the historic role of schools as an outmoded, inappropriate factory or industrial model, imposed by society on young people who are its products destined for the workforce, rewarding conformity and deemphasizing the preparation of, in the words of George H. Wood, "independent thinkers who are committed to the public good and willing to act on their own initiative."[75] Some advocates of private education portray public schools in a negative light, labeling them "government schools." Linda Darling-Hammond described the present school structure, whose origins lie in principles of top-down organizational management, as a "conveyor belt" wherein impersonal treatment of students and rote learning predominate. Efforts at improvement such as "required courses, textbooks, testing instruments, and management systems," based on a "manufacturing industries" model, according to Darling-Hammond, have been assumed to lead to student learning and have sought to produce a standard product.[76] She held that factory-model schools erect barriers to democratic education, commenting:

> Relatively few schools offer all their students a rich, active curriculum that teaches for understanding. Even fewer manage to educate a diverse set of students for constructive social interaction and shared decision making . . . [T]he right to learn in ways that develop both competence and community has been a myth rather than a reality for many Americans.[77]

Critical of education tied to economic goals, Michael W. Apple commented, "the most powerful economic and political groups in the United States and similar nations have made it abundantly clear that for them a good education is only one that is tied to economic needs (but, of course, only as these needs are defined by the powerful)."[78] Noting that democratic ideals have long been featured in school reform, Jean Anyon questioned their adequacy in the restructuring of urban schools. Anyon argued that "until the economic and political systems in which the cities are enmeshed are themselves transformed so they may be more democratic and productive for urban residents, educational reformers have little chance of effecting long-lasting educational changes in city schools."[79]

Dissatisfaction emanates also from a small group of curriculum theorists known as the reconceptualists. This group of theorists, for the most part college professors of curriculum, has expressed concern about the hidden curriculum, the values that are not directly taught but that children nevertheless experience in school. These values include the rules students live by, their relationships with peers and adults in the school, and the values embedded in the content of their studies.

The reconceptualists argue for fundamental changes in curriculum and instruction. Some view curriculum *development* as outdated and offer in its place curriculum *understanding*.[80] They draw support for their position from the humanities, especially history, philosophy, and literary criticism. William Pinar explained the interests of reconceptual theorists:

> The reconceptualists tend to concern themselves with the internal and existential experience of the public world. They tend to study not "change in behavior" or "decision making in the classroom," but matters of temporality, transcendence, consciousness, and politics. In brief, the reconceptualist attempts to understand the nature of educational experience.[81]

Pinar noted in 1975 that reconceptualists constituted 3 to 5 percent of all curriculum theorists. Another 60 to 80 percent were what Pinar called "traditionalists" whose primary mission is guiding practitioners in the schools. The others were "conceptual empiricists" whose interests lie in the behavioral sciences, of which the curriculum is one.[82] Although percentages for each of these three groups may vary somewhat today, observation of the current curriculum scene leads to the conclusion that the "traditionalists" still constitute the largest group, followed by the "conceptual empiricists," with the "reconceptualists" composing the smallest. Pinar et al. saw reconceptualization as still underemphasized in traditional curriculum textbooks.[83]

CRITICAL THEORY.   In discussing the reconceptualization of the curriculum field, Peter S. Hlebowitsh observed that "many contemporary challenges in curriculum studies have been inspired by a critical theory of education."[84] Influenced by the Institute of Social Research in Frankfurt, Germany,[85] critical theorists are concerned with injustices in society and the part the school plays in sustaining those injustices, for example, in "tracking, vocational education, special education, and teacher education."[86] Nell Noddings explained, "From the perspective of critical theorists, philosophy must be engaged with the great struggles and social movements of its times."[87]

The critical theorists offer no prescribed programs or pedagogical processes, stressing instead the need for empowerment of the individual with the goal of improving both the school and society. Noddings observed that "[p]hilosophers of education have been greatly influenced by critical theory."[88]

In spite of the many conflicting philosophical views and at the risk of overgeneralizing, we might conclude that the public and a majority of present-day educators endorse educational programs and practices in American schools that represent a judicious mixture of essentialist and progressive philosophy.

FORMULATING A PHILOSOPHY

In a holistic approach to curriculum development, the curriculum committee designated to lead the process examines statements of aims of education, chooses those that appear most significant, and tries its skill at fashioning its own statements.

The curriculum committee should be cognizant of the major principles of the leading schools of philosophy, particularly essentialism and progressivism. They should know where they stand as individuals and as a group in the philosophical spectrum. They may discover that they have adopted, as have perhaps a majority of educators, an eclectic approach to philosophy, choosing the best from several philosophies. They may find that there is no such thing as a pure essentialist or a pure progressivist, but rather, more commonly, one is an essentialist who leans toward progressive thinking (a progressive essentialist) or, conversely, a progressivist who leans toward essentialist ideas (an essentialistic progressivist).

Curriculum workers should take the time to think through their own philosophies and to formulate them into some kind of coherent statement. The formulation of philosophy is not an activity that most Americans—pragmatists as they are—engage in with either zeal or frequency. Educators, however, should reexamine their beliefs periodically to see if they reflect changes in society and the continuous expansion of knowledge. Schools would do well to draw up a statement of philosophy, review and revise it as necessary every five years, and thoroughly reexamine and revise it as needed every ten years. A recommendation of this nature has been followed by schools that wish to achieve and maintain accreditation by the regional associations of colleges and schools. Whether or not a school seeks regional accreditation, it should formulate a school philosophy to establish a framework for the practices of that school.

A school's philosophy should always be the result of cooperative efforts by teachers and administrators and preferably with the additional help of parents and students. Statements of philosophy are sometimes written and promulgated by a school administrator as the philosophy of that school. Such an activity misses the spirit of the exercise. The writing of a school philosophy should be an effort to gain consensus among divergent thinkers and to find out what aims and values the group holds in common. For this reason, even a statement of philosophy drawn up by a faculty committee should be presented to the total faculty for acceptance, rejection, or modification. In a very real sense, the faculty's statement of philosophy becomes a manifesto signifying "This is what we believe" or "This is where we stand" as of now.

Value in Writing a Philosophy

Some hold that writing statements of philosophy is a waste of time, that such efforts take too much valuable time that could be better spent in other ways, and that most efforts wind up with empty platitudes. Philosophical statements *can* become meaningless slogans, but they do not *have* to be. Should we call the following phrases of political philosophy from the Declaration of Independence—"all men are created equal" and "they are endowed by their Creator with certain unalienable rights," including "Life, Liberty, and the Pursuit of Happiness"—empty platitudes? Why, we might ask, did our forebears not just sever relations between the motherland and the colonies instead of prattling about unalienable rights? Perhaps they recognized that they must set the stage and provide a rationale around which other like-minded persons might rally.

A school's philosophy is not of the same order or in the same class as the Declaration of Independence, yet it does set the stage and does offer a rationale that calls for the allegiance of those who proclaim it. If a statement of philosophy is to serve this purpose, it must be a truthful one and not simply platitudinous window dressing. If a school faculty believes that the major purposes of its

school are to develop cognitive skills, to preserve the social status quo, or to direct the growth and development of the gifted and academically talented, it should say so. A frank statement of philosophical beliefs is much more defensible than a sanctimonious statement of platitudes that many faculty members may not support and that many teachers do not translate into classroom practice.

As curriculum workers we must disabuse ourselves of the notions that it is somehow indecent to expose our beliefs and that we must feel either silly or guilty when setting forth ideals. The formulation of a school philosophy can be a valuable in-service educational experience, giving teachers and administrators a chance to exchange views and to find a common meeting ground.

A school's philosophy should include statements of belief about the purposes of education, society, the learner, and the role of the teacher. Examples of statements of philosophy written by school personnel follow. These statements are typical of philosophies written by faculties throughout the United States. They speak about democracy, the individual, and the learning process. Statements of some schools are brief; others lengthy. Some schools state their educational philosophy in terms of mission statement and beliefs; others include curriculum goals and objectives in their statements. Here we are concerned primarily with a school's philosophy. In Chapter 8 we will discuss the writing of curriculum goals and objectives and will provide examples of those.

These statements of philosophy reveal the schools of thought to which the faculties subscribe. In spite of the essentialistic turn in American education, progressive beliefs are still strong. Despite the current emphasis on developing the intellect, these examples show concern for the whole child. In spite of increased stress on the development of cognitive abilities, the examples provided give attention to the affect.

Ornstein and Hunkins addressed the importance of philosophy to educators in that it "helps them answer what schools are for, what subjects are of value, how students learn, and what methods and materials to use. It provides them with a framework for broad issues and tasks, such as determining the goals of education, the content and its organization, the process of teaching and learning, and in general what experiences and activities they wish to stress in schools and classrooms."[89]

Problems in Developing and Implementing a Philosophy

Before examining the examples of school philosophies, we should mention that curriculum workers often encounter two sets of problems in developing and implementing a school's philosophy. First, those who are charged with drafting a statement usually enter into the process with differing assumptions, sometimes unexpressed, about the learning process, the needs of society, and the roles of individuals in that society. The various participating individuals may well espouse differing and conflicting philosophies of life that color their beliefs about education. Somehow the differing views must be aired and reconciled. If consensus cannot be reached, perhaps no statement of philosophy can be drafted, or that which is drafted will be so inconsequential as to be useless.

A second set of problems arises from the statement of philosophical beliefs in rather general, often vague, terms that permit varying interpretations. When a statement of philosophy has been completed and presumably consensus has been reached on the *wording,* curriculum leaders will experience the continuing problem of striving to achieve consensus (sometimes even among those who drafted the statement) on *interpretations* of the wording.

EXAMPLES OF EDUCATIONAL PHILOSOPHIES

Let's look at two examples of educational philosophies. One is based on that of a large urban school district in Iowa (Des Moines, Box 6.2) and the other is the statement of mission and beliefs of a school in a smaller community in Georgia (Statesboro, Box 6.3). Increasingly common

BOX 6.2 Educational Philosophy of the Des Moines, Iowa, Public Schools

Educational Philosophy

Mission Statement. The Des Moines Public Schools equip students for life by challenging each one to achieve rigorous standards in academics, arts, and career preparation.

Belief Statement. Public education is imperative to support and sustain a diverse democratic society. To this end, we believe:

All students can and must learn.

Schools must meet the unique learning needs of each of their students.

The home, school and community must serve and support one another.

Teaching and learning require a healthy, safe and orderly environment.

Resources and services are essential for effective instruction.

All staff must continue to learn, and all schools must continue to improve.
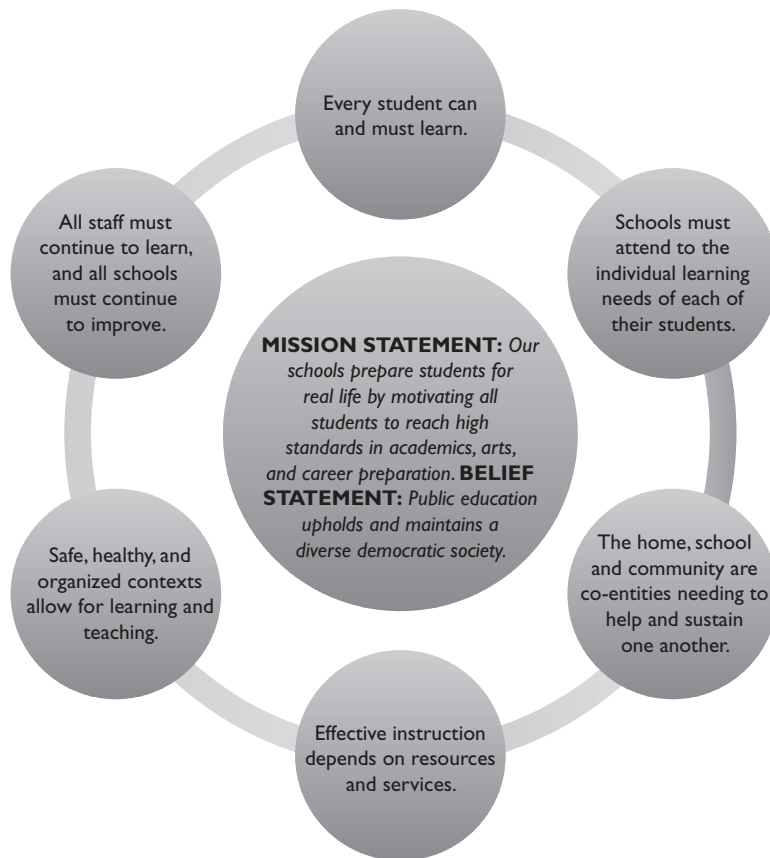
Source: Based on Des Moines Public Schools, *Educational Philosophy,* website: old.dmps.k12.ia.us/schoolboard/6philosophy.htm, accessed November 5, 2011. Public domain.

BOX 6.3 Sallie Zetterower Elementary School

Mission Statement

At Sallie Zetterower, our mission is to inspire every student to think, to learn, to achieve, and to care.

Our Beliefs

Our belief is that every person:

- deserves to work and learn in a safe environment.
- can learn and experience success.
- is responsible for his/her own actions and words.
- deserves to be treated with dignity.

The attitudes and habits of teachers, students, and parents affect the quality of learning.

Source: Sallie Zetterower Elementary School, Statesboro, Georgia, *Mission Statement and Our Beliefs,* website: szes-bcss-ga.schoolloop.com/cms/page_view?d=x8pid=8vpid=1283580802403, accessed February 7, 2011. Reprinted by permission.

in addition to statements of philosophy are statements of mission and specifications of aims or goals and subgoals. Somewhat later the Des Moines Public Schools made a brief statement of mission and added a detailed list of objectives that they referred to as "Graduate Ends."[90] You will encounter additional examples of school statements of belief in Chapter 8 where we discuss curriculum goals and objectives.

In these examples, you will notice references to democratic concepts, to respect for the individual, and to the necessity of providing programs to develop the pupil in all his or her capacities. Although some may fault the style or prose of a given school philosophy, what we have to keep in mind is the purpose of the statement—to communicate to professionals and the public the beliefs held by the personnel of a school or a school system. A philosophy serves its purpose when significant beliefs are successfully communicated.

What amazed this author while searching the Web for examples of school and school district statements of educational philosophy is how few schools and school districts communicate their educational platforms, that is, their statements of philosophy, mission, or goals or, in the case of those school systems that have crafted such statements, how difficult it is to locate the links that lead one to those statements. One would think that school systems would publish their educational platforms front-and-center to tell the world "this is what we believe."

From our beliefs about education, schooling, learning, and society, we can proceed to subsequent steps of the curriculum development process. Component I of the suggested model for curriculum development calls for a statement of educational aims and philosophy. In respect to aims of education, curriculum workers should:

- be aware that educational aims are derived from and are part of one's educational philosophy
- be cognizant of national statements of aims of education made by prominent individuals and groups
- evaluate national statements and select from those statements, revising as they deem necessary, the aims of education that they find acceptable
- draw up a statement of educational aims (in keeping with pronounced statewide aims) to which they subscribe or, alternately, incorporate the aims of education they have selected into a statement of philosophy

In respect to the philosophical dimension of component I, curriculum workers should be able to:

- identify principal beliefs of leading schools of educational philosophy
- analyze statements of philosophy and identify the schools to which they belong
- analyze and clarify their own educational philosophies

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Summary

A holistic approach to curriculum development begins with an examination of the aims of education in society. Aims are perceived as the broad purposes of education that are national and, on occasion, international in scope.

Over the years a number of prominent individuals and groups have expressed their positions on the appropriate aims of education for America. The curriculum worker should not only be able to formulate his or her own statement of aims, but should also be knowledgeable about historic and significant statements of aims.

In this chapter we examined four philosophies of education—reconstructionism, progressivism, essentialism, and perennialism—two of which, essentialism and progressivism, are deemed to have special significance for our schools.

Essentialism, with its emphasis on subject matter, has been the prevailing philosophy of education throughout most of our country's history. Progressivism, however, with its emphasis on the child's needs and interests, has had a profound impact on educational programs and practices. Curriculum workers are urged to clarify their own philosophies and to draw up a statement of their school's philosophy that can be communicated to other professionals and to the public. Samples of school philosophies are included in this chapter not as models of content—that is, statements to be borrowed—but rather as examples of process. Curriculum developers should put together their own statement of beliefs in their own words. It is very likely that their statements will be eclectic in nature, borrowing from both essentialism and progressivism.

The development of a statement of aims of education and a school philosophy is seen as the first phase or component of a comprehensive model for curriculum development.

Questions for Discussion

1. Why has the essentialistic philosophy of education been so enduring?
2. How can you keep a statement of philosophy from becoming mere verbalism?
3. If a state has adopted a statement of aims, is there any place for district or individual school statements?
4. From what sources are aims of education derived?
5. How would you describe the philosophy of your school?

Exercises

1. State at least two premises of each of the following schools of philosophy:
   (a) reconstructionism
   (b) perennialism
   (c) essentialism
   (d) progressivism
2. Write a report, using appropriate references, contrasting essentialism and progressivism.
3. Identify one or more practices in the schools that follow principles of (a) experimentalism, (b) gestalt psychology, (c) perceptual psychology, (d) constructivism, and (e) behaviorism.
4. Demonstrate with appropriate references how particular learning theories are related to certain schools of philosophy.
5. Write a short paper supporting or rejecting use of memorization in the classroom.

Websites

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Josephson Institute: josephsoninstitute.org

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After studying this chapter you should be able to:

1. Identify and describe major sources of curriculum content.
2. Outline levels and types of needs of students.
3. Outline levels and types of needs of society.
4. Show how needs are derived from the structure of a discipline.
5. Describe the steps in conducting a needs assessment.
6. Construct an instrument for conducting a curriculum needs assessment.

OUR EVER-CHANGING WORLD

The world as we know it is becoming a smaller place. That colloquialism is often spoken but the fact is that with the advent of new technologies and the ability to travel to the far reaches of the globe, new opportunities are to be had for the human race. Along with the opportunities, challenges are presented that will force changes in our lives. The curriculum developer's ability to assess the needs of our children and youth plays an important role in how we adapt to change.

Our nation's effort to compete in a global economy is not new and continues to shape the debate on education. As many countries in our world, influenced by the technology revolution, evolve from being primarily agrarian to becoming more industrialized, an important role of the educator is to understand how to develop curriculum that addresses the challenges students will face in our ever-changing global community.

Our political leaders are quick to point out problems with our educational system. Reference was made in Chapter 3 to several attempts by the U.S. government to improve the education of American children. As we study our nation's recent efforts to reform education so our children can compete in the global workplace, we could raise a number of questions: How was it determined that the areas of focus are important to society? Have the right items been selected and what data support their selections? How do we develop our curriculum,

based on the needs of our society, to allow its members to compete in the 21st century? What needs are there to which curriculum planners must pay attention? What should be included in developing the curriculum? How do we know if the needs are being met satisfactorily and how do we allow for changes in the curriculum if they are not?

Tony Wagner, Harvard professor and founder of the Change Leadership Group, states that due to the changing nature of the workplace, today's students need to master survival skills to become productive citizens in the 21st century. Critical thinking, problem solving, entrepreneurialism, and effective communication are just a few of the skills that students will need to be proficient at to be successful.

In order for schools to provide a learning environment that promotes 21st century skills, classrooms will have to evolve to meet the needs of the modern learner and of our global society. Box 7.1 demonstrates how classrooms will have to change for students to transfer knowledge and understanding to a variety of settings in order to be able to compete in our world today.

BOX 7.1   20th Century Classroom vs. the 21st Century Classroom

20th Century Classrooms	21st Century Classrooms
Time-based	Outcome-based
Lessons focus on the lower level questions	Lessons are designed to promote higher level thinking (depth of knowledge)
Textbook-driven	Standards-driven
Passive learning	Active learning
Learners work in isolation—classroom within four walls	Learners work collaboratively with classmates and others around the world—the Global Classroom
Teacher-centered: teacher is center of attention and provider of information	Student-centered: teacher is facilitator/coach
Fragmented curriculum	Integrated and interdisciplinary curriculum
Teacher is judge. No one else sees student work	Self, peer, and authentic assessments
Curriculum/School is irrelevant and meaningless to the students	Curriculum is connected to students' interests, experiences, talents, and the real world
Print is the primary vehicle of learning and assessment	Performances, projects, and multiple forms of media are used for learning and assessment
Diversity in students is ignored	Curriculum and instruction address student diversity
Literacy is reading and writing in isolation	Literacy crosses all content areas. Literacy includes reading, writing, speaking, listening, viewing, and thinking
Prepare students for the factory; model based upon the needs of employers for the Industrial Age of the 19th century	Prepare students for jobs in our rapidly evolving global and technological economy

Source: 21st Century Schools, *20th Century Classroom vs. the 21st Century Classroom.* Website: 21stcenturyschools.com, accessed May 3, 2011.

The curriculum developer has a plethora of decisions to make when designing content that will positively impact learning. By understanding the needs of society and by using data to make informed instructional decisions, educators can systematically approach these opportunities and challenges.

CATEGORIES OF NEEDS

The first section of this chapter discusses needs of students and society, classified by levels and types, and needs derived from the subject matter. The second section describes a process for conducting a curriculum needs assessment. When carrying out this process through data collection and analysis, curriculum planners study the needs of learners, society, and subject matter. With the community's help, students, teachers, and administrators identify and place in order of priority programmatic needs that the school must address.

In the preceding chapter we saw that statements of educational aims and philosophy are based on needs of students in general and needs of society. The needs of both students and society are evident in the following examples of statements of aims and philosophy:

- to develop the attitude and practice of a sound mind in a sound body
- to promote concern for protecting the environment
- to develop a well-rounded individual
- to develop skills sufficient for competing in a global economy
- to promote the pursuit of happiness
- to enrich the spirit
- to develop the ability to use the basic skills
- to develop the ability to think
- to develop a linguistically, technologically, and culturally literate person
- to develop communication skills
- to develop respect for others
- to develop moral, spiritual, and ethical values

Statements of aims and philosophy point to common needs of students and society and set a general framework within which a school or school system will function. In formulating curriculum goals and objectives for a particular school or school system, curriculum developers must give their attention to five sources as shown by components I and II of the model for curriculum development in Chapter 5, Figure 5.4: (1) the needs of students in general, (2) the needs of society, (3) the needs of the particular students, (4) the needs of the particular community, and (5) the needs derived from the subject matter. You will recall that Ralph Tyler, in a similar vein, listed three sources from which tentative general objectives are derived: student, society, and subject.[1]

We can expand on the needs of both students and society in a greater level of detail than is shown in the model for curriculum development by classifying the needs of students and society into two broad categories—levels and types—thereby emphasizing points that curriculum planners should keep in mind.

A CLASSIFICATION SCHEME

To focus our thinking, let's take a look at the following four-part classification scheme:

- needs of students by level
- needs of students by type

- needs of society by level
- needs of society by type

Before analyzing each category, we must stress that the needs of the student cannot be completely divorced from those of society, or vice versa. The needs of one are intimately linked to those of the other. True, the two sets of needs sometimes conflict. For example, an individual's need may be contrary to society's need when he or she shouts "Fire" to gain attention in a crowded theater when there is no fire. On the other hand, the needs of the person and the needs of society are, fortunately, often in harmony. An individual's desire to amass wealth, if carried out legally and fairly, is compatible with a democratic, productive society. The wealth may benefit society in the form of investment or taxes. Consequently, it is sometimes difficult to categorize a particular need as specifically a need of the person or of society. That degree of refinement is not necessary. As long as the curriculum planner recognizes the need, its classification is secondary.

Lest there be a misunderstanding, the needs of a particular student can be similar to or vary from other students' needs in general. Likewise, the needs of a particular community do not completely vary from those of society in general, but they do differ in some respects from those of other communities that share the same general societal needs. The thousands of communities in the United States are, in spite of local distinctions of needs, resources, and cultural idiosyncrasies, parts of the total culture linked by transportation and mass media, including the Internet.

Interests and Wants

Before proceeding with a discussion of needs of students, we should distinguish between student *interests* and *wants* in curriculum development. *Interest* refers to attitudes of predisposition toward something (for example, auto mechanics, history, dramatics, or basketball). *Want* includes wishes, desires, or longings for something, such as the want for an automobile, spending money, or stylish clothes.

None of the models for curriculum development in Chapter 5 has built into it either the interests or wants of students. The reasons why interests and wants of students are not shown in the proposed models for curriculum development are the following:

1. Interests and wants can be immediate or long range, serious or ephemeral. Immediate and ephemeral interests and wants have less relevance than long-range and serious interests and wants.
2. Both interests and wants may actually be the basis of needs. For example, a want may actually be a need. The want to be accepted, for instance, is in fact the psychological need to be accepted. Alternatively, the want for a pair of expensive, designer jeans is not a need, though some may possibly argue otherwise. If, then, interests and wants can be the basis for needs and are sometimes needs themselves, it would be redundant for them to be shown separately in a model for curriculum improvement.
3. It would be unduly complex, burdensome, and confusing for interests and wants to be shown separately in a model for curriculum development. Certainly, as far as interests go, the literature is filled with admonitions for educators to be concerned with student needs and interests to the point where the two concepts, needs and interests, are one blended concept, "needs-and-interests." Interests and wants of students must be continuously considered and sifted in the processes of both curriculum development and instruction, for they can be powerful motivators.

NEEDS OF STUDENTS: LEVELS

The levels of student needs of concern to the curriculum planner may be identified as (1) human, (2) national, (3) state or regional, (4) community, (5) school, and (6) individual.

Human

The curriculum should reflect the needs of students as members of the human race, needs that are common to all human beings on the globe, such as food, clothing, shelter, and good health. Franklin D. Roosevelt, in his State of the Union address to the U.S. Congress in 1941, iterated four universal needs of humanity, widely known as the Four Freedoms. These are freedom from want, freedom from fear, freedom to worship God in one's own way, and freedom of speech and expression. The American student shares in common with his or her brothers and sisters all over the world certain fundamental human needs that the curriculum should address.

National

At the national level, efforts are made to assess the general needs of students in American society through statements of aims of education. We might identify the needs of students throughout our nation as: development of the ability to think, mastery of basic and technological skills, preparation for a vocation or college, the ability to drive a car, consumer knowledge and skills, and a broad, general knowledge. Some of the national needs we might identify are ones held in common by inhabitants of all nations. For example, few would argue that literacy education is not essential to the development and growth of any nation. In that sense literacy education is a worldwide but not a human need, because men and women do not need to read or write to exist. Human beings, however, cannot exist without food and water or with overexposure to the elements.

To become aware of nationwide needs of students, the curriculum planners should be well read, and it is helpful for them to be well traveled. The curriculum planner should recognize changing needs of our country's youth. For example, contemporary young people must learn to live with the computer, to conserve dwindling natural resources, to protect the environment, and to change some basic attitudes to survive in twenty-first century America.

State or Regional

Curriculum planners should determine whether students have needs particular to a state or region. Whereas preparing for a vocation is a common need, of all students in American society, preparing for specific vocations may be more appropriate in a particular community, state, or region. General knowledge and specialized training in certain fields, such as health care, teaching auto mechanics, Web design, and data processing, may be applied throughout the country. However, states or regions may require students to be equipped with specific knowledge and skills for their industrial and agricultural specializations. Hospitality industry jobs may be more prevalent in the Sunbelt region, due to the tourism industry. Likewise, a high concentration of agriscience careers may exist in the Midwest due to the farming industry.

Community

The curriculum developer studies the community served by the school or school system and asks what students' needs are in this particular community. Students growing up in a mining town in West Virginia have some demands that differ from those of students living among the cherry

orchards of Michigan. In some urban communities with their mélange of races, creeds, colors, and national origins, one of the greatest needs may be to learn to get along with one another. Students who finish school and choose to remain in their communities will need knowledge and skills sufficient for them to earn a livelihood in those communities.

School

The curriculum planner typically probes and excels at analyzing the needs of students in a particular school. These needs command the attention of curriculum workers to such an extent that sometimes the demands of the individual students are obscured. The need for remedial reading and mathematics is obvious in schools where test scores reveal deficiencies. The need for English language acquisition may be pressing in a school with a large percentage of foreign language speakers. Recently integrated or multiethnic school populations show, as a rule, the need for opening communication among groups. Magnet schools, for example, should be designed to provide educational opportunities in specified areas and ought to reflect the built-in needs of their student body.[2]

Individual

Finally, the needs of individual students in a particular school must be examined. Can it be that the needs of individual students go unattended while focus is on the needs of the many? Has the school addressed the needs of the average, the gifted, the academically talented, the physically or mentally challenged, the diabetic, the hyperactive, the withdrawn, the aggressive, the antisocial, and the creative pupil (to mention but a few categories of individual behavior)? We must ask to what extent the philosophical pledges to serve the needs of individuals are being carried out.

Each level of student needs builds on the preceding level and makes, in effect, a cumulative set. Thus, the individual student presents needs that emanate from his or her (1) individuality, (2) membership in the school, (3) residence in the community, (4) living in the state or region, (5) residing in the United States, and (6) belonging to the human race.

NEEDS OF STUDENTS: TYPES

Another dimension is added when the curriculum planner analyzes the needs of students by types. Four broad types of needs can be established: physical/biological, socio-psychological, educational, and developmental tasks.

Physical/Biological

Biologically determined, the physical needs of young people are common within the culture and generally constant across cultures. Students need movement, exercise, rest, proper nutrition, and adequate medical care. On leaving the childhood years, students need help with the transition from puberty to adolescence. In the adolescent years they must learn to cope with their developing sexuality and learn the harmful effects of alcohol, drugs, and tobacco on the human body. Providing for the disabled is a growing concern in our society. Obesity of young people is a problem calling for attention. A sound curriculum aids students to understand and meet their physical needs not only during the years of schooling but into adulthood as well.

Socio-psychological

Some curriculum developers might divide this category into social and psychological needs, yet it is often difficult to distinguish between the two. For example, an individual's need for affection is certainly a psychological need. Affection, however, is sought from other individuals and in that context becomes a social need. At first glance, self-esteem seems a purely psychological need. If we believe perceptual psychologists like Earl C. Kelley, however, the self is formed through relationships with others: "The self consists, in part at least, of the accumulated experiential background, or backlog, of the individual. . . . This self is built almost entirely, if not entirely, in relationship to others. . . . Since the self is achieved through social contact, it has to be understood in terms of others."[3] Among the common socio-psychological needs are affection, acceptance and approval, belonging, success, and security. Furthermore, each individual needs to be engaged in meaningful work.

The needs of the mentally and emotionally exceptional child fit more clearly into the psychological category. Attention must be paid to the wide range of exceptionalities: the gifted, the creative, the emotionally disturbed, and the student with a learning disability or low cognitive abilities. Curriculum workers must be able to identify socio-psychological needs of students and incorporate ways to meet these needs into the curriculum.

Educational

Curriculum planners ordinarily view their task of providing for the educational needs of students as their primary concern. The educational needs of students shift as society changes and as more is learned about the physical and socio-psychological aspects of child growth and development. Historically, schools have gone from emphasizing a classical and theocratic education to a vocational and secular education. They have sought to meet the educational needs of young people through general education, sometimes as the study of contemporary problems of students and/ or society. "Life adjustment" courses and career education have been features in our educational history. The basic skills and academic disciplines are currently preferred as the curricular pièce de résistance. The curriculum worker should keep in mind that educational needs do not exist outside the context of students' other needs and society's needs.

Developmental Tasks

Robert J. Havighurst made popular the concept of a "developmental task," which he viewed as a task that had to be completed by an individual at a particular time in his or her development if that individual is to experience success with later tasks.[4] He traced the developmental tasks of individuals in our society from infancy through later maturity and described the biological, psychological, and cultural bases as well as the educational implications of each task.

Found between individual needs and societal demands, developmental tasks do not fall neatly into the schemes developed in this chapter for classifying the needs of students and the needs of society. These tasks are, in effect, personal-social needs that arise at a particular stage of life and that must be met at that stage. In middle childhood, for example, youngsters must learn to live, work, and play harmoniously with each other. In adolescence, individuals must learn to become independent, responsible citizens.

Havighurst addressed the question of the usefulness of the concept of developmental tasks in the following way:

> There are two reasons why the concept of developmental tasks is useful to educators. First, it helps in discovering and stating the purposes of education in the schools. Education may

be conceived as the effort of society, through the school, to help the individual achieve . . . certain of his developmental tasks.

The second use of the concept is in the timing of educational efforts. When the body is ripe, and society requires, and the self is ready to achieve a certain task, the teachable moment has come. Efforts at teaching which would have been largely wasted if they had come earlier, give gratifying results when they come at the *teachable moment,* when the task should be learned.[5]

Curriculum planners in earlier years frequently fashioned an often-elaborate planning document known as a scope-and-sequence chart. This chart assigned content to be encountered at each grade level following what was known about child growth and development. Today we recognize the necessity for educators to account for developmental appropriateness by providing learning experiences that are suitable for the age and background of the individual learner.[6] Addressing the fit between the curriculum and the needs of learners, George S. Morrison saw four types of appropriateness: developmental, in terms of growth and development; individual, in terms of special needs of learners; multicultural, in terms of cultural diversity; and gender, in terms of avoiding discriminatory content or practice.[7]

NEEDS OF SOCIETY: LEVELS

The curriculum worker not only looks at the needs of students in relation to society, but also at the needs of society in relation to students. These two levels of needs sometimes converge, diverge, or mirror each other. When we make the needs of students the focal point, we gain a perspective that may differ from that accorded us in studying the needs of society. In analyzing the needs of society, the curriculum worker must bring a particular set of skills to the task. Grounding in the behavioral sciences is especially important to the analysis of the needs of the individual, whereas training in the social sciences is pivotal to the analysis of the needs of society.

As we did in the case of assessing students' needs, let's construct two simple taxonomies of the needs of society: first, as to level, and second, as to type. We can classify the levels of needs of society from the broadest to the narrowest: human, international, national, state, community, and neighborhood.

Human

What needs, we might ask, do human beings throughout the world have as a result of their membership in the human race? Humans as a species possess the same needs as individual human beings: food, clothing, and shelter. Collectively, humankind has a need for freedom from want, from disease, and from fear. As a civilized society, presumably thousands of years removed from the Stone Age, human beings have the need, albeit often unrealized, to live in a state of peace. Human society, by virtue of its position at the pinnacle of evolutionary development, has a continuing need to maintain control over subordinate species of the animal kingdom. When we see the devastation wrought by earthquakes, volcanoes, hurricanes, floods, tornadoes, and drought, we are repeatedly reminded of the need to understand and control the forces of nature. Some of the needs—or demands, if you will—of society are common to the entire human race.

International

Curriculum developers should consider needs that cut across national boundaries and exist not so much because they are basic needs of humanity but because they arise from our loose confederation of nations. The study of foreign languages, for example, is a response to the need for peoples to communicate with each other. The nations of the world need to improve the flow of trade across their borders. They need to work out more effective means of sharing expertise and discoveries for the benefit of all nations. The people of each nation continually need to try to understand more about the culture of other nations.

Surely, curriculum workers need to be aware of former and current challenges countries in our world will face. Ethnic wars such as experienced in recent years in the former Yugoslavia and Rwanda, terrorist actions, starvation in countries such as Somalia, U.S.-led engagements such as the war in Afghanistan, two wars with Iraq, the mistreatment of children and women in some countries, and the volatility of international financial markets provide examples of international problems that can have an impact on contemporary curriculum development.

National

Our form of government rests on the presence of an educated and informed citizenry. Consequently, the curriculum planner must be able to define the needs of the nation with some degree of lucidity. Education in citizenship is to a great extent the function of the school. One means of identifying national needs is to examine the social and economic problems faced by the country. The United States has an urgent need, for example, to train or retrain persons in occupations that appear to be growing rather than declining. The curriculum planner must be cognizant of careers that are subject to growth and decline. Employment opportunities will vary from occupation to occupation. Some will experience an increase; others, a decrease.

Projecting employment opportunities between 2008 and 2018, the Bureau of Labor Statistics reported professional and related occupations (computer and mathematical occupations, health care practitioners and technical occupations, and education, training, and library occupations) will grow faster than any other major occupational group. Service occupations constitute the second largest rate of growth (health care service occupations are expected to add the most jobs among service occupations), whereas agriculture, fishing, and forestry jobs are anticipated to decrease. Employment in management, business, financial, and construction occupations is predicted to increase.[8]

Schools have responded to career needs of young people through vocational education either in comprehensive high schools, vocational schools, or magnet schools. Since World War I, emphasis on vocational education has waxed and waned. The Smith-Hughes Act of 1917, the George-Reed Act of 1929, the George-Dean Act of 1936, the Vocational Education Act of 1963, Charles Prosser's resolution calling for "life adjustment education" and the creation of the Commission on Life Adjustment Education in the post–World War II years, the Carl D. Perkins Act of 1984, and the School-to-Work Opportunities Act of 1994 all addressed career and life needs of youth. The Carl D. Perkins Act (Public Law No. 98-524, The Vocational Education Act of 1984) furnishes an interesting example of the effects of changing curricular emphases on the U.S. Congress. Amended in 1990, it became the Carl D. Perkins Vocational and Applied Technology Education Act; renewed in 1998, it appeared as the Carl D. Perkins

Vocational-Technical Education Act; and reauthorized in 2006, it dropped the older and now less-popular label "vocational" and has become the Carl D. Perkins Career and Technical Education Act of 2006.

Renewed programs in career education must continue to take note of deficiencies among the workforce and seek to help students gain skills necessary for successful employment. Among current means of strengthening career education are: analysis of the business and industrial needs of the community; specification of outcomes needed by graduates; integration of academic and career education; school-to-work transition programs; establishing partnerships with business and industry; on-the-job experiences concurrent with schooling; and guidance of students in examining a chosen set of occupations (e.g., business, health, communications), a practice known as *career clustering.*

In addition to a renewed interest in technical education, progressive schools have responded by "ramping up" their curricula as a means to afford students opportunities to attend college. Not too surprising to persons in education is the finding by the Bureau of Labor Statistics that "Among the 20 fastest growing occupations, a bachelor's or associate degree is the most significant source of postsecondary education or training for 12 of them. . . ."[9] By providing Advanced Placement courses and International Baccalaureate curriculum, schools have responded to the increasing national trend for students to get an advanced degree. As employment needs change and as technology continues to develop, consumer demands change, populations shift, global competition stiffens, and outsourcing intensifies. The curriculum worker must be a student of history, sociology, political science, economics, and current events to perceive the needs of the nation.

State

States also have special needs and have a responsibility to provide for their citizenry on a variety of levels. Consequently, they play a major role in influencing curriculum offerings at the local level. In order to attract industry to create jobs in a complex and evolving global marketplace, states have a stake in determining the curriculum. Recently we have experienced how a downturn in the economy can impact a state's population. For example, when the sale of automobiles declined, the state of Michigan experienced special difficulties. When the oil industry went into recession, Texas suffered. When whole industries moved from the cold and expensive Northeast to sunnier climes in the United States—and even to Mexico—where labor and other costs are lower, the abandoned states felt the loss. As states experience economic booms and downturns, they have a responsibility to provide stability and opportunities for their populations.

As the data become more transparent, student performance on state-developed standardized tests is compared and measured by stakeholders. The federal government's effort to impact the curricula, The No Child Left Behind Act of 2001, requires states to have all students perform on grade level as determined by state content standards and performance measures, by the year 2014. To comply with the requirements of No Child Left Behind of 2001, states must test reading, mathematics, and science at stipulated grade levels.[10]

As you recall in Chapter 6 we discussed the Race to the Top Fund (RTTT) which provided financial incentives to states in an effort to sustain increased student achievement. RTTT focuses on 1) improving data collection in an effort to promote data-driven decision making, 2) improving the college readiness of students, 3) assisting with highly qualified teacher and administrator recruitment and 4) turning around low performing schools.[11]

The expectations that come with the money can be overwhelming. The narrowing of curriculum offerings, to comply with these high demands, should be considered by the curriculum planner. Job opportunities, needs for training of specialized workers, and types of schooling needed differ from state to state and pose areas of concern for curriculum workers. As a result, curriculum planners should consider the needs of the state when establishing the curricula.

Community

Curriculum workers are more frequently able to identify the needs of a community because they are usually aware of significant changes in its major businesses and industries. They know very well, as a rule, whether the community's economy is stagnant, depressed, or booming. On the other hand, changes are sometimes so gradual that schools neglect to adapt their programs to changing community needs. For example, it is possible to find schools that offer programs in agriculture although their communities have shifted to small business and light industry long ago, or we find schools that train pupils for particular manufacturing occupations when the type of manufacturing in the area has changed or factories have been converted to automation. More subtle and more difficult to respond to are needs produced by the impersonality of large urban areas. Urban dwellers need to break through the facade of impersonality and develop a sense of mutual respect so they can make contributions to improve life in the big city.

Shifts of population within a state create problems for communities. During the 1970s, many disenchanted city dwellers moved to rural areas to seek a better quality of life—only to move back to metropolitan areas, as evidenced by the United States Census Bureau figures, in the 1980's. Currently, many communities are witnessing high levels of home foreclosures due to the lagging economy. Financial strife experienced by families creates unexpected mobility in populations. In today's economy, people who face foreclosure or a loss of a job have difficulty in immediately overcoming those challenges and are forced to move to find more affordable housing.

Shifts in population create problems for the schools in the same way the tax base, which schools rely on for partial support, affects the quality of education in a community. School staffs know full well the differences in communities' abilities to raise taxes to support public education. As the *Serrano v. Priest* decision of the California Supreme Court in 1971 and the *Edgewood v. Kirby* decision of the Texas Supreme Court in 1989 clearly demonstrated, wealthier communities with the ability to raise funds through taxes on property can provide a higher quality of education than can communities with a poorer tax base.[12] In this respect community need becomes a state need because education, through the Tenth Amendment to the U.S. Constitution, is a power reserved to the states. Parenthetically we might add that community needs, including schools, become state and federal needs when communities are hit by natural disasters like 2005's Hurricane Katrina.

Schools cannot, of course, solve these societal problems by themselves. Communities must turn primarily to their state legislatures for help in equalizing educational opportunities throughout the state. On the other hand, schools can make—and cannot avoid the obligation to make—an impact on the future citizens of the community whom they are educating by making them aware of the problems and equipping them with skills and knowledge that will help them resolve some of the problems.

Neighborhood

Are there needs, the curriculum developer must ask, peculiar to the neighborhood served by the school? The answer is obvious in most urban areas. The people of the inner city have needs

that differ from those who live in the suburbs. Crime and use of drugs are more common in some neighborhoods than in others. The needs of people in areas that house migrant workers are much different from those of people in areas where executives, physicians, and lawyers reside. Children in lower socioeconomic levels often achieve less in their neighborhood schools than more affluent children do in theirs. As a rule, families of children in higher socioeconomic areas are able to afford cultural and educational experiences that children in lower socioeconomic schools seldom encounter.[13]

The curriculum worker must be perceptive of changes in neighborhoods. For example, city dwellers who moved to suburbia in search of the good life are finding—after some years in a housing development, often a tract variety with a cookie-cutter sameness of architectural design, and after countless hours of commuting—that the good life has eluded them. They have become disenchanted with wall-to-wall housing and with block after block of shopping centers. Grass, trees, and unpolluted air have given way to the bulldozer, the cement mixer, and disconcerting traffic.

Some of the suburban settlements have joined the central city in experiencing blight, decay, crime, and the host of problems that they originally ascribed to the cities. Consequently, some suburbanites have reversed direction, willing to contend with urban problems and at the same time enjoy the cultural, educational, and recreational resources of the city.

Worth watching are housing developments designed to create a congenial small-town atmosphere in a suburban-type setting. These new planned communities employ the concept of a community center surrounded by a mixture of single-family and multi family residences and apartments. Schools and commercial and recreational facilities are planned to be within walking distance of the homes. Mass transit will link suburbs and nearby urban centers, reducing dependence on the automobile. Sites near Sacramento, California; Tacoma, Washington; Orlando and Tampa, Florida; and in Brevard County, Florida, are locales testing the small-town center concept wherein schools, shops, jobs, and services can be found within walking distance of homes. Perhaps in the twenty-first century and beyond not all of America's population will be living in the beehive dwellings predicted by some futurists.

The curriculum specialist must develop plans that show an understanding of the needs of society on all of the foregoing levels.

NEEDS OF SOCIETY: TYPES

The curriculum planner must additionally look at the needs of society from the standpoint of types. For example, each of the following types of societal needs has implications for the curriculum:

- political
- social
- economic
- educational
- environmental
- defense
- health
- moral and spiritual

A curriculum council studying the needs of society would be well advised to try to generate its own system for classifying societal needs. It might then compare its classification system with some of those found in the literature. The Seven Cardinal Principles and the Ten Imperative Needs of Youth, mentioned in Chapter 3, were efforts to identify needs of students as a function of the needs of society.

Social Processes

Numerous attempts have been made throughout the years to identify societal needs or demands under the rubrics of social processes, social functions, life activities, and social institutions. As we review several well-known efforts to specify these needs, we should recall the student-society duality of needs. "Making a home," for example, is both a societal and personal need. The person has a need for the skills of making a home while society has a need for persons who possess homemaking skills. Curriculum specialists who seek to delineate social processes or functions do so in order to identify individual needs that have social origins. It might be argued, parenthetically, that all personal needs (except purely biological ones) are social in origin. Robert S. Zais credited Herbert Spencer for the beginning of the practice of studying society empirically.[14] In 1859 Spencer recommended that students be prepared for "the leading kinds of activity which constitute human life."[15]

The 1934 Virginia State Curriculum Program has been identified as one of the better-known attempts to organize a curriculum around life processes.[16] O. I. Frederick and Lucile J. Farquear reported the following nine areas of human activity that the state of Virginia incorporated into the curriculum of the schools:

Protecting life and health

Getting a living

Making a home

Expressing religious impulses

Satisfying the desire for beauty

Securing education

Cooperating in social and civic action

Engaging in recreation

Improving material conditions[17]

The Wisconsin State Department of Public Instruction's *Guide to Curriculum Building* has been highly regarded for its social functions approach. The Wisconsin State Department of Public Instruction listed the following social functions in its guide for a core curriculum at the junior high school level:[18]

To keep the population healthy.

To provide physical protection and guarantee against war.

To conserve and wisely utilize natural resources.

To provide opportunity for people to make a living.

To rear and educate the young.

To provide wholesome and adequate recreation.

To enable the population to satisfy aesthetic and spiritual values.

To provide sufficient social cement to guarantee social integration.

To organize and govern in harmony with beliefs and aspirations.[19]

Florence B. Stratemeyer, Hamden L. Forkner, Margaret G. McKim, and A. Harry Passow proposed a plan for organizing curriculum experiences around activities of human beings, as shown in the following list:

Situations Calling for Growth in Individual Capacities:

Health

Satisfying physiological needs

Satisfying emotional and social needs

Avoiding and caring for illness and injury

Intellectual power

Making ideas clear

Understanding the ideas of others

Dealing with quantitative relationships

Using effective methods of work

Moral choices

Determining the nature and extent of individual freedom

Determining responsibility to self and others

Aesthetic expression and appreciation

Finding sources of aesthetic satisfaction in oneself

Achieving aesthetic satisfactions through the environment

Situations Calling for Growth in Social Participation:

Person-to-person relationships

Establishing effective social relations with others

Establishing effective working relationships with others

Group membership

Deciding when to join a group

Participating as a group member

Taking leadership responsibilities

Intergroup relationships

Working with racial, religious, and national groups

Working with socioeconomic groups

Dealing with groups organized for specific action

Situations Calling for Growth in Ability to Deal with Environmental Factors and Forces:

Natural phenomena

Dealing with physical phenomena

Dealing with plant, animal, and insect life

Using physical and chemical forces

Technological resources

Using technological resources

Contributing to technological advance

Economic-social-political structures and forces

Earning a living

Securing goods and services

Providing for social welfare

Molding public opinion

Participating in local and national government[20]

Taba pointed out that the strength of the Stratemeyer, Forkner, McKim, and Passow scheme is its unification of both the learner's and society's needs by combining practical concerns with theoretical social goals.[21]

In sum, the curriculum worker must analyze both the needs of learners and of society. The study of both "sources," as Ralph Tyler called them, provides clues for curricular implementation and organization.

NEEDS DERIVED FROM THE SUBJECT MATTER

One major source of curriculum objectives remains for us to consider: needs as derived from the subject matter or, as Jerome S. Bruner and others would say, from the "structure of a subject."[22] Bruner refers to the structure of a subject as the "basic ideas"[23] or "fundamental principles."[24] "Grasping the structure of a subject," said Bruner, "is understanding it in such a way that permits many other things to be related to it meaningfully. To learn structure, in short, is to learn how things are related."[25]

As examples of elements of the structure of disciplines, Bruner mentioned tropism in the field of biology; commutation, distribution, and association in mathematics; and linguistic patterns in the field of language.[26] Each subject contains certain essential areas or topics (the bases for determining the scope of a course) that, if the learner is to achieve mastery of the field, must be taught at certain times and in a certain prescribed order (sequence). The sequence could be determined by increasing complexity (as in mathematics, foreign languages, English grammar, science), by logic (as in social studies programs that begin with the child's immediate environment—the home and school—and expand to the community, state, nation, and world), or by psychological means (as in career education programs that start with immediate interests of learners and proceed to more remote ones).

Changes in the Disciplines

Changes in the major disciplines are not new. The scholarly ferment of the 1950s, precipitated by the National Defense Funds, changed what content should be taught in a course. The "new

math," the "new science," and the widespread development of the audio-lingual method of teaching foreign languages created new definitions and structures in those disciplines.

As a means to understand how a discipline can change, let's take closer look at how the foreign language curriculum workers were breaking out of the mold of the old reading-translation objectives that dominated foreign language study for generations. The following passage called attention to the change in objectives of foreign language study:

> The objectives, in order of priority, among foreign language teachers are: (a) aural comprehension, (b) speaking, (c) reading, and (d) writing. . . . The four above-mentioned linguistic objectives are integrated with the general cultural objectives, understanding of the foreign customs and foreign peoples.[27]

Foreign language study provides an excellent illustration of a sequenced structure because language students will learn a foreign language more readily when, for example, the concept of singular is presented before the concept of plural, when regular verbs are taught before irregular verbs, when the first person singular is mastered before other persons, when the present tense is perfected before other tenses, when simple tenses come before compound, and when the indicative mood is taught before the subjunctive.

Performance Objectives/Standards

Many state departments of education and/or local school districts have published syllabi, courses of study, and curriculum guides developed by teacher-specialists in particular fields.[28] These publications outline the structure of a subject and the appropriate grade level for each topic; the performance objectives, standards, and benchmarks (measureable learner expectations, i.e., what a student should know at a particular developmental level or grade); skills, or competencies to be accomplished; and often the order of presentation (sequence) of topics. Many cities and states and even the nation have been and continue to be engaged in the specification of performance objectives or standards in subject areas.[29]

One of the aspects regarding the standards-based movement that is attractive to politicians and stakeholders is the ability for large-scale assessment tests to be incorporated by states in order to determine student performance. According to Robert E. Blum, instituting higher content standards and establishing a standards-based assessment system allow states to set benchmarks and performance standards for student achievement. The underlying theme of standards being set in the subject areas is the premise that all children should be immersed in curriculum set in high standards instead of relying on remedial programs as a means of education.[30]

Some education specialists criticize the movement toward adoption of performance objectives/standards. They raise objections not only to the standardizing effect but also the nature of standards that they view as imposed and contrary to pressing social needs. Although specification of subject-matter standards has been subjected to criticisms such as a "narrowing of the curriculum" and "test driven," the movement continues strong.

An example of how a state sets standards by strands with performance objectives can be observed in the following paraphrased and general description of one Arizona Department of Education strand in Box 7.2. Note that the detailed K–12 content standards, approved in October of 2009, includes strands, concepts, grade ranges, and performance objectives. Strand ten is one example of the many strands on which states can focus.

BOX 7.2	Strand 10: Understanding Public Health Information, Products, and Services to Enhance Health	
Primary	**Middle**	**Secondary**
• Identify people and services who advocate health; identify trusted health information, resources and people.	• Analyze the health services and resources available in a given community.	• Synthesize the information available about health information and services.
• Know how to find reliable health services.	• Find good health resources in a given community.	• Critique the effectiveness of health services in a given community.
• Offer opinions about whether health resources and services are valid and practical.	• Assess the health products, services, and people in a given health community.	• Offer suggestions for improvement within the health community.
• Know whom and when to ask for help from health professionals.	• Determine if health services are accessible to people regardless of demographics, ethniity, gender, and other differences.	• Use information to decide if health resources are necessary in context.
		• Determine if health services are accessible to all people.

Source: Based on Arizona Department of Education, *New Health Education Standard,* website: azed.gov/, accessed January 11, 2011.

The following is an example of how local school districts align to state standards. Let's take, for example, Boston's standards for high school environmental studies, shown in Box 7.3. The Boston School Committee adopted Citywide Learning Standards that are aligned to the State Curriculum Frameworks in every subject area. Taking science as an example, the Boston performance standards parallel those of the state, which we should expect.[31]

The purpose of the discussion of needs up to this point is to direct the curriculum developers to consider three major sources of needs: the learner, the society, and the subject matter. Although, as we noted in Chapter 5, Ralph Tyler discussed these three sets of needs as sources from which tentative general objectives are derived—a sound procedure—they are examined and illustrated here as a preface to a systematic procedure for studying needs and identifying those not met by the school's curriculum. Such a procedure is usually referred to in the literature as a needs assessment.

CONDUCTING A NEEDS ASSESSMENT

In its simplest definition, a *curriculum needs assessment* is a process for identifying programmatic needs that must be addressed by curriculum planners. Fenwick W. English and Roger A. Kaufman offered several interpretations of the term "needs assessment." This earlier work published by the Association for Supervision and Curriculum Development remains a thorough description of

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BOX 7.3   Boston Public Schools Standards in Environmental Studies

Boston Public Schools Standards in Chemistry
I. Content Standards
1. Properties of Matter

Broad Concept: Physical and chemical properties reflect the nature of the interactions between molecules or atoms and can be used to classify and describe matter.

1.1 Identify and explain physical properties (such as density, melting point, boiling point, conductivity, and malleability) and chemical properties (such as the ability to form new substances). Distinguish between chemical and physical changes.

1.2 Explain the difference between pure substances (elements and compounds) and mixtures. Differentiate between heterogeneous and homogeneous mixtures.

1.3 Describe the three normal states of matter (solid, liquid, gas) in terms of energy, particle motion, and phase transitions.

Source: Massachusetts Science and Technology/Engineering High School Standards, website: bostonpublicschools .org/files/Citywide%20Learning%20Standards%20-%20HS%20Science.pdf. p 18. accessed January 11, 2011.

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a process that school systems have been engaging in for many years. English and Kaufman described needs assessment as a process in which a school can define its mission and goals and can be measured using defined outcomes. By using a needs assessment as a logical problem-solving tool, gaps can be identified, prioritized, and addressed to obtain desired results.[32]

The objectives of a needs assessment are twofold: (1) to identify needs of the learners not being met by the existing curriculum, and (2) to form a basis for revising the curriculum in such a way as to fulfill as many unmet needs as possible. Conducting a needs assessment is not a single, one-time operation but a continuing and periodic activity. Some curriculum workers perceive a needs assessment as a task to be accomplished at the beginning of an extensive study of the curriculum. Once the results are obtained from this initiatory needs assessment, these planners believe that further probing is unnecessary for a number of years.

Since the needs of students, society, and the subject matter change over the years and since no curriculum has reached a state of perfection in which it ministers to all the educational needs of young people, a thorough needs assessment should be conducted periodically—at least every five years—with at least minor updating annually.

A needs assessment is also not time-specific such that it takes place only at the beginning of a comprehensive study of the curriculum. A needs assessment is a continuing activity that takes place (a) before specification of curricular goals and objectives, (b) after identification of curricular goals and objectives, (c) after evaluation of instruction, and (d) after evaluation of the curriculum.[33] English and Kaufman pointed out that most school systems require six months to two years to complete a full-scale needs assessment.[34] Not all school systems, of course, conduct full-scale needs assessments. The scope of assessments varies from simple studies of perceived needs to thorough analyses using extensive data.

Perceived Needs Approach

Some schools limit the process of assessing needs to a survey of the needs of learners as perceived by (1) teachers, (2) students, and (3) parents. Instead of turning to objective data, curriculum planners in these schools pose questions that seek opinions from one or more of these groups. Parents, for example, are asked questions like these:

- How well do you feel your child is doing in school?
- Is your child experiencing any difficulty in school? If so, please explain.
- What content or programs do you believe the school should offer that are not now being offered?
- What suggestions do you have for improving the school's programs?
- Are you satisfied with the programs that the school is offering your child? If you are dissatisfied with any program, please specify which ones and your reasons.

Teachers and students may be asked to respond to similar questions in order to gain their perceptions of the school's curriculum and of needed improvements. The perceived needs approach, however, is but the first stage of the process. It is advantageous in that it is a simple process, requires relatively little time and effort, and is relatively inexpensive to conduct. It also provides an opportunity for the various groups to express their views about what is needed in the curriculum. The perceived needs approach becomes an effective public relations device when it is used with parents; it says, in effect, that the school cares to know what parents think about the school's programs and wants their suggestions. As a first step, the perceived needs approach is worthwhile.

On the other hand, the perceived needs approach is limited. By its very nature, it is concerned with perceptions rather than facts. Although the curriculum planner must learn the perceptions of various groups, he or she must also know what the facts are. The needs of learners as perceived by the various groups may be quite different from needs as shown by more objective data. Jon W. Wiles and Joseph C. Bondi commented, "In many school districts a failure to assess the true needs of the learners' results in a dysfunctional curriculum."[35] Consequently, a needs assessment must be carried beyond the gathering of perception of needs.

Data Collection

Those charged with conducting a needs assessment should gather data about the school and its programs from whatever sources of data are available. Necessary data include background information about the community, the student body, and the staff. Curriculum planners will need information on programs offered and available facilities. They must have access to all test data on the achievement of students in the school. Data may be obtained from various sources, including student records; school district files; surveys of attitudes of students, teachers, and parents; classroom observations; and examination of instructional materials. English described a process for collecting data in a school through examination of appropriate documents and practices, which he referred to as a "curriculum audit."[36]

Adequate data are necessary for making decisions about the selection of fields and topics to be encountered by the students and for specifying the goals of the curriculum. The data will provide clues as to the necessity for curriculum change. All these data should be put together in a coherent fashion so that they can be analyzed and decisions can be made about revising the curriculum.[37]

A needs assessment is customarily carried out when pressure is felt by personnel in schools seeking accreditation by their regional accrediting associations. Schools desiring regional accreditation normally conduct a full-scale self-study and are visited by a full committee every ten years; they also conduct interim studies every five years. Schools applying for accreditation follow criteria established by their accrediting association, often in conjunction with materials produced by their state department of education and the National Study of School Evaluation (NSSE).[38]

STEPS IN THE NEEDS ASSESSMENT PROCESS

The needs assessment process includes the following steps:

- Setting and validating curriculum goals
- Prioritizing curriculum goals
- Converting prioritized curriculum goals to curriculum objectives[39]
- Prioritizing curriculum objectives
- Gathering data
- Identifying unmet curricular needs, i.e., gaps between desired curriculum objectives and actual curriculum objectives
- Prioritizing curricular needs
- Implementing prioritized needs
- Evaluating success of prioritized curriculum objectives[40]

These steps may look simple but in reality they are complex. They involve many people: school boards, administrators, teachers, students, parents, and other members of the community. They call for an intimate knowledge of the school, school district, and community, even of the state and nation. Although leaders will be identified and charged with directing the process, needs assessment is primarily an activity requiring the participation of many groups. Those assigned leadership roles should come to the needs assessment process with a firm grounding in curriculum, sociology, and psychology.

Those conducting a needs assessment must gather extensive data about the school and community and must make use of multiple means of assessment, including opinions, empirical observation, inventories, predictive instruments, and tests. They should follow constructive techniques for involving and managing individuals and groups throughout the process, and must apply effective methods for sharing information to keep participants and the community abreast of the process. They must seek out the help of persons trained and experienced in curriculum development, instruction, staff development, budgeting, data gathering, data processing, measurement, and evaluation.

The needs assessment process is designed to inform those affected by the process as to which curriculum features should be kept as is, kept with revision, removed, and/or added.

Thus, you can see that a thorough needs assessment is more than a "quick and dirty" survey of perceived needs. When done properly, it is a time-consuming, repetitive process that requires the commitment of human and material resources sufficient to accomplish the job. A systematic process for discovering the unmet needs of learners is an essential phase of curriculum improvement.

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Summary

Curriculum planners must attend to the needs of students and society. These needs may be classified as to level and type. Various attempts have been made to identify the social processes, functions, and institutions that have import for the curriculum.

Each discipline has its own unique set of elements or structure that affects decisions about scope and sequence. The structure of a subject is shown by exposition of the basic ideas, fundamental principles, broad generalizable topics, competencies, and performance objectives.

In addition to studying empirically the needs of students, society, and the disciplines, curriculum workers should conduct systematic needs assessments to identify gaps—discrepancies between desired and actual student performance. Identified unmet needs should play a major role in curriculum revision.

A curriculum needs assessment permits school systems to discover deficiencies in their curricula. In addition, it creates a vehicle for school and community cooperation, builds community understanding of the school's programs and support for the school's efforts to fill in the gaps, and eliminates overlaps in the curriculum while forcing decisions on priorities.

Questions for Discussion

1. What is the relationship between (1) needs of learners, society, and subject matter and (2) a curriculum needs assessment?
2. Why do experienced curriculum planners express that the needs of the student should not be completely divorced from those of society, and vice versa?
3. What is the difference between the needs of students by level versus the needs of students by type?
4. What is the difference between the needs of society by level versus the needs of society by type?
5. Is it important to conduct a needs assessment every five years? Provide support for your answer.

Exercises

1. Analyze Robert J. Havighurst's developmental tasks of middle childhood or adolescence (see bibliography) and judge whether you feel each task is still relevant. Give reasons for your position on each task that you feel is no longer relevant.

2. Examine the report of the school-and-community committee of a school that has undergone regional accreditation and summarize the data contained therein.

3. Develop a plan that shows your understanding of the needs of society on all of the levels discussed in the text.

4. List the steps in the needs assessment process as discussed in the text. State which groups would participate in each specific process.

5. Report on the Basic Needs Assessment Framework presented by Jon W. Wiles and Joseph C. Bondi, pp. 82–91 (see bibliography).

Websites

Center on Education Policy: cep-dc.org/

Advanced Ed: advanc-ed.org/

Endnotes

1. See Chapter 5.
2. For discussion of magnet schools, see Chapter 9.
3. Earl C. Kelley, "The Fully Functioning Self," in *Perceiving, Behaving, Becoming,* 1962 Yearbook (Alexandria, Va.: Association for Supervision and Curriculum Development, 1962), pp. 9, 13.
4. See Robert J. Havighurst, *Developmental Tasks and Education,* 3rd ed. (New York: Longman, 1972).
5. Robert J. Havighurst, *Developmental Tasks and Education,* 1st ed. (Chicago: University of Chicago Press, 1948), p. 8.
6. See Scott Willis, "Teaching Young Children: Educators Seek 'Developmental Appropriateness,'" *ASCD Curriculum Update* (November 1993): 1–8.
7. George S. Morrison, *Contemporary Curriculum K–8* (Boston: Allyn and Bacon, 1993), pp. 88–90.
8. U.S. Department of Labor, Bureau of Labor Statistics, *Occupational Outlook Handbook* online. Website: http://www.bls.gov/oco/oco2003.html, accessed January 15, 2011.
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12. *Serrano v. Priest*, 5 Cal. 3rd 584, 487 P. 2nd 1241 (1971) and *Edgewood Independent School District et al. v. William Kirby et al.* S.W. Texas 777 S.S. 2d 391 (Tex. 1989)
13. For a notable example of student achievement in a lower socioeconomic area, view *The Ron Clark Story* (2006), a made-for-TV Johnson & Johnson Spotlight Presentation movie starring Matthew Perry as Ron Clark who taught disadvantaged students in rural North Carolina and Harlem and currently has an academy in Atlanta.
14. Robert S. Zais, *Curriculum: Principles and Foundations* (New York: Harper & Row, 1976), p. 301.
15. Herbert Spencer, "What Knowledge Is of Most Worth?" in *Education: Intellectual, Moral, and Physical* (New York: John B. Alden, 1885). Quotations are from 1963 ed. (Paterson, N.J.: Littlefield, Adams), p. 32.
16. Hilda Taba, *Curriculum Development: Theory and Practice* (New York: Harcourt Brace Jovanovich, 1962), p. 398.
17. O. I. Frederick and Lucile J. Farquear, "Areas of Human Activity," *Journal of Educational Research* 30, no. 9 (May 1937): 672–679.
18. For discussion of the core curriculum, see Chapter 9.
19. Wisconsin State Department of Public Instruction, *Guide to Curriculum Building,* Bulletin No. 8 (Madison, Wis.: State Department of Public Instruction, January 1950), p. 74.

20. Florence B. Stratemeyer, Hamden L. Forkner, Margaret G. McKim, and A. Harry Passow, Chapter 6, "The Scope of Persistent Life Situations and Ways in Which Learners Face Them," in *Developing a Curriculum for Modern Living,* 2nd ed. (New York: Teachers College Press, 1957), pp. 146–172.

21. Taba, *Curriculum Development,* p. 399.

22. Jerome S. Bruner, *The Process of Education* (Cambridge, Mass.: Harvard University Press, 1960), p. 6.

23. Ibid., pp. 12–13.

24. Ibid., p. 25.

25. Ibid., p. 7.

26. Ibid., pp. 7–8.

27. Peter F. Oliva, *The Teaching of Foreign Languages* (Englewood Cliffs, N.J.: Prentice-Hall, 1969), p. 11.

28. For discussion of curriculum products, see Chapter 14 of this text.

29. See Chapter 15 for discussion of standards.

30. Robert E. Blum, "Standards-Based Reform: Can it Make a Difference for Students?" *Peabody Journal of Education* 75, no. 4 (October, 2000): 90–113.

31. See website: http://bostonpublicschools.org/node/353.

32. Fenwick W. English and Roger A. Kaufman, *Needs Assessment: A Focus on Curriculum Development* (Alexandria, Va.: Association for Supervision and Curriculum Development, 1975), pp. 3–4.

33. See components of the suggested model for curriculum development, Chapter 5 of this text, Figure 5.4.

34. English and Kaufman, *Needs Assessment,* p. 14.

35. Jon W. Wiles and Joseph C. Bondi, *Curriculum Development: A Guide to Practice,* 8th ed. (Upper Saddle River, N.J.: Pearson Education, 2011), p. 82.

36. Fenwick W. English, *Curriculum Auditing* (Lancaster, Penn.: Technomic Publishing Company, 1988), p. 33.

37. See Jon W. Wiles and Joseph C. Bondi, p. 83 for a suggested outline of needs assessment data.

38. National Study of School Evaluation, 1699 East Woodfield Road, Suite 406, Schaumburg, Ill. 60173-4958. Website: http://www.advanc-ed.org/

39. For discussion of Curriculum Goals and Objectives, see Chapter 8 of this text.

40. For detailed steps in needs assessment and post–needs assessment, see English and Kaufman, *Needs Assessment,* pp. 12–48.

Curriculum Goals, Objectives, and Products

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HIERARCHY OF OUTCOMES

Following the model for curriculum improvement suggested in Chapter 5, let's see how far we have come. We have:

- analyzed needs of students in general in society
- analyzed needs of American society
- reviewed aims of education and affirmed those with which we are in agreement
- written a philosophy of education
- initiated a needs assessment by surveying needs of students in the community and school and by surveying needs of the community
- conducted a needs assessment and identified unmet needs

All of these steps are a prelude to the next phase. They provide a framework; they set the stage. They furnish data that are vital to making curricular decisions. The planning of the curriculum is now about to begin.

In Chapter 6 you encountered the terms "aims of education," "curriculum goals," "curriculum objectives," "instructional goals," and "instructional objectives" as used in this text. We discussed a hierarchy of purposes of education from the broadest to the narrowest. Let's review that hierarchy; it is essential both to this chapter on
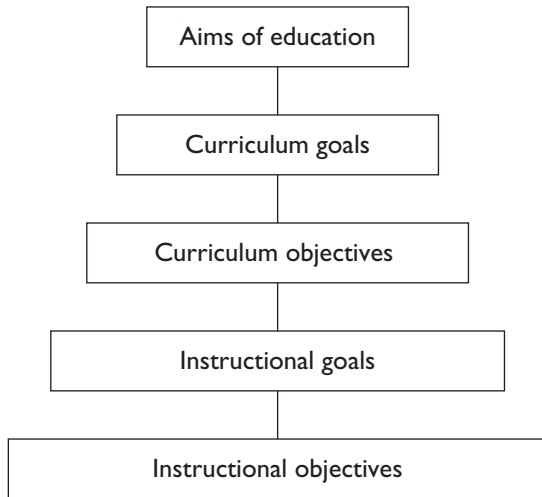
FIGURE 8.1
Hierarchy of Outcomes

```
┌─────────────────────────┐
│    Aims of education     │
└─────────────────────────┘
             │
   ┌─────────────────────────┐
   │     Curriculum goals     │
   └─────────────────────────┘
                │
      ┌─────────────────────────┐
      │   Curriculum objectives  │
      └─────────────────────────┘
                   │
         ┌─────────────────────────┐
         │     Instructional goals  │
         └─────────────────────────┘
                      │
            ┌──────────────────────────────┐
            │   Instructional objectives    │
            └──────────────────────────────┘
```

curriculum goals and objectives and to Chapter 10 on instructional goals and objectives. We might chart this hierarchy as shown in Figure 8.1.[1]

Aims, Goals, and Objectives

Sometimes it seems as if the educational literature is surfeited with discussions of aims, goals, and objectives. Several problems can be found if we research the literature on aims, goals, and objectives. First, aims of education are often equated with goals, and in a lexical sense, of course, they are the same. Many years ago John W. Gardner, in *Goals for Americans,* was describing aims of education when he wrote:

> Our deepest convictions impel us to foster individual fulfillment. . . . Ultimately, education serves all of our purposes—liberty, justice, and all our other aims—but the one it serves most directly is equality of opportunity.
>   [The] . . . tasks of producing certain specially needed kinds of educated talent . . . should not crowd out the great basic goals of our educational system: to foster individual fulfillment and to nurture the free, rational and responsible men and women without whom our kind of society cannot endure.[2]

In this case the problem of equating aims of education with goals is minor because Gardner communicates to the reader that he is consistently discussing broad goals or aims. The problem arises when discussions of aims, curriculum goals and objectives, and instructional goals and objectives are intermingled. There is little difficulty when a single meaning for a term is used in a single context or when an author clearly defines how he or she uses a term. That, however, does not always happen.

Second, the terms "educational goals" and "educational objectives" are used in the profession with varying meanings. Some use these terms in the same way other people speak of aims of education or educational aims. Some perceive educational goals as curriculum goals and educational objectives as curriculum objectives. Some substitute educational goals for instructional goals and educational objectives for instructional objectives.

Third, as we shall see in examples of school statements of goals and objectives, goals are equated with objectives, and the terms are used synonymously. However, if we believe what we read, there are two entities—one called goals and another, objectives—because numerous schools have prepared statements of both goals and objectives.

Some writers have used the terms "goals" and "objectives" interchangeably, as we can see from the writings of some early proponents of behavioral objectives. W. James Popham and Eva L. Baker wrote: "We have given considerable attention to the topic of instructional objectives because they represent one of the most important tools available to the teacher. . . . There is undoubtedly a positive relationship between a teacher's clarity of instructional goals and the quality of his teaching."[3] Robert F. Mager, in his popular work on instructional objectives, commented:

> An instructor . . . must then select procedures, content, and methods that . . . measure or evaluate the student's performance according to the objectives or goals originally selected. . . . Another important reason for stating objectives sharply relates to the evaluation of the degree to which the learner is able to perform in the manner desired. . . . Unless goals are clearly and firmly fixed in the minds of both parties, tests are at best misleading.[4]

The widely followed taxonomies of educational objectives bear the subtitle *The Classification of Educational Goals.*[5] In some of the literature goals are objectives and vice versa. That is not the case in this textbook, as you will see.

Fourth, some curriculum specialists do not distinguish curriculum goals and objectives from instructional goals and objectives, or they use these two sets of terms synonymously. If curriculum and instruction are two different entities—the position taken in this text—curriculum goals and objectives are different from instructional goals and objectives. Only if we choose a curriculum-instruction model in which the curriculum and instruction are mirror images can curriculum goals and objectives be identical to instructional goals and objectives. This text, however, presents the view that the two are separate but related entities.

These observations are not meant to criticize the positions, definitions, or approaches of other curriculum specialists, nor to hold that the definitions given in this text are the "right" or only ones. As Decker F. Walker aptly stated in an enlightened discussion of writings on curriculum:

> Curriculum clearly is an iffy subject. It belongs to Aristotle's "region of the many and variable" where certain knowledge is not possible, only opinion—multiple and various, more or less considered, more or less adequate, but never clearly true or false.[6]

Mary M. McCaslin spoke in a similar vein when she said:

> We all live in glass houses. None of us can afford glib dismissal of alternative conceptions any more than we can afford to be noncritical or nonreflective about our own work.[7]

Our remarks about the differences in the use of curriculum terms convey, as mentioned in Chapter 1, that the language of curriculum is somewhat imprecise and can lead to confusion. Curriculum specialists, unfortunately, do not agree among themselves on terminology. To add to the confusion and complexity of curriculum development, curriculum planners extend the language beyond *philosophy, goals,* and *objectives* to *mission* or *vision statements; frameworks; learning, content, program,* or *performance standards; program descriptors;* and *benchmarks.* As a result, the practitioner who seeks to carry out curriculum development following principles established by the experts must first understand the contexts within which they appear.

In this text we have made distinctions between curriculum goals and objectives and instructional goals and objectives to help practitioners facilitate the natural flow of curriculum development from general aims of education to precise instructional objectives. Specifying curriculum goals and objectives, then, is viewed as an intermediate planning step between these two poles. First, let's define the terms *curriculum goals* and *curriculum objectives*, present some examples, and then develop some guidelines for writing them.

DEFINING GOALS AND OBJECTIVES

Curriculum Goals

A *curriculum goal* is a purpose or end stated in general terms without criteria of achievement. Curriculum planners wish students to accomplish the goal as a result of exposure to segments or all of a program of a particular school or school system. For example, the following statement meets this definition of a curriculum goal: "Students will demonstrate responsible behavior as citizens of our school, community, state, nation, and world."

We have already seen examples of curriculum goals in Chapter 3. The Seven Cardinal Principles—health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure, and ethical character—are examples of curriculum goals, albeit in a form of shorthand.[8] The Commission on the Reorganization of Secondary Education could have expanded these principles into forms like the following:

- The school will promote the physical and mental health of the students.
- Students will achieve a command of the fundamental processes.
- A goal of the school is to foster worthy home membership.

The Ten Imperative Needs of Youth, listed by the Educational Policies Commission, is a set of curriculum goals that, as noted earlier, included such goals such as learning useful skills, maintaining physical fitness, recognizing the importance of emotional well-being, practicing civic and social responsibility, valuing family and consumer sciences, providing relaxation time, and prioritizing values education and core academics, such as art, literature, music, language arts skills, and the physical sciences.[9]

At an earlier time the Educational Policies Commission pointed to four purposes or aims of education in American democracy. It identified these aims as self-realization, human relationships, economic efficiency, and civic responsibility.[10] These purposes might be modified by a particular school or school system and turned into curricular goals, stated in a variety of ways, for example:

- The school's program provides experiences leading to self-realization.
- Our school seeks to promote human relationships.
- A goal of the school is development of skills of learners that will lead to their country's and their own economic efficiency.
- Students will develop a sense of civic responsibility.

Many variations are used for expressing these four purposes. This chapter will later present a preferred form for writing goals and objectives. For now, these four goals are shown as examples of substance, not of form.

Aims of education can become curriculum goals when applied to a particular school or school system. The distinction drawn between aims of education and curriculum goals is one of

generality (or looking at it from the other end of the telescope, specificity). "To transmit the cultural heritage" and "to overcome ignorance" are aims of all school programs. No single program or school can accomplish these extremely broad purposes. A school can, of course, contribute to transmitting the cultural heritage and to overcoming ignorance; stated with those qualifications, educational aims can become curriculum goals. The expression "to contribute to the physical development of the individual" can be both an educational aim of society and a curriculum goal of a particular school or school system.

Curriculum Objectives

Curriculum goals are derived from a statement of philosophy, defined aims of education, and assessment of needs. From curriculum goals, we derive curriculum objectives. We may define a curriculum objective in the following manner: A *curriculum objective* is a purpose or end stated in specific, measurable terms. Curriculum planners wish students to accomplish it as a result of exposure to segments or all of a program of the particular school or school system.

The following example of a curriculum goal has already been presented: "Students will demonstrate responsible behavior as citizens of our school, community, state, nation, and world." From that curriculum goal the following curriculum objectives are among those that could be derived:

- One hundred percent of the students will volunteer to participate in some form of community service.
- One hundred percent of the students will help raise funds and/or collect and ship supplies needed by those in the United States devastated by floods, hurricanes, tornadoes, or other calamities of nature.
- Ninety percent of the students will be able to name the candidates running for the state senate and the state assembly from their district. They will be able to identify the candidates for the principal state executive offices. They will also identify the political party affiliation of the candidates.
- Ninety percent of the students will be able to identify their current U.S. senators and their representative to the U.S. House of Representatives. They will also identify the political parties of these officeholders.
- Ninety percent of the students will participate in some project that can increase international understanding, such as contributing to UNICEF; writing to pen pals overseas; or donating money, food, or clothing to victims of earthquakes, tsunamis, or other natural disasters abroad.

Note how the curriculum objectives refine the curriculum goal. Many curriculum objectives can emanate from the same curriculum goal. When we reach Chapter 10 you will see that some of the foregoing curriculum objectives referring to accomplishments of groups of students will become instructional objectives referring to accomplishments of individual students—for example, identifying candidates for office.

LOCUS OF CURRICULUM GOALS AND OBJECTIVES

As the statements of the Seven Cardinal Principles and the Ten Imperative Needs of Youth demonstrate, curriculum goals are periodically written on a national basis by individuals and groups as proposals for consideration by schools throughout the country. However, curriculum objectives, as just defined, are too specific to emanate from national sources.

Curriculum goals and objectives are regularly written at the state, school-district, and individual-school level with the expectation that they will be followed within the jurisdiction of the respective level. State pronouncements apply to all public schools in the state; school-district statements apply districtwide; and individual school specifications, schoolwide.

For the most part, curriculum goals and objectives developed at any level cut across disciplines. A school's statement of curriculum goals and objectives, for example, applies generally throughout the school. It is possible, however, for grades and departments to develop curriculum goals and objectives that do not apply generally throughout the school or subject area.

Let us suppose, by way of example, that the following statement is a curriculum goal of the school: "All children need to develop skill in working with numbers." The fourth-grade teachers could create a grade-level goal by simply reiterating the school goal as "Fourth-graders need to develop skill in working with numbers." On the other hand, the fourth-grade teachers might choose to interpret the school's curriculum goal and create a grade-level curriculum objective, as follows: "This year's fourth-graders will excel last year's by an average of five percentile points on the same math achievement test."

Another example of a schoolwide curriculum goal is "Students will improve their scores on state assessment tests." One of the school's curriculum objectives derived from this goal might be "At least eighty-five percent of the students will achieve passing scores on the state-wide assessment tests." The eleventh-grade faculty might set as its objective: "Ninety percent of the juniors will pass the state assessment test this year."

We encounter a similar case with a twelfth-grade faculty when the school seeks to accomplish the following curriculum goal: "Students will develop self-discipline and self-reliance." A twelfth-grade faculty might spell out the following curriculum goal: "Seniors will demonstrate skills of independent study." The twelfth-grade teachers might be more specific by following up this curriculum goal with a curriculum objective, as follows: "At least seventy percent of the seniors will seek to improve their self-discipline, self-reliance, and self-study techniques by engaging in independent research projects at least one period (fifty-five minutes) of the school day three times a week."

Middle school teachers of physical education and health might consider the school's curriculum goal, "Students will practice healthy living habits," and draw curriculum objectives such as "One hundred percent of the students will develop the ability to distinguish healthful foods," or "All students will develop the habit of customarily choosing healthful over unhealthful foods."

In all cases, the grade or departmental and school's curriculum goals and objectives must be compatible with the district's, and both an individual school's and the district's curriculum goals and objectives must be coordinated with those of the state.

State Curriculum Goals and Objectives

States today, through their boards or departments of education, exert increasing leadership by promulgating statements of curriculum goals and, to a greater degree in recent years, statements of the aforementioned mission or visions, frameworks, standards or objectives, descriptors, and benchmarks. In an early document the state of Florida offered some useful advice on how to conceptualize educational goals:

> The goals of education can be conceived in terms of the life activities of human adults in modern society. These activities may generally be placed in three categories: occupational, citizenship, and self-fulfillment. By constructing such a framework, it becomes possible to state the kinds of performance which should equip adults to function effectively in society—the *objectives* of education.[11]

Reflecting changes in society; the global economy; the changing nature of the student clientele; competition public schools face from home, private, and charter schools; the issuance of vouchers to private and parochial schools; and national efforts such as America 2000, Goals 2000: The Educate America Act, the No Child Left Behind Act of 2001, and the American Recovery and Reinvestment Act of 2009, states have launched reform efforts that have extended from the mid- to late-1990s to the present.

STATE CURRICULUM GOALS

Some states have drafted statements of curriculum goals that cut across disciplines as well as within disciplines. Others have concentrated on goals within subject fields. Kentucky, for example, set forth six general learning goals, as shown in Box 8.1. The Kentucky Department of Education notes that learning goals three and four are not included in the state's academic assessment program.

Still other states accept national goals essentially as written and may or may not add to those goals. Ohio, for example, adopting national goals in 1998, added the goal "Every Ohio adult [will be] literate and able to compete in the workforce."[12]

In Chapter 7 we spoke to the timing of needs assessment and goal specification: "A needs assessment is a continuing activity that takes place (a) before specification of curricular goals and objectives, (b) after identification of curricular goals and objectives, (c) after evaluation of instruction, and (d) after evaluation of the curriculum." To clarify the sequence of goal writing and needs assessment, we may refer to Figure 8.2.

Once curriculum goals and objectives have been spelled out, the needs assessment process attempts to determine unmet needs. Once identified, these needs will result in the creation of more curriculum goals and objectives or a modification of those already specified.

BOX 8.1   Kentucky's Learning Goals

1. Students are able to use basic communication and mathematic skills for purposes and situations they will encounter throughout their lives.
2. Students shall develop their abilities to apply core concepts and principles from mathematics, the sciences, the arts, the humanities, social studies, practical living studies, and vocational studies to what they will encounter throughout their lives.
3. Students shall develop their abilities to become self-sufficient individuals.
4. Students shall develop their abilities to become responsible members of family, work group, or community, including demonstrating effectiveness in community service.
5. Students shall develop their abilities to think and solve problems in school situations and in a variety of situations they will encounter in life.
6. Students shall develop their abilities to connect and integrate experiences and new knowledge from all subject matter fields with what they have previously learned and build on past learning experiences to acquire new information through various media sources.

Source: Kentucky Department of Education, *Learning Goals and Academic Expectations.* Copyright © Kentucky Department of Education. Website: state.ky.us, accessed April 24, 2003. Used with permission of the Kentucky Department of Education, Frankfort, Kentucky 40601. Revisited April 11, 2011, at Website: education.ky.gov/KDE/Instructional%20Resources/Curriculum%20Documents%20and%20Resources/Academic%20Expectations.
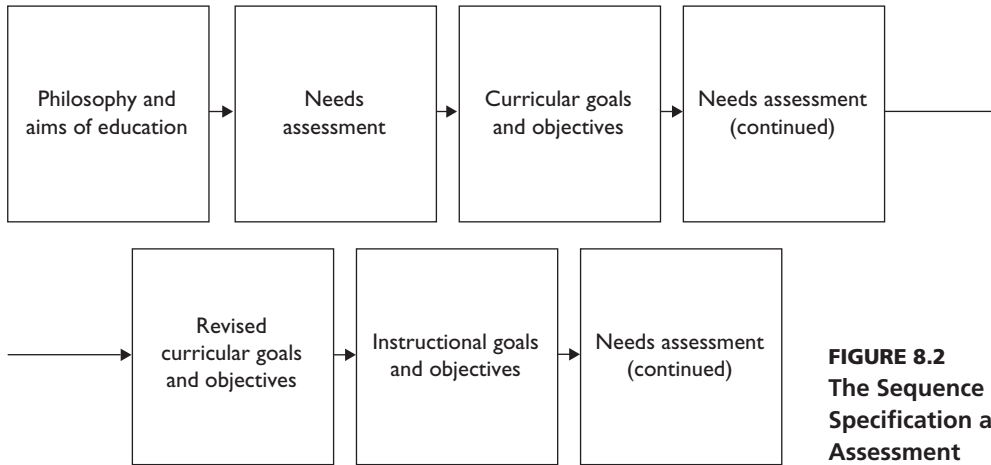
FIGURE 8.2
The Sequence of Goal Specification and Needs Assessment

In summary, a state may formulate both broad aims and curriculum goals (and in some cases curriculum objectives, instructional goals, and instructional objectives as well—a depth of state planning and control decried by many curriculum workers) for all schools and all students in that state.

SCHOOL-DISTRICT CURRICULUM GOALS

In practice, school districts and individual schools may accept the state's formulation of goals and objectives verbatim or, if the state permits, may independently develop their own statements. In either case, however, the statements of the school districts and individual schools must be in harmony with those of the state. Box 8.2 presents a sampling of a large urban school district's statement of curriculum goals, based on those of the St. Louis, Missouri, Board of Education.

BOX 8.2   Sampling of Curriculum Goals for the St. Louis Public Schools

1. *Thinking Skills:*   Provide experiences for students to think intellectually; to use and critically assess knowledge; to value intellectual activity; and to expect, understand, and appreciate change and growth in society.
2. *Emotional Intelligence:*   Enhance emotional and physical health; recognize the need for leisure time; set goals; and develop career planning, creativity, and citizenship.
3. *Social Skills:*   Nurture an understanding of and regard for family, community, and the history of one's community, and a knowledge of geography and demography.
4. *Communication Skills:*   Help students to create, receive, comprehend, and apply all types of information; to communicate through words and numbers in English and other languages; to exchange concepts; and to research and store information.

Source: Based on Curriculum Goals of the St. Louis, Missouri, Public Schools, Website: sab.slps.org/Board_Education/ policies/6141.html. Policy adopted June 26, 1990, revised December 7, 1999, accessed April 11, 2011.

> ### BOX 8.3   Middle School Student Improvement Goals
>
> - *Reading Achievement Goal.* By the spring of 2012, 82% of our middle school students will pass the reading assessment units as measured by the state basic standards test and the unit scores from the district-adopted reading curriculum.
> - *Math Achievement Goal.* By the spring of 2012, 75% of our middle school students will pass the math assessment units as measured by the state basic standards test and the unit scores from the district-adopted math curriculum.
> - *Writing Achievement Goal.* By the spring of 2012, 65% of all students in grade seven will meet or exceed state writing requirements as measured by the state basic standards test in school years 2010-2015.
>
> ――――――――――――――
>
> *Source:* Based on Student Improvement Goals of Lewis and Clark Middle School, Yakima, Washington. Website: schools.yakimaschools.org/education/school/school.php?sectionid=18, accessed April 11, 2011.

INDIVIDUAL SCHOOL CURRICULUM GOALS AND OBJECTIVES

Not only do the states and school districts establish curriculum goals and objectives, but the individual schools also enter into the process by specifying their own philosophy, goals, and objectives. An example of a middle school's goals for student improvement, modeled on a statement of those of Lewis and Clark Middle School in Yakima, Washington, is shown in Box 8.3. You will note that what this illustration refers to as student improvement goals, other schools would term curriculum objectives.

Although the illustrations of curriculum goals and objectives cited in this chapter follow different formats, they serve as examples of the step in the planning process that calls for the specification of curriculum goals and objectives.

CONSTRUCTING STATEMENTS OF CURRICULUM GOALS

The examples of curriculum goals demonstrate a variety of forms of expression. Some schools phrase their goals in a way that stresses the role of the curriculum or of the school, like the following examples:

- To teach students to express themselves clearly and correctly in written and oral English.
- To develop the students' abilities to purchase goods and services wisely.
- To help students develop respect for cultures other than their own.

Although an expression that stresses the role of the school is common, an alternate form that focuses on the students seems preferable for a number of reasons:

1. Philosophically, this form is more in keeping with progressive doctrine, which places the pupil at the center of learning—a sound principle.
2. It is in keeping with modern instructional design, which focuses on the achievements of the learner rather than on the performance of the teacher or school.
3. It parallels common practice, as we shall see in Chapter 10, in writing instructional goals and objectives. Thus, curriculum goals may be better understood and the process of curriculum development better integrated.
4. It is easier to design evaluation processes when we know what is expected in terms of student achievement.

Writing curriculum goals in a form that starts with the students, we might revise the preceding illustrations in the following manner:

- Students will express themselves clearly and correctly in written and oral English.
- Students will demonstrate the ability to purchase goods and services wisely.
- Students will show interest in and understanding of cultures other than their own.

Characteristics of Curriculum Goals

The characteristics of curriculum goals as conceptualized in this text may be summarized as follows:

1. They relate to the educational aims and philosophy.
2. They are programmatic. Although they speak to one or more areas of the curriculum, they do not delineate the specific courses or specific items of content.
3. They refer to the accomplishment of groups (all students, students in general, most students) rather than the achievement of individual students.
4. They are broad enough to lead to specific curriculum objectives.

CONSTRUCTING STATEMENTS OF CURRICULUM OBJECTIVES

Like curriculum goals, curriculum objectives relate to the educational aims and philosophy of the school, are programmatic in nature, and refer to accomplishments of groups. Unlike curriculum goals, curriculum objectives are stated in specific terms.

Characteristics of Curriculum Objectives

Curriculum objectives are refinements of the curriculum goals. They specify performance standards for the students for whom the curriculum is designed. We can turn a curriculum goal into a curriculum objective by adding the following three elements, which we will meet again when discussing instructional objectives:

1. performance or behavioral terms—that is, those skills and knowledge the students are expected to be able to demonstrate
2. inferred or precise degree of mastery
3. conditions under which the performance will take place, if not readily understood

To accomplish the transition from curriculum goal to curriculum objective, you may find it helpful to jot down several indicators of student performance that will serve as guides for writing the objectives. Let's take another look at the illustrative curriculum goal mentioned earlier: "Students shall demonstrate responsible behavior as citizens of our school, community, state, nation, and world." What are some indicators of learner performance that would reveal evidence of students' accomplishment of this goal? We might look for such behaviors as the following:

- care of school building and grounds
- less bullying, both contactual and electronic
- less fighting among students
- expressions of mutual respect among ethnic groups
- orderliness in school assemblies
- participation in community youth organizations such as church groups, scout groups, and the like

- refraining from littering the school and community
- serving on committees of the school
- observing highway speed limits
- cooperation among students in inclusive classes
- taking an interest in local, state, and national elections
- engaging in discussions on ways to reduce international tensions

We can turn the first performance indicator—care of the school building and grounds—into a curriculum objective, such as "Students will demonstrate a reduction in the amount of graffiti on the walls." We can add a degree of mastery to the objective and create an assessment item, with a time element and a measurement dimension, such as *"By the end of April,* students will demonstrate a *ninety-five percent* reduction in the amount of graffiti on the walls." From the one curriculum goal on good citizenship we can generate many curriculum objectives, and from the first performance indicator alone we can create a number of objectives.

We should take note of the fact that Theodore R. Sizer presented a different approach toward specifying curriculum objectives. At the fictitious Franklin High School that Sizer referred to as *Horace's School,* the "Committee's Report" cast curriculum objectives (which the "Committee" called "specific goals") into an authentic assessment framework. Said the "Committee," "We believe that our school should be driven by specific goals in the form of Exhibitions through which the students can display their grasp and use of important ideas and skills. The school's program would be to the largest practical extent the preparation for these Exhibitions."[13]

Explaining U.S. Supreme Court decisions, preparing nutritious menus for the school cafeteria, preparing a portfolio on a human emotion, completing an IRS Form 1040, drawing a map of the United States and placing a dozen states on it, and running a community service program are examples of Exhibitions possible at Horace's School.[14] In this context curriculum objectives are equated with Exhibitions, tasks by which students demonstrate achievement through performance.

Followers of outcomes-based education specify curriculum objectives in the form of expected outcomes to be achieved by the learners.[15] The generation of curriculum goals and objectives is a highly creative exercise. Curriculum planners will approach the specification of curriculum goals and objectives in their own style, remembering that curriculum goals and objectives set the direction for the subsequent organization and development of the curriculum and that the curriculum goals and objectives determine the activities that will take place in the many classrooms of the school.

In the discussions of statements of philosophy, aims, standards, goals, and objectives in this text, you have seen variation in styles and approaches among school systems from state to state and even within states. From inspecting examples from various school systems throughout the country we can conclude:

- First, a great deal of thought plus an intimate knowledge of the students and community have gone into the statements; and
- Second, because of advancements in communication and pressures from state and national levels the variations among statements are less than might be expected (or preferred by some curriculum experts).

VALIDATING AND DETERMINING PRIORITY OF GOALS AND OBJECTIVES

As stated earlier, the assessment of curriculum needs is a continuing process that starts after a school formulates its philosophy and clarifies its aims of education. The needs of society;

of students in general; and of the particular students, community, and subject matter give rise to initial statements of curriculum goals and objectives. After these goals and objectives have been identified, the needs assessment process is continued to determine if any needs have not been met. When unmet needs are exposed, a revised list of curriculum goals and objectives is prepared. These goals and objectives require validation and placement in order of priority.

Validation is the process of determining whether the goals and objectives are accepted as appropriate or "right" for the school (or school system, if conducted on a systemwide level) proposing them. *Determining priority* is the placing of the goals and objectives in order of relative importance to the school. Groups concerned with the progress of the school should be enlisted to help identify suitable goals and objectives and to set priorities.

Some schools seek to validate both goals and objectives; others limit the process to validating goals on the presumption that once the goals are identified, a representative committee can handle the task of making the goals specific—that is, turning them into objectives.

Function of Curriculum Committee

The validation process, whether carried out by the state, district, or school, assumes the formation of a curriculum committee or council charged with the task. The curriculum committee will submit the goals by means of a questionnaire or opinionnaire to groups who are concerned with the progress of the school(s).

Submitting curriculum goals and any already identified curriculum objectives to a broad sampling of groups—laypersons (including parents), students, teachers, administrators, and curriculum experts (on the staffs of public school systems or on the faculties of teacher education institutions)—is good practice. The effort should be made to learn whether there is widespread acceptance of the goals formulated by the curriculum planners and what the groups' priorities are. Curriculum objectives that are developed after a broad sampling of opinion has been gathered can be submitted to either a more limited sampling of the same groups or to the curriculum committee for validation and ranking.

Data should be gathered and interpreted, preferably by a curriculum committee representative of the various groups polled. Such a committee will be called on to make judgments that will tax its collective wisdom. It cannot treat the data in a simplistic fashion, tallying responses from all groups, and simply following the majority's opinions. It needs to analyze differences of opinion, if any, among the various groups surveyed and discuss the differences among themselves and with members of the various groups.

WEIGHING OPINIONS.   As a general rule, the wishes of students, for example, should not hold the same priority as the beliefs of parents and other laypeople. The opinions of groups small in number, such as curriculum specialists or college professors, cannot be treated in the same light as the attitudes of large numbers of residents of the community. For that matter, the opinions of a few school administrators should not be given, simply because of their status, as great a weight as those of large numbers of teachers and parents.

Because the committee interpreting the data may not find consensus on goals and objectives among the various groups, it has the responsibility of reconciling differing positions and reaching consensus among its own members. Drawing on the opinions of the groups that have been polled, the curriculum committee must decide which goals are valid and which should be assigned priority. To set priorities is to say that some goals are more important than others and deserve more attention and emphasis in the curriculum.

It is clear that the goals of a state, district, or school should be submitted for validation and ranking by sizable numbers of educators and non-educators. It is debatable, however, whether curriculum goals and objectives of grades or departments need or should be submitted to persons beyond the school or school-district personnel. It would be somewhat impractical, redundant, expensive, and time consuming for curriculum goals and objectives of the grades and departments to be submitted to significant numbers of the school system's constituents. The faculties of the grade and department levels may satisfy their responsibilities for validation and ranking of goals and objectives by submitting their statements to the curriculum committee and to experts in the field for review and endorsement.

The process of validation and determining priorities may be repeated as often as the curriculum committee finds necessary, with modifications and repeated rankings made as a result of each survey and prior to a subsequent survey. After the curriculum goals and objectives have been validated and placed in rank order, the curriculum planners turn to the next phase in the curriculum development process: putting the goals and objectives into operation.

TANGIBLE PRODUCTS

The Biblical expression, "By their fruits you shall know them," can certainly be applied to curriculum workers. Walk into the curriculum laboratory of any public school and you may be surprised, perhaps even overwhelmed, by the evidence of the productivity of curriculum development workers. Their efforts, bringing curriculum goals and objectives into tangible, printed, and often eye-catching products, are there for all to see.

Curriculum workers have been turning out products for many years. Unfortunately, some curriculum developers view the creation of products as the final rather than the intermediate phase of curriculum improvement. The products are meant to be put into practice, tried out, revised as needed, tried again, revised again if needed, and so on.

Creating curriculum products not only has a functional value—the production of a plan or tool for implementing or evaluating the curriculum—but also gives the planners a great psychological boost. In producing actual materials, they are able to feel some sense of accomplishment.

Throughout this text we have already seen a number of kinds of curriculum products. Chapter 6 contained examples of statements of philosophy and aims of education. Chapter 7 included needs assessment surveys and reports, sections on courses of study and curriculum guides, and portions of a state's statement of minimal standards. In this chapter we see statements of curriculum goals and objectives. Statements of instructional goals and objectives form a part of Chapter 10. Unit and lesson plans are outlined in Chapter 11. Chapter 12 discusses instruments for evaluating instruction, and Chapter 13, instruments for evaluating the curriculum.

Judging from the tasks that curriculum coordinators, consultants, directors, and other workers are called on to do in the schools, there is a healthy demand for training in the production of curriculum materials. In the following pages of this chapter we will discuss the creation and use of several of the more common products found in the schools.

The content, the form, and the names by which curriculum materials are known are almost as varied as the number of groups that author them. Curriculum bulletins, curriculum guides, courses of study, syllabi, resource units, and source units can be found in the curriculum libraries of school systems.

Because curriculum materials are impermanent—nonstandardized products made primarily for local use—the variations among them are considerable. To put the creation of curriculum products into perspective, we must visualize curriculum committees and individuals in thousands of school

districts all over the United States constructing materials that they feel will be of most help to their teachers. Terms for these types of curriculum materials may signal quite different products or may be used synonymously. A curriculum guide, for example, may be quite different from a course of study. On the other hand, what is called a curriculum guide in one locality may be called a course of study in another. For this reason it is difficult to predict what will be discovered in any particular curriculum product until it is examined. The curriculum products that we will consider in this chapter are:

1. curriculum guides, courses of study, and syllabi
2. resource units

We will not discuss curriculum materials that are discussed in other chapters, such as unit plans, lesson plans, and tests. All curriculum materials share the common purpose of serving as aids to teachers and planners in organizing, implementing, and evaluating curriculum and instruction. Although state and national standards have affected the creation of curriculum guides and other curriculum materials—necessitating the incorporation of objectives and learning activities designed to meet required standards—the production of curriculum products remains a viable part of the teaching process.

CURRICULUM GUIDES, COURSES OF STUDY, AND SYLLABI

Three kinds of curriculum products are clearly related. These are (1) curriculum guides, (2) courses of study, and (3) syllabi. As already noted, some curriculum workers make no distinction among the three types. The following are definitions of the terms used in this chapter:

1. A *curriculum guide* is the most general of the three types of materials. It may cover a single course or subject area at a particular grade level (e.g., ninth-grade English); all subjects at a particular grade level (e.g., ninth grade); a sequence in a discipline (e.g., language arts); or an area of interest applicable to two or more courses or grade levels (e.g., occupational safety). When a curriculum guide covers a single course, it may also be called a course of study. However, a curriculum guide is a teaching aid with helpful suggestions rather than a complete course of study in itself.
2. A *course of study* is a detailed plan for a single course, including text materials (content). A well-known example of a curriculum product of this nature is *Man: A Course of Study,* which has been widely used in the schools and seen on television.[16] A course of study includes both what is to be taught (content)—in summary or in complete text—and suggestions for how to teach the course.
3. A *syllabus* is an outline of topics to be covered in a single course or grade level.

Curriculum Guide Formats

Let's look more closely at the creation of a curriculum guide. What is its purpose? Who should be included in the task? Curriculum guides are used in at least two ways. In less structured situations where teachers have a great deal of flexibility in planning, a curriculum guide provides many suggestions to teachers who wish to use it. In that case the curriculum guide is one source from which teachers may derive ideas for developing their own resource units, learning units, and lesson plans. In more structured situations a curriculum guide specifies minimal objectives that students must master in the discipline. It may spell out objectives for each marking period. The guide may identify teaching materials and suggest learning activities. It may be accompanied by pretests and posttests for each unit or marking period.

A curriculum guide may be written by a group of teachers or planners or by an individual. In the latter case, the guide is often reviewed by other specialists before it is disseminated within the school system. For those who write a curriculum guide, the process is almost as important as the product. The task of constructing a guide forces the writers to clarify their ideas, to gather data, to demonstrate creativity, to select content, to determine sequence, and to organize their thoughts.

Examination of curriculum guides from various school districts will reveal a variety of formats. Some school systems that develop curriculum guides follow a single format. Because the substance of guides varies from format to format, some school districts find it useful to prepare more than one type of guide. Many curriculum guides are lengthy documents, so we will not attempt to reproduce examples in this text. Instead we will look at the formats that are more often employed.

From the many formats for curriculum guides, we can select three that we will call—for lack of better labels—the comprehensive, sequencing, and test-coding formats.

THE COMPREHENSIVE FORMAT.   Curriculum planners following a comprehensive format would include the following components in a curriculum guide for a particular level of a discipline—for example, ninth-grade social studies.

1. *Introduction.*   The introduction includes the title or topic of the guide, the subject and grade level for which the guide is designated, and any suggestions that might help users. Some statement should be included as to how the curriculum guide relates to prespecified statements of philosophy and aims and curriculum goals and objectives
2. *Instructional goals.*   In this section, instructional goals (called general objectives by some planners) are stated in nonbehavioral terms. Instructional goals should relate to the school's curriculum goals and objectives.
3. *Instructional objectives.*   Instructional objectives (called specific, performance, or behavioral objectives by some planners) for the particular grade level of the subject should be stated in behavioral terms and should encompass all three domains of learning, if all are applicable.
4. *Learning activities.*   Learning experiences that might be used by the teacher with pupils should be suggested and placed in preferred sequence.
5. *Evaluation techniques.*   Suggestions should be given to teachers on how to evaluate student achievement. This section of the guide could include general suggestions on evaluating, sample test items, or even complete tests.
6. *Resources.*   Attention should be given to human resources—persons who might be called on to assist with the content of the guide—and to material resources, including books, audiovisual aids, equipment, and facilities.

An illustration of a comprehensive curriculum guide format is shown in Figure 8.3.

FIGURE 8.3
Comprehensive Curriculum Guide Format

TOPIC	GOALS	OBJECTIVES	ACTIVITIES	EVALUATION TECHNIQUES	RESOURCES

Some writers of comprehensive guides also include a topical outline of the content. No effort is made to separate the goals and objectives into time periods, nor are the components sequenced for the teacher. This format is not prescriptive. Guides of this nature are supplementary aids for the professional teacher. They offer the maximum flexibility to the teacher, who may choose or reject any of the suggested goals, objectives, activities, evaluation techniques, or resources. You will note that this format is similar to a unit plan, which is discussed in Chapter 11. The curriculum guide, however, is broader in scope than the unit plan and offers more alternatives.

Some curriculum planners prefer to cast their comprehensive guides in the sequencing format (see the following).

THE SEQUENCING FORMAT. Georgia's list of thinking skills (Table 8.1), developed in the 1980s and keyed to the Bloom taxonomy, furnishes an example of this type of curriculum product.[17] Guides of this nature:

1. specify behavioral objectives for each competency area.
2. indicate at what grade level(s), K–12, each competency will be taught.
3. code objectives at each grade level, e.g., as to whether they are introduced (I), developed (D), mastered (M), reinforced (R), or extended (E) at that level.

This format provides an overall view of the sequencing of the objectives of the discipline. Teachers retain the opportunity for making decisions on when and how the objectives will be taught at each grade level.

TABLE 8.1   Georgia's List of Thinking Skills

Topic	Concept/Skill	K–4	5–8	9–12
A. Recall	The learner will:	ID	DR	R
1. Identification	recognize information previously encountered such as facts, concepts or specific elements in a subject area.	ID	DR	R
2. Observation		ID	DR	R
3. Perception	ascertain the origin, nature or definitive characteristics of an item.	ID	DR	R
	obtain information by noting, perceiving, noticing and describing. Observation may involve looking, listening, touching, feeling, smelling or tasting.			
	become aware of objects through using the senses, especially seeing or hearing.			
B. Comprehension	The learner will:	ID	D	R
1. Translation	understand information that has been communicated.	ID	DR	DR
2. Analogy	change information from one form to another, maintaining accuracy of the original communication.	ID	DR	DR
Recognition	infer that if two things are known to be alike in some respects then they may be alike in others.			
C. Hypothesizing	The learner will:	I	DR	DR
1. Prediction	assume, making a tentative explanation. tell or declare beforehand.	I	DR	DR
2. Imagination		I	DR	DR
	form a mental image of, represent or picture to oneself.			

(continued)

TABLE 8.1 Georgia's List of Thinking Skills (Continued)

Topic	Concept/Skill	K–4	5–8	9–12
D. Application 　1. Clarification 　2. Hypothesis Testing 　3. Operational Definition 　4. Decision Making 　5. Consequence Projection	The learner will: put information to use. make something easier to understand. try out ideas for possible solutions. order ideas into a step-by-step plan. choose the best or most desirable alternative. define further steps toward probable solutions or identify cause/effect relationships.	I I I I	DR ID ID ID ID ID	DR DR DR DR DR DR
E. Analysis 　1. Comparison 　2. Classification 　3. Selection 　4. Association 　5. Inference 　6. Interpretation 　7. Qualification	The leaner will: break down a concept, problem, pattern or whole into its component parts, systematically or sequentially, so that the relations between parts are expressed explicitly. determine similarities and differences on the basis of given criteria. place elements into arbitrarily established systems of groupings and subgroupings on the basis of common characteristics. choose an element from a set of elements on the basis of given criteria. relate elements either given or as they come to mind. draw a conclusion based on facts or evidence. express meaning of or reaction to an experience. describe by enumerating characteristics.	ID ID ID ID ID I	DR DR DR DR DR ID	 R R R R DR
F. Synthesis 　1. Summarization 　2. Generalization 　3. Formulation of Concepts 　4. Integration	The learner will: arrange and combine elements to form a structure, pattern or product. express a brief or concise restatement. formulate or derive from specifics (to make universally applicable) a class, form or statement. originate or express ideas. form into a whole and unite information.	I I I I I	ID ID ID ID ID ID ID	DR R DR DR DR DR DR
G. Evaluation 　1. Justification 　2. Imposition of Standards 　3. Judgment 　4. Internal Consistency 　5. Value	The learner will make judgments regarding quantity and quality on the basis of given criteria. show adequate reason(s) for something done. assure equal comparison with established criteria. form an idea or opinion about any matter. understand that all the parts of a process fit together. establish worth or esteem.	I I	ID ID ID ID ID ID	DR DR DR DR DR DR

THE TEST-CODING FORMAT.   Offering teachers the least flexibility is the test-coding format, which:

1. lists objectives to be mastered by the learners at each marking period of each grade level of a given discipline.
2. codes each objective to district, state, and national criterion-referenced and/or norm-referenced tests that are administered by the school district.

Let's say, for example, that a district has developed a set of ten instructional objectives to be accomplished in Health at the second-grade level. The district has further developed tests at the end of each marking period (as well as sometimes comprehensive tests at the end of the year) to determine whether these objectives have been achieved by pupils. Following a test-coding format, teachers would specify which objectives were to be pursued during which marking period. Teachers may follow a similar procedure in dealing with state standards and state assessment tests.

Though teachers may exercise choice of learning activities and supplementary resources, they are held accountable for student achievement every marking period. Locally written tests to assess student mastery of the objectives are administered at the end of each marking period.

The three formats can, of course, be combined and expanded. Test-coding can be added to the comprehensive format. Behavioral or performance indicators may be included to refine the behavioral or performance objectives. For example, one indicator for the instructional objective "The student will describe the effects of Freon released in the environment" might be "The student will specify principal uses of Freon." Reference is made to criteria for instructional objectives discussed in Chapter 10. Criticizing the lack of specificity of "typical instructions" (that is, objectives) found in curriculum guides, E. D. Hirsch, Jr. mused, "It might be wondered how it is possible for states and localities to produce lengthy curriculum guides that, for all their bulk, fail to define specific knowledge for specific grade levels."[18]

No matter what format is followed by a school system, curriculum guides should be used and revised periodically. It is an open secret that curriculum guides are often written to satisfy a local or state mandate. Having completed the task of writing the documents, teachers set them aside and allow them to accumulate dust. Teachers' failure to use the curriculum guides demonstrates once again that commitment to the process is an essential ingredient. Curriculum guides that are handed down, for example, generate little commitment. They may be followed out of necessity but without enthusiasm. Even those guides that are written by teachers rather than by curriculum consultants will be accepted only if teachers perceive the task as useful to them rather than as a response to directives from superordinates.[19]

RESOURCE UNIT

A resource unit, called a source unit by some curriculum workers, is "an arrangement of materials and activities around a particular topic or problem."[20] The resource unit is a curriculum product that falls somewhere between a teacher's learning unit and a course of study or curriculum guide. We explained elsewhere:

> The resource unit is a source of information and ideas for teachers to use. . . . The major purpose of the resource unit is to provide ideas for a teacher who wishes to create [a] learning unit on the same topic. . . . The resource unit contains a wealth of suggestions and information which will aid the teacher in supplementing material found in the basic textbook. The resource unit shortens the busy teacher's planning time and simplifies [the] work [of constructing] learning units. . . .[21]

In essence, the resource unit serves the same general purpose as a course of study or curriculum guide. The major distinction between these types of products is that the resource unit

is much narrower in scope, focusing on a particular topic rather than on an entire year, course, subject area, or sequence. Although we may encounter a course of study or curriculum guide for eleventh-grade American history, for example, we may also find resource units on topics within American history, such as the Age of Jackson, the Great Depression, or the War on Terrorism.

The same outline that was suggested for a comprehensive curriculum guide applies to the resource unit. An example of a resource unit is given in Box 8.4. Note the relationship between this illustrative resource unit and the illustrative learning unit plan in Chapter 11.

BOX 8.4   A Resource Unit

Grade Level/Course:
   Senior High School/Problems of American Democracy
   Topic: Education in the United States

A. Introduction
   The enterprise of education in the United States consumes over 800 billion dollars per year, close to 500 billion of which are spent on public elementary and secondary schools. About twenty-five percent of the population is enrolled in schools from nursery through graduate level. In some way, schooling touches the lives of every person in the country, yet schooling itself is rarely studied in the schools. Although most people have their own ideas about education, their database is often limited or lacking. The purpose of this resource unit is to provide students with facts, insights, and understandings about the American educational system.

B. Instructional Goals
   1. Cognitive
   The student will become familiar with
   - **a.** the purposes of education in the United States
   - **b.** the general structure of education in the United States
   - **c.** the ways in which education in the United States is administered and financed
   - **d.** major differences between the U.S. system of education and systems of other countries

   2. Affective
   The student will appreciate
   - **a.** the complexity of the U.S. educational system
   - **b.** our decentralized system of education
   - **c.** the extent and complexity of problems facing education in the United States
   - **d.** the achievements of American schools

C. Instructional Objectives
   1. Cognitive
   The student will be able to
   - **a.** identify sources of funding for education
   - **b.** explain local, state, and federal responsibilities for education
   - **c.** state purposes of levels of education: elementary, middle, junior high, senior high, community college, senior college, and university
   - **d.** tell the strengths and weaknesses of our decentralized system of education
   - **e.** explain how teachers are prepared and hired
   - **f.** describe how the educational dollar is spent
   - **g.** account for differences in the support of education by the various states
   - **h.** identify problems facing the schools and tell what efforts are being made to solve them
   - **i.** account for the growth of private schools, charter schools, and homeschooling
   - **j.** compare the American system of education with the system in another country

BOX 8.4 (Continued)

   2. Affective

   The student will

      a. write a statement of purposes of education as he or she sees them

      b. state what he or she feels constitutes a good education

      c. state with reasons whether he or she believes compulsory education is desirable

      d. describe how he or she feels education should be funded

      e. take a position on whether public school education or private school education is better

      f. take a position on whether American education or European (or Asian) education is better

      g. show his or her position by written reports on some controversial issues such as prayer in the schools, the teaching of the theory of evolution, censorship of textbooks and library books, busing of students for purposes of integrating the races, and bilingual education

   3. Psychomotor

   None

D. Learning Activities

   1. Read provisions of the United States Constitution regarding education, especially the First, Tenth, and Fourteenth Amendments.

   2. Read provisions of the state constitution regarding education.

   3. Examine recent state and federal legislation on education.

   4. Prepare a chart showing the percentages of funding for education from local, state, and federal sources.

   5. Prepare a diagram showing overall dollars spent in any one year for education by local, state, and federal sources in the student's home state.

   6. Observe an elementary, middle/junior high, and secondary class in action, and afterward compare such aspects as objectives, materials, methods of teaching, and student conduct.

   7. Visit a community college and interview one of the administrators on the purposes and programs of the community college.

   8. Invite a private and/or parochial school administrator to come to class to talk on purposes and programs of his or her school.

   9. Invite a panel of public school principals at elementary, middle/junior high, and secondary levels to come to class to talk on problems they face in administering their schools.

   10. Critique the requirements for a teacher's certificate in the student's home state.

   11. Gather and present data on the funding of higher education in both the United States and in the student's home state.

   12. Read and evaluate several statements of purposes of education.

   13. Read and evaluate a book or article critical of American public education.

   14. Report on pressure groups that influence education.

   15. Critique the awarding of vouchers or tax credits that enable parents to send their children to schools of their choice.

   16. Find out how teachers are trained, certified, and employed in the student's home state.

   17. Find out how school administrators are trained, certified, and employed in the student's home state.

   18. Attend a school board meeting and discuss it in class.

   19. Visit the superintendent's office and hear the superintendent (or his or her deputy) explain the role of the superintendent.

   20. Find out what the school tax rate is in the student's home community, how moneys are raised for the schools, and how much money is expended in the community for schools.

   21. Find out how much teachers and administrators are paid in the student's home community and what fringe benefits they receive.

BOX 8.4 A Resource Unit (Continued)

22. Defend or reject paying teachers on the basis of merit.
23. Defend or reject tenure for teachers.
24. Examine the staffing patterns of an elementary, middle, or secondary school and determine types of employees needed to run the school.
25. Find out how serious the dropout problem is in the student's home community and what is being done to solve it.
26. Determine whether or not student achievement in schools of the student's home district is satisfactory. If not, account for reasons for unsatisfactory achievement and report on measures that are being taken to improve the situation.
27. Explain the pros and cons of private management of public schools as opposed to public administration.
28. Choose a controversial educational issue and write a paper showing positions of several prominent persons or groups and the student's own position.
29. Research and prepare a report on the public's attitudes toward public schools.
30. Find out requirements for graduation from high school and promotion from grade to grade in your state.
31. Go to your state Department of Education website and report on your state's standards of learning.
32. Explain what is meant by "high-stakes testing" and show your position on it.

Note: Many of the topics under Learning Activities may be researched on the Internet. Students may make reports individually or as group panels at the teacher's discretion. Some students may wish to make their reports as PowerPoint presentations.

E. Evaluation Techniques
   1. Give a pretest consisting of objective test items to survey student's factual knowledge about education in the United States. Sample test items:
      a. Responsibility for state control of education in the United States is derived from the U.S. Constitution's
         1. First Amendment
         2. Fifth Amendment
         3. Tenth Amendment
         4. Fourteenth Amendment
      b. Policies for local school districts beyond state mandates are promulgated by
         1. advisory councils
         2. school boards
         3. teachers' unions
         4. school principals
   2. Evaluate student's oral reports.
   3. Evaluate student's written work—reports, charts, etc.
   4. Observe student's reactions and comments in class discussion.
   5. Give a posttest of objective items similar to those of the pretest.

F. Resources
   Educational Leadership. Alexandria, Va.: Association for Supervision and Curriculum Development, monthly.
   National Assessment of Educational Progress, *The Nation's Report Card.* Washington, D.C.: U.S. Government Printing Office, periodically.
   National Center for Education Statistics, *The Condition of Education.* Washington, D.C.: U.S. Government Printing Office, annually.
   ———. *Digest of Education Statistics.* Washington, D.C.: U.S. Government Printing Office, annually.
   ———. *The Nation's Report Card* (reports on the National Assessment of Educational Progress). Washington, D.C.: U.S. Government Printing Office, periodically.

BOX 8.4 (Continued)

———. *Projections of Education Statistics.* Washington, D.C.: U.S. Government Printing Office, periodically.

Phi Delta Kappan. Bloomington, Ind., monthly.

U.S. Bureau of the Census. *Statistical Abstract of the United States.* Washington, D.C.: U.S. Government Printing Office, annually.

World Almanac and Book of Facts. New York: World Almanac Books, annually.

Websites:

National Assessment of Educational Progress.

National Center for Education Statistics.

School district.

State department of education.

U.S. Census Bureau.

U.S. Department of Education.

SOURCES OF CURRICULUM MATERIALS

These illustrations of curriculum products barely suggest the types that are already available or that can be constructed. In every state of the union, curriculum committees have created a wide variety of useful materials. Curriculum developers and others who are searching for curriculum materials beyond the textbooks and accompanying teachers' manuals may locate examples in several places: curriculum libraries of colleges and universities, particularly those of schools and departments of education; curriculum centers of the public school systems; state and national professional education associations; the offices of curriculum consultants; state departments of education; regional educational laboratories; ERIC; and the Internet.

Great variation can be found in both the format of printed curriculum materials and the types of available materials. Beyond typical curriculum guides, we can find curriculum materials packaged into multimedia kits consisting of charts, audiotapes, videotapes, CDs, CD-ROMs, DVDs, Websites, and so on.

MyEdLeadershipLab™

Go to Topics 1 and 10: *Defining Curriculum* and *Textbook as Curriculum* on the MyEdLeadershipLab™ site (www.MyEdLeadershipLab.com) for *Developing the Curriculum*, Eighth Edition, where you can:

- Find learning outcomes for *Defining Curriculum* and *Textbook as Curriculum*, along with the national standards that connect to these outcomes.
- Complete Assignments and Activities that can help you more deeply understand the chapter content.
- Apply and practice your understanding of the core skills identified in the chapter with the Building Leadership Skills unit.
- Prepare yourself for professional certification with a Practice for Certification quiz.

Summary

State school systems, school districts, and individual schools engage in the task of specifying curriculum goals and objectives. Curriculum goals and objectives are derived from the developers' philosophy and educational aims.

Curriculum goals are broad programmatic statements of expected outcomes without criteria of achievement. They apply to students as a group and are often interdisciplinary or multidisciplinary.

Curriculum objectives are specific statements of outcomes with degree of mastery and conditions either inferred or stipulated to be achieved by students as a group in the school or school system.

Curriculum goals and objectives are essential for:

1. conducting a complete needs assessment to identify unmet needs
2. carrying out subsequent phases of the suggested model for curriculum improvement
3. generating instructional goals and objectives
4. providing a basis for evaluating the curriculum
5. giving direction to the program

Curriculum goals and objectives should be validated and put in order of priority by the school's curriculum committee after review by representatives of the various constituencies that the school serves.

Curriculum planners and teachers frequently engage in developing curriculum products that will be of use to teachers in their school systems. In this chapter we discussed these types of products: curriculum guides, courses of study, syllabi, and resource units.

Curriculum guides should provide many suggestions to teachers for teaching a single course, a subject area at a particular grade level, an entire sequence, or an area of interest. Curriculum guides should include instructional goals, instructional objectives, activities, evaluation techniques, and resources. Sometimes curriculum planners incorporate an outline of the content. Courses of study cover single courses and often contain a considerable amount of content material. Syllabi list topics to be covered.

Resource units are, in essence, minicurriculum guides for teaching particular topics or problems. Limited to single topics or problems, resource units offer types of suggestions similar to those found in curriculum guides. Teachers can derive their unit plans from resource units.

In the creation of curriculum materials, both the process and product are important. Examples of curriculum materials can be acquired from a number of sources.

Questions for Discussion

1. How do you go about specifying curriculum goals and objectives? Who does the specifying?
2. How do you turn curriculum goals into curriculum objectives?
3. Should writing curriculum guides be the job of the curriculum director or coordinator?
4. Should schools borrow curriculum guides from each other?
5. Where would you place the production of curriculum guides, courses of study, resource units, and the like in the model for curriculum development presented by the authors of this text?

Exercises

1. Obtain and, following principles advocated in this chapter, critique the statement of:
   (a) curriculum goals of a school that you know well
   (b) curriculum objectives of a school that you know well
   (c) curriculum goals and/or objectives of a school district that you know well
   (d) curriculum goals and/or objectives of one of the fifty states

2. Write as many curriculum objectives as you can for each of the following curriculum goals:

   (a) Students will maintain good health and physical fitness.

   (b) Students will demonstrate skill in writing.

   (c) Students will develop an appreciation for the free enterprise system.

   (d) Students will exhibit positive attitudes toward each other regardless of differences in gender, religion, or ethnic origin.

Small groups may wish to respond to separate parts of this exercise.

3. Describe the hierarchy of goals discussed by Ronald S. Brandt and Ralph W. Tyler (see bibliography) and give examples of each type.

4. Locate and report on a curriculum product called a "scope and sequence chart."

5. Create a resource unit on a topic that you will at some point be teaching.

Websites

Association for Supervision and Curriculum Development: ascd.org

Evergreen Curriculum Guides & Resources (Canada): sasked.gov.sk.ca/branches/curr/evergreen/index.shtml

National Assessment of Educational Progress: nationsreportcard.gov

National Center for Education Statistics: nces.ed.gov

Multimedia

Grant Wiggins and Jay McTighe, *Moving Forward with Understanding by Design.* Examples of ways to implement understanding by design. 2007. One 75-min.

DVD and a facilitator's guide. Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Arlington, VA 22311-1714.

Endnotes

1. For a different hierarchy of goals, see Ronald S. Brandt and Ralph W. Tyler, in Fenwick W. English, ed., *Fundamental Curriculum Decisions,* 1983 Yearbook (Alexandria, Va.: Association for Supervision and Curriculum Development, 1983), pp. 40–52.

2. John W. Gardner, "National Goals in Education," in *Goals for Americans: Programs for Action in the Sixties,* Report of the President's Commission on National Goals, Henry W. Wriston, Chairman (New York: The American Assembly, Columbia University, 1960), pp. 81, 100.

3. W. James Popham and Eva L. Baker, *Systematic Instruction* (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 43.

4. Robert F. Mager, *Preparing Instructional Objectives* (Belmont, Calif.: Fearon, 1962), pp. 1, 3–4.

5. Benjamin S. Bloom, ed., *Taxonomy of Educational Objectives: The Classification of Educational Goals: Handbook I: Cognitive Domain* (New York: Longman, 1956) and David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, *Taxonomy of Educational Objectives: The Classification of Educational Goals: Handbook II: Affective Domain* (New York: Longman, 1964).

6. Decker F. Walker, "A Brainstorming Tour of Writing on Curriculum," in Arthur W. Foshay, ed., *Considered Action for Curriculum Improvement,* 1980 Yearbook (Alexandria, Va.: Association for Supervision and Curriculum Development, 1980), p. 81.

7. Mary M. McCaslin, "Commentary: Whole Language—Theory, Instruction, and Future Implementation," *The Elementary School Journal* 90, no. 2 (November 1989): 227.

8. Commission on the Reorganization of Secondary Education, *Cardinal Principles of Secondary Education* (Washington, D.C.: United States Office of Education, Bulletin No. 35, 1918).

9. Educational Policies Commission, *Education for All American Youth* (Washington, D.C.: National Education Association, 1944), pp. 225–226.

10. Educational Policies Commission, *The Purposes of Education in American Democracy* (Washington, D.C.: National Education Association, 1938).

11. Florida Department of Education, *Goals for Education in Florida* (Tallahassee, Fla.: State Department of Education, 1972), p. 4.

12. Ohio Department of Education, *Destination: Success in Education,* website: http://www.state.oh.us/goals98/goals.htm, accessed April 26, 2003.

13. Theodore R. Sizer, *Horace's School: Redesigning the American High School* (Boston: Houghton Mifflin, 1992), p. 143.

14. Ibid., pp. 8–9, 23, 48, 65, 80.

15. See William G. Spady, *Outcome-based Education: Critical Issues and Answers* (Arlington, Va.: American Association of School Administrators, 1994).

16. See Jerome S. Bruner, *Man: A Course of Study* (Cambridge, Mass.: Educational Services, 1965).

17. See Chapter 10 for discussion of the Bloom taxonomy.

18. E. D. Hirsch, Jr., *The Schools We Need: And Why We Don't Have Them* (New York: Doubleday, 1996): p. 28.

19. For a critical view of conventional curriculum guides, see Fenwick W. English, "It's Time to Abolish Conventional Curriculum Guides," *Educational Leadership* 44, no. 4 (December 1986–January 1987): 50–52.

20. Peter F. Oliva, *The Secondary School Today,* 1st ed. (Scranton, Pa.: International Textbook Co., 1967), p. 176.

21. Ibid.

Organizing and Implementing the Curriculum

NECESSARY DECISIONS

A Hypothetical Setting

Imagine, if you will, a building complex of three schools—an elementary school of five grades plus kindergarten, a middle (formerly junior high) school of three grades, and a senior high school of four grades situated on a large tract of land. We could place this complex in a small town in any state where the three schools serve all the children of a particular school district, or we could locate it in a sector of a large urban area where the three schools are a part of the local school system.

Let's create in our own minds the administrative offices of the superintendent (or area superintendent) and school board across the street from this complex. On a particular day in September, a group of curriculum planners has gathered in the conference room.

Making up the curriculum group are the district supervisor (director of curriculum) and the chairpersons of the district curriculum steering committee and the curriculum councils of each of the three schools. In front of them—in finished form, neatly typed and packaged—are (1) the report of the needs assessment that revealed gaps and overlaps in the school district's curricula and (2) a set of both district and individual school curriculum goals and objectives that they laboriously hammered out with the help of many faculty members, students, administrators, supervisors, and lay citizens.

After studying this chapter you should be able to:

1. Describe and state strengths and weaknesses of various plans and proposals for organizing and implementing the curriculum.

2. Relate each organizational arrangement discussed in this chapter to (a) the psychological and sociological circumstances of the public school and (b) the achievement of one or more aims of education or curriculum goals at each of the three school levels: elementary, middle, and senior high.

3. Specify several curriculum goals for the elementary, middle, or senior high school level, and then choose or design and defend a curriculum organization plan that you believe will most satisfactorily result in accomplishment of these goals.

Hypothetical Steps

The task of this curriculum group now is to decide on next steps. What shall they do with the curriculum goals and objectives now that those matters have been specified? Shall they duplicate, distribute, and then forget them? Shall they take the position that the process of defining the goals and objectives was sufficient, or that the process should lead to further action? Shall they file the goals and objectives with the superintendent and principals, to be pulled out on special occasions such as visits of parent groups, accrediting committees, or others? How shall they address the discrepancies shown between the needs assessment and the curriculum goals and objectives developed as a result of that assessment?

The curriculum planners of the district, whose leadership is represented by this committee, must decide how to put the goals and objectives into effect and how to organize the curriculum in such a way that the goals and objectives can be achieved. In order to successfully accomplish the goals and objectives and to fulfill the needs of the learner, they must decide what structure will be used. They must ask themselves and their colleagues how best to go about implementing the curriculum decisions that they have made up to this point.

Assessing Curriculum Organization

The question is often posed to curriculum workers: "How shall we go about organizing the curriculum?" The literature often appears to make one of two assumptions: (1) curriculum planners regularly have the opportunity to initiate a curriculum in a brand new school for which no curriculum frameworks yet exist; or (2) curriculum developers automatically have the freedom to discard that which now exists and replace it with frameworks of their own choosing.

Both assumptions are likely to be erroneous. Curriculum planners do not frequently experience the responsibility for developing an original curriculum for a brand new school. The development of a curriculum for a brand new school does provide the opportunity for curriculum planning from the ground floor, so to speak. But even that planning must be carried out within certain boundaries, including local traditions, state and district mandates, and the curricula of other schools of the district with which they must articulate. Curriculum planners cannot expect simply to substitute as they wish new frameworks of curriculum organization for old. Again, we face certain parameters: student needs, teacher preferences, administrators' values, community sentiment, physical restrictions, and financial resources.

At the meeting the committee decides to clarify what it means by curriculum organization. The members agree to talk with their colleagues on their schools' curriculum councils and others and come to the next meeting prepared to report their findings. Each member will provide an overview of the more significant frameworks of curriculum organization that have been studied and implemented, studied and rejected, or considered for future implementation.

Before adjourning this meeting, the committee agrees on what it will include under the rubric of curriculum organization. The members define *curriculum organization* as "those patterns of both a curricular and administrative nature by which students encounter learning experiences and subject matter." Thus, the term includes not only broad plans for programmatic offerings, such as the subject-matter curriculum, but also the pedagogical approaches to be used by the instructors.

When the committee members reassemble several weeks later—exhilarated by their research—they express a newfound admiration for the process of curriculum development. Whereas the aging facades of the buildings might convey to the outside world that, as the French would say, "the more things change, the more they stay the same," on the inside, innovation and change have been key words. The committee members spend several sessions sharing their discoveries and

discussing possible changes. One thing that becomes evident is that by examining past patterns and practices, projecting future arrangements, and comparing both past practices and future possibilities with present structures, they can create more effective ways of implementing the curriculum.

This hypothetical committee's discoveries are significant enough to be shared with you. Remember that Axiom 3 in Chapter 2 postulates that changes do not, as a rule, start and stop abruptly, but instead overlap. For examples of Axiom 3, consider the subject-matter curriculum, the graded school, and the nongraded school. All of these designs have existed at more than one level. Similarly, systems and structures (i.e., how schools are organized and administer the curriculum) can cross levels. Let's take a look at some of the systems and structures that are products of the curriculum developers.

K–12 SYSTEMS, STRUCTURES, PROGRAMS, AND PRACTICES

Systems and structures are arranged by states and school districts as means to address the needs of the diverse general population. According the National Center for Education Statistics, nearly 49.4 million students attended public elementary and secondary schools in the fall of 2010. Of these, 34.7 million were in prekindergarten through eighth grade and 14.7 million were in grades nine through twelve. An additional 5.8 million students are expected to attend private schools this fall. Public school systems will employ about 3.3 million teachers, resulting in a pupil/teacher ratio of 15.3, which is lower than in 1999, when the ratio was 16.1. Approximately 0.5 million teachers will be working in private schools, where the pupil/teacher ratio is estimated at 12.8.[1] From a broad perspective, the American school system is large and attempts to be decentralized. It reflects our values and our culture and continues to change as our country evolves. One practice, however, that has continued as an anchor to our educational system is the number of years we expect children to attend school.

Over the years, administrators, curriculum experts, teachers, and the public have accepted twelve years of schooling as a norm for most of our young people and have adjusted the component levels as the situation seemed to demand. Thus, until rather recently, the most common organizational plan for schools across the country was the eight-four plan (eight years of elementary school and four years of secondary school). Under this plan grades seven and eight were considered parts of the elementary rather than the secondary school. As the junior high school began to emerge after the first decade of the twentieth century, the six-two-four plan (six elementary, two junior high, and four senior high grades) offered a variant to the eight-four.

Communities of moderate size showed a fondness for the six-six plan (six elementary and six secondary), which clearly attaches junior high school to secondary education while at the same time burying its identity in that of the senior high school. Larger communities expressed a preference for the six-three-three plan, with three years of junior high school between the elementary and senior high school. The three-year junior high school combining grades seven, eight, and nine replicated the structure of the first junior high schools that came into existence in 1909 in Columbus, Ohio, and in 1910 in Berkeley, California. Other variations have been suggested, such as the six-three-five plan and the six-three-three-two plan, which would extend public secondary education through grades thirteen and fourteen. Those last two years, however, have clearly become identified with the college level. The arrangement of twelve years of public schooling has continued to the present.

The curriculum developers of the past and present have designed many offerings that have had various degrees of impact on the classroom. Some of the curricula are still being implemented, while other movements have been discarded by the practitioners. Remembering Axiom 3,

we can expect to find in the twenty-first century highly innovative schools (incorporating as-yet-to-be-created innovations) on one hand and highly traditional schools on the other. Some of both genres will be termed effective; others, ineffective. More likely, we will find traditional schools that embody innovative practices or, put another way, innovative schools that have retained traditional practices.

Consider the following systems, structures, programs, and practices.

THE ELEMENTARY SCHOOL

Today's elementary school continues to maintain its emphasis on the basic skills while at the same time addressing other educational, physical, social, and emotional needs of pupils. The delivery systems of the curricula at the elementary school continue to be analyzed by educators as we compete in the global arena. As times change and different emphases are placed on students' needs, systems evolve and curricula change. One thing is apparent: the delivery system and the curricula both play an important role in student learning. Gaining insight to a few of the different approaches used at the elementary school will help us to further our understanding of developing the curriculum.

The Graded School

Historians tell us that the concept of a graded school started in Prussia, a land famed for discipline and regimentation, and migrated across the ocean to the New World.[2] The Quincy Grammar School of Boston, which opened in 1848, is credited as the first school in the United States to become completely graded. With enough children for several groups, it took not a quantum leap but a simple bit of ingenuity to reason that children might be taught more efficiently if they were sorted and graded. Instead of being mixed, they could be divided largely on the basis of chronological age.

The concomitant outgrowth of the graded school was the self-contained classroom—a heterogeneous group of youngsters of approximately the same age, in multiples of twenty-five to thirty-five, under the direction of one teacher. Primary school teachers of the graded school were no longer required to master all disciplines of all grades like their counterparts in the one-room school; instead they were only obligated to master all disciplines at the particular grade level. The group of children assigned to a teacher in a self-contained, graded elementary school spent the entire day under the watchful eye of that teacher.

The concept of the graded school, aided by the measurement movement in education, has firmly established the principle that certain learnings should be accomplished by pupils, not at certain periods of growth and development, but by the end of certain grade levels. Syllabi, courses of study, and minimal competencies or standards or benchmarks have been determined for each grade level. State content standards have been specified for various fields of instruction.

In the graded school, material is tailored to fit the confines of fixed times during the customary ten months of the school year. Thus, by means of a standardized test of reading, for example, we can state that a third-grade child in April (the eighth month of the school year) whose test score placed him or her at the grade norm of 3.2 (second month of the third-grade year) was reading at a level six months below the norm for that grade.

The graded school has become the standard model not only for the United States but also for the world. As our country grew in population, expanded westward, and became industrialized, the number of grades provided for children by the numerous school districts of the nation increased in proportion.

Self-Contained, Subject-Oriented Classrooms

When we speak of the self-contained classroom, we normally think of the elementary school. We sometimes forget that the self-contained classroom has been the prevailing pattern in the secondary school except for a brief period of popularity of core programs, which we shall discuss later. Like the junior and senior high schools, the elementary school adopted an organizational framework that stressed the mastery of subject matter. This framework, commonly referred to as the *subject-matter curriculum*, will be examined shortly.

A typical week in a self-contained, subject-oriented elementary school calls for separate subjects scheduled at specific and regular times during the day. Little or no effort is made to integrate these diverse areas. Some elementary schools, of course, have never departed from this model, whereas others departed for a time and then have swung back in recent years. Today, the self-contained, subject-oriented classroom is the norm, but that was not always the case in our nation's history.

The Activity Curriculum

In the late 1920s, through the 1930s, and into the 1940s, many elementary schools, warmed by the glow of the progressive movement that championed the child over subject matter, abandoned the subject-matter curriculum for the activity, or experience, curriculum. The activity (or experience) curriculum was an attempt by educators to break away from the rigidity of the graded school. It is of historical interest that the activity curriculum was a contribution of two of the better-known laboratory schools—the Laboratory School founded by John Dewey at the University of Chicago and the University Elementary School directed by Junius L. Meriam at the University of Missouri. The activity curriculum came about as an effort to translate progressive beliefs into the curriculum. As such, it captured the imaginations of elementary school educators during the first quarter of the twentieth century.

Disenchanted with the subject-matter curriculum promoted by the essentialist philosophers and curriculum makers, Dewey and others sought to create an environment that catered to the learner's needs and interests.

HUMAN IMPULSES.   B. Othanel Smith, William O. Stanley, and J. Harlan Shores observed that Dewey's Laboratory School curriculum was based on the following four human impulses, which Dewey referred to as "uninvested capital":

> the social impulse, the constructive impulse, the impulse to investigate and experiment, and the expressive or artistic impulse.[3]

Dewey's curriculum eschewed the usual subject organizers and focused on occupations in which all men and women engaged—including carpentry, cooking, and sewing.

HUMAN ACTIVITIES.   The University Elementary School at the University of Missouri followed principles advocated by Meriam and structured its program not around subjects but around human activities of observation, play, stories, and handiwork.[4] The content of the activity curriculum is centered on projects or experiences that are of immediate interest to the learners. The various subjects, including the basic skills, are used as a means of promoting learning rather than as ends or centers of learning for themselves.

SUBJECT MATTER FROM CHILD'S WORLD. Here the curriculum is developed by the teacher in cooperation with the pupils. The subject matter evolves from the child's world rather than from the adult world. Although the teacher can suggest activities or problems to the learners, the children's interests become the dominant factor. William H. Kilpatrick advocated pupil activities that he referred to as projects (ergo, the "project method") and took the position that the child should do his or her own thinking and planning.[5]

Problem solving—Dewey's "reflective thinking"—is the activity curriculum's instructional method par excellence. Experience in the process of problem solving is perceived by those who espouse progressive thought as more important than attaining the solutions to the problems. A great effort is made to integrate subject matter, using any and all content as needed without regard to discipline boundaries, for the solution of problems or carrying out of projects.

By its very nature, the activity curriculum cannot be fully planned in advance. Consequently, the activity curriculum can be described only after it has been completed, for the teacher cannot be sure in advance where the interests of the students will lead them.

The unit method of organizing instruction (a unit of work centered on a single topic or problem) lends itself well to the goal of problem solving. Units are designed by the teacher in cooperation with the pupils to include a sufficient variety of activities to provide for individual differences among pupils. A series of units can provide a skeletal framework for a given grade level.

Drill, if needed, is carried out in meaningful terms, not in isolated rote fashion. With the social orientation of the progressivists, the activity curriculum calls for the socialization of the learners and the use of the community as a learning laboratory.

Scheduling is flexible with time allotments variable depending on the activities under way. Pupils are grouped according to interests and abilities, obviating the need for fixed grade levels. Some schools tossed out marks, report cards, and the assumption that certain learnings have to be mastered at each grade level.

The teacher of the activity curriculum finds his or her role not as subject-matter specialist and expert-in-residence but rather as a guide and facilitator of learning. Key concepts that the progressivists wove into the activity curriculum are the active rather than the passive role of the learner and the sharing of students' experiences with the teacher and each other.

The activity curriculum, like progressive education itself, left its indelible imprint on American education. Flexible scheduling, unit teaching, problem solving, project method, non-graded schools, and open education owe a debt to the activity curriculum. Nevertheless, the activity curriculum lost popularity and died out as a viable organizational pattern for the public elementary school. There are a number of reasons for its demise.

With the activity curriculum the needs of society and the needs of the adult world took a back seat to the needs of immature youngsters. Progressive—that is, activity-oriented schools—projected an unfavorable image to the public, who felt that subject-matter learning was being neglected and too much stress was being placed on the immediate interests of immature learners.

Excesses on the part of some progressive schools led to cynical jokes, such as the one in which the teacher asks, "Is the earth round or flat?" and the pupil answers, "I don't know; let's vote on it." Then there is the classic put-down of the progressive school: the teacher enters the room in the morning and asks the class, "O.K., kids, what do you want to learn today?" and the children complain, "Do we have to do what we want to do today?"

It was not commonly understood that teachers of the activity curriculum had to be more knowledgeable and *better* trained not only in subject matter but also in techniques of guiding learning. The activity curriculum also required for its success resources and facilities that exceeded those of the typical elementary school. Further, more-flexible administrators and teachers

were needed for successful operation of a program of this type. Also, the secondary schools complained when they received students—products of the activity curriculum—who had a great range of knowledge and skills but glaring gaps in their education.

The Nongraded Elementary School

The nongraded elementary school, following plans that permit continuous progress, evolved as an alternative to the graded school. The nongraded or continuous progress school was a reaction to the increasing rigidity of the graded school, which was an innovation designed to provide a more efficient education for children.

Persons unfamiliar with the concept of the nongraded school are sometimes confused by the term and interpret it to signify a school without a formal marking system. When we speak of the nongraded school, we refer to schools that have abandoned grade-level designations rather than marks.

In a nongraded school, typical grade levels and standards for those levels are absent. Children are grouped for instruction according to their particular needs and they progress through the program at their own speed. Effort is made to individualize—some say "personalize"— instruction. The nongraded concept has made its greatest headway at the elementary school level. However, as we shall see when we discuss developments in secondary education later in this chapter, nongradedness is possible in the high school as well.

John I. Goodlad and Robert H. Anderson, proponents of the nongraded elementary school, saw nongradedness as a reaction to the Procrustean bed of the graded school.[6] "The realities of child development defy the rigorous ordering of children's abilities and attainments into conventional graded structures," observed Goodlad and Anderson.[7]

Herbert I. Von Haden and Jean Marie King explained some of the principles underlying the nongraded school in the following way:

> Nongrading is a philosophy of teaching and learning which recognizes that children learn at different rates and in different ways and allows them to progress as individuals rather than as classes. Such designations as grade one and grade three are eliminated. Flexible groupings allow the pupil to proceed from one level of work to another whenever he is ready. Thus, the children's progress is not dependent upon that of others in the room. His own readiness, interest, and capacity set the pace for each pupil. . . . Flexible grouping permits each child to move ahead with other children of approximately the same level of ability. Groupings are different for each subject area and can be changed at any time. Failure, retention, and skipping of grades are replaced by continuous progress as the pupil proceeds at his own rate. Slower children are not forced to go on with the class group before they are ready. Faster workers are not compelled to wait for the others. Individualization and continuous progress are the key elements of nongrading.[8]

GROWTH OF NONGRADED SCHOOLS. The nongraded movement began in earnest in the 1930s, grew in intensity through the 1940s and 1950s, and leveled off in the 1960s. Among the nongraded schools of the 1930s and 1940s were those in Western Springs, Illinois; Richmond, Virginia; Athens, Georgia; Youngstown, Ohio; and Milwaukee, Wisconsin.[9] In the 1950s and 1960s nongraded schools were started in Bellevue, Washington; Appleton, Wisconsin; Chicago, Illinois; and Southern Humboldt Unified School District, California.[10]

The nongraded school seeks to eliminate failures and retention by permitting children to proceed through the program at their own pace. Programs of the nongraded school are organized primarily around reading levels and to a lesser extent around mathematics levels rather than around the traditional chronological age-grade levels. For a comparison of graded and continuous progress schools, see Table 9.1.

TABLE 9.1 Comparison of the Graded and Continuous Progress Schools	
Graded Structure	**Continuous Progress**
1. It is assumed that all children of the same chronological age will develop to the same extent in a given period of time.	**1.** It is assumed that each child has his own pattern and rate of growth and that children of the same age will vary greatly in their ability and rate of growth.
2. A child who does not measure up to certain predetermined standards of what should be accomplished in nine months is called a failure.	**2.** No child is ever considered a failure. If he does not achieve in proportion to his ability, we study the cause and adjust his program to fit his needs and problems.
3. If a child fails, he is required to repeat the grade in which he did not meet the standards.	**3.** A child never repeats. He may progress more slowly than others in the group, but individual records of progress make it possible to keep his growth continuous.
4. A decision as to grade placement must be made after each nine months.	**4.** Decisions as to group placement can be made at any time during the three-year period (for social or emotional adjustment, an additional year if needed, etc.).
5. Grade placements are based too largely upon academic achievement.	**5.** Group placement is flexible, based upon physical, mental, social, and emotional maturity.
6. Fixed standards of achievement within a set time put pressures upon teachers and children which cause emotional tensions and inhibit learning.	**6.** Elimination of pressures produces a relaxed learning situation conducive to good mental health.

Source: Royce E. Kurtz and James N. Reston, "Continuous Progress in Appleton, Wisconsin," in David W. Beggs III and Edward G. Buffie, eds., *Nongraded Schools in Action: Bold New Venture* (Bloomington: Indiana University Press, 1967), p. 139.

PROBLEMS ENCOUNTERED.   Nongraded plans encountered problems that led to a tapering off in their popularity. Nongraded programs are much more complex than the traditional, graded organization. They require continuous flexibility, more time by the faculty, greater resources, and a style of teaching different from that in typical graded schools. Careful diagnosis must be made of the learners' needs.

Nongraded schools could become as inflexible as the graded school if teachers and administrators merely substituted reading levels for chronological grades. Continuous progress plans concentrated to a great degree on reading and to a much lesser degree on mathematics, generally leaving the other subjects in the curriculum much as they were before—traditionally organized without well-planned sequencing of levels.

Nongraded plans excelled in vertical organization of the reading curriculum and sometimes the mathematics curriculum, but failed to work out relationships at any level among the various disciplines. Further, the transition from a continuous progress elementary school to a graded junior high school could be rather abrupt for the learners when the junior high school was less concerned with personalized learning.

Advocacy of the nongraded elementary school continued in the publication of the revised edition of Goodlad and Anderson (1987) and in a more recent work by Anderson and Barbara

Nelson Pavan (1993).[11] Contending that "views now in ascendance are far more compatible with nongradedness, and the prospects for its implementation are therefore much better," Anderson and Pavan commented, "the time is at last ripe for a serious onslaught on literally graded practice."[12]

Multiage Grouping

That the concept of nongradedness is alive can be seen in the form of multiage classrooms that can be found in elementary schools in various parts of the country. Students of different ages and abilities are grouped in a single classroom, progress at their own rate, and remain with the same teacher or teachers for two to three years.[13]

Kentucky's Primary Program, for example, follows the "critical attributes: continuous progress; developmentally appropriate educational practices; authentic assessment; multiage and multiability classrooms; qualitative reporting methods; professional teamwork; and positive parent involvement."[14]

Open Education and Open Space

Several years ago many school districts adopted the concept of open education or open space and the interior walls between classrooms came tumbling down—or as many walls as possible in a building constructed as a graded school many years ago. The purpose in eliminating barriers between classes was to permit innovative approaches such as flexible grouping, individualized instruction, nongradedness, or, simply, the open school. In practice, the terms are often interchanged. An *open classroom,* for example, might signal a classroom operated according to principles of *open education.* At the same time, this classroom might be an *open area,* although, paradoxically, open space is not a prerequisite to open education. An *open school* might be a school that implements the open-education concept, or it might be an open-space school in which all classrooms are without walls.

C. M. Charles and others commented: "Many people think that open space and open education are synonymous. They are not. In fact they can be (but don't have to be) quite opposite."[15] Charles and others defined an open school not as an open-space school but as a school with several classrooms following principles of open education.[16] Open-space schools normally subscribe to at least some of the principles of open education, whereas open schools, as defined by Charles and coauthors, may or may not be open-space schools.

In the ensuing discussion we will use the terms "open school," "open classroom," and "open education" when speaking of the broad concept and "open space" or "open area" when talking about the architectural arrangement of classrooms without walls.[17]

Imported from Great Britain, the open-classroom concept was designed as a curriculum and organizational response to formal, traditional schools. Charles and others briefly described open education as follows:

> Open education refers to organizations and management that allow much student choice and self-direction. The teacher helps, but dominates neither the planning nor the learning activities. Instead, the teacher "facilitates" student learning. This facilitation is done through talking, exploring, suggesting options, helping find resources, and deciding on ways of working that suit the group. Emphasis falls continually on maintaining relationships, interacting positively with others, fostering a sense of personal and group worth, and providing for the development of individual potential.[18]

Common sights in the open-area schools are large expanses of classroom space, groups of a hundred or more pupils spread out and engaged in a variety of activities at many stations within the areas, and teams of teachers working with individuals, small groups, and large groups of learners.

BELIEFS UNDERLYING OPEN-SPACE SCHOOLS.   Proponents of the open-space classroom stress active learning and the affective domain. "The primary advantage of open space," said John H. Proctor and Kathryn Smith, "is the increased communication and interaction of teacher to teacher, teacher to student, and student to student."[19] Significant features of the open-space concept are the flexibility of grouping and the use of concrete materials that appeal to the interests and maturity level of the learners. Whereas many open elementary schools were organized into clusters or teams of a single grade level (e.g., first grade), others were nongraded and organized into multi-units.

The open-education/open-space movements crested in the early 1980s and have since dwindled to the point where they are almost nonexistent. Schools that removed walls for an open-area model have reinstalled walls or partitions to recreate small, self-contained units. What happened to this seemingly promising movement in the short space of approximately a decade?

David Pratt offered one reason for difficulties incurred by the open-space school:

> The attempts to transplant the architectural aspect (of open-area schools in England) to North America has not been universally successful. Frequently, the innovation consisted of building schools with fewer interior walls, an environment into which teachers were introduced who had neither participated in, approved of, or been trained for the open environment. Continuing to teach in a conventional way, they found the absence of walls merely an audible and visible distraction. Bookcases, screens, and miniature palm trees were quickly turned into makeshift barriers between the teaching areas. Small wonder that the research evidence shows, at best, disappointing performance by students in open classrooms, not only in academic subjects but also in creativity, and an increased anxiety level.[20]

The audible and visual distractions have been, in our judgment, erroneously minimized. Visits to open classrooms rather consistently reveal a noise level that is not conducive to learning. Harried teachers must constantly elevate their voices to make themselves understood. When ardent proponents of the open classroom are questioned about the noise, their responses are often: "What noise?" or "Some noise is necessary for learning to take place." Perhaps we can attribute some of the fault for these distractions to the lack of fit between program and architecture.

To remind us, however, that the open classroom still exists, the New American Academy in Brooklyn, New York, opened its doors in 2010 with open classrooms for more than sixty children in an effort to create an environment that promotes scientific method, student independence, and self-expression. Teachers and students are expected to collaborate and learn from each other rather than operate in a traditional four-wall classroom setting. A 90-minute common planning time is provided for teachers in an effort to build the capacity of the instructors and to promote the collaboration piece. While the creation of time for staff to have increased collaboration is a practice that should prove beneficial in improving the instruction, challenges such as noise and transitions in the instruction—which are often unruly due to the number of students in the room and the varied background of the children they serve—will continue to present opportunities for growth and improvement.[21]

Today's elementary schools are sophisticated versions of the schools of the past, essentialistic in character but with progressive overtones. We will continue to see experimentation with varying programs and practices at this level as pressure mounts, due to the transparency of the data, to improve the skills of our children.

THE SCHOOLS FOR YOUNG ADOLESCENTS

The Junior High School

Educators and behavioral scientists of the late nineteenth century and early twentieth century recognized the necessity for a type of educational program and institution that would provide special attention to the needs of youngsters between childhood and adolescence. Out of this concern grew the junior high school. From its inception the junior high school was an institution in search of an identity. The early junior high schools encompassed grades seven, eight, and nine. Prior to the separation of these grades to form their own institution, grades seven and eight were normally considered an integral part of the elementary school; grades nine through twelve formed the secondary school. Early schools, if they did not house all grades in one classroom, grouped their pupils in self-contained seventh- and eighth-grade classrooms. Not until the advent of the junior high as an institution did departmentalization come to the schooling of the twelve- to fourteen-year-olds.

With the appearance of the junior high school, children entering adolescence found an institution created specifically for them. It bore the trappings of both the primary school below it and the secondary school above it. Offering a basic general education and exploratory experiences, the junior high school spread rapidly through the first half of the twentieth century. School systems adopted either the seven-eight-nine pattern or a seven-eight model that placed the ninth grade in the senior high school.

Educators' perceptions of the role of the junior high school have varied considerably. Is it an upward projection of the elementary school? Is it a downward extension of the senior high school? Is its purpose mainly exploratory, serving learners in a transition period between puberty and adolescence, or is it a preparatory school for the senior high? Should it be housed in the same building with the senior high school or located in a separate building?

In spite of varying perceptions of its role, the junior high school serves as an example of the self-fulfilling prophecy. Established as a unique institution, the junior high school began to live up to its label "junior high." The junior high school quickly came to be identified as a part of secondary education, resulting in the kindergarten-six–seven-twelve dichotomy that to some extent still exists. Although at first it was somewhat experimental in nature with block-time scheduling and core curricula, as the years rolled by the junior high school became more and more like its higher-level companion with complete departmentalization of courses, senior-high scheduling patterns, and a subject-matter curriculum.

CONANT'S RECOMMENDATIONS.   In Chapter 6 we mentioned the studies of the junior and senior high school conducted by James B. Conant. Because Conant's recommendations were so favorably received, we should be remiss if we did not examine some and discern their nature. Among Conant's fourteen recommendations for the junior high school were the following:

Conant's Junior High Recommendations

Required Subjects for all Pupils in Grades 7 and 8
English/Mathematics/Social Studies/Science

New Developments in Mathematics and Foreign Language
-Algebra
-Foreign language on conversational basis

Basic Skills
-Arithmetic and Reading
-Average pupils should read at or above grade level
-By end of 9th grade, all reading at 6th grade level

Block-Time Departmentalization
-Teachers teach several subjects in block time
-Most other subjects compartmentalized

Many schools reviewed, reaffirmed, or modified their curricula in light of the Conant recommendations, and our hypothetical junior high school was no exception.

ASCD PROPOSALS. At about the same time Conant was recommending increased emphasis on the academics, the Commission on the Education of Adolescents of the Association for Supervision and Curriculum Development (ASCD) was presenting a different point of view on the function and programs of the junior high school. Writing for the ASCD, Jean D. Grambs and others, acknowledging that the junior high school was under pressure, advocated variations in lengths of class periods, programs planned explicitly for the junior high school years, ungraded programs, and a block-of-time program offered each year for three years of junior high school.[22] As we will see, a block-of-time program usually runs for two to three hours of a school day.

Whereas Conant's proposals for the school in the middle were more subject-centered, the ASCD proposals were more learner-centered. However, proponents of both points of view agreed on the necessity for adequate facilities and resources, a professionally trained staff, a moderate and manageable size of school, and ample guidance.

In the mid- and late twentieth century, the junior high school underwent a metamorphosis, developing into a new institution designed to better meet the needs of the preadolescent. This innovative concept, the middle school, is discussed later in this chapter.

In 1978, John H. Lounsbury and Gordon F. Vars characterized the junior high school as a significantly successful development in American education.[23] Despite this success, as the years passed, dissatisfaction with the junior high school began to set in. It was argued that this intermediate school had become a carbon copy of the senior high school with all its trappings—interscholastic athletics, band, high school subjects, and so on. Junior high school students were changing not only physically but also socially in response to new, unexpected social pressures and values. Replacing the junior high school with the middle school concept—addressing the educational and social needs of young adolescent students—was the direction many school districts took.

The Core Curriculum

Basic education, common learnings, core curriculum, and general education are terms, like goals and objectives, that are tossed about rather loosely in the profession. These terms are used by educators to describe programs that are almost at opposite poles. To some, basic education, common learnings, and general education signal a set of courses or subjects that are required of all students—the earmark of the subject-matter curriculum, grounded in essentialistic philosophy. In this vein, the Harvard Committee toward the end of World War II stated its interpretation of general education:

> Clearly, general education has somewhat the meaning of liberal education [p. 52]. . . . General education, we repeat, must consciously aim at these abilities: at effective thinking, communication, the making of relevant judgments, and the discrimination of values [p. 72]. . . . It therefore remains only to draw the scheme of general education that follows from these premises. At the center of it . . . would be the three inevitable areas of man's life and knowledge . . .: the physical world, man's corporate life, his inner visions and standards [p. 98]. . . . In school, in our opinion, general education in these three areas should form a continuing core for all, taking up at least half of a student's time [p. 99]. . . . Accepting the course-unit system as established at least for the present, despite its grave weaknesses dwelt on earlier, that would amount to some eight units, preferably spaced by means of half-courses over the four years of school rather than compressed into two or three. The common and desirable divisions within these eight units would probably be three in English, three in science and mathematics, and

two in the social studies. But—and this is the important point—this half of the schoolwork to be spent on general education would seem the barest minimum, either for those not going on to college or for those who are [p. 100].[24]

James B. Conant, president of Harvard University at the time the Harvard Committee issued its report, took a similar position when he recommended general education programs consisting of required courses at both the junior and senior high school levels. In keeping with the spirit of the 1894 Report of the Committee of Ten as well as the 1945 Report of the Harvard Committee and several national reports of the 1980s, high schools today designate a "core" or set of required subjects for graduation. However, in the section that follows we have used the terms "core" and "core curriculum" to describe a unique organizational structure in the secondary school, not required courses.

The essentialists championed—and still advocate—the set of required courses as their model for general education in the high school. At the other end of the spectrum, from the camps of the pragmatic and reconstructionist philosophers, come those who hold a quite different conception of general education. They frequently refer to their plans for common learnings or general education as a "core curriculum." Unlike the "continuing core for all" recommended by the Harvard Committee, the core curriculum at its inception was a radically new departure in curriculum organization. Lounsbury and Vars noted that many curriculum specialists regarded *core* as a truly innovative development.[25]

What is the core curriculum? Lounsbury and Vars defined "core"—short for "core curriculum"—as follows: "Specifically, core is a form of curriculum organization, usually operating within an extended block of time in the daily schedule, in which learning experiences are focused directly on problems of significance to students."[26]

UNIFICATION OF SUBJECT MATTER. The core curriculum gained momentum in the 1930s and 1940s, but its roots go back to the nineteenth century. In a presentation made by Emerson E. White to the National Department of Superintendents in 1896, White discussed one of the basic principles of core: the unification of subject matter.

> Complete unification is the blending of all subjects and branches of study into one whole, and the teaching of the same in successive groups or lessons or sections. When this union is affected by making one group or branch of study in the course the center or core, and subordinating all other subjects to it, the process is properly called the concentration of studies.[27]

B. Othanel Smith, William O. Smith, and J. Harlan Shores credited Tuiskon Ziller, founder of the Herbartian school at the University of Leipzig, and Colonel Francis W. Parker, superintendent of schools, Quincy, Massachusetts, in 1875 and later principal of the Cook County (Chicago) Normal School, as proponents of the principle of unification of subject matter.[28]

The core concept received a significant boost in the 1930s when the curriculum committees of a number of states, seeking to plan a curriculum around the social functions of living, turned for assistance to Hollis L. Caswell, then of George Peabody College for Teachers and later of Teachers College, Columbia University. The Virginia State Curriculum Program pioneered in establishing the core curriculum—the content of which centered on societal functions.[29]

The core curriculum is in philosophy and intent the secondary school counterpart of the activity curriculum of the elementary school. Espoused as a concept for both the junior and senior high schools, the core curriculum made its greatest inroads at the junior high school level. The core concept was especially popular in the state of Maryland. However, Lounsbury and Vars

pointed out that core, like many programs that are different, did not meet with universal acceptance even at the junior high school level.[30]

CHARACTERISTICS OF CORE. Although varying in structure and focus, core curricula, as described in this chapter, possess the following characteristics:

1. They constitute a portion of the curriculum that is required for all students.
2. They integrate, unify, or fuse subject matter, usually English and social studies.
3. Their content centers on problems that cut across the disciplines.
4. The primary method of learning is problem solving, using all applicable subject matter.
5. They are organized into blocks of time, usually two to three periods under a "core" teacher (with possible use of additional teachers and others as resource persons).
6. They encourage teachers to plan with students.
7. They provide pupil guidance.

TYPES OF CORE. Harold B. Alberty and Elsie J. Alberty distinguished five types of core. The first two are core in the sense that subjects are required of all; as such these two types fall into the classification of the subject-matter curriculum. Writing in 1962, Alberty and Alberty classified types of core as follows:[31]

Core 1: Core subjects are required for all students. Subjects are taught separately with no correlation. This compartmentalized approach is paramount in secondary schools today.

Core 2: Although subjects remain autonomous, instructors relate one core subject to the other. The science teacher, for example, may work with the English teacher to help students write a paper on environmental crises.

Characteristics of Core

Core 5: Teachers and students, who are free to explore interests or problems they choose, develop activities cooperatively. This core program is similar to the unstructured "experience" curriculum of the elementary school.

Core 3: Two or more subjects are integrated. Most core programs in schools fall into this classification. For instance, art and history ares scheduled in a block of time and taught together, usually two to three periods. Not a complete abandonment of traditional subject matter organization, this type of core organizes content around contemporary social problems or around historic or cultural epochs. Several experimental schools of the Eight-Year Study of the Progressive Education Association used Cores 2 and 3.

Core 4: Students study relevant social problems, such as family context, self-exploration issues, communication, school environment, environmental conservation, health, international crises, and multicultural relationships in a defined block of time. This type of approach requires a complete reorganization of the traditional curriculum.

Core curricula tend to consume a block of time consisting of two to three periods of the school day. The remaining periods are devoted to specialized interests of students. "Block-time classes" is a term sometimes equated with "core." However, block-time classes may or may not be core classes.[32]

Reporting in 1958 on a survey of block-time classes and core programs in junior high schools, Grace S. Wright listed four types of programs in block-time classes as follows:

> Type A—Each subject retains its identity in the block-time class, that is, separate subjects are taught (1) with consciously planned correlation, (2) with no planned correlation.
>
> Type B—Subjects included in the block-time class are unified or fused around a central theme or units of work or problems stemming from one or more of the subject fields in the block-time class.
>
> Type C—Predetermined problem areas based upon the personal-social needs of adolescents—both needs that adolescents themselves have identified and needs as society sees them—determine the scope of the core program. Subject matter is brought in as needed in working on the problems. Pupils may or may not have a choice from among several of these problem areas; they will, however, have some responsibility for suggesting and choosing activities in developing units of study.
>
> Type D—The scope of the core program is not predetermined. Pupils and teacher are free to select the problems upon which they wish to work. Subject matter content is brought in as needed to develop or to help solve the problems.[33]

Note the points of agreement between the Wright and the Alberty and Alberty classifications.

Organizational plans for a core curriculum limit blocks of time typically to a double period throughout the junior high level or, if carried into the senior high level, decreasing blocks of time as pupils move from junior through senior high school levels.[34]

Core programs have never been fully understood by the public. "What is core?" asks the average citizen. What does an "A" in core mean to parents and to college admissions officers? Informed persons will admit that the ripples caused by the Eight-Year Study, which allowed for innovative plans like the core, generally lost their force, and colleges went back to demanding high school credit in subjects they understood.

Core teaching is a demanding task requiring skills that take special training. Teachers' colleges, by and large, neglected the preparation of core teachers. The perceived threat from the Soviet Union in 1957 renewed demand for the "hard" subjects—science, mathematics, and foreign languages—and brought about negative reactions to unusual programs like core.

Conant was less than enthusiastic about the core. Even for the block of time that he recommended for seventh grade, he held that teachers need not break down subject-matter lines.[35]

Daniel Tanner and Laurel Tanner observed that "The core idea never gained the widespread acceptance that was expected of it by progressive educators."[36]

Although core programs have largely disappeared from the scene, in recent years we have witnessed renewed interest in core-type programs. We find proposals for "integrating the curriculum" and plans in operation that emulate some of the earlier efforts at core: theme-centered instruction, block-time organization, and interdisciplinary teams.[37] Though proposals for integrated and interdisciplinary curricula are made for all levels, they are particularly in evidence at the middle school level.

Vars pointed out that "the popularity of core-type integrative programs waxes and wanes from year to year, as education shifts primary attention from student concerns to subject matter acquisition to social problems and back again."[38] Continuing and renewed interest in the concepts of integration of the curriculum and of interdisciplinary learning is seen today.

Middle Schools

Curriculum planners sought to structure a new organizational pattern at the intermediate level. It was recognized that the needs of young adolescents or, as Donald H. Eichhorn called them, "transescents"[39]—were not being met by the existing junior high school structure. Dramatic and substantial changes, which had an impact on all levels of the educational ladder, were incorporated to meet the unique needs of this population of students. The elementary school lost a grade, and the senior high school regained a grade that it had lost years ago to the junior high school. The junior high school was transformed into a middle school that consisted of three grades (six through eight) for preadolescents—the children in the middle.

Students were grouped in grades five or six through eight into a middle school with its own unique program, and a four-four-four system or five-three-four system began to emerge. Although the ninth grade is generally considered as "belonging" to the high school, there is some uncertainty amongst middle school specialists as to whether the fifth grade should be attached to the elementary school or to the middle school.

PHENOMENAL GROWTH.   The middle school has experienced phenomenal growth. In 1965 the Educational Research Service of the National Education Association conducted a nationwide survey and found 65 middle schools.[40] In a 1967–1968 survey William M. Alexander reported 1,101 middle schools, and Mary Compton accounted for 3,723 middle schools in 1974.[41] Kenneth Brooks identified 4,060 middle schools operating in 1978.[42] By the mid-1980s figures showed close to 7,000 middle schools in existence.[43] A National Education Association publication in 1988 projected a figure of over 12,000 of these schools by 1992.[44] In 2006, Jon Wiles, Joseph Bondi, and Michele Tillier Wiles placed the number of intermediate schools in the United States at about 13,000.[45] Although junior high schools still exist in some communities—confirming once again Axiom 2 that curriculum changes of earlier periods can coexist with newer curriculum changes—their number has drastically declined as they undergo the metamorphosis from junior high school to middle school. Paul S. George, Chris Stevenson, Julia Thomason, and James Beane predicted the disappearance of the junior high school.[46]

William M. Alexander and others saw the middle school as an emerging institution and defined it in the following manner:

> To us, it is a school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for older childhood and in turn is built upon by the high school's program for adolescence.[47]

They perceived the middle school as a distinct phase of schooling between elementary and secondary school levels.

Somewhat later Alexander, in writing with Paul S. George, offered the following definition:

> We define a middle school as a school of some three to five years between elementary and high school focused on the educational needs of students in these in-between years and designed to promote continuous educational progress for all concerned.[48]

Recognizing the specific needs of this age group of students is not an exclusive practice of our nation. Other countries have recognized the needs of middle students for a long time, as in Germany with its *Mittelschule.* Boys and girls of the pre- and early adolescent years, ages ten to fourteen as a rule, are too mature to be treated as primary school children and too immature to be considered high schoolers. They evidence a host of physical, social, and emotional growth needs

as well as educational demands. Their career and life interests are just beginning to take shape. They need time to explore, to adjust, and to socialize as well as to study.

The transformation of the junior high school into a middle school should not be perceived as a reorganization of but one level of the school system. Alexander and others observed that the change from junior high to middle school is a reorganization of the entire grade structure.[49]

PROPOSED DESIGN. Lounsbury and Vars proposed a curriculum design for the middle school that consists of three main components: core, continuous progress (nongraded learning experiences), and variable.[50]

Core in their conception is "a problem-centered block-time program."[51] The continuous progress (nongraded) component consists of "those skills and concepts that have a genuine sequential organization."[52] Science, for example, may overlap with the core along with its placement in the nongraded component. The variable component is comprised of "the activities and programs that have proven their worth in schools . . . neither so highly sequential as to be placed exclusively in the nongraded component nor so essentially problem-centered as to fit entirely within the core."[53] The middle school curriculum is shown based on Var's schematic in Figure 9.1.[54] Note that this proposal incorporates some earlier principles of the core curriculum and nongradedness.

Seeing intermediate schools as offering a "broad and personal program of general education," Wiles, Bondi, and Wiles cautioned, "standardization of the school program brought an end to the junior high school and threatens today's middle schools."[55]
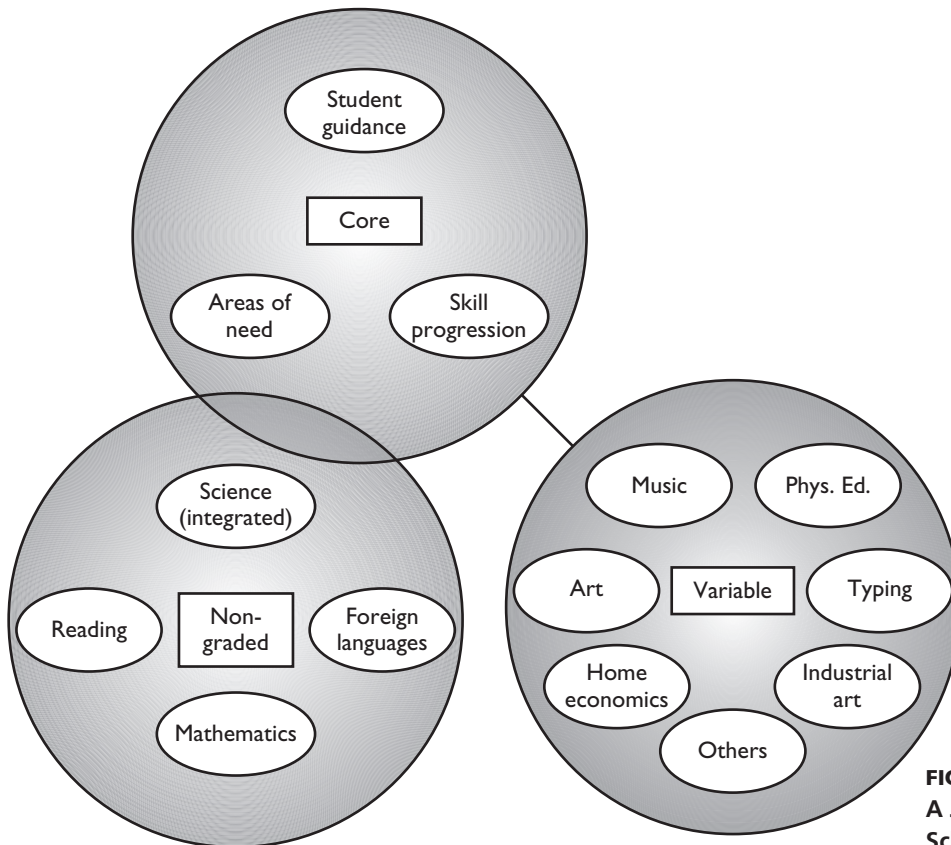
**FIGURE 9.1
A Junior High/Middle School Program**

PREDOMINANCE OF THE MIDDLE SCHOOL.   The junior high school has fast faded from the scene. George and others noted a wave of middle schools during the 1980s with states endorsing the middle school concept and encouraging districts to establish middle schools.[56]

Remaining junior high schools will continue to be converted into middle schools, in concept if not in name. Just as some senior high schools still cherish the historic name "academy," some newly converted middle schools may continue to call themselves "junior high schools." However, they will have all the characteristics of the modern middle school as described earlier in this chapter. New schools for transescents will continue to be specifically built as middle schools and will be referred to as "middle schools" for "middle school students."

We can anticipate further resuscitation of the core curriculum concept in the form of integrated curricula. Middle schools will continue to use interdisciplinary teams and interdisciplinary instructional units. Schools will revive earlier attempts at block and rotating scheduling. In a period of confusion on moral values and ethical behavior, we may look for increased interest in promoting character education along with the academics.

Organizations such as the Association for Middle Level Education, the National Association of Elementary School Principals (which includes middle school principals), and the National Forum to Accelerate Middle Grades Reform are continuously seeking ways to improve the middle school programs. The National Forum, an organization composed of researchers and officers of national associations and foundations, for example, has been identifying since 1999 "schools to watch," high-performing exemplars of middle schools.[57]

Innovations will, no doubt, continue to come down the pike. As observers of curriculum developments for many years, we cannot help being awed at how rapidly some innovations flower into movements with a body of literature, recognized experts, a network of like-minded people, how-to textbooks and other media on the subject, and both preservice and in-service educational activities on the topic.

You may very well take the position that before the middle school reaches universality it may evolve into another institution, as yet undefined. Or you may well hold that middle schools will revert to earlier models of organization that combined elementary and middle schools into K–8 patterns, as has happened in Baltimore, New Orleans, New York City, and Philadelphia. Hence, we can no longer predict the "universality" of the middle school, but can safely say that the present middle school model will remain the predominant model throughout the country for some time to come. To support your position you can reiterate the axioms cited in Chapter 2: Change is both inevitable and necessary, for it is through change that life forms grow and develop; a school curriculum not only reflects but also is a product of its time; and curriculum changes made at an earlier period of time can exist concurrently with newer curriculum changes at a later period of time.

Earlier curriculum practices may not only exist concurrently with newer developments but also, in cases where they are not currently found, may be called back into service to replace current practices.

THE SENIOR HIGH SCHOOL

The Subject-Matter Curriculum

The subject-matter curriculum has been the most prevalent form of curriculum organization at all levels of American education ever since the Boston Latin School, the first Latin Grammar School in the United States, opened in 1635. The subject-matter curriculum remains the

most common pattern of organization throughout most of the world. Although other forms of curriculum organization have asserted themselves in the United States from time to time, the subject-matter curriculum has continued strong and has gained strength in recent years with the emphasis placed on the academics and basic skills. The subject-matter curriculum has existed at all levels of schooling but has been particularly entrenched at the senior high and college levels.

Smith, Stanley, and Shores pointed out that the subject-matter curriculum, derived from the Seven Liberal Arts that trace their roots to ancient Greece and Rome and the Middle Ages, is the oldest and most accepted plan for organizing the curriculum. They explained:

> The Seven Liberal Arts consisted of two divisions: the trivium, which was comprised of grammar, rhetoric, and dialectic (logic); and the quadrivium, which consisted of arithmetic, geometry, astronomy, and music. . . . In the modern period the trivium was further divided to include literature and history as distinct subjects; and the quadrivium, to include algebra, trigonometry, geography, botany, zoology, physics, and chemistry. . . . [T]he Seven Liberal Arts are still the nucleus of the subject curriculum, as a casual survey of required courses will reveal.[58]

As the name implies, the subject-matter curriculum is an organizational pattern that breaks the school's program into discrete subjects or disciplines. The seventeenth-century Latin Grammar School stressed classical subjects, including Greek, Latin, Hebrew, mathematics, history, and the Bible. Notably absent from this early school were English and science, which were considered too functional or too frivolous for scholars of this period. With the opening of Benjamin Franklin's Academy and Charitable School in 1751, English, science, and modern languages were added to the curriculum. Today's secondary schools offer a potpourri—some say smorgasbord—of courses.

Essentialistic in outlook, the subject-matter curriculum seeks to transmit the cultural heritage. The subjects or disciplines organize knowledge from the adult world in such a way that it can be transmitted to the immature learner.

As we saw in Chapter 6 when we discussed the philosophy of essentialism, the subject-matter curriculum has not been at a loss for spokespersons. Max Rafferty left no doubt of his position regarding the subject-matter curriculum when he said, "What is significant for the children—what the people want for their children and mean to get—is subject matter that is systematic, organized, and disciplined and that is taught effectively and interestingly as subject matter. . . . Stress subject matter, *all* subject matter."[59]

At public school levels the subject-matter curriculum has had its greatest impact at the secondary school level. Elementary and middle school faculties have been more prone to experiment and to try out new patterns of organization that depart from subject-matter emphasis. Secondary school teachers and administrators have consistently tended to be more subject-centered than their counterparts at the elementary school level. Additionally, the subject-matter curriculum at the senior high school level has been favored by college admissions officers and regional accrediting associations, for it is much easier to understand and evaluate than more experimental types of curricula.

ADVANTAGES OF SUBJECT-MATTER CURRICULUM. The subject-matter curriculum presents to its followers certain distinct advantages. It is the easiest organizational pattern to structure. On the elementary school level, it is simply a matter of allocating a certain number of minutes for each subject during the course of the day. On the secondary school level, subject matter is organized into "courses" that are designated as either required subjects or electives. Every subject of the secondary school is typically scheduled for the same amount of time. The recommendations of two well-known groups helped to imprint the model of equal time for each subject in the secondary school.

At the tail end of the nineteenth century the National Education Association's Committee of Ten proposed:

> Every subject which is taught at all in a secondary school should be taught in the same way and to the same extent to every pupil so long as he pursues it, no matter what the probable destination of the pupil may be, or at what point his education is to cease. Thus, for all pupils who study Latin, or history, or algebra, for example, the allotment of time and the method of instruction in a given school should be the same year by year. Not that all pupils should pursue every subject for the same number of years, but so long as they do pursue it, they should all be treated alike.[60]

A few years later, in 1906, the Carnegie Foundation for the Advancement of Teaching created the *Carnegie unit,* which for purposes of college admission standardized the amount of time to be spent in each subject in high school. To most people today the concept is known simply as a "unit," the Carnegie modifier having been lost over time. The Carnegie Foundation for the Advancement of Teaching defined a unit as satisfactory completion of a subject that met five days per week, a minimum of forty minutes per period, and a minimum of 120 clock hours for the school year. In addition, the Carnegie Foundation stipulated that a secondary school pupil should amass a total of sixteen units for graduation. These two recommendations were universally adopted by American secondary schools and have continued in force with infrequent modifications up to the present. In today's educational environment, states have moved well past the Carnegie Foundation's recommendation of sixteen units for high school graduation, as we shall see later in this chapter.

The content of the subject-matter curriculum, unlike that of the experience curriculum, is planned in advance by the teacher or, more accurately, by the writers of the textbooks or curriculum guides that the teacher follows. The needs and interests of learners play little part in the curriculum that is organized around disciplines.

Unlike the activity or experience curriculum and the core curriculum discussed earlier in this chapter, the subject-matter curriculum is well understood by the public, students, and the profession and for the most part has met with general favor. The methodology followed in the subject-matter curriculum is rather straightforward. The teacher is the expert in the field and is likely to pursue a set of procedures that some instructional specialists refer to as the "assign-study-recite-test" method. William H. Burton succinctly described these procedures:

> The learning situation is organized around materials and experiences which are assigned by the teacher. The pupils then study in various ways. The results of their studying are presented and shared during a recitation period. Testing of results occurs at the conclusion of a series of assignments and may occur at stated times within the sequence.[61]

Writing in 1962, Burton stated, "The assign-study-recite-test formula will be used for many years to come."[62] What he might have said is that the assign-study-recite-test formula has been used for generations and is likely to continue for generations to come. This approach is what many people both within and without the profession call "teaching."

COGNITIVE EMPHASIS.   The subject-matter curriculum, which in days of old was imbedded in faculty psychology or mental discipline, has found behavioristic psychology compatible with its objectives. Student achievement is rather easily assessed, since evaluation is limited to measuring cognitive objectives by teacher-made or standardized tests. Some effort is made to measure

performance in the psychomotor domain, but the perceptual motor skills are treated more or less as appendages to the cognitive domain. For example, in high schools that have separate tracks of curricula—such as general, commercial, industrial, and college preparatory—the most cognitive, the college preparatory track, is usually regarded as the most prestigious.

In the subject-matter curriculum little effort is made to gauge student performance in the affective domain. Not only is evaluation of feelings and values extremely difficult, but also proponents of the subject-matter curriculum, essentialists as they are, do not accept the affective domain as a primary concern of the school. Robert L. Ebel expressed this position forcefully when he said:

> Feelings are essentially unteachable. . . . Nor do they need to be taught. . . . The kind of learning on which schools should concentrate most of their efforts is cognitive competence. . . . Affective dispositions are important products of the human experience, but they seldom are or should be the principal targets of our educational efforts.[63]

The approach to individual differences and needs of students in the subject-matter curriculum lies more in the provision of elective or special interest subjects from among which the students may choose. The breadth or scope of the subject-matter curriculum and its sequence are revealed in the textbooks that are adopted for use in the classroom.

CONANT'S PROPOSALS. Conant's studies of both the American high and junior high schools strengthened advocates of the subject-matter curriculum. So that you may sense the overall impact of the Conant report on the high school (which preceded the report on the junior high), let's look at several of his twenty-two recommendations.

One wonders if the titles of Conant's two reports have political significance as well as educational. His 1959 report on the high school was labeled "a first report to interested citizens," whereas his 1960 junior high school report was subtitled "a memorandum to school boards." Among Conant's proposals for the high school were the following:

Required Programs for All

A. General Education

The requirements for graduation for all students should be as follows: four years of English, three or four years of social studies—including two years of history (one of which should be American history) and a senior course in American problems or American government—one year of mathematics in the ninth grade (algebra or general mathematics), and at least one year of science in the ninth or tenth grade, which might well be biology or general physical science. By a year, I mean that a course is given five periods a week throughout the academic year or an equivalent amount of time. This academic program of general education involves nine or ten courses with homework to be taken in four years and occupies more than half the time of most students, whatever their elective programs.

B. The Elective Program

The other requirements for graduation should be successful completion of at least seven more courses, not including physical education. *All students should be urged to include art and music in their elective programs.* All students should be advised to have as the central core of their elective programs significant sequences of courses, either those leading to the development of a marketable skill or those of an academic nature.

C. Standards for Pass and Failure

The teachers of the advanced *elective* courses—foreign languages, mathematics, and science—should be urged to maintain high standards. They should be told not to hesitate to fail a student who does not meet the minimum level of performance they judge necessary for mastery of the subject in question. . . . On the other hand, for the *required* courses another standard should be applied. Since these courses are required of all, irrespective of ability, a student may be given a passing grade if he has worked to full capacity whether or not a certain level of achievement has been reached. . . .

Ability Grouping

In the required subjects and those elected by students with a wide range of ability, the students should be grouped according to ability, subject by subject. . . . This type of grouping is not to be confused with across-the-board grouping according to which a given student is placed in a particular section in *all* courses. . . .

English Composition

The time devoted to English composition during the four years should occupy about half the total time devoted to the study of English. Each student should be required to write an average of one theme a week. Themes should be corrected by the teacher. . . . No English teacher should be responsible for more than one hundred pupils.

To test the ability of each student in English composition, a school-wide composition test should be given in every grade; in the ninth and eleventh grades, these composition tests should be graded not only by the teacher but by a committee of the entire school. Those students who do not obtain a grade on the eleventh-grade composition test commensurate with their ability as measured by an aptitude test should be required to take a special course in English composition in the twelfth grade. . . .

Diversified Programs for the Development of Marketable Skills

Programs should be available for girls interested in developing skills in typing, stenography, the use of clerical machines, home economics. . . . Distributive education should be available. . . . If the community is rural, vocational agriculture should be included. . . . For boys, depending on the community, trade and industrial programs should be available. Half a day is required in the eleventh and twelfth grades for this vocational work. . . .

Special Consideration for the Very Slow Readers

Those in the ninth grade of the school who read at a level of the sixth grade or below should be given special consideration. These pupils should be instructed in English and the required social studies by special teachers. . . . Remedial reading should be part of the work, and special types of textbooks should be provided. The elective programs of these pupils should be directed toward simple vocational work. . . .

The Programs of the Academically Talented

. . . [T]he elective programs of academically talented boys and girls [the top 15 percent] should [include] . . . as a minimum:

Four years of mathematics, four years of one foreign language, three years of science, in addition to the required four years of English and three years of social studies, a total of eighteen courses with homework to be taken in four years. This program will require at least fifteen hours of homework each week. . . .

Highly Gifted Pupils

For the highly gifted pupils [the top 3 percent] some type of special arrangement should be made. . . . If enough students are available to provide a special class, these students should take in the twelfth grade one or more courses which are part of the Advanced Placement Program.

Organization of the School Day

The school day should be so organized that there are at least six periods in addition to the required physical education and driver education. . . . A seven- or eight-period day may be organized with periods as short as forty-five minutes. . . . Laboratory periods as well as industrial arts should involve double periods. . . .[64]

The thrust of the Conant recommendations for the high school reaffirmed the subject-matter curriculum and placed special emphasis on the needs of the academically talented. As such, albeit in more modern dress, it reinforced and expanded the Harvard Committee's report that had preceded it by almost fifteen years. Whereas many secondary schools rushed to implement some of Conant's recommendations, particularly those for the academically talented, they gave up on others. English teachers still yearn for a maximum of one hundred pupils. School personnel still dream of a full-time counselor for every 250 to 300 pupils; a common ratio is often one counselor to 400 or more. Conant's mid-twentieth-century, gender-oriented recommendations for clerical studies and home economics for girls and for trade and industrial programs for boys may well amuse us in the twenty-first century when girls enter occupations once considered the domain of boys, and vice versa. Finally, although the recommendation to group students by ability has been implemented widely in the past, its practice is generally frowned on today.

The subject-matter curriculum has been popular with many curriculum planners because it lends itself well to a mechanical type of curriculum development: dropping, adding, or splitting courses, rearranging or extending sequences, updating topics, and changing textbooks. Current interest in integrating the curriculum at all levels, however, runs counter to separation of knowledge into discrete subjects. Deborah P. Britzman faulted the compartmentalization of knowledge into subjects, saying:

Compartmentalization defines the limits of relevancy, it brackets our definitions of context and content, and imposes measures of credibility that determine what we accept and reject as true and as false.[65]

A curriculum organized around separate subjects "is fragmented into instructional activities reduced to discrete blocks of time, thereby isolating subject areas and teachers, abstracting knowledge from its socio-cultural roots and political consequences, and decontextualizing knowledge and skills from their practical existence," said Britzman.[66]

The Broad-Fields Curriculum

In the early part of the twentieth century a pattern of curriculum organization appeared that became—on the surface at least—a standard feature of both elementary and secondary schools. Called the broad-fields curriculum, this form of curriculum organization is a modification of the strict subject-matter curriculum. Effort is made to unify and integrate content of related disciplines around broad themes or principles. For example, history A (ancient),

history B (modern), and history C (American), as existed in the secondary school curriculum of New York State schools well into the 1930s, were converted into broad fields and designated simply tenth-grade social studies, eleventh-grade social studies, and twelfth-grade social studies.

"In the broad fields approach," said Tanner and Tanner, "the attempt is made to develop some degree of synthesis or unity for an entire branch of knowledge. . . . The broad fields approach may also encompass two or more branches of knowledge."[67] Smith, Stanley, and Shores noted that broad-fields courses possess varying names: survey, comprehensive, or general.[68]

Thus, we find the various elements of English (reading, writing, grammar, literature, speech, etc.) brought together under the rubric of language arts. The various social science fields (history, political science, government, economics, anthropology, sociology, etc.) were combined to become the social studies. Art, music, architecture, and literature became the humanities. Principles of physical and natural science were unified into a course in general science. The industrial arts tied together various aspects of vocational education. Physical education included health and safety. General mathematics offered knowledge and skills drawn from arithmetic, algebra, and geometry.

Robert S. Zais spoke about the advantages of the broad-fields curriculum as follows:

> Two main advantages are claimed for the broad-fields design. First, because it is ultimately based on the separate subjects, it provides for an orderly and systematic exposure to the cultural heritage. This advantage it shares with the subject curriculum. But it also integrates separate subjects, thereby enabling learners to see relationships among various elements in the curriculum. This second advantage is the special strength that the broad-fields design claims over the subject curriculum.[69]

He warned, however, "With respect to the integration claimed for the broad-fields design, it is worth noting that in practice, combining subjects into a broad field often amounts to little more than the compression of several separate subjects into a single course with little actual unification taking place."[70]

In a true broad-fields approach, teachers select certain general themes or principles to be studied at each year of the sequence of a discipline such as social studies. Obviously, not all curricula labeled broad fields are truly of that genre.

Common criticisms of the broad-fields curriculum focus on its lack of depth as opposed to breadth, its lack of appeal to student needs and interests, and its emphasis on covering content, which excludes other important goals of education.[71]

Proponents of the broad-fields curriculum would respond to these criticisms by saying that if the curriculum were properly planned and carried out, these deficiencies would be overcome. What appears to have happened in many schools is that the rubric of broad fields has been retained but the curricula themselves have reverted to the separate disciplines of the subject-matter curriculum.

A Nontraditional Approach: The Nongraded High School

During the 1960s, when the elementary schools were experimenting with continuous progress plans and eliminating grades as we know them, several high schools were attempting to develop ungraded patterns of organization. Prominent among these high schools was Nova High School (Broward County, Florida).

In the mid-1960s Nova High School put into practice a number of innovations. Nova High School was established amid what was at that time a semirural tract of land of now populous Broward County (Fort Lauderdale) as the first facility in a projected complex that eventually would include elementary schools, a junior high school, and a junior college as well as the high school—all publicly supported. A private institution of higher learning, Nova Southeastern University, is nearby.

Nova High School made use of teaching teams complete with clerical assistants and teacher aides. Organized on a trimester plan, Nova High School incorporated closed-circuit television, a photographic laboratory, data processing equipment, and learning resource centers equipped with tape recorders, microfilm readers, and teaching machines.

A daily schedule was devised that consisted of five periods of eighty minutes each and an optional sixth period of one hour's duration. Speaking about the nongraded feature of Nova High School, Arthur B. Wolfe, director of the K–12 Center at that time, set forth the Nova Plan in these terms:

> The Nova Plan will eliminate grade designation and will establish a far wider range of learning levels through which each student may progress at a rate commensurate with his interests and abilities. Each of the established levels will be only slightly advanced over the level below, thereby enabling the student to move from one level to the next at any given time during the school year. This process will be applicable to the program of each student and to each separate subject area, thereby placing a realistic evaluation on each student's progress on an individual basis, one not entirely related to the sum total of his progress. . . .
>
> Following the enrollment of new students, records will be examined and a series of tests will be administered. The faculty will place students in an achievement group that will provide a smooth transition to a new learning environment. This process will be followed for each of the subject areas in which students may be enrolled. It will be necessary in some cases to move students forward or back until an achievement level has been found in which they will feel comfortable.[72]

Flexible and Modular Scheduling

With but a few significant departures from traditional practice, high schools have continued to schedule subjects in the conventional mode, one period per day, five days per week. The Carnegie unit, Conant's recommendations that each course meet five times a week for the academic year, and customary standards of the regional accrediting associations have added to the pressure to maintain traditional scheduling.

However, it is difficult to find a logical reason why all subjects must be taught for the same period of time. Some disciplines are by their very nature more difficult to teach than others and require more time for mastery. Some courses are most effectively taught when accompanied by a laboratory that requires extra time. Some subject matter is simply not as relevant as other subject matter and, therefore, should be accorded less time.

Nor is there a logical reason why equal amounts of time must be allotted to every subject every day of the week. Some days and some weeks more time is needed to explore a topic in depth. Some days it is apparent to the teacher that youngsters have not comprehended the lesson and need to spend more time on it or undergo remedial work.

There is also not sufficient reason why the instructional mode must be standardized every period of every day. Variation should be possible for lecture, mediated instruction, laboratories, seminars, field trips, independent study, and other modes.

Efforts were made in the 1960s to break out of the mold of the standard schedule. These efforts are subsumed in a movement referred to as flexible scheduling. Donald C. Manlove and David W. Beggs III described the concept of flexible scheduling as follows:

The flexible schedule is an organization for instruction which:

1. calls for classes of varying size within and between courses. (Students sometimes may meet in large assembly classes, and at other times in small inquiry classes. In addition, part of the day will be spent in individual or independent study.)
2. provides for instructional groups which meet at varying frequencies for varying lengths. (Some classes may meet every day of the week, others will not. Some instructional sessions will be for a short duration, others for an extended period of time.)
3. makes team teaching possible in any content area or for any group of students in the school. (The use of a teaching team, two or more teachers working within a given group of students on a common instructional problem, is suggested in this model.)
4. requires countless professional decisions by teachers about students, content, and teaching methods.[73]

TYPES OF SCHEDULES.   Flexible schedules have taken varying forms: some are minor departures from traditional plans, others radical changes. Among the varieties of flexible scheduling are the following:

1. Two or more periods are simply combined, as in the case of core classes.
2. Subjects are scheduled for both double and single periods in the same week. For example, some classes may meet two periods on Monday and Thursday, other classes two periods on Tuesday and Friday, but all only one period on Wednesday. Teachers can thus use the larger blocks of time in ways not permitted by the constraints of the single-period schedule.
3. Classes are rotated during the week.
4. Instead of typical forty-five minute periods, the schedule is broken into modules, which, by faculty agreement, may be multiples of fifteen, twenty, thirty, or more minutes. In an earlier text Oliva described modular scheduling as follows:

   Modular scheduling, or flexible-modular scheduling . . . requires complete abandonment of the division of the school schedule into equal amounts of time for each course. . . . Some subjects are scheduled for two or three modules (conceivably, even for a single module) per day. Those which require a great deal of time are scheduled in multiple modules. . . .[74]

   The duration of the module is purely a matter for decision, ordinarily made by the faculty of the school at the time a modular schedule is introduced. Fifteen-minute modules are common. A school day based on fifteen-minute modules would encompass approximately twenty-five modules. Schools which follow the Stanford School Scheduling system use modules of twenty-two minutes; twenty modules make up the day. The Indiana Flexible Schedule uses fifteen modules per day of thirty minutes each.

5. Class schedules are set frequently, even daily. This "scheduling on demand" is the ultimate goal of flexible scheduling. As J. Lloyd Trump observed, it allows teachers and students the greatest possible latitude in determining their instruction and learning. Trump told how this process was accomplished at the Brookhurst Junior High School in Anaheim, California.

   Individual members of teaching teams determine three days in advance what students they want to teach, in what size groups, for what length of time, in what places, and with what

technological aids. Teacher job-specification forms containing this information are turned in to their team leaders. The team leaders then assemble to make a master schedule each day. The master schedule is then duplicated and made available to the students and their counselors. In a daily 20-minute meeting, with the advice and consent of their counselor (twenty minutes to a counselor), each student makes his schedule. A student noting, for example, that the schedule calls for large-group presentation on a given subject and deciding that he already knows that material, may elect rather to spend his time in independent study in the art room or library or someplace else. The counselor either approves or rejects this decision. Then the student makes out his own schedule for the day in quadruplicate. One copy is for himself, one for the office, one for the counselor, and one for his parents.[75]

TRADITIONAL VERSUS FLEXIBLE SCHEDULING.   Flexible scheduling is an essential aspect of plans for curriculum organization such as team teaching, which calls for large-group instruction, small-group discussion, and independent study. Traditional schedules have forced teachers to use the same amounts of time for all activities.

Manlove and Beggs contrasted the traditional and the flexible schedule as shown in Table 9.2. They summarized the advantages and disadvantages of flexible scheduling to teachers and made the comparisons shown in Table 9.3.

Trump and Miller also warned of a danger inherent in modular scheduling—or in any innovation, for that matter—"once a change is made, the new schedule can become almost as rigid as the one it replaced."[76] The complexity of operation; a structure that shifts from day to day; the high degree of planning required on the part of students, teachers, and administrators; and the decline in popularity of the team teaching concept have militated against flexible scheduling and caused schools to return to more traditional and more commonly understood forms of scheduling.

TABLE 9.2   Characteristics of Traditional and Flexible Schedules

Element	Traditional Schedule	Flexible Schedule
Content	Assumes each course is equivalent in requirements for mastery to all others	Assumes requirements for mastery of content vary from course to course
Facilities	Use is set by schedule	Use is determined sometimes by student needs
Groups	All class groups are nearly equal size	Class groups differ in size depending on instructional task
Scheduling unit	The day; each day in the week has the same order as every other day	The week; each day in the week has a different order
Students	Students should be in a class group or supervised study	Students may be in a class group or working independently
Teachers	All have equal numbers of classes or assignments and demands on their time	Number of classes varies from teacher to teacher and demands on time vary
Time	Usually equal for all subjects	Usually different for various subjects

Source: Donald C. Manlove and David W. Beggs III, *Flexible Scheduling: Bold New Venture* (Bloomington: Indiana University Press, 1965), p. 26.

TABLE 9.3 Advantages and Disadvantages of Flexible Scheduling	
Advantages for Teachers	**Disadvantages for Teachers**
1. Provides a mean for pacing the instruction to an individual student's needs	**1.** Danger of not giving enough time to one subject
2. Allows teachers to make decisions about the length and frequency of learning activities	**2.** Requires more time and cooperative effort of teachers in making the schedule
3. Gives teachers time to work with small groups and individuals	**3.** Possibility of too little identification of a student with his teachers
4. Takes unnecessary repetition out of the teacher's day	**4.** Is difficult to schedule
5. Places increased responsibility on students for learning	**5.** Requires teachers to change their teaching patterns
6. Provides the opportunity to use resource experts for a large group of students in an economical way for the resource person	**6.** Is not understood by the public or even by all teachers

Source: Donald C. Manlove and David W. Beggs III, *Flexible Scheduling: Bold New Venture* (Bloomington: Indiana University Press, 1965), p. 67.

The Comprehensive Senior High School

Imagine, if you will, a large urban high school that serves 3,000-plus students of the district. The school's graduation rate for the past ten years has hovered around 90 percent and more than 80 percent of its students attend either a two-year or four-year post secondary school. The school has a long-term track record of success on a variety of levels: students regularly achieve high scores on the state achievement test in the subject areas and readily pass the state exit exam; graduates are placed in college and universities without difficulty; students master computer skills; science students yearly win recognition at the science fairs; foreign language students bring home prizes from state competitions in their field; many students are enrolled and are successful in Advanced Placement (AP) courses and the school's International Baccalaureate (IB) program; and the student body as a whole scores well above the norm in reading and mathematics on state and national tests. Students are also availed opportunities to be dual-enrolled at the local community college and university.

In addition to its accelerated courses, the school offers regular and honors-level sets of courses in its core curriculum and affords elective course opportunities to the students in fine arts, performing arts, industrial arts, culinary arts, technology education, business technology, digital video production, debate, world languages, family and consumer sciences, and physical education. Co-curricular opportunities are available in band, chorus, orchestra, drama, dance, and Naval Junior Reserve Officers Training. Also, the school serves a large exceptional student population by offering curriculum for students with learning disabilities, emotional handicaps, educable mental handicaps, and autism as well as curriculum for the gifted. The athletic program has a wide range of teams for both male and female athletes.

What we are describing here is a high-quality, traditional, comprehensive high school. As such it meets the definition of a comprehensive high school given by James B. Conant, who saw it as "a high school whose programs correspond to the educational needs of *all* youth in

the community."[77] Personnel of this school concur with the Association for Supervision and Curriculum Development and with Conant that secondary school should be comprehensive in nature and should address values such as respect for others and positive teamwork while promoting diversity in a free society.[78]

Conant cited three main objectives of a comprehensive high school:

First, to provide a general education for all the future citizens; *second,* to provide good elective programs for those who wish to use their acquired skills immediately on graduation; *third,* to provide satisfactory programs for those whose vocations will depend on their subsequent education in a college or university.[79]

Conant listed the following points to be considered in evaluating a comprehensive school:

A. Adequacy of general education for all as judged by:
   1. Offerings in English and American literature and composition
   2. Social studies, including American history
   3. Ability grouping in required courses
B. Adequacy of nonacademic elective program as judged by:
   4. The vocational programs for boys and commercial programs for girls
   5. Opportunities for supervised work experience
   6. Special provisions for very slow readers
C. Special arrangements for the academically talented students:
   7. Special provisions for challenging the highly gifted
   8. Special instruction in developing reading skills
   9. Summer sessions from which able students may profit
   10. Individualized programs (absence of tracks or rigid programs)
   11. School day organized into seven or more instructional periods
D. Other features:
   12. Adequacy of the guidance services
   13. Student morale
   14. Well-organized homerooms
   15. The success of the school in promoting an understanding between students with widely different academic abilities and vocational goals (effective social interaction among students)[80]

Our hypothetical school would fare quite well in Conant's follow-up study. Surely it has more than 750 pupils enrolled; graduates at least 100 pupils every year; offers calculus and four years of a modern foreign language (two or more languages, to be exact); has a ratio of counselors to students between 250 to 300; groups students homogeneously in the elective subjects and heterogeneously in the required courses; and offers a full range of courses in the academic disciplines, business education, homemaking, and industrial arts.[81]

The comprehensive high school, however, has not been free of criticism. Some felt it deemphasized the academics; others felt the opposite and claimed it deemphasized the affective domain. Some believed it was too structured; others, that it was not structured enough. Some maintained it was taking on too many responsibilities; some, that it was not assuming enough. Some accused the comprehensive high school of slighting career education; others were not satisfied with the students' achievement in the cognitive domain.

Magnet Schools

Magnet schools have grown in number in recent years.[82] Dallas, Texas, furnishes an example of the rapid growth of magnet schools. Since 1976 that community has established, in addition to the already existing Skyline Center, seven magnet schools: the Arts Magnet High School, the Business and Management Center, the Health Professions High School, the Human Services Center, the Law and Public Administration High School, the Transportation Institute, and the Multiple Careers Magnet Center for special education students. Whitney High School in Cerritos, California, has as its sole mission preparation of its academically able students for college admission.

Developments of the early 2000s and apparently the first public schools of their kind are the Puerto Rico Baseball Academy and High School, with its concentration in the sport of baseball; an alternative high school in New Britain, Connecticut, offering to students-at-risk training for jobs in Homeland Security; and a high school for gay, bisexual, and transgender students in New York City.

Some states have considered or established residential public secondary schools as a means of fostering racial integration in large urban areas by implementing strong academic or vocational programs in specialties that appeal to young people from all ethnic groups and that are not adequately provided, if at all, in the traditional schools.

The Boston Latin School, Detroit's Cass Technical High School, the Bronx High School of Science, New York's High School for the Performing Arts, Brooklyn Tech, Stuyvesant High School in New York City, Lane Technical School in Chicago, Central High School in Philadelphia, and Lowell High School in San Francisco are all magnet schools located in large urban areas.

The concept of choice in education is certainly appealing and aligns with democratic tradition. Obviously, growth in alternative schools will have an inevitable impact on the neighborhood and comprehensive schools, illustrating once again the change process in operation.

The American public—concerned that children achieve the fundamentals, that they have access to higher education, and that economy of operation be maintained—is unlikely to support radical departures from the established forms of schooling. The public is not likely to heed proposals for deschooling, that is, surrendering education of the young to businesses and other agencies in the community,[83] or for fully privatizing education.[84] On the other hand, it may well support reasonable alternatives within the existing framework. Urging parents to "demand a modern and relevant system of education," Jon Wiles and John Lundt recommended a number of alternatives to our present system of public education.[85] We will examine in Chapter 15 some of the more recent and controversial aspects of alternatives in education and school choice such as charter schools and homeschooling.

International Baccalaureate and Advanced Placement

INTERNATIONAL BACCALAUREATE (IB). Founded in 1968, by the Geneva School in Switzerland, the International Baccalaureate initially provided a pre-university-level curriculum for students who were globally mobile and who wanted the opportunity to attend universities after their secondary education. Due to its success and reputation for academic excellence, today's IB has broadened into three programs that offer a continuum of curriculum for students aged 3–19 in more than 3,100 schools in 140 countries.[86]

The IB curriculum focuses on creating international understanding and respect for other cultures and people while maintaining a highly rigorous curriculum. The three programs have their own curriculum and pedagogy, assessment, professional development, and school authorization and evaluation component because there is no expectation that a school or district will offer each program. However, the curriculum sequence of each program does provide a

continuum of academic opportunities for students should two or three of the programs exist. The three programs are the Primary Years Programme (PYP), the Middle Years Programme (MYP) and the Diploma Programme (DP).[87]

Primary Years Programme.   Established in 1997, the PYP concentrates on six themes that expose students to subject-area curriculum and beyond. Based on an inquiry approach, students ages 3–12 are expected to investigate—through teacher guidance—who we are, where we are in place and time, how we express ourselves, how the world works, how we organize ourselves, and sharing the planet while studying in the subject areas of language, social studies, mathematics, arts, and science as well as personal, social, and physical education.[88]

Middle Years Progamme.   Students from the ages of 11–16 are provided a framework to afford them opportunities to connect between the subject areas and real-world applications, while developing critical thinking skills. The MYP was introduced in 1994 and takes into account that students at this age are at a crucial junction, emotionally and intellectually, as they are introduced to eight subject areas: mother tongue, a second language, humanities, sciences, mathematics, arts, physical education, and technology. Students are also expected to construct a culminating project to demonstrate their understanding of the skills and the knowledge they have gained from the program.[89]

Diploma Programme.   The IB Diploma Programme offers a rigorous curriculum for students aged 16–19.[90] Offered as a two-year program, students study six courses in six subject areas. In their course of study students must demonstrate a deep knowledge in the subject areas of Experimental Sciences, Mathematics and Computer Science, Languages and Literature, Individuals and Societies, Language Acquisition, and the Arts. Of the six courses students are expected to take, three of the courses must be taught at the higher level (i.e., courses that have 240 teaching hours), and three must be taught at the standard level (i.e., courses that have 150 teaching hours).[91] In addition, students are required to complete an extended essay, partake in a Theory of Knowledge course (TOK), and participate in a creativity, action, and service (CAS) project. To assess student performance, written exams are provided at the end of each course and are graded both internally and by external moderators. Students are awarded the IB Diploma if they accrue 24 points on exams and if they satisfy the CAS component.[92]

Due to its growth and popularity, the IB requires schools to be authorized to use its curriculum. The authorization process is challenging and is established to make the schools demonstrate their understanding of the program and their willingness to implement it with integrity while sustaining the belief system of the organization. Once approved, staff development for teachers and administrators is provided to further the schools' capacity to implement the curriculum and policies of IB. Schools are expected to develop their program and are reviewed to maintain their contract.[93]

ADVANCED PLACEMENT (AP).   In 1955, the College Board began administering the Advanced Placement program as an avenue for high school students to gain access to college-level curriculum.[94] Largely seen as a collaborative effort between colleges, universities, and the College Board, the AP program provides guidance to teachers in course design and syllabus construction, as well as professional development opportunities. AP courses are designed to provide an avenue for motivated students to learn skills that allow them to read texts critically, solve problems analytically, and write clearly.[95] Over the years, AP courses have become widely accepted by colleges and universities as potential indicators of success for students at the post-secondary level. In 2010, AP administered more than 3.2 million AP exams and provided curriculum and training for more than 130,000 AP teachers in 34 AP subjects.[96]

Illustrative of a high school that offers the International Baccalaureate and Advanced Placement courses is Winter Park High School (Florida), which is ranked in the top one percent of IB Programs worldwide.[97] The school also has twenty-five advanced placement courses, as well as honors-level courses, standard-level courses, "tech prep" courses, access to virtual courses, dual enrollment with technical schools, ESOL, exceptional education, and college dual-enrollment courses.[98]

CONCURRENT PROGRAMS AND PRACTICES

Our study of systems and structures that are adopted by communities demonstrates that many models could be implemented to effect curriculum delivery. Contemporaneous programs and practices of the past and present deserve to be examined as we develop our knowledge on ways to organize and implement the curriculum.

Teaching Thinking Skills

A good sixty years ago (1944), the Educational Policies Commission identified the ability to think as one of the Ten Imperative Needs of Youth.[99] Seventeen years later the Educational Policies Commission set forth the premise that the central purpose of American education was the development of the student's ability to think.[100] At about the same time, the influential National Committee of the National Education Association's Project on Instruction included among its priorities for improving the instructional program of the schools "ways of creative and disciplined thinking, including methods of inquiry and application of knowledge."[101]

In the 1980s we witnessed a resurgence of interest in the teaching of thinking skills. Prominent national organizations called for renewed and increased emphasis on the development of thinking skills. Among these associations are the National Council of Teachers of Mathematics[102]; the National Council of Teachers of English[103]; the National Science Board Commission on Pre-College Education in Mathematics, Science, and Technology[104]; and the Association for Supervision and Curriculum Development.[105]

A new body of literature defines thinking skills and suggests strategies for teaching those skills. Discussion has moved away from the general declared goal of teaching young people to think to identification of thinking skills and prescribed methods for achieving those skills.[106]

As with many other terms in education, we can find differing definitions of thinking skills. Barry K. Beyer pointed out that some people use the term "critical thinking" to signify all forms of thinking. Beyer maintained that it was a mistake to equate critical thinking with inquiry, decision making, problem solving, and other thinking skills. Said Beyer, "Critical thinking is, instead, the process of determining the authenticity, accuracy, and worth of information or knowledge claims."[107] Where the experts agree, however, is that thinking skills are fundamental, the most basic of the basic skills.

Technology in Education

The rapid introduction of new technology in education challenges schools to go beyond the teaching of computer skills per se (i.e., computer literacy) to teaching computer skills as a part of education for specific careers, to using the Internet for research, to providing online lessons and

courses, and to creating virtual schools. There is no stopping the technology nor should there be. In Chapter 14 we will explore technology and how it impacts the classroom.

Smaller Learning Communities

The elementary and middle schools are not alone in wrestling with the problems of class and school size. An interesting development that we explore in Chapter 15 is the creation of smaller schools, termed "learning communities" by some, within established schools. Detroit's Digital Learning Community High School combines within its Crockett High School two current features: a smaller learning community and a high-tech curriculum. Should the movement to smaller high schools either within or separate from larger high schools gain in popularity and prove more successful in terms of student achievement, we may well be able to verify whether size of instructional units makes a difference in student achievement.

Alternative Schools

Some of the current criticisms of public education have resulted in an increase in alternative schools at both the elementary and secondary levels. Alternative education is also known as *education by choice* or *educational options*.

Let's briefly consider the rationale for developing and supporting alternative public secondary education. Some young people, perhaps many, cannot profit from the established high school; they cannot learn effectively in a structured setting. The impact of agencies outside the school—the families, peer groups, churches, businesses, and industries—on learners is far greater than that of the school; these agencies should therefore be tapped. In a democratic society families should have a choice as to the type of education they wish their children to receive. Unless the public schools make changes from within, young people will drop out physically, stay in but drop out mentally, or transfer to charter or private schools.

What, we may ask, is an alternative school? The National Consortium for Options in Public Education described an alternative school as "any school (or minischool) within a community that provides alternative learning experiences to the conventional school program and is available by choice to every family within the community at no extra cost."[108]

Some school systems have established what are called "alternative schools" for young people with behavior problems who cannot function well in regular schools. However, these schools are not alternative schools in the sense described by the National Consortium because they are not available by choice. Students are assigned to these schools by the school system and must remain until their behavior improves sufficiently for them to return to their regular schools. (In the case of some alternative schools, however, choice by parents and students must necessarily be restricted by admission requirements and examinations, especially when demand for enrollment exceeds the capacity of the school).

Free schools, street academies, storefront schools, and schools without walls are examples of alternative education. In programs of this type, the community, in effect, becomes the school. The school system enlists the cooperation of business, cultural, educational, industrial, and social institutions to serve in the education of young people. The school system draws on the talents of knowledgeable and experienced persons in the community to serve as instructors.

However, education by choice is possible in the more typical school *with* walls. Parents may be afforded the option of placing their children in open-space schools, bilingual schools, or even traditional basic skills schools.

Exceptional Student Education (ESE)

Schools are becoming more equipped to meet the needs of many students who come to them with learning difficulties. The demand to develop curriculum that addresses the needs of children who are physically impaired, have learning disabilities, have autism, or are gifted (just to name a few areas) is evident. As new advances in the field of brain research are developed, educators are able to use these findings to positively affect this population.

Bolstered by federal legislation and state mandates and funding, exceptional student education is a fundamental part of today's curriculum. To care for the needs of students with exceptionalities, special education teachers, psychometrists, school psychologists, and curriculum developers with a background in this area are in demand.

At-Risk Students

Decreasing the achievement gap of at-risk students at schools has received considerable attention in recent years. Students-at-risk may be narrowly defined as those students most likely to drop out of school or broadly defined as those most likely to emerge from school with insufficient education, unprepared to play a productive role in society.

Students-at-risk tend to come from low-income environments and to perform poorly in the basic skills. Proposals for meeting the needs of students-at-risk suggest modification of instructional strategies, such as offering compensatory education and increasing student motivation; staff development to enable teachers to understand the special needs of these students; increased use of positive disciplinary practices; encouraging participation in extra-class activities; working with parents; addressing community problems; and abandonment of the graded school structure.

English Language Learners (ELL)

Bilingual education programs are provided for those pupils for whom English is not the native language. Curriculum developers in this field have the challenge of establishing a highly organized approach to understanding the English language while providing support in a second language. In Chapter 15 we will examine some of the issues involved in providing for educating speakers of languages other than English.

Cooperative Learning

The strategy of organizing people into small instructional groups with the intended purpose of helping each other is discussed in Chapter 11.

Differentiated Instruction

Over the years educators have stressed the need for individualized instruction, personalized instruction, and appealing to individual differences. In a similar vein we speak of *differentiated instruction,* teaching techniques that address the multiplicity of differences among children in today's classrooms. We will return to methods of differentiating instruction in Chapter 11.

Team Teaching

While Conant was conducting his surveys of the American high and junior high schools, the National Association of Secondary School Principals (NASSP) in 1956 was seeking ways to cope with increased enrollments in the schools, a teacher shortage, and the introduction of new curricula in various disciplines. Under the leadership of J. Lloyd Trump, associate secretary of

the NASSP, the Commission on Curriculum Planning and Development was launched to create a proposal for new ways of using staff through teaming of faculty.

Supported by the Ford Foundation's Fund for the Advancement of Education, team teaching enjoyed a brief flurry of popularity in secondary schools across the country from Newton, Massachusetts; to Evanston, Illinois; to San Diego, California. The NASSP proceeded to appoint the Commission on the Experimental Study of the Utilization of the Staff in the Secondary School (with J. Lloyd Trump as its director) and to charge it with the task of promoting the cause of team teaching. Harvard University's Graduate School of Education and Claremont Graduate School (California) took a special interest in this innovative organizational plan.

J. Lloyd Trump and Delmas F. Miller defined team teaching as follows:

> The term "team teaching" applies to an arrangement in which two or more teachers and their assistants, taking advantage of their respective competencies, plan, instruct, and evaluate in one or more subject areas a group of elementary or secondary students equivalent to two or more conventional classes, using a variety of technical aids to teaching and learning through large-group instruction, small-group instruction, and independent study.[109]

Ira J. Singer described team teaching in this way:

> Team teaching may be defined as an arrangement whereby two or more teachers, with or without teacher aides, cooperatively plan, instruct, and evaluate one or more class groups in an appropriate instructional space and given length of time, so as to take advantage of the special competencies of the team members.[110]

Singer pointed out that the major factors in a team teaching plan are:

- cooperative planning, instruction, and evaluation
- student grouping for special purposes (large-group instruction, small-group discussion, and independent study)
- flexible daily schedule
- use of teacher aides
- recognition and utilization of individual teacher talents
- use of space and media appropriate to the purpose and content of instruction[111]

The purpose of team teaching was to capitalize on the strengths of teachers, using their varying expertise in different ways. Teams were organized within subject areas and across subject fields.

A particular variant of team teaching came to be known as the Trump Plan. J. Lloyd Trump and Dorsey Baynham postulated three ingredients for an effective organizational structure that would capitalize on teacher assets and provide better opportunities for the learners. The school week, according to Trump and Baynham, should provide opportunities for pupils to attend large-group instruction, to interact in small groups, and to carry out independent study. Prophesied Trump and Baynham:

> The school of the future will schedule students in class groups an average of only 18 hours a week. The average student at the level of today's tenth grade will spend about 12 of the 18 hours in *large-group instruction and six in small-group discussion.*
>
> In addition, students will spend, on the average, 12 hours each week in school in individual *independent study.*[112]

These figures convert to 40 percent of a student's time in large-group instruction, 20 percent in small-group discussion, and 40 percent in independent study.

DIFFERENTIATED STAFFING.   Team teaching offers a creative answer to the problem of using limited faculty and resources more effectively. More elaborate schoolwide staffing patterns were developed that incorporated the principle of differentiated assignment. In the early 1970s one north Miami Beach Senior High School (Florida), for example, developed a set of categories of personnel for its differentiated staffing plan. These included, in addition to a principal, vice-principal, and business manager, the following positions: an *Inservice Specialist who* coordinates professional development for instructional and non instructional staff; *a School Psychologist who* conducts academic and psychological testing for identified students to determine their needs and to provide placement in special programs; and a *Resource Specialist who* gathers, coordinates, and disseminates materials to help solve specific learning situations.[113]

In recent years some secondary schools have turned away from the concepts of team teaching and differentiated staffing. However, it still exists and has had a resurgence as a practice in areas such as exceptional student education. Often teachers who are trained in specific strategies to assist students with special needs are teamed with content-area teachers as a way to provide interventions and differentiate the curriculum for students. The practice can have positive results not only for the student with exceptional needs but also for the other students in the classroom. Often these teachers share strategies with the class as a whole. Team teaching is a practice that does not fit every situation and results cannot always be anticipated. In some cases teachers found themselves incompatible, unable to cooperate effectively. Cooperative planning requires a high degree of interpersonal skill that some team members lacked.

The very complexity of staffing and scheduling under team teaching patterns confused parents, teachers, and students. Tradition, therefore, caused them to prefer uniform blocks of time, completely supervised study, and individual assignments.

THE CALL TO REFORM

Not all stakeholders are enamored with the current structures and practices of our nation's school systems. Over the years we have heard repeated clarion calls for "reform" not only in secondary education but also in public education at all levels. Larry Cuban noted that efforts at reforming education have been made "again, again, and again."[114] John Henry Martin, author of *The Education of Adolescents*—the report of the National Panel on High Schools and Adolescent Education of the United States Office of Education—expressed the belief that the Seven Cardinal Principles were too inclusive and were "inflated statements of purpose."[115] He argued that the Seven Cardinal Principles were much too broad, stating, "Among the unfortunate consequences of the sweeping language of the Seven Cardinal Principles has been our assumption that the schools could reform all of society's ills. Schools have undertaken burdens that they have neither the resources nor the talents to overcome."[116] The excessive offerings and services of some high schools have caused Arthur G. Powell, Eleanor Farrar, and David K. Cohen to apply the label, "Shopping Mall High School."[117]

Richard Mitchell challenged the Seven Cardinal Principles as anti-intellectual, labeling them "The Seven Deadly Principles" proposed by "The Gang of Twenty-Seven" (i.e., the National Education Association's Commission on the Reorganization of Secondary Education appointed in 1913). Mitchell was favorably disposed toward the NEA's Committee of Ten, which was formed in 1892 and made "largely of scholars."[118]

Martin took the position that schools cannot be responsible for all aspects of life; that the goals of the school (that is, the high school) must be redefined; and that aims more modest than those of the Seven Cardinal Principles must be set. Theodore R. Sizer, however, observed that Americans have agreed for decades on the goals set forth by the Seven Cardinal Principles.[119]

Martin perceived the community as sharing responsibility for the education of youth. He advised as follows:

> Redefining the goals of schools and building new relationships between youth and adults requires that the comprehensive high school be replaced with a comprehensive program of community-based education. Such a design for the education of adolescents should delineate those purposes of education that would remain the primary responsibility of the high school, those that might better be shifted to other and new community agencies, and those that would be served by a cooperative sharing of resources.[120]

A. Harry Passow discussed proposals of five national groups looking at secondary education.[121] In addition to the reports of the National Panel on High Schools and Adolescent Education, the American public has received reports from the National Association of Secondary School Principals,[122] the National Commission on the Reform of Secondary Education (referred to as the Kettering Commission),[123] the Panel on Youth of the President's Science Advisory Committee,[124] and Educational Facilities Laboratories and IDEA.[125]

Among the proposals coming out of the national groups in the 1970s were calls for:

- a reduced school day with more time being spent in work experience programs in the community
- educational options—that is, alternative forms of schooling to be selected by students and parents
- a lowering of the age of compulsory attendance to fourteen years of age
- establishment of specialized high schools in the European tradition
- an emphasis on career education
- restriction of the function of the high school to cognitive learning

It is clear that if some of these proposals were seriously considered and adopted, the comprehensive high school that was designed to bring together young people from all walks of life and offer a wide range of programs would be greatly altered or might even disappear. The comprehensive high school was conceived as a unique American response to the needs of youth. Every young person would find in this institution programs necessary to his or her present and future success in society. The comprehensive high school was a reaction to specialized high schools that cared for specific segments of the student population. This institution would accommodate boys and girls from every social stratum and ethnic group and would be a microcosm of the community it served. Students would study, work, and play together, thus breaking down barriers between them. The comprehensive high school was a democratic response to education in a democratic society.

Reform Efforts

Movements toward accountability, emphasis on cognitive skills and minimal competencies, expansion of content, an increase in academic engaged time, frequent testing, and the raising of grading standards have been the mantra of reformists for decades. During the 1980s and early

1990s, the high school has been examined and reexamined in a series of reports that produced numerous recommendations.[126] Schools are engaged in testing some of the proposals found in those reports.

Among the many widely discussed reports during this period were the following:

- ***The Paideia Proposal:*** *An Educational Manifesto* by Mortimer Adler for the Paideia Group (1982); one track for all, no specialized job training.[127]
- ***A Nation at Risk:*** *The Imperative for Education Reform* by David P. Gardner for the National Commission on Excellence in Education (1983); five basic subject fields for graduation, longer school day or longer school year.[128]
- ***High School:*** *A Report on Secondary Education in America* by Ernest L. Boyer, president of the Carnegie Foundation for the Advancement of Teaching (1983); required core of academic subjects, one unit of community service.[129]
- ***A Place Called School:*** *Prospects for the Future* by John I. Goodlad (1984); five domains of knowledge, common required core.[130]
- ***Horace's Compromise:*** *The Dilemma of the American High School* by Theodore R. Sizer (1984); language and math skills, no universal body of subject matter, character education.[131]
- ***Essential Components of a Successful Education System*** by The Business Roundtable (1990); performance-based system; assessments, rewards, and penalties for schools.[132]
- ***Horace's School:*** *Redesigning the American High School* by Theodore R. Sizer (1992); competencies rather than conventional subjects, personalized teaching.[133]
- ***What Work Requires of Schools:*** *A SCANS Report for America 2000* by The Secretary's Commission on Achieving Necessary Skills; basic skills, thinking skills, personal qualities, and technological competency.[134]

Four of the studies (Adler, Business Roundtable, Gardner, and Goodlad) addressed schools at both the elementary and secondary levels. Assessing the impact of these studies is difficult. The Conference Board reported that ten years after *A Nation at Risk,* business involvement in the schools had increased, new programs had been developed, broad-based coalitions had been formed, and the public's attention to education had been attracted and maintained.[135] Nevertheless, education reform remains very much on the agenda of nongovernmental as well as governmental organizations. The Koret Task Force on K–12 Education, comprised of resident and visiting fellows of the Hoover Institution at Stanford University, launched an effort in the fall of 2000 to address major issues in American education. Speaking of the status of K–12 education twenty years after *A Nation at Risk,* the Task Force concluded, "U.S. education outcomes in many ways show little improvement since 1970."[136]

Sizer sought to stimulate reform through the Coalition of Essential Schools, which was formed in 1984. Working with fifty-two schools, Sizer attempted to combat the "shopping mall" concept of the high school by encouraging schools to reduce the amount of subject matter covered and to emphasize depth rather than breadth. Sizer's efforts encountered difficulties including financing; faculty resistance and inertia; parental concern over de-emphasis of extra-curricular activities within the context of the school day; and student objections to a more demanding, academically oriented curriculum.

Among early reported successes of the coalition schools (schools within schools) are improved reading scores, a rise in the number of graduates going on to college, and a decrease in the dropout rate. Emphasis on the academics for all students, a coaching model of instruction, smaller classes, and local faculty control are central to Sizer's efforts.

To tackle school reform more effectively, the Coalition of Essential Schools entered into an alliance with the Education Commission of the States "to encourage the reform effort 'from the schoolhouse to the statehouse,'" an initiative labeled "Re: Learning" that was aided by Citibank and the Danforth Foundation.[137] Horace's Franklin High School, Sizer's fictitious vehicle for conveying coalition principles, pictured an "adaptation of Essential School ideas."[138] Among recommendations of the fictitious committee of Horace's school were organization of the curriculum into three areas (i.e., two stages for all and a third voluntary stage), an integrated curriculum, demonstration of mastery by Exhibition, and focus on a limited number of competencies.

Sizer, speaking of subsequent reform efforts of some of the members of the coalition, observed: "Each of these schools reports improved student academic performance, attendance, morale, and admission to college." He continued, however, "comparative assessment of success or failure remains conjectural, but judgments from close observation are encouraging."[139] Currently the Coalition of Essential Schools Network comprises some 170 affiliate schools and 23 affiliate regional centers subscribing to common principles, among which are that affiliates opt for depth over coverage and for goals applicable to all students.[140]

We have to take notice of the cyclical nature of curricular recommendations. The Committee of Ten (1894) recommended the same program for all high school students. Almost 100 years later the Paideia Group (1982) was proposing a single track for all students during their twelve years of schooling.[141] Conant (1959) recommended a year of calculus in high school, as did the Paideia Group (1982). In 1959 Conant advocated foreign languages for the academically talented (four years of one foreign language); in 1983 the National Commission on Excellence in Education recommended two years of a foreign language for the college-bound; and in that same year Boyer advocated beginning foreign language study in the elementary school and requiring two years of all high school pupils. Conant (1959) pointed to the need for more guidance counselors, as did Boyer (1983). Goodlad (1984) accepted the broad categories of human knowledge and organized experiences of the Harvard Committee on General Education (1945).

Will schools lean toward recommendations made in the 1980s and 1990s? Will they go even further back to the Committee of Ten, the Commission on the Reorganization of Secondary Education, or the Educational Policies Commission? Will they adopt other measures for reform and restructuring, such as state and national standards, state and national assessment, privatized schools, schedule revision, and smaller schools, which we examine in Chapter 15?

What we are most likely to see will be a synthesis of the many recommendations with variations determined by local school districts and the states. No single standardized model of secondary education—nor of elementary or middle schools, for that matter—is likely to be acceptable to all the school systems in the United States. It is probable that a diversity of models may be anticipated.

With state assessments to comply with the No Child Left Behind Act of 2001 in grades 3–8 and at least once in high school, plus state exit exams required in many states, it has become more difficult for high school students to earn a diploma—a fact that may satisfy a long-held wish of both the public and the profession to make the high school diploma a symbol of a reasonable standard of academic achievement.

Once minimal competencies have been comfortably mastered by students, faculties can seek ways of enriching the program and responding to individual differences. Efforts to create voucher plans, proposals for tuition tax credits, and competition from private schools have contributed to forcing the public schools to reassess their programs. Although schools are now on a

cognitive swing, they are not likely to abandon the psychomotor domain nor eliminate affective learnings from the curriculum. Two generations of progressive doctrine, with its concern for the whole child instead of solely the intellect, cannot be—nor should it be—lightly discarded.

During the intensity of reform efforts over the years, gains in student achievement have been less than satisfactory. Gene R. Carter, executive director of the Association for Supervision and Curriculum Development, in an online editorial, "High School Reform: What Will It Take to Engage Teens?" called attention to the fact that the high school graduation rate "hovers below 70 percent," with one-third of the dropouts doing so "without making it past 9th or 10th grade."[142] In a 1989 report, the Center for Policy Research in Education noted two waves of reform efforts. The first occurred from about 1982 to 1986 with state mandates for minimum competency standards. The second, beginning in 1986 and continuing into the present, saw efforts in some localities to restructure schooling at the local level. The Center observed that state policies were still more characteristic of first-wave reform efforts than of the second wave's implementation of restructuring at the local level.[143]

Some relaxation of state mandating, however, occurred in the past decade with the movements toward empowerment of teachers and laypeople and site-based management. Note once again that change is incremental—rarely wholesale—across the board.

Donald C. Orlich in the late 1980s took a critical view of reform efforts when he observed:

> This nation has wasted billions of dollars on poorly conceived but politically popular reform movements that have sapped the energies of school people. We need a national moratorium on reforms so that educators and local policy makers can analyze their own problems. This could lead to a new concept: *local system analysis.* Each local school district would systematically study its own cultures—*yes,* cultures—*and* then implement a carefully researched, well-coordinated, and well-funded plan for specific improvements.[144]

Although state mandating had tapered off in the 1990s, reform efforts have intensified in recent years with the promulgation of national goals under three federal administrations, state and national efforts at developing standards and assessment, and individual and group recommendations. Like many efforts in education, the process of goal-setting and varying goal statements of the 1980s and 1990s has met with criticism. Kenneth A. Sirotnik found "the continual displays of lists of lofty educational goals a curious phenomenon."[145] Following the 1983 report of the National Commission on Excellence in Education (*A Nation at Risk*), George Leonard disagreed with recommendations to improve education at that time and termed them the "Great School Reform Hoax."[146] Several years later Lewis J. Perelman took a sharply critical view of reform efforts such as *America 2000*, citing them as a failure and calling them a "hoax," and advocated nothing less than substituting a privatized system of education that makes use of the latest technology in place of public schools as we know them.[147]

Ernest R. House saw reforms of the 1980s, such as toughening of standards, testing, and changes in school governance such as decentralization and school choice, as low-cost efforts designed to protect middle- and upper-class interests.[148]

Addressing "the school reform enterprise," Goodlad observed, "school reforms fade and die, frequently from their own excesses."[149] Citing "apprenticeship in democracy"[150] as the primary mission of schooling, Goodlad characterized reform efforts such as "all children can learn" and "no child left behind" as "empty homilies."[151] Goodlad commented, "the current hard-and-tough era of school reform has overrun local schools like kudzu, threatening to squeeze out all else."[152]

School districts, the states, and the nation have continued pronounced efforts to improve the success and image of public education. Education held and continues to hold a top priority on the agenda of many state and national politicians. Yet reform efforts in modifying goals, raising standards, assessing achievement, and promoting accountability do not satisfy some advocates of a more complete restructuring of schools and their curricula. They view recent reform efforts as promoting the so-called industrial or factory model of schooling whose goal, using standardized programs, is to prepare students for work instead of for what they believe should be the primary goal—democratic citizenship. They perceive the current model of schooling as imposed on students and teachers; view it as perpetuating the dominance of white male, European culture; and regard it as undemocratic.[153] Renata Nummela Caine and Geoffrey Caine faulted the factory model of education for what they see as its emphasis on separate subjects and on covering subject matter, memorization of facts, and lack of connectedness, averring that the model does not address "relevant skills and attributes students need for this century and the next."[154] The American public itself is ambivalent about the public schools. The 2010 Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools showed: "public school parents would assign an A or B grade (on an A-F scale) to the school their oldest child attends but only 18 percent of the public would give similar grades to schools nationally."[155] The moral of the story: the closer the school to the general public, the higher the rating. The poorer schools are perceived as on someone else's turf.

Concerned about students' low achievement and public dissatisfaction, schools have taken strong and sometimes controversial measures for improving student achievement and restoring public confidence. Among the measures designed to raise student achievement are the following:

- Implementation of strategies based on the "effective schools" research documented by Ronald P. Edmonds, Wilbur Brookover, Lawrence Lezotte, and others.[156] This body of research has led teachers to such practices as keeping students on task, holding learners to high expectations, and monitoring pupil achievement.
- Implementation of research on instruction conducted by David C. Berliner, N. L. Gage, Donald M. Medley, Barak V. Rosenshine, and others, whose research attributed such factors as time on task (academic engaged time) and direct instruction to effective teaching.[157]
- Emphasis—what some people would call overemphasis—on testing. Student progress is monitored by a plethora of local, state, and national tests and is measured not only by local and state criterion-referenced tests but also by national norm-referenced tests.
- Detailed planning and demand for implementation of the curriculum on a districtwide and sometimes statewide basis, sometimes referred to as "curriculum alignment." Curriculum coordinators and teachers strive for a degree of curriculum uniformity by specifying pupil performance objectives in targeted subject areas for every grade level.

Today we find emphasis—what some people would call overemphasis—on testing. Due to the increased demand of "higher student achievement," schools prepare teaching materials, learning activities, and tests that fit the specified objectives of what will be measured on state exams. The states are currently deep into standards-based education and assessment, made more urgent by the No Child Left Behind Act of 2001. Consequences in the form of reduced federal funding and the enabling of parents to send their children to schools of their choice are attached to those schools whose pupils continue to show poor academic achievement.[158] The success of principals, teachers, and—ipso facto—the schools themselves are measured by pupils' mastery of the objectives and their performance on "high stakes tests." Suffice it to say at this point that we are in an age of assessment and accountability.

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Summary

As curriculum planners proceed with their task of developing the curriculum, they must also decide on the organizational structure within which programs will be implemented. This chapter traced some of the past and present organizational patterns at each level, described current organizational structures, and discussed possible developments as the systems are designed.

On the elementary level we reviewed the graded school, the activity curriculum, continuous progress plans, and open-education/open-space plans. The elementary school currently emphasizes teaching basic and thinking skills and providing for students with special needs. Some schools are trying innovative departures from traditional practices.

In the near future the elementary school—if it is to retain public support—must continue emphasis on the basic skills, although it will intensify some of the fundamental overtones of child-centeredness. At this level we noted cooperative learning in practice.

At the middle school level we looked at its predecessor, the junior high school, and at a variety of proposals for that level, including the core curriculum. The middle school has generally become the

predominant model for the education of preadolescents. The middle school presently offers programs that have been adapted to meet the needs of preadolescents. At present we are witnessing some reversion to the K–8, elementary-middle school model. We may expect renewed efforts at integrating the curriculum, interdisciplinary teams, and block/rotating scheduling.

We studied several organizational plans at the senior high school level, including the subject-matter curriculum, the broad-fields curriculum, team teaching, differentiated staffing, flexible and modular scheduling, the nongraded high school, and the comprehensive high school. The senior high school is involved in efforts to establish a quality comprehensive model, to furnish a number of alternatives both within and outside the school system, and to reinforce higher requirements for graduation.

Some of the present programs and practices discussed in this and later chapters will undoubtedly continue into the future, at least into the immediate future. Among these are constructivist practices and character/values education (Chapter 6), cooperative learning

and recognition of multiple intelligences (Chapter 11), performance-based assessment (Chapter 12), and integration of the curriculum (Chapter 13). Schools may also become "full-service" institutions that seek to provide for the intellectual, physical, vocational, cultural, and social needs of students (Chapter 15).

If past is prologue, some innovative practices will endure; others will fall by the wayside. What we are likely to see is a multitude of institutions with varying programs responding to community needs and wishes in addition to state and national standards.

Questions for Discussion

1. What are ways of organizing and implementing the curriculum that have been repeated through American educational history?
2. Why have the graded school and the subject-matter curriculum been so enduring?
3. Which of the curriculum programs and practices presented do you believe will reappear or be sustained in the future? Why?
4. How can curriculum planners reconcile their programs in the current age of standards-based reform?
5. What programs and practices would you add that have impacted our educational landscape? Why?

Exercises

1. Describe one or more core programs from either the professional literature or from a school with which you have firsthand experience.
2. Describe one or more plans for team teaching and show its advantages and disadvantages.
3. Research and report on the question of the placement of ninth grade in the educational system—should it be in middle school or high school?
4. Evaluate movements for school reform in your state as to process, substance, purpose, strengths, and weaknesses.
5. Distinguish between traditional, flexible, modular, and block scheduling and state the purposes of each.

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Coalition of Essential Schools: essentialschools.org
Foundation and Center for Critical Thinking: criticalthinking.org
Global Schoolhouse: globalschoolnet.org
International Society for Technology in Education: iste.org
Magnet Schools of America: magnet.edu
MiddleWeb: middleweb.com

National Association of Elementary School Principals: naesp.org
National Association of Secondary School Principals: nassp.org
National Center for Education Statistics: nces.ed.gov
National Forum to Accelerate Middle Grades Reform: mgforum.org
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International Association for K-12 Online Learning: inacol.org

Multimedia

Available from Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, Va. 22311-1714: Robert J. Marzano. *What Works in Schools DVD*. Includes scenes on various factors that contribute to student achievement in elementary, middle, and high-school classrooms. 2003. Facilitator's Guide and one 105-min. DVD.

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Instructional Goals and Objectives

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PLANNING FOR INSTRUCTION

With the curriculum decisions made, the broad territory known as instruction looms before us. In some ways it is a familiar region whose landmarks—lesson plans, teaching strategies, and tests—are recognized by administrators, teachers, students, and parents. As we enter the area of instruction, decision making remains a major responsibility, only this time the responsibility falls directly on the classroom teacher. Up to this point persons identified as curriculum planners—among whose number are classroom teachers—have been engaged in making decisions of a programmatic nature. Now classroom teachers will become occupied with making decisions of a methodological nature. They will be answering questions like these:

- What are the objectives to be accomplished as a result of instruction?
- What topics will we cover?
- What procedures are best for directing the learning?
- How do we evaluate instruction?

At this stage the teacher must decide whether to designate topics or specify competencies, whether to feature the teacher's objectives or the pupils', whether to seek mastery of content or simply exposure to the material, and whether to aim instruction at groups or at individuals.

Planning for instruction includes specifying instructional goals and objectives (discussed in this chapter), selecting instructional strategies (discussed in Chapter 11), and choosing techniques to evaluate instruction (discussed in Chapter 12).

To put our next task in perspective, let's review the steps we have taken so far. We have:

- surveyed needs of students in general
- surveyed needs of society
- clarified our philosophy of education and stated general aims
- identified curriculum goals and objectives
- determined needs of students in the school, needs of the community, and needs as shown by the subject matter
- reaffirmed plans for organizing the curriculum or selected and implemented plans for reorganizing the curriculum

Having completed these steps, we are ready to undertake planning, presenting, and evaluating instruction. The instructional phases of the curriculum-instruction continuum are shown as a subset of the model for curriculum development suggested in Chapter 5.[1] The subset consists of six components (VI, VII, VIII, IX A and B, X, and XI), shown in Figure 10.1. In Chapter 5, these instructional components were diagrammed in such a way that they could be removed from the overall model for curriculum development. However, in Chapter 1 we posited an intimate relationship between curriculum and instruction, concluding that the two could be separated for purposes of analysis but that the existence of one could not be meaningful without the other.

The Instructional Model

Figure 10.1 represents a model of instruction that, for simplicity, we will refer to as the *Instructional Model*. This Instructional Model is broken into two major phases: planning and operational. The operational phase is divided into two parts: the implementation of strategies (or presentation of instruction) and the evaluation of instruction.

The planning phase of the Instructional Model consists of four components: component VI—the specification (identification) of instructional goals; component VII—the specification of instructional objectives; component VIII—the selection of strategies; and component IX—both a preliminary and a final phase of selection of the evaluation techniques.

Then where and how does the teacher begin to plan for instruction? Let's look at several approaches to planning for instruction. Teacher A comes into the class without a preconceived notion of what he or she will cover and pulls a theme out of the air as the spirit moves him or her.
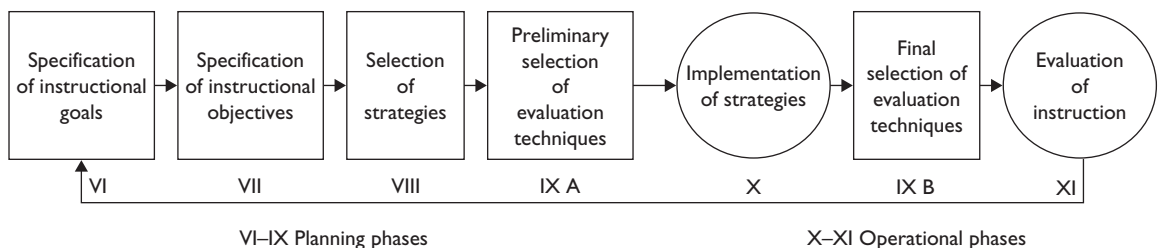
FIGURE 10.1
The Instructional Model

Given the profession's penchant for turning rubrics into seeming substance, some might call this approach instantaneous planning. Others, less kind, might term it nonplanning.

Teacher B takes the textbook, divides the number of chapters by the number of weeks in the school year, lists the topics of each chapter by week, and from there takes any one of a number of directions. For each topic in its turn the teacher might:

- jot down some questions for class discussion
- prepare notes for a lecture
- design individual and group assignments for clarifying points in the chapters

Teacher C selects topics for study during the year, using his or her knowledge of the students and all kinds of materials related to each topic—including the textbook—and creates a succession of units of work for the class.

Teacher B's most likely course of action is the assign-study-recite-test approach, mentioned in the preceding chapter. Teacher C will follow what is commonly called the unit method of teaching, a problem-solving approach.

All three teachers may or may not relate their plans to the predetermined curriculum goals and objectives. All three may or may not specify the instructional goals and objectives that pupils are expected to accomplish. It is our position that both of these actions should be taken by teachers.

Of course, these three illustrations of types of teachers are exaggerated. These are but three examples of an almost infinite variety of teacher models, yet the illustrations are general enough to represent a significant number of teachers. *The thesis of this chapter is that, regardless of the teacher's model or style of teaching, curriculum goals and objectives are more likely to be accomplished and students more likely to demonstrate mastery of learning if instructional goals and objectives are specified before starting instruction.*

INSTRUCTIONAL GOALS AND OBJECTIVES DEFINED

Before we tackle the central mission of this chapter—selecting and writing instructional goals and objectives—let's see where instructional goals and objectives come in the curriculum development process. First, however, we should review the hierarchy of outcomes discussed in Chapter 8. At the top of the hierarchy are aims of education from which the school's curriculum goals and objectives are derived. In turn, the curriculum goals and objectives serve as sources of the instructional goals and objectives. Aims are stated by prominent individuals and groups for national, and sometimes even international, consideration. Curriculum goals and objectives are formulated by individual school and school system curriculum groups. Instructional goals and objectives are specified by the classroom teacher, who is sometimes assisted by other teachers and local curriculum groups.

To put these various aims, goals, and objectives in perspective, let's look at a simple example of outcomes in their hierarchical order (Box 10.1).

From the broad aim of education, we have moved to the specific instructional objective. Now let's examine instructional goals and objectives more closely.

An *instructional goal* is a statement of performance expected of each student in a class, phrased in general terms without criteria of achievement. The term "instructional goal" is used in this text like Norman E. Gronlund's term *general instructional objective*[2] and Ralph W. Tyler's term *general objective*.[3] "The student will show an understanding of the stock market" is an example of an instructional goal. It indicates the performance expected of the learner, but the performance is not stated in such a fashion that its attainment can be readily measured. Just as a curriculum goal points the direction to curriculum objectives, so an instructional goal points the way to instructional objectives.

BOX 10.1   Illustration of the Hierarchy of Outcomes

- *Aim.* Students will develop knowledge and skills necessary for living in a technological society.
- *Curriculum goal.* Students will recognize the influence of the computer on our lives.
- *Curriculum objective.* By the end of the senior year, at least ninety percent of the students will have taken a computer literacy course either in this school or elsewhere.
- *Instructional goal.* The student will become familiar with personal computers.
- *Instructional objective.* The student will demonstrate skills in word processing using his or her assigned computer by writing a one-page paper with ninety percent accuracy.

An *instructional objective* is a statement of performance to be demonstrated by each student in the class, derived from an instructional goal and phrased in measurable and observable terms. We may equate the term with Gronlund's *specific learning outcome*[4] and Tyler's *behavioral objective*.[5] The following statement is an example of an instructional objective: "The student will convert the following fractions to percentages with 100 percent accuracy: 1/4, 1/3, 1/2, 2/3, and 3/4." Instructional objectives are also known as performance objectives or competencies.

Stating Objectives

Tyler discussed four ways that instructors state objectives. As Tyler described them, objectives are:

1. Things that the instructor will do. Tyler gave as examples: "to present the theory of evolution," "to demonstrate the nature of inductive proof," "to present the Romantic poets," and "to introduce four-part harmony."
2. Topics, concepts, generalizations, or other elements of content that are to be dealt with in the course or courses. Tyler's examples are "The Colonial Period," and "Matter Can Be Neither Created nor Destroyed."
3. Generalized patterns of behavior that fail to indicate more specifically the area of life or the content to which the behavior applies. Tyler identified illustrations of this type of objective: "to develop critical thinking," "to develop appreciation," and "to develop social attitudes."
4. Terms that identify both the kind of behavior to be developed in the student and the content or area of life in which this behavior is to operate. Tyler's examples are: "to write clear and well-organized reports of social studies projects" and "to develop an appreciation of the modern novel."[6]

THE USE OF BEHAVIORAL OBJECTIVES

Whether to use behavioral objectives or not is a debate that has raged among educators for years. Supporters of behavioral objectives argue that this approach to instruction:

- forces the teacher to be precise about what is to be accomplished
- enables the teacher to communicate to pupils what they must achieve
- simplifies evaluation
- makes accountability possible
- makes sequencing easier

W. James Popham, in support of behavioral objectives, wrote:

Measurable instructional objectives are designed to counteract what is to me the most serious deficit in American education today, namely, a preoccupation with the process without assessment of consequences. . . . There are at least three realms in which measurable objectives have considerable potential dividends: in curriculum (what goals are selected); in instruction (how to accomplish those goals); and in evaluation (determining whether objectives of the instructional sequences have been realized). . . . It is perhaps because I am a convert to this position that I feel viscerally, as well as believe rationally, that measurable objectives have been the most significant advance in the past 10 years.[7]

The opponents of behavioral objectives hold that writing behavioral objectives:

- is a waste of time
- is dehumanizing
- restricts creativity
- leads to trivial competencies

James D. Raths voiced his opposition to behavioral objectives as follows:

Consider the long range implications a teacher and his students must accept once it has been decided that all students are to acquire a specific instructional objective. The teacher's task becomes at once difficult and tedious. He must inform his students of the objectives to which they are expected to aspire; he must convince them of the relevance of this objective to their lives; he must give his students the opportunity to practice the behavior being taught; he must diagnose individual differences encountered by members of his group; he must make prescriptions of assignments based on his diagnosis and repeat the cycle again and again. . . . Yet even if all programs could be set up on the basis of behavioral objectives and even if strict training paradigms could be established to meet the objectives, who could argue that such a program would be other than tedious and ultimately stultifying.[8]

Among those who oppose the use of behavioral objectives are reconceptualists who view behavioral objectives as too mechanistic because they focus on observable behavior and ignore subjective behavior.[9] Some authorities have faulted the specification of instructional objectives as too narrow, too sequential, and too focused on specific, and inappropriate, content. They noted the debt of instructional objectives to behavioristic psychology and have looked instead to changes evoked by constructivist learning theories. John D. McNeil summarized these changes

as a movement to (1) higher levels of thinking as opposed to the mastery of discrete tasks or skills; (2) a concern for coherence and relationship among ideas; (3) student-initiated activities and solutions instead of recitation and prespecified correct responses; and (4) students, as opposed to the teacher or the text, as an authority for knowing. . . .[10]

Although some educators would reject the use of instructional objectives, examination of instructional materials not only in the education of the young but also in the training of people in business, industry, and government demonstrates continued widespread use of this technique. Conflicting views of the value of the use of instructional objectives cannot likely be resolved on the basis of research alone. McNeil noted that the research on instructional objectives is

inconclusive.[11] McNeil observed, however, "Objectives sometimes help and are almost never harmful."[12] As is the case in other issues in education, decisions are often based more on philosophy than on results of research.

Problems with Behavioral Objectives

While the yea-sayers and naysayers argued with each other, the behavioral objectives camp itself added to the difficulty of convincing teachers to use behavioral objectives. Some, perhaps overenthusiastic about the behavioral objectives movement, turned off teachers by:

1. Assuming a rather dogmatic approach that seemed to rule out all other methods. Although we are favorably disposed toward the use of behavioral objectives and follow this approach, we would be hard-pressed to come up with solid experimental data to show that students exposed to a behavioral-objectives approach consistently show higher achievement than students whose instruction has been guided by other approaches.

What some of the research reveals is that behavioral objectives can be useful in pre-instructional strategies; that objectives work better if they pertain to the particular instructional task; that objectives are more effective with certain kinds of instruction than with others; that objectives are useful in accomplishing learning at higher levels of the cognitive domain; and that students of average ability, male students of high socioeconomic background, and both the more independent and less conscientious students benefit from behavioral objectives.[13]

2. Resorting to formulas, which tended to make the writing of behavioral objectives mechanical rather than creative—for example, "Given the _____, the student will _____ in _____ minutes with a score of _____."

3. Downplaying affective objectives—a primary concern among opponents of behavioral objectives—and sometimes implying that it is as easy to write behavioral objectives in the affective domain as in the cognitive and psychomotor domains.

Popham modified his view in a 2002 publication and advocated broader but still-measureable behavioral objectives. Popham pointed to the danger of encouraging teachers to write too-specific, small-scope behavioral objectives because "the resulting piles of hyper-specific instructional objectives would so overwhelm teachers that they would end up paying attention to no objectives at all."[14]

In spite of the hubbub over behavioral objectives, we believe that, with a reasoned approach, the practice of identifying and writing both instructional goals and objectives has considerable merit. Whether the regular classroom teacher specifies behavioral objectives or not, those who write individualized education programs (IEPs) for students with special needs must state both goals that students are to achieve by the end of the year and behavioral objectives for accomplishing the goals.

The writing of instructional objectives forces teachers to identify the outcomes they seek. The specification of instructional objectives simplifies the selection of instructional strategies and resources. When stated in behavioral terms, instructional objectives provide a basis for assessment, and they communicate to students, parents, and other professionals exactly what it is students are expected to demonstrate.[15] Outcome-based education of the 1990s is a direct descendant of competency- or performance-based education of the 1970s and 1980s, all three of which embody principles of behavioral objectives.

GUIDELINES FOR PREPARING INSTRUCTIONAL GOALS AND OBJECTIVES

To peruse the task of selecting and writing instructional goals and objectives, we will find it helpful to establish several guidelines to be followed. Instructional goals and objectives should:

- relate to the already specified curriculum goals and objectives
- be specified for the three domains of learning—the cognitive, affective, and psychomotor— whenever applicable
- be identified at both low and high levels of learning with greater emphasis on the higher
- follow a few simple rules of writing

Three current emphases in instruction should also guide teachers in the specification of behavioral objectives. These emphases are (1) the development of critical thinking skills, (2) the integration of the curriculum through thematic interdisciplinary units, and (3) recognition of intelligence as multiple, rather than global. The conception of intellectual ability is often limited to cognitive language and mathematical skills, often interpreted in terms of a single intelligence quotient score. We have had for many years, however, tests of differential aptitudes or primary mental abilities which yield scores in such areas as language usage, verbal reasoning, numerical ability, spatial relations, abstract reasoning, and memory.[16] Howard Gardner conceptualized the existence of seven intelligences: bodily-kinesthetic, interpersonal, intrapersonal, linguistic, logical-mathematical, musical, and spatial.[17] To the seven intelligences set forth in the 1980s, Gardner, in the 1990s, added the concept of naturalist intelligence, that is, the ability to classify nature that Gardner described as "the ability to recognize and classify plants, minerals, and animals."[18]

We should add to Gardner's depiction of multiple intelligences the concepts of social intelligence as defined by Edward L. Thorndike[19] and emotional intelligence as perceived by Peter Salovey and John D. Mayer. Building on Thorndike's conception, Salovey and Mayer viewed emotional intelligence, now referred to by some people as EQ, "as a subset of social intelligence that involves the *ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions."*[20] You will also find in some discussions of multiple intelligences a ninth intelligence—the concept of *existential intelligence*—a sensitivity to spiritual and philosophical questions about humankind's existence.[21] The concept of intelligences, in the plural, guides teachers to design instruction that appeals to more than a single dimension of intelligence.

Relationship to Curriculum Goals and Objectives

Instructional goals and objectives should relate to curriculum goals and objectives. Unless the classroom teacher participated in drafting the curriculum goals and objectives, he or she must become familiar with them. The instructional goals and objectives are derived from the curriculum goals and objectives. Let's show this relationship by choosing a *curriculum goal* for the fifth grade: during the course of the year students will appreciably improve their skills in reading. From this general goal we may deduce the following *curriculum objectives:* (1) by the end of the eighth month, seventy-five percent of the students will have increased their ability to comprehend a selected set of English words by twenty-five percent; and (2) by the end of the academic year, all students will have met or exceeded the grade norm of 5.9 in reading comprehension.

The curriculum objectives are derived from the curriculum goals, are applied to the program and to groups of students, and are stated in measurable terms. The formulation of *instructional goals* follows and bears a direct relationship to the curriculum goals and objectives, as seen in

the following examples: (1) the student will demonstrate ability to read new material silently without difficulty, and (2) the student will demonstrate ability to read new material orally without difficulty.

Both of the foregoing statements are expectations of each pupil. The statements are couched in general terms and include no criterion of mastery. For each of the instructional goals we may create *instructional objectives.* To promote the goal of reading silently, for example, the teacher might design the following objectives: (1) the student will read silently a passage from the fifth-grade reader and then summarize orally without appreciable error in comprehension each of its four major points, and (2) the student will read silently a passage from the fifth-grade reader and then will write correct responses to eight out of ten written questions provided by the teacher.

To further the goal of reading orally, the teacher might identify the following objectives: (1) the student will read orally from a classroom library book and make no more than four mistakes in pronunciation in a passage of about one hundred words, and (2) the student will read orally a passage from a classroom library book and then orally summarize each of the three main points of the passage without appreciable error in comprehension.

Unless an instructional objective is differentiated for a particular subgroup of students—for example, academically talented, low performing, or physically challenged—it is expected that every student will master the objective. When instructional objectives are aimed at all students in a given class, they may be called *minimal competencies.*

State testing programs are designed to assess students' mastery of the minimal competencies—for example, competencies to be achieved in all or selected disciplines at the end of, say, fourth, eighth, or eleventh grade.

Some confusion may exist between curriculum and instructional goals and objectives, for in one sense they both may be designed for all students. The curriculum goals and objectives are broader in nature, are aimed at all students as a group or groups, frequently jump across grade boundaries, often cut across disciplines, and many times are relevant to more than one teacher either within a discipline or among disciplines.

There are times, however, when a curriculum objective may be congruent with an instructional objective or, put another way, an instructional objective may repeat a curriculum objective. When we as curriculum planners designate as a curriculum objective improving the scores of all students on a standardized test in mathematics by ten percentile points, we will be pleased when the mathematics curriculum is functioning to that degree. When we as classroom teachers stipulate that all of our pupils score ten percentile points higher on a standardized test of mathematics, we will be pleased with each student who functions that well and may refer to our own instruction as effective if most students achieve that objective.

Though we may state them slightly differently, curriculum and instructional goals and objectives may converge. One is the alter ego of the other, so to speak. Conversely, curriculum and instructional goals and objectives may diverge. When we as curriculum planners desire that eighty percent (even one hundred percent) of the seniors with quantitative aptitude test scores at the seventy-fifth percentile elect calculus, we are talking about program, not instruction.

The distinctions between curriculum and instructional goals and objectives matter only to the extent that neither of the two sets is overlooked. If an instructional objective repeats a curriculum objective, so be it; it is a perfect fit. On the other hand, instructional objectives by their very nature tend to be more specific than the curriculum goals and objectives, focus on what takes place in the classroom, and come to pass as a result of the individual instructor's efforts. Whatever the degree of congruence, there is a direct and natural progression from curriculum goal to instructional objective.

Domains of Learning

One way of viewing learnings exists in the concepts of three domains: the cognitive, affective, and psychomotor. Within each domain we find classification systems ranking objectives in a hierarchical structure from lowest to highest level. The instructional goals and objectives should be specified for three domains of learning—the cognitive, the affective, and the psychomotor—whenever applicable. Note these three illustrations of different types of learning:

- knowledge of the system of election primaries
- enjoyment in reading
- skill in laying bricks

These examples are illustrative of the three major areas (domains) of learning. Knowledge of the primary system falls into the cognitive domain, enjoyment in reading in the affective domain, and skill in laying bricks in the psychomotor domain.

COGNITIVE DOMAIN. Speaking for a committee of college and university examiners, Benjamin S. Bloom defined the cognitive domain as including objectives that "deal with the recall or recognition of knowledge and the development of intellectual abilities and skills."[22] Cognitive learnings, which involve the mental processes, range from memorization to the ability to think and solve problems.

AFFECTIVE DOMAIN. David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia defined the affective domain as including objectives that "emphasize a feeling tone, an emotion, or a degree of acceptance or rejection."[23]

PSYCHOMOTOR DOMAIN. Robert J. Armstrong, Terry D. Cornell, Robert E. Kraner, and E. Wayne Roberson defined the psychomotor domain as including behaviors that "place primary emphasis on neuromuscular or physical skills and involve different degrees of physical dexterity."[24] Sometimes referred to as "perceptual-motor skills," psychomotor learnings include bodily movements and muscular coordination.

Ordinarily, schools assume responsibility for student achievement in all three broad areas. Although we might visualize the three horses—Cognitive, Affective, and Psychomotor—in the form of a Russian troika, racing three abreast, they are hitched more like a lead horse followed by two abreast. More often than not, Cognitive is in the forefront. On occasion, depending on the mood of the profession and the public, Cognitive is overtaken by Affective or Psychomotor.

The battle over which domain is the most important has endured for many years. With the exception of work by people such as Rousseau, Froebel, Pestalozzi, and Neill (Summerhill School, England), most of the rest of the world—if we may generalize on such a vast scale—marches to the beat of the cognitive drummer. Although many fine opportunities for vocational education are provided by many countries, the cognitive domain remains the prestige category and is the entrée to institutions of higher learning. If our horses were pitted in an international race, Affective would come in a poor third.

Judging from the popularity of books critical of public education, the accountability movement in education, the flight to charter and private schools, the development of state and national standards in the fundamental disciplines, and national and state assessments of student achievement, we might conclude that the American public is partial to the cognitive domain.

Although we find strong preferences both within and outside the profession for stressing cognitive learnings, we would encourage each teacher to identify and write instructional goals and objectives in all three domains, making allowances for the nature of the subject matter.

Normally, the domains overlap; each possesses elements of the other, even when one is obviously dominant. Thus, it is often difficult to categorize learning as falling precisely into one domain. For example, we can identify learnings that are primarily psychomotor (running a football play) and secondarily cognitive and affective. We can give examples of learnings that are primarily cognitive (civil rights legislation) and secondarily affective. We can offer examples of learnings that are primarily affective (honesty) and secondarily cognitive. We can also identify learnings that are primarily cognitive (constructing an equilateral triangle) and secondarily affective and psychomotor.

Many learnings will obviously fall into single categories. If we discount the bit of affective pleasure a student may feel in knowing the right answer, the formula for finding the area of a triangle (1/2 base × height) is pretty much a cognitive experience. Doing sit-ups, a psychomotor exercise, requires very little cognition and may evoke either a positive or negative affective response. Faith in other human beings is primarily an affective goal, secondarily cognitive, and usually not psychomotor.

The classroom teacher should identify and write instructional goals and objectives in all three domains, if indeed all three are relevant. It might be asked, "From what cloth do we cut the instructional goals and objectives?" We might respond by saying, "From the same cloth from which we cut the curriculum goals and objectives—the three sources: the needs of students, of society, and of the subject matter—with the curriculum goals and objectives themselves serving as inspiration."

The authors of this textbook have found the widely practiced classification of objectives into three domains a useful teaching strategy. We believe instructional goals and objectives should be identified at both high and low levels of learning, with greater emphasis being placed on the higher levels. It is obvious that some learnings are more substantive, complex, and important than others. Note, for example, the following learning outcomes, all in the cognitive domain, to see the differences in complexity:

- The student will name the first president of the United States.
- The student will read Washington's first inaugural address and summarize the major points.
- The student will show how some of Washington's ideas apply or do not apply today.
- The student will analyze Washington's military tactics in the Battle of Yorktown.
- The student will write a biography of Washington.
- The student will evaluate Washington's role at the Continental Congress.

The knowledge and skills required for naming the first president of the United States are at a decidedly lower level than those for each of the subsequent objectives. Each succeeding item is progressively more difficult, requiring greater cognitive powers. What we have is a hierarchy of learning outcomes from lowest to highest.

Take the following illustrations from the affective domain:

- The student will listen while others express their points of view.
- The student will answer a call for volunteers to plant trees in a public park.
- The student will express appreciation for the contributions of ethnic groups other than his or her own to the development of our country.
- The student will choose nutritious food over junk food.
- The student will habitually abide by a set of legal and ethical standards.

As with examples in the cognitive domain, each objective is progressively more substantive than the preceding one.

Finally, let's look at a set of objectives from the psychomotor domain.

• The student will identify a woolen fabric by its feel.
• The student will demonstrate how to hold the reins of a horse while cantering.
• The student will imitate a right-about-face movement.
• The student will mix a batch of mortar and water.
• The student will operate a DVR recorder.
• The student will arrange an attractive bulletin board.
• The student will create an original game requiring physical movements.

CLASSIFICATION SYSTEMS

Cognitive Classification Systems

Today's teachers can find for their use several systems for classifying educational, i.e., instructional, objectives. The use of a classification system enables teachers to distinguish between higher- and lower-order objectives. Let's briefly examine four of these systems. Space permits us only to direct your attention to the highlights of each system and refer you to sources for further study.

The Bloom Taxonomy.   Bloom and associates, in the mid-twentieth century, developed an extensive taxonomy for classifying educational objectives in the cognitive domain.[25] Of all classification systems, the Bloom taxonomy of the cognitive domain is perhaps the best known and most widely followed.

Bloom and his associates classified cognitive learnings into six major categories: knowledge, comprehension, application, analysis, synthesis, and evaluation. Let's take each of these categories, refer back to the cognitive domain examples previously given, and place the examples in the appropriate categories, as follows:

• *Knowledge level.* The student will name the first president of the United States.
• *Comprehension level.* The student will read Washington's first inaugural address and summarize the major points.
• *Application level.* The student will show how some of Washington's ideas apply or do not apply today.
• *Analysis level.* The student will analyze Washington's military tactics in the Battle of Yorktown.
• *Synthesis level.* The student will write a biography of George Washington.
• *Evaluation level.* The student will evaluate Washington's role at the Continental Congress.

This taxonomy shows learning objectives as classified in a hierarchical fashion from the lowest (knowledge) to the highest (evaluation). A central premise of professional educators is that the higher levels of learning should be stressed. The ability to think, for example, is fostered not through low-level recall of knowledge alone but through application, analysis, synthesis, and evaluation.

The Anderson-Krathwohl Taxonomy.   Lorin W. Anderson and David R. Krathwohl, editors, with six contributors published a revision of Bloom's taxonomy in 2001.[26] They saw changes in education brought about by changes in society as creating the need for a revision of the Bloom taxonomy.[27] Anderson, Krathwohl, and colleagues presented a taxonomy table with a Knowledge

Dimension consisting of four types of knowledge and a Cognitive Process Dimension consisting of six categories, each of which is divided into cognitive processes.

The Marzano-Kendall Taxonomy. In a revision of Robert J. Marzano's 2001 *Designing a New Taxonomy of Educational* Objectives,[28] Robert J. Marzano and John S. Kendall offered in 2007 a new taxonomy that combines six levels of processing consisting of three systems of thinking with three domains of knowledge.[29] In their discussion of three systems of thinking they described three types of memory.[30] Marzano and Kendall refrained from using degrees of difficulty to distinguish the various levels in creating their taxonomy.[31]

Webb's Depth-of-Knowledge (DOK). In researching ways to align assessment, curriculum, and standards, Norman L. Webb proposed in 1997 a classification system that has become known as *Webb's Depth-of-Knowledge.*[32] Specifying four levels of processes, none of which is dependent upon attainment of other levels, Webb created a system in the field of mathematics that appeared in 1999. Since its appearance, DOK, with help from content-area experts in other fields and the Council of Chief State School Officers, has spread to other disciplines.

Since the original Bloom taxonomy is well known and has been followed successfully in the profession for over fifty years, we have chosen to elaborate a bit more on Bloom's classification system. At the same time we would recommend that teachers become familiar with and try the newer classification systems with the view to finding out whether one or more of these serve their purposes better than the original Bloom taxonomy.

Objectives in the cognitive domain are, of the three domains, the easiest to identify and simplest to evaluate. They are drawn primarily from the subject matter and are readily measurable, usually by written tests and exercises.

Affective Classification System

Shortly after the appearance of the cognitive taxonomy, Krathwohl and others, including Bloom, developed a taxonomy of objectives in the affective domain, which consists of five major categories.[33] We may categorize the affective examples given earlier in the following manner:

- *Receiving (attending).* The student will listen while others express their points of view.
- *Responding.* The student will answer a call for volunteers to plant a tree in a public park.
- *Valuing.* The student will express appreciation for the contributions of ethnic groups other than his or her own to the development of our country.
- *Organization.* The student will choose nutritious food over junk food.
- *Characterization by value or value complex.* The student will habitually abide by a set of legal and ethical standards.

The affective domain poses a difficult problem for educators. Historically, parents and educators have viewed the school's primary mission as cognitive learning. Affective learning has typically held a lesser position. As mentioned elsewhere in this text, the affective domain is still not accepted by some educators as a legitimate focus of the school. On the other hand, some educators feel that affective outcomes are more important to the individual and society than other outcomes.

The perceptual psychologist, Arthur W. Combs, stated the case for affective education, tying it to the development of adequate personalities, as follows:

> For many generations education has done an excellent job of imparting information. . . . Our greatest failures are those connected with the problems of helping people to behave differently

as a result of the information we have provided them. . . . Adequate persons are, among other factors, the product of strong values. The implication seems to be clear, then, that educators must be interested in and concerned with values. Unfortunately, this is not the case in many schools and classrooms today. The emphasis is too often on the narrowly scientific and impersonally objective. . . . Education must be concerned with the values, beliefs, convictions, and doubts of students. These realities as perceived by an individual are just as important, if not more so, as the so-called objective facts.[34]

Bloom, J. Thomas Hastings, and George F. Madaus attested to the neglect of instruction for affective learning when they said:

Throughout the years American education has maintained that among its most important ideals is the development of such attributes as interests, desirable attitudes, appreciation, values, commitment, and will power. . . . the types of outcomes which in fact receive the highest priorities in our schools, to the detriment of these affective goals, are verbal-conceptual in nature.[35]

Bloom, Hastings, and Madaus identified these reasons for the neglect of affective learning:

Our system of education is geared to producing people who can deal with the words, concepts, and mathematical or scientific symbols so necessary for success in our technological society.[36]
> Standardized tests used by the schools . . . lay stress on intellectual tasks.[37]
> Characteristics of this kind, unlike achievement competencies, are considered to be a private rather than a public matter.[38]

Some hold that affective outcomes are the province of the home and the church and that instruction in the affective domain smacks of indoctrination. Whose values, we might ask, should be taught? Are white, Anglo-Saxon, Protestant, middle-class values the ones to be promoted? Whence come the values to be selected? Although some people believe that values cannot or should not be taught in school, others such as Theodore R. Sizer held that values can and should be taught.[39]

If affective learnings should be taught and values should be among those learnings, then identifying common values is an essential task for the curriculum planner. Affective objectives are both difficult to identify and extremely difficult—often impossible—to measure, and these difficulties constitute another reason why teachers tend to shy away from the affective domain. As noted in Chapter 6, however, character education, a product of the affective domain based on common moral, spiritual, and ethical values, has been and continues to be one of the important aims of American education. In Chapter 12 we will discuss some approaches to the evaluation of student performance in the affective domain.

Psychomotor Classification Systems

For some reason difficult to fathom, the development and use of a classification system in the psychomotor domain have not been given as much emphasis as in the cognitive and affective domains. Classification systems of the psychomotor domain do exist, but they seem not to be as widely known as those of the other two domains. The examples from the psychomotor domain given earlier follow the classification system developed by Elizabeth Jane Simpson.[40] Following her taxonomy we categorize these illustrations as follows:

- *Perception.* The student will identify a woolen fabric by its feel.
- *Set.* The student will demonstrate how to hold the reins of a horse when cantering.

- *Guided response.* The student will imitate a right-about-face movement.
- *Mechanism.* The student will mix a batch of mortar and water.
- *Complex overt response.* The student will operate a DVR recorder.
- *Adaptation.* The student will arrange an attractive bulletin board display.
- *Origination.* The student will create an original game requiring physical movements.

Anita J. Harrow provided a clarifying description for each of the categories of the Simpson taxonomy. She identified perception as interpreting, set as preparing, guided response as learning, mechanism as habituating, complex overt response as performing, adaptation as modifying, and origination as creating.[41] Harrow proposed her own taxonomy for classifying movement behaviors of learners that consists of the following six classification levels:

1.00 Reflex Movements
    1.10 Segmental Reflexes
    1.20 Intersegmental Reflexes
    1.30 Suprasegmental Reflexes
2.00 Basic-Fundamental Movements
    2.10 Locomotor Movements
    2.20 Non-Locomotor Movements
    2.30 Manipulative Movements
3.00 Perceptual Abilities
    3.10 Kinesthetic Discrimination
    3.20 Visual Discrimination
    3.30 Auditory Discrimination
    3.40 Tactile Discrimination
    3.50 Coordinated Abilities
4.00 Physical Abilities
    4.10 Endurance
    4.20 Strength
    4.30 Flexibility
    4.40 Agility
5.00 Skilled Movements
    5.10 Simple Adaptive Skill
    5.20 Computed Adaptive Skill
    5.30 Complex Adaptive Skill
6.00 Non-Discursive Communication
    6.10 Expressive Movement
    6.20 Interpretive Movement[42]

Classification systems in the three domains serve as guidelines that can lead to more effective instruction. They direct attention to the three major domains of learning and to the subdivisions of each. Arranged in a hierarchical fashion, they should serve to stimulate teachers to move their learners from the lower to the higher and more enduring levels of learning in each domain.

RULES FOR WRITING

Instructional goals and objectives should follow a few simple rules for writing. Early in this chapter we distinguished instructional goals from instructional objectives. Instructional goals

defined student performance in general terms whereas instructional objectives defined it in more specific and measurable terms.

Instructional goals are often poorly stated instructional objectives. For example, "The student will know names of the first five presidents of the United States" is an instructional goal because it is not written in measurable and observable terms. We might change this instructional goal into an instructional objective by writing, "The student will name correctly and in order the first five presidents of the United States."

On the other hand, an instructional goal may serve the purpose of pointing out the direction that leads to instructional objectives. For example, the instructional goal, "The student will develop an awareness of energy needs" could lead to a multitude of instructional objectives—for example, "The student will identify the five leading oil-producing countries," "The student will identify three sources of energy that are alternatives to fossil fuels," "The student will determine how often the price of imported oil has fluctuated in the last ten years," and "The student will propose and describe three ways Americans can conserve energy."

An instructional goal may thus be written in rather broad, imprecise terms. On the other hand, it may be stated simply as a topic—for example, "The Organized Labor Movement." Implied in this topic is the instructional goal, "The student will develop an understanding of the organized labor movement."

Though variations in style of formulating instructional goals and objectives are certainly possible, there appears to be merit in starting instructional goals and objectives with "The student . . ." (in the singular) in order to (1) signal the meaning "each student" and (2) help distinguish instructional goals and objectives from curriculum goals and objectives. Curriculum goals and objectives should begin with "Students . . ." (in the plural) to convey the meaning "students in general" or "groups of students." Although it is preferable for all plans to be committed to paper, it is possible for teachers to keep the instructional goals in mind and move directly to the writing of instructional objectives.

Three Elements of an Instructional Objective

The literature generally recommends that three elements or components be included in an instructional (behavioral) objective:

- the behavior expected of the student
- the conditions under which the behavior is to be demonstrated
- the degree of mastery required[43]

SPECIFYING BEHAVIOR.   When specifying behavior, instructors should choose as often as possible action verbs that are subject to measurement and observation. Action words in particular distinguish instructional objectives from instructional goals. The word "understanding," for example, is unsuitable in an instructional objective because it is neither measurable nor observable. Thus, "The student will understand his or her rights under the first ten amendments to the U.S. Constitution" is an instructional goal, not an instructional objective. If "understand" is changed to a performance-oriented verb, we can create an instructional objective, such as "The student will write summaries of the first ten amendments to the U.S. Constitution." This cognitive objective can be raised from the comprehension level to the evaluation level by modifying the statement: "The student will write a paper listing the principal rights in the first ten amendments to the U.S. Constitution and will evaluate the importance of each right to us today." The instructional objective, therefore, must include behavior expected of the learner as a result of exposure to instruction.

To help with the writing of instructional objectives, the teacher may wish to develop lists of behaviorally oriented verbs that can be used for each category of the three domains. Examples are shown in Table 10.1.

SPECIFYING CONDITIONS.   The condition under which the learner demonstrates the behavior should be specified, if necessary. In the objective, "Given a list of needs of this community, the student will rank them in order of priority." "Given a list of needs of this community" is the condition under which the behavior is performed. It is an essential part of the objective. As an additional illustration, in the objective, "On the classroom wall map the student will point out the People's Republic of China." "On the classroom wall map" is the necessary condition. However, if students are to point out several countries on the same wall map, it becomes redundant and

TABLE 10.1 Behaviorally Oriented Verbs for the Domains of Learning	
Cognitive Domain (Bloom Taxonomy)	
Level	*Verbs*
Knowledge	identify, specify, state
Comprehension	explain, restate, translate
Application	apply, solve, use
Analysis	analyze, compare, contrast
Synthesis	design, develop, plan
Evaluation	assess, evaluate, judge
Affective Domain (Krathwohl Taxonomy)	
Level	*Verbs*
Receiving	accept, demonstrate awareness, listen
Responding	comply with, engage in, volunteer
Valuing	express a preference for, show appreciation by stating, show concern by stating
Organization	adhere to, defend, synthesize
Characterization by value or value complex	demonstrate empathy, express willingness to be ethical, modify behavior
Psychomotor Domain (Simpson Taxonomy)	
Level	*Verbs*
Perception	distinguish, identify, select
Set	assume a position, demonstrate, show
Guided response	attempt, imitate, try
Mechanism	make habitual, practice, repeat
Complex overt response	carry out, operate, perform
Adaptation	adapt, change, revise
Origination	create, design, originate

Note: For a useful listing of illustrative verbs see Norman E. Gronlund, *How to Write and Use Instructional Objectives* (Upper Saddle River, N.J.: Merrill, 2000), Appendices B and C.

therefore unnecessary to repeat "On the classroom wall map" for each instructional objective. What the instructor should do in this case is write: "On the classroom wall map the student will point out. . . ." and then list all the geographical features to be pointed out.

To conserve the instructor's valuable time, obvious conditions need not be specified; they are simply understood. There is no need, for example, for the teacher to waste time placing before an objective "Given paper and pen" as in "Given paper and pen, the student will write an essay on the work of Joseph Conrad." Unless the use of paper and pen has some special significance and is not routine, it need not be specified. Adding routine and obvious conditions to instructional objectives can border on the ridiculous and can create an adverse reaction to the writing of instructional objectives at all. If we may exaggerate to stress the point, we do not wish to see the objective: "Given a tennis ball, a tennis racket, a tennis court, a net, a fair day, proper dress, and preferably an opponent also equipped with ball, racket, and proper dress, the student will demonstrate how to serve a tennis ball." "The student will demonstrate how to serve a tennis ball" is sufficient *ad diem,* as the lawyers say.

SPECIFYING THE CRITERION.   The statement of the instructional objective should include the acceptable standard or criterion of mastery of the behavior if it is not obvious. For example, a French teacher might write the following statement: "The student will translate the following sentences." There is no need to write the condition, "from French to English"; the students know that. There is no need to specify the criterion "into good English" (which should be routinely expected behavior) or "with one hundred percent accuracy" or "with no errors." Unless a criterion is specified, it can be assumed that the teacher wishes students to achieve one hundred percent accuracy.

Some objectives require more elaborate criteria than others. For example, let's go back to the illustration, "The student will write an essay on the work of Joseph Conrad." We could embellish this objective with various criteria, some of which are essential, some, not. "In legible handwriting" or "free of word processing errors" should be normal expectations and, therefore, do not have to appear in every instructional objective. On the other hand, if the instructor desires an essay with no more than three spelling errors, with no more than three grammatical errors, and with all the footnotes and bibliographical entries in correct form, that information should be conveyed to the students. The criteria are particularly important if the objective is being used as a test item. It is a necessary and sound principle of evaluation that students be informed by what about the standards by which they will be evaluated.

Robert H. Davis, Lawrence T. Alexander, and Stephen L. Yelon listed six standards and gave examples of each, as follows:

1. When mere OCCURRENCE of the behavior is sufficient, describe the behavior. Example: The knot will be tied loosely as in the photograph.
2. When ACCURACY is important, provide a statement of acceptable range or deviation. Example: The answer must be correct to the nearest whole number.
3. If the number of ERRORS is important, state the number. Example: with a maximum of one error.
4. If TIME or SPEED is important, state the minimal level. Examples: within five seconds; five units per minute.
5. If a KNOWN REFERENCE provides the standard, state the reference. Example: Perform the sequence of steps in the same order as given in the text.
6. If the CONSEQUENCES of the behavior are important, describe them or provide a model. Example: Conduct the class so that all students participate in the discussion.[44*]

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*From *Learning System Design: An Approach to the Improvement of Instruction* by Robert H. Davis, Lawrence T. Alexander, and Stephen L. Yelon. Copyright © 1974 by McGraw-Hill. Reproduced with permission of The McGraw-Hill Companies.

Novice instructors sometimes ask how the teacher decides on the criteria. How do you decide whether to permit three or four errors or whether a student should complete the task in ten rather than five minutes? These decisions are based on the teacher's past experience with students and on the teacher's professional and, if you will, arbitrary judgment. After a few years, the teacher begins to sense what is possible for students to accomplish and proceeds on that knowledge. Certain traditions may also guide the teacher. For example, 70 percent is considered by most students, teachers, and parents as so-so; 80 percent is considered not bad; 90 percent is considered good. Thus, criteria in the 70-percent to 100-percent range often show up in statements of instructional objectives.

Although it is relatively simple to specify objectives in the cognitive and psychomotor domains, specifying criteria in the affective domain is enough to tax one's soul. We shall wrestle with the problem of establishing criteria for affective objectives in Chapter 12. At this point, however, we should mention that it is usually impossible to specify criteria for objectives in the affective domain. What criteria, for example, should we append to this objective: "The student will express a sense of pride in his or her school"? Should the student's response be fervent? Passionate? The affective domain presents unique instructional problems.

To the standards component, Davis, Alexander, and Yelon added a stability component—that is, the number of opportunities the student will be given and the number of times he or she must succeed in demonstrating the behavior.[45] We may illustrate the stability component with this example: "The student will word process fifty words per minute on each of three successive tries." Analyzing this objective shows that "to word process" is the behavior; the conditions are understood (a central processing unit, a monitor, a keyboard, and, if printing is required, a printer, paper, ink cartridge); the performance criterion is "at least fifty words per minute"; and the stability component is "on each of three successive tries."

Generally speaking, instructional objectives should consist of at least three components: (1) the behavior (often called the *terminal behavior*), (2) the conditions, and (3) the criterion.

VALIDATING AND DETERMINING PRIORITY OF INSTRUCTIONAL GOALS AND OBJECTIVES

Instructional goals and objectives should be validated and put in order of priority. Teachers should know whether the instructional goals and objectives are appropriate and which are the more important.

In practice, it is far simpler to validate and rank instructional goals and objectives than curriculum goals and objectives. Instructional goals and objectives are not normally submitted with any regularity to lay groups or students for this process, nor to administrators. Nor do they need to be, as instructional goals and objectives are content specific. To make a judgment on their validity and to decide which are essential require a foundation both in the subject matter being taught and in the methods for teaching that subject matter. The subject matter is often technical and beyond the knowledge and skills of lay persons and students. Instructional matters are the prerogative of persons trained in their fields of specialization.

As a result, far fewer persons need to be involved in validating and establishing priorities of instructional goals and objectives than is the case with curriculum goals and objectives.

Validating and ranking of instructional goals and objectives are usually accomplished by referring to the adopted textbooks, reference books, and curriculum guides. The authors of these materials serve as the persons who validate and set priorities. This method of validating and ordering of instructional goals and objectives is, by far, the most common.

The classroom teacher can also seek help in validating and ranking instructional goals and objectives from members of his or her team, grade level or department, other knowledgeable faculty members, curriculum consultants, and supervisors. Consultants and supervisors trained and experienced in special fields should also be able to help the classroom teacher decide which instructional goals and objectives are appropriate to the learners and which ones should be stressed. Finally, teachers may seek advice from acknowledged experts in the subject area outside the school system as well as from specialists in other school systems or in higher education institutions.

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Summary

Instructional goals and objectives are directly related to the previously specified curriculum goals and objectives. Instructional goals provide direction for specifying instructional objectives.

Learning outcomes may be identified in three major domains: the cognitive, the affective, and the psychomotor. The cognitive domain is the world of the intellect; the affective, the locale of emotions, beliefs, values, and attitudes; and the psychomotor, the territory of perceptual-motor skills.

Classification systems are useful in revealing the types of learning encompassed in each domain of learning and in guiding instructors toward placing greater emphasis on learning at the higher levels.

Instructional goals are statements written in nonbehavioral terms without criteria of mastery. With the possible exception of outcomes in the affective domain, instructional objectives should be written in measurable and observable terms.

Whenever practical and necessary, instructional objectives should consist of three components: the behavior that learners will demonstrate, the conditions under which the behavior is to be demonstrated, and the criterion to show mastery of the behavior.

Instructors validate instructional goals and objectives and place them in order of priority by referring to text materials written by experts and by seeking the judgments of knowledgeable colleagues, supervisors, and consultants from both within and outside the school system.

Questions for Discussion

1. In what ways do instructional goals and objectives differ from curriculum goals and objectives?
2. Is it necessary to specify both instructional goals and instructional objectives?
3. What are the purposes of writing instructional goals and objectives?
4. What are some alternatives to writing behavioral objectives?
5. Do instructional goals and objectives limit the creativity or artistry of the teacher? Explain.

Exercises

1. Write one instructional objective for each of the six major categories of the Bloom taxonomy of the cognitive domain.
2. Write one instructional objective for each of the five categories of the Krathwohl taxonomy of the affective domain.
3. Write one instructional objective for each of the major categories of either the Simpson or Harrow taxonomy of the psychomotor domain.
4. List and give examples of six types of performance standards that may be included in an instructional objective.
5. Consult a reference by Howard Gardner, Thomas Armstrong, or other author and describe each of the multiple intelligences.

Website

Thomas Armstrong: thomasarmstrong.com/multiple_intelligences.php

Multimedia

Carol Ann Tomlinson and Heidi Hayes Jacobs, *Differentiated Instruction and Curriculum Mapping: What's the Fit? DVD.* Discusses content requirements and needs of learners. 2010. One 120-min DVD. Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, Va., 22311-1714.

Endnotes

1. See Figure 5.4.
2. Norman E. Gronlund, *Writing Instructional Objectives for Teaching and Assessment,* 7th ed. (Upper Saddle River, N.J.: Merrill/Prentice Hall, 2004), pp. 17–22.
3. Ralph W. Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: University of Chicago Press, 1949).
4. Gronlund, *Writing Instructional Objectives for Teaching and Assessment,* pp. 22–28.
5. Tyler, *Basic Principles of Curriculum and Instruction,* p. 57.
6. Ibid., pp. 44–47.
7. W. James Popham, "Practical Ways of Improving Curriculum via Measurable Objectives," *Bulletin of the National Association of Secondary School Principals* 55, no. 355 (May 1971): 76.
8. James D. Raths, "Teaching Without Specific Objectives," *Educational Leadership* 28, no. 7 (April 1971): 715.
9. See Peter S. Hlebowitsh, *Radical Curriculum Theory Reconsidered: A Historical Approach* (New York: Teachers College Press, 1993), pp. 11–12.
10. John D. McNeil, *Contemporary Curriculum in Thought and Action,* 6th ed. (Hoboken, N.J.: Wiley, 2006), p. 132.

11. Ibid., p. 207.

12. Ibid.

13. See James Hartley and Ivor K. Davies, "Preinstructional Strategies: The Role of Pretests, Behavioral Objectives, Overviews, and Advance Organizers," *Review of Educational Research* 46, no. 2 (Spring 1976): 239–265.

14. W. James Popham, *Classroom Assessment: What Teachers Need to Know,* 3rd ed. (Boston: Allyn and Bacon, 2002), pp. 97–98.

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16. See, for example, *Differential Aptitudes Test,* 5th ed. (New York: The Psychological Corp., 1991).

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31. Ibid., p. 10.

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Selecting and Implementing Strategies of Instruction

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DECIDING ON INSTRUCTIONAL STRATEGIES

It's the planning period. The twelfth-grade American history teacher just left the teachers' lounge, where she consumed a cup of coffee and chatted with her friends. She is seated now at a carrel in the teachers' workroom, curriculum guide and history textbook before her. The topic to be studied by the students is World War II—the European Theater. Conscientious planner that she is, she asks herself, "What is the best way to go about teaching this topic?" "What methods shall I use?" "What strategies are suitable?" "How do I put together plans for instruction?" "Which suggestions from the curriculum guide should I adopt?" She jots down a number of approaches that she might use in creating a learning unit on the topic:

- Have the students read the appropriate chapters and come to class prepared to discuss them.
- Devise some key questions to give the class and let them find the answers as they read the chapter.
- Lecture to the class, adding points not covered in the text.
- Have each student write a paper on selected aspects of the war, such as the invasion of Normandy, the Battle of the Bulge, the crossing of the Rhine, and so on.
- Have students design a PowerPoint presentation on selected topics, such as the rise of Naziism, the invasion of North Africa, D-Day, and the war on the Russian Front.

- Organize the class into small, cooperative groups with each group preparing a report to the class on a topic such as the causes of World War II; the Holocaust; or the Air Force, Army, Navy, Marines, Coast Guard, or Merchant Marine in World War II.
- Have students independently research online and report on a topic such as Franklin Roosevelt, Winston Churchill, Adolf Hitler, Joseph Stalin, a particular battle, or a famous general on either side.
- Have each student select a related but different topic—for example, the opposing military leaders—and present an oral report to the class.
- Show clips from *The Longest Day* or *Saving Private Ryan,* then follow it up with small-group discussion and independent study on topics of interest to the students. Or, show excerpts of the TV series *Band of Brothers* or parts of Ken Burns's TV film *The War* for this purpose.
- Have students draw charts of the tactics of both sides in selected major battles.
- Have students read chapters in the textbook and give them quizzes in class the next day.
- Use a document camera to show a map of Europe to point out the most significant geographical features of the area.
- Write a number of objective test items that will be incorporated in the end-of-unit test and drill the students on the answers as the topic is discussed.
- Invite a combat veteran of World War II to recount his experiences.
- Have students choose books on the topic from the school or public library, read them, and then present oral reports to the class, comparing what they have read in the library books with accounts in the textbook.
- Make comparisons between World War I and World War II as to their causes, numbers of combatants, numbers of casualties, battle tactics, and aftermaths.

The teacher must decide how many days she will devote to the topic, whether she will use any or all of the approaches considered, which approach she will use first, and how she will put the selected approaches together.

If you refer to Figure 10.1 in the previous chapter, you will note that selecting strategies is the next step called for in the Instructional Model. In this text, "strategy" broadly encompasses the methods, procedures, and techniques the teacher uses to present the subject matter to the students and to bring about desired outcomes. A strategy ordinarily includes multiple procedures or techniques. Lecturing, for example, can include procedures such as handing out charts and calling for evaluations at the end of the lecture. It may also include techniques such as set induction and closure, which are generic teaching skills.

Among the common instructional strategies are the lecture, small-group discussion, independent study, library research, mediated instruction (including PowerPoint presentations and computer-assisted instruction), repetitive drill, and laboratory work. To this list we can add coaching, tutoring, testing, and going on field trips. We could include the inquiry or discovery, inductive, and deductive methods. We could add programmed instruction, problem solving, and oral questioning. Suffice it to say that the teacher has at his or her disposal a great variety of strategies for implementing instruction.

How does the teacher decide which strategy or strategies to use? The teacher may find a curriculum guide that will detail not only strategies to be used but also objectives, suggested resources, and suggested evaluation techniques.

Unfortunately, curriculum guides do not always exist for topics that the teacher wishes to emphasize, and often when they do exist and are accessible, they do not fit the teacher's and students' purposes. Consequently, the teacher must exercise professional judgment and choose

the strategies to be employed. Selecting strategies becomes a less difficult problem when the teacher recognizes that instructional strategies are derived from five major sources. Before examining each of these sources we should emphasize a point that sometimes seems to be obscured in discussions of pedagogy, particularly in days of teacher shortages when teachers are assigned out-of-field. Paulo Freire hit on this point when he said, "The fact, however, that teachers learn how to teach a particular content must not in any way mean that they should venture into teaching without the necessary competence to do it. It does not give teachers a license to teach what they do not know."[1]

SOURCES OF STRATEGIES

Objectives as Source

The choice of strategies is limited at the onset by the specified instructional objectives. Although an almost infinite number of techniques for carrying out instruction may exist, only a finite number apply to any particular objective. For example, how many alternatives does the teacher have to teach the number fact that $7 \times 7 = 49$? He or she may tell the students, or use the whiteboard to show the students; have the students repeat again and again the $7\times$ table, or use flash cards for drill purposes; and have students practice using a workbook or manipulatives, or let pupils use a calculator or a printed multiplication table. Of course, not all of the possible courses of action will be suitable or acceptable to the teacher or the students, which limits the range of possibilities even more.

How many techniques suggest themselves for accomplishing the following objectives? The student will:

- purify water by boiling
- write an editorial
- sew a zipper into a garment
- demonstrate a high jump
- help keep his or her school clean

Sometimes the strategy is obvious. There is no practical alternative; in essence, as "the medium is the message" (to use Marshall McLuhan's words), the objective is the strategy. The student will demonstrate the high jump, for example, by performing that act. No amount of "teaching about" high jumping will permit the students to demonstrate that they can perform the high jump.

Subject Matter as Source

Subject matter provides a source of instructional strategies. With some subject matter selecting strategies is relatively simple. If we are teaching a course in servicing computers, certain operations must be mastered, such as removing and replacing a hard drive, installing programs and software, and clearing the computer of viruses.

The teacher must zero in on the subject matter and determine what principal facts, understandings, attitudes, appreciations, and skills must be mastered by the learners. Whereas some subject areas have a reputation for being harder to *learn*—for example, calculus, chemistry, and physics—others are more difficult to *teach.* Although learners may have difficulty balancing chemical equations, the strategies for teaching this content are fairly straightforward: lecture-demonstration, followed by testing. Less apparent, however, are strategies for teaching the dictum

"Thou shall not cheat." What would be the most effective method for inculcating an attitude of disapproval of cheating? How would the teacher test for mastery of this affective outcome?

Teaching about a subject—as opposed to actually *teaching* a subject—is an approach that even experienced teachers must guard against. We have alluded to this practice in the instance of teaching students to high jump. We can find other illustrations as well. For example, teachers who require students to commit grammar rules to memory often test only knowledge of these rules rather than the students' ability to apply them. Rather than use the library, students are sometimes confined to studying the Library of Congress cataloging system only in the English classroom. Again, students are permitted to verbalize what a balanced meal is but are not required to select or prepare one.

It is easy to be trapped into teaching about desired outcomes in the affective domain. Students read about democracy as a way of life but—sometimes inadvertently, sometimes deliberately—are not given the opportunity to practice democracy in the school. Students are lectured on the importance of self-discipline, but are not allowed an opportunity to demonstrate it.

Teaching about content can lead to *verbalism*—the ability to describe a behavior but not necessarily the ability to carry it out. Verbalism is more likely to result when students are placed in a passive mode. Whenever possible, the learners should be actively engaged in the learning process; they should be placed in real situations or, barring that, in simulated ones.

These comments are not meant to rule out vicarious learning. We would be lost without it and life would be much bleaker. Pupils cannot, of course, always be involved in real situations. History, for example, must be learned vicariously. Until the day when the science fiction writer's dreams become reality, we cannot project ourselves backward in time, propel ourselves physically into the future, nor project ourselves spatially into a coexistent present. For example, most of us can sail up the Amazon River only through the words and pictures of someone who has performed that feat and written and photographed his or her exploits for publications, television, or the Internet. By using different forms of media, we can experience directly the here and now of the universe.

Vicarious experience is more efficient in cases too simple for direct experiencing by every student. Valuable time would be wasted, for example, by having each student in an automotive program demonstrate the changing of an automobile's air filter. A presentation by the instructor should suffice for learning this uncomplicated skill. Vicarious experience is the only option, however, when (1) resources are lacking, as in the case of learning to use the latest version of Windows when only earlier versions are available; (2) facilities are lacking, as in learning to inspect an automobile's brakes when a school does not have appropriate space or equipment; or (3) the experience is too complicated or expensive, as in preparing a gourmet meal of bouillabaisse, coq au vin, or moo goo gai pan.

TEXTBOOKS AS SOURCE OF SUBJECT MATTER.   We can find repeated criticisms of reliance on textbooks per se in the literature. Michael W. Apple called attention to "the ubiquitous character of the textbook" when he wrote:

> Whether we like it or not, the curriculum in most American schools is not defined by courses of study or suggested programs, but by one particular artifact, the standardized, grade-level-specific text. . . . While the text dominates curricula at the elementary, secondary, and even college levels, very little attention has been paid to the ideological, political, and economic sources of its production, distribution, and reception.[2]

Freire put what some might term a constructivist spin on his concern about the way textbooks are used:

> Unfortunately, in general what has been done in schools lately is to lead students to become passive before the text. . . . Using their imagination is almost forbidden, a kind of sin. . . . They are invited neither to imaginatively relive the story told in the book nor to gradually appropriate the significance of the text.[3]

Obviously, with the wealth of knowledge surrounding learners today through print, tangible learning aids, and online data, reliance on a single textbook, passively absorbed, is ineffective pedagogy.

To conclude, whether personal or vicarious in nature, instructional strategies may emerge from a variety of subject-matter sources.

Student as Source

Instructional strategies must be appropriate for the students. The teacher will not send the average third-grader to the media center to select one of Shakespeare's plays for leisure reading. Conversely, the teacher will not attempt to engage junior or senior high school boys and girls in a rousing game of London Bridge or Ring-Around-the-Rosie. Elementary Spanish is inappropriate for students ready for the intermediate level. Highly abstract verbal approaches to content do not fit the needs of special education students. An online course is applicable only to those with enough self-discipline and determination to profit from it.

Teachers need to capitalize on the special aptitudes or intelligences of learners. In the preceding chapter we mentioned Howard Gardner's concept of multiple intelligences.[4] An adequate school curriculum would offer experiences to develop not only linguistic and logical-mathematical intelligence but also bodily-kinesthetic, interpersonal, intrapersonal, musical, spatial, and naturalist, as well. Some would add social, emotional, and existential intelligences.[5]

Teachers who underestimate the ability of learners and talk down to them, or who overestimate the aptitude of learners and talk over their heads, follow approaches that do not recognize the pupil as a source of strategy. Unless the teacher is careful, one source of strategy may conflict with another. A particular methodology may relate perfectly to the objectives, and may be right on target as to the subject matter, but may be completely inappropriate from the standpoint of the learner. We may generalize, therefore, that any particular strategy must not run counter to any of the sources of strategies.

The teacher should enlist the aid of students in both long-range and short-range planning for instruction. The teacher cannot assume, for example, that his or her purposes are identical to the students' purposes in studying a subject; he or she must, therefore, make an effort to discover student purposes.

When initiating a topic, the teacher should help students identify their personal reasons, if any, for studying the material. Students should be asked to state their objectives in their own words. For example, the teacher may wish students to study the Vietnam War so (1) they can complete a section of the textbook, (2) they can fulfill a requirement of a course in history, (3) they can become familiar with that segment of our history, and (4) they might become interested enough in history to continue studying it in college. The student, on the other hand, may wish to study the Vietnam War in order to (1) understand books, television programs, and films concerned with this topic; (2) learn what friends and relatives experienced there; and (3) find out what got us into the war, why there was so much student protest, and how we can avoid getting into such a situation again.

Students may effectively participate in planning by (1) choosing among equally acceptable topics, (2) helping to identify the instructional objectives, (3) suggesting appropriate strategies, (4) choosing individual and group assignments, (5) selecting materials, and (6) structuring learning activities.

Community as Source

The desires of parents, the type of community, tradition, and convention all play a part in determining classroom strategies. Sexuality education, for example, alarms parents in many communities. Some oppose the school's venturing into this area on religious grounds; others feel it is the prerogative of the home. Consequently, examining various contraceptives might be considered by many in the community as inappropriate at any level.

A survey of drug habits among youth of a community might be rejected by some citizens who feel that a negative image of the community might be the result. Counseling techniques that probe into a pupil's family life, psychological and personality tests, and values clarification may disturb parents.

Learning activities that stimulate excessive competition among students in the classroom and on the athletic field may meet with community disapproval. The use of outdated methodologies like the overuse of memorization can trouble parents, as can procedures that call for behaviors either beyond the pupils' capacities or below their abilities.

Community efforts to censor materials and methods occur frequently in some localities. Although teachers may experience some difficulties with the community over their choice of techniques or content, they need not abandon a course of action for this reason alone. However, as discussed earlier in this text, involving members of the community in the process of curriculum development is desirable. Learning about community needs, beliefs, values, and mores may be necessary before the teacher can gain support for using techniques he or she believes are most effective. Through advisory committees, parent volunteer aides, parent-school organizations, and civic groups, community opinions about the school and its curricula can be gathered.

Teacher as Source

Instructional strategies must conform to (1) the teacher's personal style of teaching and (2) the model or models of instructing that the teacher follows. Large-group discussion, for example, will not appeal to the teacher who prefers to work closely with students. A teacher who regularly follows an inductive model of teaching is not likely to be content with using a deductive model. Teachers should analyze the particular style of teaching they project and the models they find most suitable for their particular styles. They should seek to expand their repertoires by developing more than a single model of teaching.

Guidelines for Selecting Strategies

To help choose instructional strategies, you may wish to consider the following guidelines, which suggest that a strategy must be right for:

- the learners. It must meet their needs and interests and must be in keeping with their learning styles.
- the teacher. The strategy must work for the individual teacher.
- the subject matter. Artificial respiration, for example, is taught more effectively by demonstration and practice than by lecturing.

- the time available. For example, a scientific experiment requiring an extended period of several days is not possible if sufficient time is not available.
- the resources available. Reference materials, for example, must be available if students are required to carry out research projects that necessitate their use.
- the facilities. Dividing a class into small groups for discussion purposes, for example, may be impractical if the room is small, if acoustics are poor, and if the furniture is not movable.
- the objectives. The strategy must be chosen to fulfill the instructional objectives.[6]

STYLES OF TEACHING

A style of teaching is a set of personal characteristics and traits that clearly identify the individual as a unique teacher. Personal factors that make one teacher different from another include:

- Dress
- Language/speech
- Voice
- Gestures
- Energy level
- Facial expressions
- Motivation
- Interest in people
- Dramatic talent
- Intellect
- Scholarship

Teachers consciously or unconsciously adopt certain styles. The teacher as helper, disciplinarian, actor, friend, father or mother image, autocrat, artist, big brother or sister, or expounder of subject matter are examples of teaching styles.

The teacher with a high, thin voice had best not rely heavily on lecture as a method. The teacher who is formal and proper in dress and manner will probably rule noisy games out of his or her repertoire. The teacher who lacks confidence in his or her management skills may not feel comfortable with a freewheeling, open-ended discussion. If a teacher of low energy level or low motivation refuses to carefully read students' assigned essays or term papers, there is little point in using such strategies.

The teacher with a penchant for scholarship will likely include among his or her methods various forms of research. The teacher with an interest in people will choose procedures in which he or she and the students are interacting not only with each other but also with people both inside and outside the school.

The teacher who is confident about his or her work will invite visitors to the classroom, use resource persons, and permit audio- and videotaping of classroom activities. The teacher who is democratically oriented will design activities that permit students to participate in decision making. Unflappable individuals will be more inclined to try out innovative techniques that might result in failure whereas less intrepid individuals will tend to stick to the tried-and-true.

Some teachers reject the use of computers and audiovisual techniques because they do not feel competent enough to use the equipment or they harbor the attitude that the use of technology is somehow a waste of valuable time. In the judgment of these teachers, Guttenberg provided the definitive answer to instructional media: the printed page.

There is no doubt that we, and you, would find some teaching styles more appealing and more acceptable than others. We might identify some styles as negative (e.g., undemocratic behavior) and some as positive (e.g., concern for students). Human beings that we are, we will probably give our approval to styles of teaching that emulate our own.

Deborah P. Britzman took issue with the view that teaching style is "self-constructed product, mediated only by personal choice."[7] Britzman explained, "Teaching style, then, turns out to be not so much an individually determined product as a dialogic movement between the teacher, the students, the curriculum, the knowledge produced in exchange, and the discursive practices that make pedagogy intelligible."[8]

STYLES OF LEARNING

The teacher's style obviously bears some relationship to the pupils' styles of learning. Some pupils are:

- highly motivated
- slackers
- self-starters
- plodders
- shining stars
- skeptics

Some would add "survivors." Some learners can work under pressure; others cannot. Some need much direction; others, little. Some express themselves better orally than in written form. Some can deal with abstractions; others can learn only with concrete materials. Some learn more effectively from aural and visual techniques than through reading.

Research on the brain reaffirms the complexity of the functioning of the brain and at the same time reinforces differences in learners' styles. Speaking of the complex nature of the brain, Merilee Sprenger observed that if learning is to become permanent, it has to follow certain paths that she called "memory lanes," gateways to accessing the memory. She identified these lanes as semantic, episodic, procedural, automatic, and emotional.[9] David Sousa added that the emotional (limbic) system plays the most important role in the brain's ability to store information for long periods of time.[10]

An interesting conception of the functioning of the brain postulates dominance in either the left hemisphere or the right hemisphere of the brain, although both hemispheres interact. Following this conception, left-hemisphere dominance appears to favor logical processes; right-hemisphere, creative. The school curriculum traditionally caters to left-hemisphere characteristics.[11] Renate Nummela Caine and Geoffrey Caine noted that the left-brain, right-brain distinction does not stand alone, because "[i]n a healthy person, both hemispheres interact in every activity. . . . The 'two-brain' doctrine is most useful in reminding us that the brain reduces information into parts and perceives wholistically at the same time."[12]

Eric Jensen saw the application of research on the brain placing us on "the verge of a revolution" that "will change school start times, discipline policies, assessment methods, teaching strategies, budget priorities, classroom environments, use of technology, and even the way we think of the arts and physical education."[13] Patricia Wolfe cautioned, however, "During the past three decades, we've learned more about the brain than in all recorded history, but there is much more to learn."[14]

Pupils are as different in learning styles as teachers are in teaching styles.[15] In fact, they are more different since there are more of them. Teachers must be aware that their teaching styles

can at times be at cross-purposes to their pupils'. A teaching style cannot be selected in the same way an instructional strategy can. Style is not something that can be readily switched on and off. It is not simple to change from a task-oriented to a child-centered approach. Only with considerable difficulty, if at all, can a non–emotionally exciting teacher become an emotionally exciting one. Two questions must be asked about teaching styles: Can a teacher change his or her style? Should a teacher change his or her style?

Given a willingness to change and appropriate training, a teacher can change his or her style. Contrary to ancient beliefs about the impossibility of changing a person's behavior, human beings can and do change. Sometimes personality change is modeled on the behavior of another person who is in some way important to an individual. Sometimes a crisis or trauma effects personality change. All religions share the basic premise that individuals can change their behavior. Thus, change is possible, though it may not be easy.

Perhaps a larger question is whether a teacher *should* change his or her style. Three answers are given to this question, one of which presupposes a teacher's ability to change style. First, one school of thought holds that a teacher's learning style should match the pupils'. Consequently, we would attempt to analyze the styles of the teacher and pupils respectively, then group pupils and teachers with compatible styles. The pupils and teachers would then follow their own styles.

At first glance, ignoring the complexities of analyzing styles and grouping the pupils with compatible teachers, this position seems to be very sound and logical. Rapport between teacher and pupils would most likely be high, and the classroom climate would be conducive to learning. Herbert A. Thelen supported the concept of matching teachers and students: "We remain convinced that any grouping which does not in some way attempt to 'fit' students and teachers together can have only accidental success."[16]

According to a second school of thought, there is some merit in exposing students to a great variety of personal styles during their schooling so they will learn how to interact with different types of people. Although some students might prefer the less structured, informal, relaxed approach while they are in school, a legion of high school graduates compliment their task-oriented, subject-centered teachers for having "held their feet to the fire," thereby helping them to succeed after graduation in spite of themselves.

A third response to the question of whether a teacher should change his or her style holds that a teacher should be flexible, using more than one style with the same group of students or with differing groups of students. This answer combines features of both the first and second responses. Teachers vary their styles, if they can, for particular groups of learners, and by the same token, the pupils are exposed to a variety of styles. Whatever the strategy chosen, it must conform to the teacher's inimitable style. That is why it is so important for teachers to know who they are and what they believe. Rita S. Dunn and Kenneth J. Dunn spoke about the effect of the teacher's attitudes and beliefs on teaching style:

> The attitudes teachers hold toward various instructional programs, methods, and resources as well as the kinds of youngsters they prefer working with constitute part of their "teaching style." It is true, however, that some teachers believe in specific forms of instruction that they do not practice (administrative constraints, inexperience, lack of resources, or insecurity) and that others practice methods in which they do not believe (administrative or community mandates, inability to change or to withstand pressure). It is also true that teachers may prefer students different from those they are actually teaching.[17]

"Style" and "method" are used rather loosely—and often interchangeably—in the professional literature. Fischer and Fischer cautioned, "Style is not to be identified with method, for

people will infuse different methods with their own styles. For example, lecturing is not a style, in our conception, for people with distinctive styles will infuse their respective lectures with their own unique qualities."[18]

MODELS OF TEACHING

Whereas style of teaching is a personalized set of teacher behaviors, a model of teaching is a generalized set of behaviors that emphasizes a particular strategy or set of strategies. Lecturing, for example, is an instructional strategy or method. One whose predominant strategy is lecturing is fulfilling the model of lecturer. The contrast between model and style can readily be seen by a person who attends presentations given by two different lecturers.

Bruce Joyce and Marsha Weil defined a model of teaching this way: "A model for teaching is a plan or pattern that can be used to shape curriculums (long-term courses of studies) to design instructional materials, and to guide instruction in the classroom and other settings."[19] Later, in the seventh edition of their book, Joyce and Weil with Emily Calhoun noted: "Models of teaching are really models of *learning*."[20] The model or instructional role that the teacher displays guides the teacher's choice of strategies. In one sense, the model or role is the method or strategy. For example, when the teacher plays the role of questioner, questioning is the instructional strategy or method. If the teacher directs students in using computer software in a particular subject, computer-assisted instruction is the method. On the other hand, if the teacher acts as a facilitator—a much broader role—a number of instructional strategies or methods may be employed. Students may choose their own materials, make up their own questions, and critique their own work, all under the general facilitating supervision of the teacher. Susan S. Ellis clarified the meaning of a model of teaching when she wrote:

> Models of teaching are strategies based on the theories (and often the research) of educators, psychologists, philosophers, and others who question how individuals learn. Each model consists of a rationale, a series of steps (actions, behaviors) to be taken by the teacher and the learner, a description of necessary support systems, and a method for evaluating the learner's progress. Some models are designed to help students grow in self-awareness or creativity; some foster the development of self-discipline or responsible participation in a group; some models stimulate inductive reasoning or theory-building; and others provide for mastery of subject matter.[21]

In preservice teacher education, students usually gain familiarity and some limited experience with several of the more common models of teaching, including expository teaching, group discussion, role playing, demonstration, simulation, discovery, learning laboratories, programmed instruction, tutoring, problem solving, computer-assisted instruction, and mediated instruction. The assumption teacher education institutions make is that students will gain proficiency in one or more of the models (methods) and identify those with which they will feel most comfortable. Given the limited time at their disposal, teacher education institutions can only introduce students to the many instructional models, encourage students to identify their favorites, and help students to develop a degree of skill in carrying out various models.

Bruce Joyce identified twenty-five models of teaching.[22] Joyce and Weil with Calhoun described fourteen models grouped under four categories or families of systems: (1) information-processing, (2) social, (3) personal, and (4) behavioral.[23] Mary Alice Gunter, Thomas H. Estes, and Jan Schwab explained a models approach to instruction when they described some nineteen models.[24]

When we speak of models rather than methods of teaching, we convey the concept that a model is a generalized pattern of behavior that can be learned and imitated. Although teachers may develop their own enduring personal styles (which they may not be able to change easily or even desire to change), they may develop skills inherent in a variety of models. Thus we might ask the same questions about models that we asked about styles: Can teachers change their models of teaching? Should they change them?

To the first question the answer must be "yes." Were this not so, a significant portion of preservice and in-service teacher education would be useless. To the second question, a change of model is desirable if the teacher's stock-in-trade is limited to one particular model, no matter how successfully the teacher carries it out. Teachers should be masters of several models of teaching. Different models are necessary to reach different goals of instruction.

Need for Variety

Variety of modeling is essential to successful teaching. Constant exposure to a single model can lead to restlessness and boredom on the part of students. Let us fabricate a very unlikely situation. A teacher develops a successful model that his colleagues admire. In their search for the "right" and "best" method, they emulate their colleague to the point where every teacher in the school adopts his model. Can you imagine what school would be like if every teacher were enthusiastic about the discovery method, for example, and attempted to use it to the exclusion of other models? Life could become extremely dull for students and teachers alike.

Of course, the use of a single, consistent model by all teachers is not sound pedagogy; a model must be compatible with both the teacher's style and the students' styles of learning. For example, deductive thinking—a top-down approach in which a rule is given and then the learner is given opportunities to apply it—is less time consuming and more efficient with some learners than inductive thinking, a bottom-up approach in which students are given applications first and the learners then determine the rule from them.

Fortunately, the use of a uniform model by all teachers is unlikely. However, we can detect sentiment among some educators that there is both a "best" style and a "best" model of teaching. Grasping for surefire solutions to instructional problems, school districts throughout the country have often conducted in-service education programs designed to promote a single, supposedly universal, model of teaching.

Joyce and Weil viewed the search for the best model of teaching as a fallacy and noted that the research does not champion one model over another.[25] You will, of course, discover differences of opinion on the propriety of certain models. Some experts reject models that cast the teacher in the role of subject-matter authority and information-giver. Ernest R. House would supplant the model of teacher as information-presenter with that of teacher as tutor.[26] Caine and Caine, drawing on research on the brain, expressed the view that educators in the twenty-first century "will need to have mastered the art of facilitating self-organization by students and others. . . . They will need to have sufficiently broad cognitive horizons to be able to integrate new ideas and new information and to facilitate their introduction into ongoing and dynamic student experiences."[27]

Proficiency in a variety of models would seem to be in order, for there are times when direct presentation models may be more productive than more indirect models. Carl D. Glickman counseled:

> There is value in some traditional elements of schooling. For example, there is merit in reconsidering whether exchanging pencils for word processors or relying on pocket calculators instead of mental calculation have improved education. There are clear benefits

to directly teaching students particular content, insisting on clear penmanship, and having students memorize certain material. Therefore, there are traditions to be retained at the same time that different configurations of time, space, methods, tools, and technology are incorporated.[28]

Yet, Glickman made clear that teachers cannot become better teachers if they repeatedly teach "the same lessons in the same manner."[29]

Much has been written in the attempt to describe the characteristics and traits of effective teachers. Yet, as James H. Stronge observed in considering the qualities of effective teachers, "*Effectiveness* is an elusive concept when we consider the complex task of teaching."[30] That teaching is complex is affirmed by the comment of Elizabeth Ellsworth, "pedagogy is a much messier and more inconclusive affair than the vast majority of our educational theories and practices make it out to be. . . . [P]edagogy poses problems and dilemmas that can never be settled or resolved once and for all."[31]

TEACHING SKILLS

Up to this point we have been discussing styles and models of teaching, both of which are germane to selecting particular strategies or methods. We will now add a third dimension that bears on selecting instructional strategies—teaching skills. A word is needed to signify the interrelationship between style, model, and skill in teaching. "Method" would be a tempting word to use if it did not already convey the meanings of both "strategy" and "model"—for example, the strategy of lecturing equals the model of lecturing. For want of a better term, the coining of which we will leave to others, we will use the ambiguous word "approach" to signify the interrelationship among the triumvirate of style, model, and skills. We might chart this relationship in the form of a simple diagram, shown in Figure 11.1, in which the shaded area represents the teacher's approach.

Let's take a simple illustration of this relationship. The teacher who consistently plays the role of facilitator (model) is likely to be a person who is student-centered, friendly, and relaxed and has skill in advising, counseling, and serving as a resource person (skills). At the risk of redundancy, we might say that facilitator is this teacher's model and facilitation of learning is this teacher's instructional strategy (method).

What skills are pertinent to a particular approach? For example, what skills are required for lecturing—a method used at some time or other by most teachers? We might list the following:

• Ability to enunciate
• Ability to project one's voice
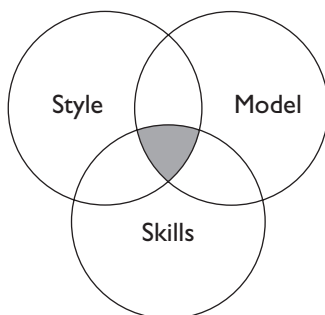
FIGURE 11.1
The Teacher's Approach

- Ability to use proper grammar and sentence structure
- Ability to "read" students' facial expressions
- Ability to sustain interest
- Ability to relate content to past and future experiences of learners
- Ability to speak to the level of the audience
- Ability to deal with individuals causing distractions
- Ability to stimulate thinking
- Ability to organize thoughts

All of these abilities are generic teaching skills. We may define generic teaching skills as those instructional skills or competencies that are general in nature and can be employed by teachers in any field and at any level. On the other hand, special teaching skills are defined as specific abilities that must be demonstrated by teachers in a particular field or level. The foreign language teacher, for example, must be skilled in the generic competency of varying stimuli, while also being adept at projecting specific stimuli unique to the language being taught. Skill in translating one language into another is a special skill of a foreign language teacher, not a talent that must be evidenced by every teacher.

Generic Teaching Competencies or Skills and Standards

For many years educators have taken an interest in identifying generic teaching skills or competencies. Dwight Allen and Kevin Ryan compiled a well-known list of generic teaching skills.[32] Madeline Hunter and Douglas Russell listed seven steps—in effect, teaching skills—of planning for effective instruction.[33]

The state of California has identified six interrelated standards that teachers should possess. The 2009 version of the *California Standards for the Teaching Profession* takes into account the diverse student and teacher population that has emerged in the state and the changes that are needed to address the needs of the 21st Century learner.[34] An example of one teaching standard is shown in Box 11.1. All persons seeking a California teacher certification must pass not only a basic skills exam but also tests in a subject area (teaching field), as well as possess a college-level degree.[35]

With appropriate training, teachers can learn to master the generic teaching skills. Although generic teaching skills may be employed by all teachers at all levels, it does not follow that any teacher at any level or in any field can use any particular generic skills in just any given situation. Although every teacher should be able to ask probing questions, for example, each teacher will need to decide whether the nature of the content and the learning styles of the pupils will make probing questions appropriate.

Whether the skills are generic or specific, teachers must demonstrate a variety of instructional skills that can be adapted to their own styles and models. Research on teacher behaviors suggests that teaching skills can be imitated, learned, modified, and adopted.

The teachers' personal style, the models they follow, and the teaching competencies and skills they have mastered all affect their design for instruction. For example, teachers select strategies that match their personal styles. They follow models to which they are receptive and choose strategies for which they have the requisite teaching competencies and skills. The effective teacher implements a variety of teaching strategies as well as the assessment strategies that are discussed in the following chapter.

BOX 11.1   Based on California Standards for the Teaching Profession

Standard: *Motivating all students' learning*.

Goal: Develop critical thinking in all students.

- I help students to ask critical questions and use empathy to consider diverse perspectives about any given subject matter.
- I help students to pioneer plans and technologies for finding knowledge and information.
- I show students ways to think about, discuss, and evaluate content.
- I facilitate dialogue to crystallize and expand students' thinking.
- I encourage students to think and communicate clearly and with detail.
- I help students apply prior knowledge to new situations.
- I encourage students to create, imagine, and innovate.
- I help students to use various approaches and solutions to solve problems.

Source: Based on *California Standards for the Teaching Profession* (CSTP) (2009), Commission on Teacher Credentialing, Sacramento, CA 95814. Website: ctc.ca.gov/educator-prep/standards/CSTP-2009.pdf, accessed March 29, 2011.

TEACHING: ART OR SCIENCE?

The question whether teaching is an art or science has been debated almost from the time a person with the label "teacher" met with one or more disciples for the purpose of imparting some aspect of knowledge or belief. Foremost among those who view teaching as an art is Elliot W. Eisner, whose widely known work, *The Educational Imagination: On the Design and Evaluation of School Programs,* perceived the teacher as artist attuned to the qualities of life in the classroom and demonstrating "connoisseurship."[36]

David Levine proposed the use of the expression "teacher as artist" to replace "teacher as technician," and "school as an experiment in democracy" in place of "school as factory."[37] Levine held that teaching for democracy "is a complex undertaking beyond the ability of teacher as technician."[38] Henry A. Giroux painted a larger role for teachers when he stated, "What classroom teachers can and must do is work in their respective roles to develop pedagogical theories and methods that link self-reflection and understanding with a commitment to change the nature of the larger society."[39]

On the other hand, those who lean toward the identification of generic teaching skills, the specification of instructional objectives, sequencing of content, national and state standards of achievement, and typical assessments would view the teacher as scientist.

Successful teaching probably falls somewhere between the two poles.

ORGANIZING FOR INSTRUCTION

Planning for instruction involves selecting the following components:

- Goals
- Objectives
- Strategies
- Learning resources
- Evaluation techniques

We discussed selecting instructional goals and objectives in Chapter 10 and consider selecting strategies and, indirectly, the resources needed to carry them out in this chapter. Choosing evaluation techniques is the subject of Chapter 12.

Somehow the teacher must bring all the separate components together into a cohesive plan. Both long-range and short-range planning are required. Long-range plans will be examined in Chapter 13. Let's look now at the more immediate types of plans: the short-range unit plan and the even shorter-range daily plan.

Unit Plans

The unit plan—also called a "learning unit," "teaching unit," or simply, "unit"—is a means of organizing the instructional components for teaching a particular topic or theme. Many years ago William H. Burton provided a still-serviceable definition of a unit, as follows: "A unit is any combination of subject-matter content and outcomes, and thought processes, into learning experiences suited to the maturity and needs (personal and social) of the learners, all combined into a whole with internal integrity determined by immediate and ultimate goals."[40]

Although units may be written narrowly within the confines of a particular field—for example, "Changing Decimals to Fractions"—current efforts to integrate the curriculum promote the creation of units that cut across the disciplines. Even with a seemingly narrow theme such as "Changing Decimals to Fractions," by selecting appropriate strategies the teacher can call on multiple intelligences and incorporate other learnings including linguistic, scientific, civic, vocational, and artistic.

The unit plan ordinarily covers a period from several days to several weeks. A series of units might actually constitute a particular course. The daily plan organizes the instructional components of the day's lesson(s). A unit serves as a source of a number of daily plans. Ordinarily, instructional planning progresses from course to unit to daily plans.

The writing of unit and daily lesson plans is a key skill that teacher education institutions seek to develop in preservice teachers. Some institutions insist on a degree of meticulousness and thoroughness in writing plans that is rarely seen in practice in the classroom.

You will find considerable variation in the structure of unit plans. Burton offered a useful outline for a unit plan, as follows:

- *Title.* Attractive, brief, and unambiguous.
- *The Overview.* Brief statement of the nature and scope of the unit.
- *The Teacher's Objectives.* Understandings (generalizations), attitudes, appreciations, special abilities, skills, behavior patterns, facts.
- *The Approach.* A brief account of the most probable introduction.
- *The Pupil's Aim or Objective.* The major objective which it is hoped the learners will develop or accept.
- *The Planning and Working Period.* Learning activities with desired outcomes for each activity.
- *Evaluation Techniques.* How evidence will be gathered showing that the objectives of the unit have been developed.
- *Bibliographies.* Books useful to the teacher and books useful to the learners.
- *Audio-Visual Materials and Other Instructional Aids, with Sources.*[41]

Analysis of various unit outlines shows that a unit plan should contain the title, the level or course for which it is intended, and the amount of time to be devoted to the following minimum essentials:

- Instructional goals
- Instructional objectives (cognitive, affective, psychomotor)

- Instructional procedures (learning activities)
- Evaluation techniques (preassessment, formative, summative)
- Resources (human and material)

Units are written to be used; they are living documents and should be followed where help-ful; and augmented, reduced, and revised as needed and discarded when no longer appropriate. Box 11.2 provides an illustration of a unit plan.

BOX 11.2   Illustrative Unit Plan

Title: Financing Our Community's Public Schools

Level: Senior High School—Problems of American Democracy

Time: Five Days

A. Instructional Goals
 1. The student will understand that quality education is costly.
 2. The student will understand that ignorance is more costly than education.
 3. The student will become aware of sources of funding for the schools.
 4. The student will become familiar with problems of financing education in our community.

B. Instructional Objectives
 Cognitive

 1. The student will describe the role and extent of local involvement in financing the schools.
 2. The student will describe the role and extent of state involvement in financing the schools.
 3. The student will describe the role and extent of federal involvement in financing the schools.
 4. The student will explain the process by which public moneys are expended for the schools.
 5. The student will explain what our public moneys buy for the schools.
 6. The student will compare salaries of teachers in our community's schools with salaries paid outside of teaching.

 Affective

 1. The student will take a position on the property tax: necessary, too high, too low? Reasons must be stated for the position taken.
 2. The student will take a position on the statement: Teachers are underpaid. Reasons must be stated for the position taken.
 3. The student will take a position on federal aid to education: pro or con? Reasons must be stated for the position taken.
 4. The student will take a position on the statements: The schools cost too much. There are too many frills in education. Reasons must be stated for the position taken.
 5. The student will take a position on offering vouchers or tax credits to enable parents to choose the school their children will attend. Reasons must be stated for the position taken.

 Psychomotor

 None

C. Instructional Procedures
 1. Read the district superintendent's annual report (distributed printed document or, if avail-able, on the school district's website) and discuss the revenues and expenditures.

(continued)

BOX 11.2   Illustrative Unit Plan (Continued)

2. Read this year's school budget and compare with proposed budget for next year. Account for changes in the total amounts each year.
3. Draw a chart of the percentages of money spent by the locality, state, and federal government for support of the community's schools.
4. Prepare a bar graph showing the total number of dollars expended this past year by the locality, state, and federal government for the community's schools.
5. Report on your family's school tax and show how it was calculated.
6. Invite a school principal to class and interview him or her about expenditures and revenues for his or her school.
7. Invite the superintendent, a member of the superintendent's staff, or a member of the school board to class and interview him or her about expenditures and revenues for the school district.
8. Report on the costs of one federally supported program in our community's schools.
9. Consult and discuss publications of the state department of education on financing schools in the state.
10. Compare amounts of money raised throughout the state by property taxes and by sales, income, and other taxes.
11. Compare salaries of teachers in our community with salaries of (1) teachers in other communities in the state, (2) teachers in other states, and (3) persons outside of teaching.
12. Account for variations in amounts of money raised for the support of education by localities of the state and in the total amounts of money available to these localities.
13. Account for variations in amounts of money raised for the support of education by the various states.
14. Compile a list of average annual costs of selected items for which schools must pay, including instructional supplies, equipment, heat, lights, water, salaries of all personnel, insurance, and maintenance.
15. Report on the costs of vandalism in our community's schools for a one-year period.
16. Write a report advocating either greater or lesser funding for our community's schools. In your report show what is to be added or cut.
17. Suggest improved ways of funding the schools.*

D. Evaluation Techniques
1. Preassessment Construct and administer a pretest to assess students' entry knowledge and skills. Sample questions might include:
    a. Estimate the total amount of money spent for the public schools of our community this past year.
    b. How is the property tax determined?
    c. Which spends more money on our community's schools: the locality, the state, or the federal government?
2. Formative evaluation
    a. Daily oral questioning of the students by the teacher on the more difficult aspects of the lessons.
    b. Daily summaries by students and teacher at the end of each lesson.
    c. Teacher's evaluation of student products, as charts, graphs, etc.
3. Summative evaluation
4. Quiz on the day following conclusion of the unit. Sample test items may include questions similar to those of the pretest plus additional items. A combination of objective and essay test items may be used. Sample test items might include:
    1. Essay: Explain the process by which our community raises money locally for the schools.

BOX 11.2   (Continued)

2. Objective: In reference to taxation, a mill is written as:
   a. 01
   b. 1.0
   c. .001
   d. .0001

E. Resources

Human

- School principal.
- School superintendent, member of the superintendent's staff, or member of the school board.

Instructional Aids

- Computer, projector, and visuals.

Printed Material

- Publications of the local school board.
- Publications of the state department of education.
- Publications of the U.S. Department of Education, including:

  The Condition of Education: Statistical Report. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, annually.

  Digest of Education Statistics. Washington, D.C.: U.S. Department of Education, National Center for Education Statistics, annually.

- Bureau of the Census. *Statistical Abstract of the United States.* Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, annually.
- *The World Almanac and Book of Facts.* New York: World Almanac Books, annually.

Websites

- School district
- State department of education
- U.S. Department of Education

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*Students may choose to make a PowerPoint presentation on a topic listed above or a related topic of their own choice. *Note:* This illustrative learning unit is based on the illustrative resource unit shown in Chapter 8.

Lesson Plans

Lesson plans chart the daily instruction. Conceivably, lesson plans could (and sometimes are) written without reference to any written unit plan. However, on strictly logical grounds, lesson plans that are higher in quality, better organized, and more complete are achieved more often with unit plans than without them. Creating units is essential to holistic planning.

Like unit planning, lesson planning is an individual exercise. According to Laurence J. Peter, "A lesson plan is simply an outline prepared in advance of teaching, so that time and materials will be used efficiently."[42] Peter pointed out that "various types of lessons require different kinds of lesson plans."[43] We might add, on a philosophical level, "Various types of teachers, various types of

learners, and various types of subject matter require different types of lesson plans." On a practical level, "Various types of administrators and supervisors require different types of lesson plans."

A six-part outline for a lesson plan that can be followed—subject to modification for special situations—contains the following components:

 A. Objectives
 B. Activities
 C. Assignment
 D. Evaluation Techniques
 E. Bibliography
 F. Instructional Aids and Sources[44]

A sample lesson plan based on the illustrative unit plan is shown in Box 11.3. The less experience a teacher has, the more complete that teacher's unit and lesson plans should be. It is desirable for both experienced and inexperienced teachers to prepare rather complete unit plans to fully communicate their ideas. Experienced teachers, however, will discover ways to simplify and shorten lesson plans. Once the unit and lesson plans have been made, the teacher can pay attention to matters of teaching style, model, and skills.

BOX 11.3 Illustrative Lesson Plan

First Day
  Unit: Financing Our Community's Schools Fifty minutes

 A. Objectives

Cognitive
 1. The student will list three sources of funding for the schools.
 2. The student will describe the source(s) of local funding for the schools.
 3. The student will define "property tax," "assessed valuation," and "mill."

Affective
The student will take positions, giving reasons whether the property tax is equitable, too high, or too low.
  The student will express an opinion and give reasons as to whether he or she believes expenditures for schools in the community are more than adequate, adequate, or inadequate.

 B. Activities
  1. Set induction: Students will listen to the teacher read a recent editorial from the local newspaper on the needs of local schools. The class will discuss its perceptions of the editorial's accuracy (eight minutes).
  2. Using a document camera, the teacher will show charts selected from the district superintendent's annual report to the school board. Students will respond to teacher's questions about interpretation of the charts (ten minutes).
  3. Using the same data, students will prepare original charts and/or graphs showing sources and amounts of funds for the community's schools this past year. Copies of the superintendent's report will also be available for students' use (ten minutes).
  4. Students will listen to teacher's description of sources of local funding. Key points: property tax, assessed valuation, tax assessor, exemptions, and millage (ten minutes).

BOX 11.3   (Continued)

    5. Students will calculate amount of school tax to be paid on the following properties (five minutes):

        a. A house assessed at $150,000; no exemptions; millage rate of 8.5 mills.

        b. A house assessed at $250,000; homestead exemption of $5,000; millage rate of 6.52 mills.

        c. A house assessed at $350,000; homestead exemption of $25,000, plus senior citizen exemption of $5,000, and veteran's exemption of $5,000; millage rate of 7.15 mills.

    6. Closure: Teacher will ask students such questions as: Which level of government spends most on the education of young people in the community? Approximately how much money was raised locally for schools last year? What percentage of funding came from the state? What percentage of funding came from the federal government? What is the current millage rate? (five minutes).

C. Assignment (two minutes)

    1. See if you can find any articles in the local newspapers or on the Internet about costs of education in the community, state, or nation.

    2. Ask your parents how much school tax they paid last year and, if they do not object, report to the class how much it was and how it was calculated. Also ask your parents whether they believe the property tax is too high, too low, or about right.

D. Evaluation Techniques*

    1. Spot-check students' in-class work on charts and calculations of property tax.

    2. Ask students to respond to teacher's oral questions at the end of the lesson.

E. Bibliography

    1. Copies of the district superintendent's annual report to the school board.

    2. Editorial from local newspaper.

F. Instructional Aids and Resources

    1. Computers

    2. Projector and visuals

———————————————

*Teacher will schedule students who would be willing to make a PowerPoint presentation later in the week on the data prepared today in Activity B3.

PRESENTATION OF INSTRUCTION

After planning and organizing for instruction, the teacher proceeds to direct the students' learning experiences in the classroom. Entire volumes have been written on effective means of presenting instruction. Britzman commented: "Teaching is fundamentally a dialogic relation, characterized by mutual dependency, social interaction and engagement, and attention to the multiple exigencies of the unknown and the unknowable."[45]

      Since this text focuses on curriculum development rather than instructional methodology, a discussion of methods of teaching will not be attempted in any detail. Instead, we would like to make a few general observations about presentation of instruction and direct you to a few sources for further study.

      Research on effective teaching in the 1970s and 1980s supported commonsense principles to the effect that students learn more if teachers expect them to learn, focus on the content to be covered, keep them on task, provide adequate practice, monitor their performance, and care about whether they succeed. There is some evidence that for certain types of learnings and for certain types of students, direct instruction of the total group by the teacher is more effective than other strategies such as small grouping, inquiry, and Socratic techniques.[46]

Evidence also shows that coaching is an appropriate technique for some types of learnings and students. Teacher training should make prospective teachers aware of the wide range of instructional strategies possible and help them develop proficiency in the use of those strategies.

The complexity of teaching is readily evident in the roles expected of the teacher. D. John McIntyre and Mary John O'Hair, for example, viewed the teacher as an organizer, communicator, motivator, manager, innovator, counselor, and ethicist as well as fulfilling professional, political, and legal roles.[47]

Although many—perhaps most—educators accept the validity of the effective teaching research on generic teaching skills, some see the generalizations of effective teaching as limited. Current research on teaching has moved in the direction of case studies of teacher performance as opposed to the "process-product" orientation of the earlier studies. Newer foci include more astute recognition and provision for individual differences in the classroom (see below and "Provision for Exceptionalities" in Chapter 15), more emphasis on social aspects of learning (e.g., cooperative learning, school as a community of learners), and realistic ("authentic") learning and performance-based ("authentic") assessment in place of standardized testing.[48]

INDIVIDUALIZED VERSUS GROUP INSTRUCTION

Controversy swirls around the respective efficacy of individualized versus group approaches to instruction. Proponents of individualization maintain that instruction must be geared toward the needs of the individual learners. Thus, we have seen strategies of programmed instruction, self-pacing, independent study, tutorials, guided independent study, and computer-assisted instruction in many classrooms. Proponents of group instruction point out that for some purposes, teaching entire groups is more efficient and practical in our mass educational system than attempting to individualize instruction. Consequently, teaching groups or subgroups in the classroom, be they heterogeneous or homogeneous, has been the time-honored approach to schooling. Research on teacher effectiveness has supported direct instruction of whole groups, at least for certain purposes.[49]

Personalized Instruction

What is clear in today's teaching is the challenge of providing for individual differences within the context of mass education. We should distinguish the individualization in which the same content is presented to all students with some adaptation of methodology in order to achieve the same objectives from the individualization that entails varied content and varied methodology to achieve personalized objectives.

For decades teachers have attempted to identify the most effective means of meeting the needs and interests of their students. The literature is filled with discussions and examples of ways to personalize instruction.[50] Almost every description of effective teaching includes some reference to recognizing and caring for differences in student backgrounds, abilities, personalities, learning styles, interests, and needs.

Recognizing the difficulty of attending to differences in the classroom, teachers continue to search for and try out new techniques or modifications of older approaches. Judging by the wealth of books and other media on the topic, the search for better ways to meet individual differences continues. Three instructional approaches currently command the attention of teachers. All three are interrelated, borrow from previous principles in the history of instruction, owe a debt to progressive philosophy, and give credence to time-honored principles of effective

teaching. Dressed in current terminology and with the underlying principle of adapting instruction to individual learners are the philosophy and practices of:

1. ***Differentiated Education.***   Otherwise known as "differentiated classrooms" and "differentiated instruction." The teacher who creates a differentiated classroom environment provides multiple pathways for students to comprehend the material, to promote thinking and learning, and to produce student work that demonstrates a knowledge and understanding of the matter.[51]
2. ***Constructivism.***   The teacher who engages in constructive techniques of instruction starts with the knowledge learners bring with them to the classroom and leads students to constructing new knowledge. Using thought-provoking questions and activities, constructivist teachers provide many opportunities for students to process their learnings.[52]
3. ***Scaffolding.***   Using coaching techniques, pacing and sequencing the learnings, and supplying help when necessary, teachers assist pupils to progress incrementally toward achieving objectives.[53]

These approaches should be perceived as sets of practices—not specific techniques, but rather, dispositions to the use of a variety of methods to help learners achieve the instructional objectives. Fundamental and common to all three approaches are individualized instruction, active learning, the role of the teacher as facilitator, and interaction between teacher and students and among students.

Technology in Instruction

In our world of ever-changing technology, no one can minimize today's need for teachers to possess skills in using technology in their classrooms. The question then becomes, how much technology should be incorporated into the lessons? Chapter 14, Digital Curriculum, will address this topic as well as others in the area.

Cooperative Learning

New versions of group instruction as well as individualized instruction have arisen. A considerable amount of research and experimentation transpired in the 1980s on presentation of instruction through cooperative learning, which is sometimes referred to as collaborative learning. Robert E. Slavin acknowledged that the concept of cooperative learning was an old idea and went on to define it in the following manner: "Cooperative learning is a form of classroom organization in which students work in small groups to help one another learn academic material."[54]

In advancing his noncoercive lead-management control theory in the classroom, William Glasser clearly supported cooperative learning, observing that "it is hard to visualize any quality school that is not deeply involved in this method of instruction."[55] Slavin noted a key element of cooperative learning—group performance—when he said, "The term refers to classroom techniques in which students work on learning activities in small groups and receive rewards as recognition based on their group's performance."[56] Fran Lehr commented on the composition of groups, defining cooperative learning as "an instructional system that allows students of all achievement levels and backgrounds to work in teams to achieve a common goal."[57]

Cooperative learning research brings to the forefront old arguments about the relative merits of competition, cooperation, and individualization in the classroom. Competition among individuals for the teacher's approval, praise, and smiling face; grades; awards; and other forms of recognition has been a time-honored practice in our schools. We know that

competition among pupils can produce negative effects, such as stifling motivation, especially when students cannot compete on an equal basis. David W. Johnson and Roger T. Johnson called attention to more than 375 studies conducted on the effects of cooperation, competition, and individualized instruction in student achievement, and concluded that cooperative learning resulted in more higher-level reasoning, more frequent generation of new ideas and solutions (i.e., process gain), and greater transfer of what is learned within one situation to another (i.e., group-to-individual transfer) than did competitive or individualistic learning.[58]

Cooperative learning, as currently defined, emphasizes the positive aspects of heterogeneously grouped pupils working together to help each other. As such, it is distinguished from other cooperative methods of instruction such as small-group discussion, group mastery learning, and peer tutoring, as well as from individualized methods—including programmed instruction, individualized mastery learning, interactive video, and independent study—that retain individual achievement as the major goal. With cooperative learning, individuals are responsible to their group for the group's progress.

Some cooperative learning techniques place four to six pupils in groups, depending on the project. Groups are deliberately structured by the teacher to include a balance between high and low achievers, boys and girls, and different ethnic backgrounds. You can easily infer that the goals of cooperative learning include but go beyond subject-matter achievement into the development of group pride, self-esteem, social and emotional skills, respect for diversity, willingness to help one another, and a sense of responsibility.

Students in learning teams take responsibility for particular portions of the task, and they must share what they learn with their group in a way that group members will comprehend. Groups may be restructured from time to time depending on the tasks to be accomplished. The teacher may assign grades both for the group as a whole and for individual members of the group. In some variations of grading under cooperative learning practices, grades represent the amount of progress made by individual members of the group. Group members' dependence on each other serves as a motivator; in effect, it creates a positive form of peer pressure. Competition among teams provides a healthier climate than does competition among individuals.

In your reading or observations you will encounter specific adaptations of cooperative learning developed by individuals who have conducted research on this mode of learning. Among these are Learning Together or Circles of Learning (David W. Johnson and Roger T. Johnson), Jigsaw (Elliott Aronson et al.), Student Teams–Achievement Division or STAD (Robert E. Slavin), Team-Assisted Individualization or TAI (Robert E. Slavin et al.), and Group Investigation (Shlomo Sharan et al.).[59]

In planning, implementing, and evaluating a cooperative learning strategy, teachers must take into consideration whether the facilities are conducive (or can be made conducive) to cooperative activity; whether students possess the ability to work together, sharing responsibility for the group's endeavors; or whether some training in group processes is required.

Robert J. Marzano, Debra J. Pickering, and Jane E. Pollock observed that "cooperative learning should be applied consistently and systematically, but not overused."[60] Reminding teachers that "[a]ny strategy, in fact, can be overused and lose its effectiveness," they concluded, however, "Of all classroom grouping strategies, cooperative learning may be the most flexible and powerful."[61]

Increased emphasis today is placed on active involvement of students in their learning process, not only by enabling them to work together but also by providing them with opportunities to choose learning activities and to evaluate their own performance.

Summary

Selecting instructional strategies is one of the final steps in planning for instruction. Instructional strategies are derived from a number of sources, including the objectives, the subject matter, the pupil, the community, and the teacher.

Teachers vary in their styles, models, and skills. By style we mean the unique, personal qualities that a teacher develops over the years to distinguish himself or herself from all other teachers.

When we speak of models of teaching, we mean a generalized role—a pattern of methods—such as discussion leader, online instructor, or tutor. The so-called Socratic method of stimulating thinking is a model.

Skills of teaching are those generic and specific competencies necessary to design and carry out instruction. Lesson planning, for example, is a generic skill that is pertinent to all teachers at all levels. The ability to teach pupils to perform the division of whole numbers is an example of a specific skill. Both the models and skills must be compatible with the teacher's style. Instructional strategies must be appropriate to the teacher's style, model, and skills.

Instructional strategies, styles of teaching, and teaching skills are all selected, adopted, and implemented to successfully fulfill instructional goals and objectives. The ultimate purpose of all strategies, styles, models, and skills is the fostering of student achievement.

The various instructional components should be organized into, among other types of plans, short-term units and daily lesson plans. Although teachers may design their own formats for unit and lesson plans, generic outlines are suggested in this chapter. As teachers gain experience, less detail in planning is possible. However, some planning is always necessary. The reader is referred to selections from the now large body of research on effective presentation of instruction.

The chapter concluded with discussions of several strategies for presentation of instruction, called "delivery systems" by some people.[62]

Questions for Discussion

1. How do strategies, models, and styles of teaching differ from each other?
2. How would you go about matching a teacher's style and the learners' styles?
3. How do generic teaching skills differ from specific teaching skills? Give examples.
4. How do you account for the fact that specifications of generic teaching skills differ from state to state?
5. Which do you believe is most effective in promoting student achievement: individualization, competition, or cooperation?

Exercises

1. Describe with examples how a teacher's style affects selection of instructional strategies.
2. Debate the issue: Teaching as an Art vs. Teaching as a Science.
3. Cross-reference the standards, an instructional focus calendar, and an order of instruction document of a particular grade level of a school with which you are familiar to determine if there are gaps and overlaps in the instruction. Prepare an oral or written report on one of the following:
   a. Mastery learning
   b. Peer tutoring
   c. Differentiated instruction
   d. Constructivism
   e. Scaffolding

4. List several specific teaching skills for a teaching field you know well.

5. Prepare an oral or written report on one of the following adaptations of the concept of cooperative learning:

   a. Cooperative Integrated Reading and Comprehension (Nancy A. Madden et al.)

   b. Group Investigation (Shlomo Sharan)

   c. Jigsaw (Elliott Aronson et al.)

   d. Jigsaw II (Robert E. Slavin)

   e. Jigsaw III (A. Gonzalez and M. Guerrero)

   f. Learning Together or Circles of Learning (David W. Johnson and Roger T. Johnson)

   g. Student Teams–Achievement Division (Robert E. Slavin)

   h. Team-Assisted Individualization (Robert E. Slavin et al.)

   i. Teams-Games-Tournament (David DeVries and Robert E. Slavin)

Websites

Association for Supervision and Curriculum Development: ascd.org

Community Learning Network: cln.org (on integrating technology)

Education World: educationworld.com/a_curr/curr218 .shtml (on scaffolding)

Educator's Reference Desk: eduref.org

Funderstanding: funderstanding.com/content/ constructivism

International Society for Technology in Education: iste.org

Ipl2: ipl.org/ (Internet Public Library)

Lesson Plan Page: lessonplanpage.com (lesson plans)

Open Educational Resources Commons: oercommons.org (shared materials for teaching and learning K–12 through college)

Phi Delta Kappa: pdkintl.org

TeacherspayTeachers: teacherspayteachers.com (educators buy and sell course materials)

Multimedia

Available from Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, Va. 22311-1714:

Robert J. Marzano, *The Art and Science of Teaching*. Two Programs: Effective Instructional Strategies and Effective Classroom Management Strategies. 2008. Two 45-minute DVDs.

Differentiated Instruction in Action. Three programs: Elementary, Middle, and High School. 2008. Three 25–30-minute DVDs.

How to Use Students' Diverse Cultural Backgrounds to Enhance Academic Achievement. How-to Video No. 32. 2007. One 15-minute DVD.

Podcast

"Leading and Managing a Differentiated Classroom," with authors Carol Ann Tomlinson and Marcia Imbeau. Produced by Association of Supervision and

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Evaluating Instruction

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ASSESSING INSTRUCTION

Assessing Student Achievement

She holds her head in her hands, eyes transfixed on the top of the desk. She looks with displeasure at the pile of examinations in front of her, each filled with red marks indicating errors. She has administered the acid test—the examination on the unit on elections: local, state, and federal. Four weeks' work wasted! On a scale of one to one hundred and a passing grade of seventy, only half of her class achieved the passing mark. "Why?" she asks herself. "What went wrong?" A stream of reasons floods her brain:

- They did not pay attention when she was going over the material.
- They were too careless in answering the questions.
- Their parents do not force them to do their homework.

After several moments of indulging in recrimination and blaming the poor results on the students, she begins to take a look at the situation more rationally. What are some hypotheses, she asks herself, for such a high percentage of failures? After some serious reflection, she begins to wonder:

- Were the objectives appropriate? Were they pertinent to the subject matter? Were they within the learning abilities of the pupils? Were they relevant to the students?

After studying this chapter you should be able to:

1. Define preassessment, formative evaluation, and summative evaluation, and describe the purposes of each.
2. Explain the difference between norm-referenced and criterion-referenced measurement and state the purposes for which each is intended.
3. Design test/evaluation questions in the major categories of each of the three domains of learning.
4. Define and give examples of performance-based assessment.
5. Contrast traditional assessment with performance-based assessment.

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- Did the pupils possess the prerequisite competencies before we began the unit in which they did so poorly? How do I know?
- Did I use the right instructional techniques? Did the strategies I chose fit the learning styles of the students?
- Did I make periodic checks along the way? What did they reveal?
- Did I alert them to the type of exam?
- Did the exam questions relate to the objectives? Were they clear?
- Did the pupils have sufficient time to respond to all the questions? Were the classroom conditions suitable for exam taking?
- Did I really find out what the students did or did not learn?
- And what do I do now? How shall I treat the exam results? What effect should their scores have on the next report card? How will I explain the low scores to the principal, to the pupils, to the parents?

The term "evaluation of instruction" could be expanded to read "evaluation of instruction through the assessment of student achievement." In one sense, evaluation of instruction is evaluation of the effectiveness of the instructor. For example, does the teacher choose the right delivery system? Are the instructional objectives clear? Do test items relate to objectives? Does the teacher present the material clearly? These are the types of questions a supervisor asks in evaluating teacher performance. Although this book does not examine the complex and important topic of teacher performance, you will find many helpful references on this topic in the professional literature on supervision.[1] This chapter focuses on the assessment of student performance.

In another sense, evaluation of instruction is evaluation of the curriculum. It reveals the success of one dimension—how well students achieve in areas that are assessed. It may also indicate whether the content has been adequately covered. Evaluation of instruction does not answer curricular concerns such as whether the subject matter was the right choice to begin with, whether its content is relevant, whether it meets student or societal needs, whether the profession and public are satisfied with it, whether it meets the school's philosophy and aims, or whether the content has been selected wisely. These are curricular dimensions that must be evaluated in addition to assessment of student achievement. We will look at the evaluation of curriculum in the next chapter. It is easy to see, however, that evaluation of instruction, evaluation of teacher performance, and evaluation of the curriculum are all intimately interrelated.

Cycle within a Cycle

Instruction in the model for curriculum development followed in this text is a cycle within the curriculum cycle (see Figure 12.1).

Let's once again pull out the instructional chain that makes up the instructional model. It is a submodel of the model for curriculum development presented in Chapter 5.

To keep the model for curriculum development uncluttered, the feedback line for this submodel was depicted simply as proceeding from the terminal component of the instructional chain—the *Evaluation of instruction*—directly to the beginning of the instructional model—the *Specification of instructional goals*.

The feedback line from Evaluation of instruction to Specification of instructional goals demonstrates a cycle and indicates that modifications in the system can be made in sequence. However, this figure would be more accurate if it showed feedback lines to each component, because evaluation results may reveal needed modifications in components anywhere in the system. The instructional submodel with all feedback lines is shown in Figure 12.2.
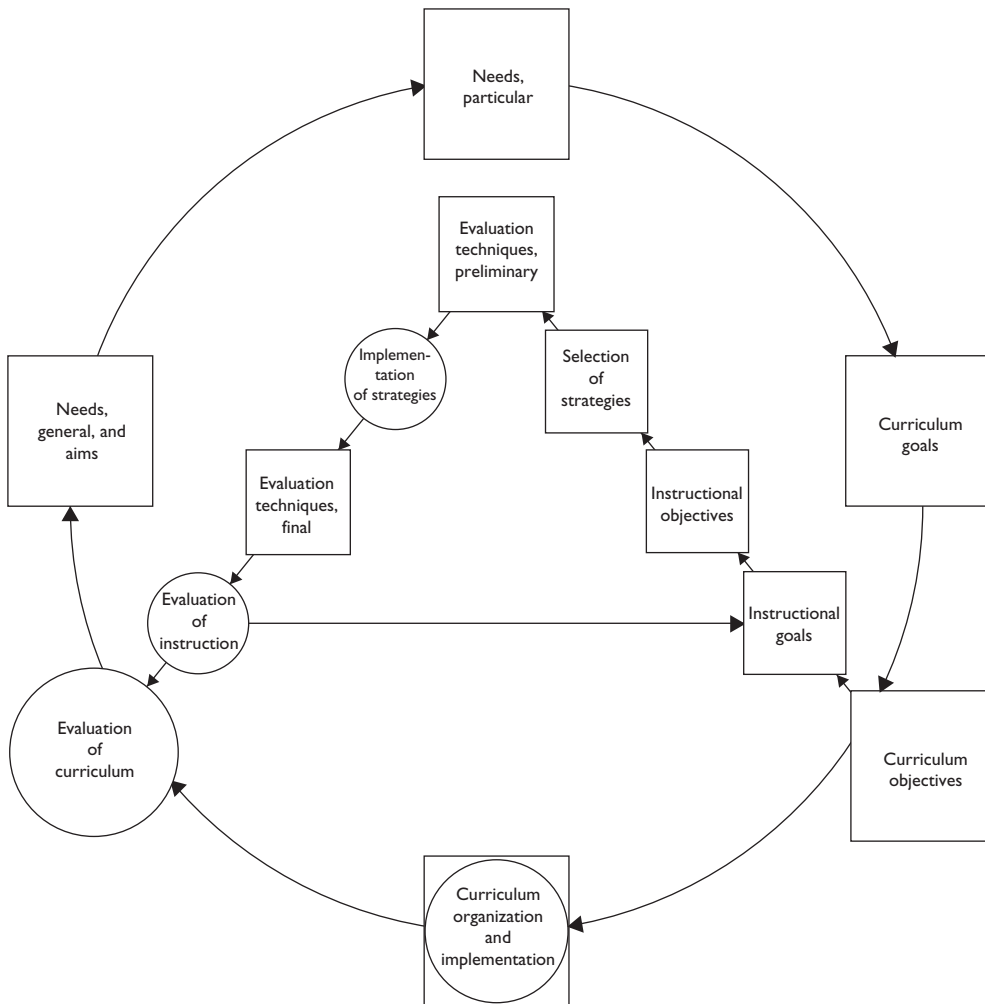
FIGURE 12.1
The Instruction and Curriculum Cycles

As we have seen, the instructional chain begins with specifying the goals. This cycle is not complete until we learn whether or not the instructional goals and objectives have been achieved. The problem before us now is one of evaluating the instruction that has taken place.

AN ERA OF ASSESSMENT

Evaluation. Assessment. Measurement. Testing. Accountability. These words are heard with great frequency today in both public and professional circles. Specialists in measurement and evaluation are in great demand, for we are now in an era of assessment. Although this era began some time ago, its tempo began to increase considerably in the mid-1970s. In the past few years, the movement's emphasis and the sources of its impetus have changed somewhat. We are all familiar with the phenomenon of mass testing that has dominated America ever since
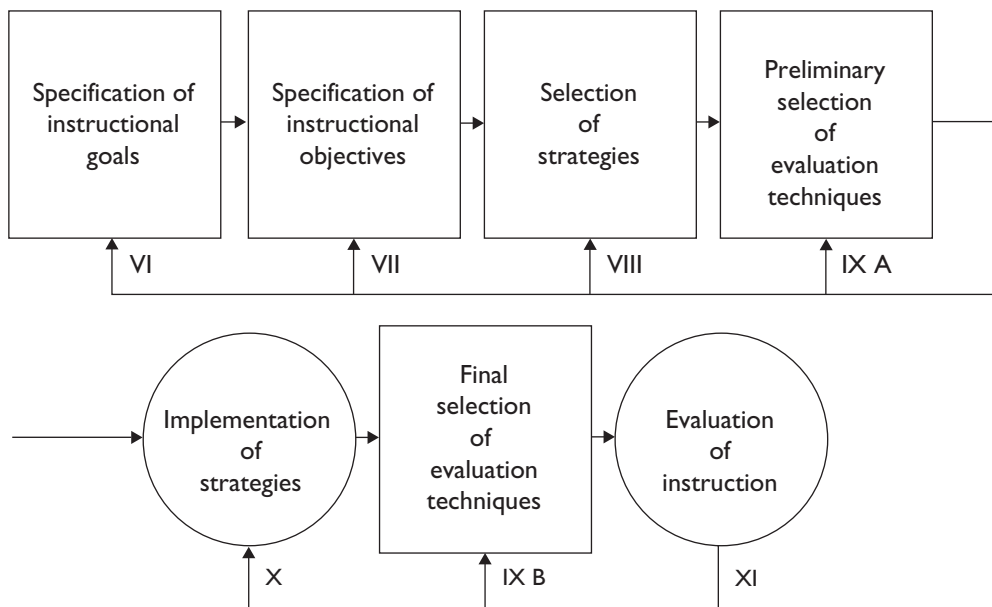
FIGURE 12.2
Instructional Model with All Feedback Lines

Edward L. Thorndike conceptualized the first standardized tests. The standardized SAT and GRE tests are household words in the United States in much the same way the nonstandardized baccalaureate tests are in France.

As early as the late 1950s and early 1960s, William H. Whyte, Jr., Martin Gross, and Banesh Hoffman were all pointing to the dangers of mass testing. Whyte and Gross were particularly concerned about personality testing, and Hoffman was critical of typical standardized multiple-choice tests.[2]

Currently, states busily engage students in so-called "high-stakes testing," that is, examinations that can result in negative consequences in the form of retention in grade and failure to graduate from high school. Condemning test-driven school reform, Monty Neill, executive director of the National Center for Fair and Open Testing, observed, "high-stakes testing . . . undermines good schools and prevents real improvement."[3] However, the Westchester Institute for Human Services Research found that high-stakes accountability reform can improve student achievement and can help to narrow the achievement gap at a comparatively low financial impact as compared to current movements such as reducing class size.[4]

The terms evaluation, assessment, measurement, testing, and accountability evoke strong feelings; some pro and some con. Some educators would banish the use of tests, both standardized and nonstandardized, because they feel the tests set an imposed, predetermined curriculum. Some view tests as measuring insignificant learnings and destructive to students' self-concepts. On the other hand, if legislation effected by state and national representatives reflects the public's views, we might conclude that the public supports continuing efforts at assessment and accountability. Whatever the perspective, it is abundantly clear that more is riding on standardized testing than ever before.

Definition of Terms

At this point, let's clarify the meaning of the main terms used in this chapter. These are *evaluation, assessment, measurement,* and *testing. Evaluation* and *assessment* are used interchangeably in this text to denote the general process of appraisal. *Measurement* and *testing* are subsumed under the general classifications of evaluation and assessment.

Measurement is the means of determining the degree of achievement of a particular competency. *Testing* is the use of instruments for measuring achievement. Thus, measurement and testing are ways of gathering evaluation and assessment data. However, we have means other than testing to evaluate student performance. When we speak of evaluating a student's performance of a competency, we may or may not measure that performance. Measurement implies a degree of precision and observable behavior. In this chapter, we will not fully explore measurement, evaluation, testing techniques, and the by-products of evaluating instruction—marking and reporting.[5] We will seek instead to develop some basic understandings about evaluating instruction, including a limited number of principles of measurement and testing.

STAGES OF PLANNING FOR EVALUATION

You will note, in referring to the proposed model for curriculum development,[6] that component IX on the selection of evaluation techniques is divided into two parts: IX A, *Preliminary selection of evaluation techniques*, and IX B, *Final selection of evaluation techniques.* This separation is made in order to convey the understanding that planning of evaluation techniques takes place both before and after instruction. However, this dualistic separation is an oversimplification. To be more precise, we should show planning for evaluation techniques interspersed at each stage of the Instructional Model. An expanded diagram of instruction showing the many stages of planning for evaluation is presented in Figure 12.3.

Expanded Model of Instruction

What the expanded model indicates is that the selection of evaluation techniques, including test items, is a continuous process. This concept of planning for evaluation differs from the practice of teachers who wait until the end of the instruction, then prepare and administer a test. Evaluation techniques should be jotted down at each of the five stages shown in the expanded model. Three of these stages are prior to instruction; one midinstruction; and one postinstruction. Test items should be recorded when they occur to the teacher while the content is fresh in mind. Continuous accumulation of test items and choice of other evaluation techniques can simplify end-of-instruction evaluation.

Three Phases of Evaluation

The teacher needs to be able to demonstrate skill in three phases of evaluation:

- preassessment
- formative evaluation
- summative evaluation

These terms are technical words to connote evaluation that takes place *before* instruction (preassessment), *during* instruction (formative), and *after* instruction (summative).
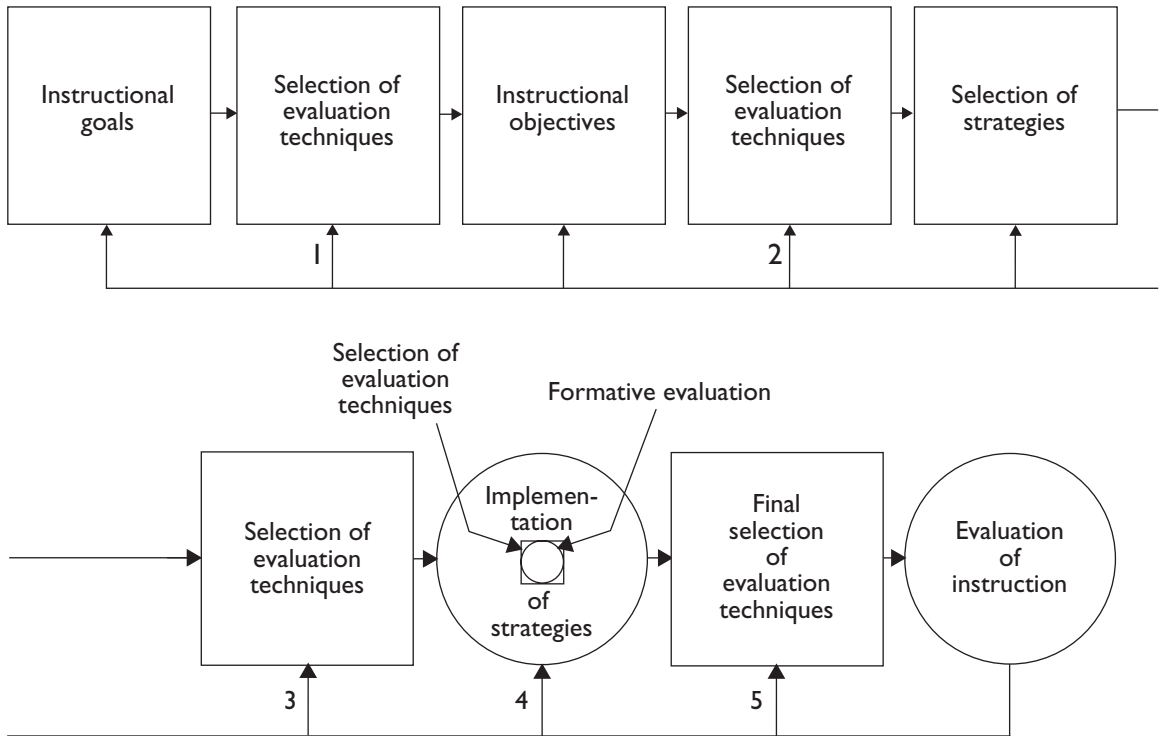
FIGURE 12.3
Stages of Planning for Evaluation

PREASSESSMENT.   *Preassessment* possesses a dual nature. Walter Dick and Lou Carey described two types of tests that precede instruction.[7] These two types are an entry-behaviors test and a pretest. The *entry-behaviors test* is "a criterion-referenced test designed to measure skills which have been identified as being critical to beginning instruction."[8] This type of preassessment is conducted to determine whether students possess the prerequisite knowledge that will enable them to proceed with the new treatment. The *pretest* is "criterion-referenced to the objectives the designer intends to teach."[9] "Criterion-referenced" tests, discussed later in this chapter, measure students' achievement not by how well they compare with their classmates but by how well they master predetermined instructional objectives.

The entry-behaviors (or entry-skills) test covers preceding (prerequisite) learnings, whereas the pretest covers subject matter to be learned. A pretest alone is not sufficient, for if students do poorly on a pretest, the instructor cannot tell whether the students did poorly because they did not know the material to come (acceptable) or did not have the prerequisite knowledge or skills (not acceptable). Some means of judging possession of prerequisite skills is essential. Lack of prerequisite skills calls for remedial instruction and repetition of instruction before proceeding to new content.

Some teachers use a pretest/posttest technique comparing scores made by pupils on a posttest with scores the pupils made on the pretest. W. James Popham warned, however, of the pitfalls of the pretest/posttest strategy.[10]

FORMATIVE EVALUATION.   *Formative evaluation* consists of the formal and informal techniques, including testing, that are used during the period of instruction. Progress tests are an illustration of formative evaluation. Benjamin S. Bloom, J. Thomas Hastings, and George F. Madaus advised instructors to "break a course or subject into smaller units of learning" and to administer "brief diagnostic progress tests."[11]

Through formative evaluation, teachers may diagnose and take remedial action to help students overcome difficulties before they are confronted with the *terminal (summative) evaluation.* Formative evaluation, whether formal or informal, enables teachers to monitor their instruction so that they may keep it on course.

SUMMATIVE EVALUATION.   *Summative evaluation* is the assessment that takes place at the end of a course or unit. A final written examination (*posttest*) is the most frequently used means of summative evaluation of instruction. Its major purpose is to find out whether the students have mastered the preceding instruction.

Summative evaluation reveals whether or not prespecified outcomes of instruction have been achieved. In some cases, summative assessment of outcomes, particularly those in the affective and psychomotor domains, is achieved by the learner's actual demonstration of the outcomes rather than by paper-and-pencil tests, which are designed primarily for cognitive learning. Recall, however, that cognitive learning remains the primary focus of schooling.

The astute teacher uses results of summative evaluation to revise his or her program and methods for subsequent groups.

NORM-REFERENCED MEASUREMENT AND CRITERION-REFERENCED MEASUREMENT

Norm-Referenced Measurement

Two divergent concepts of measurement compete for the attention and loyalty of instructors. *Norm-referenced measurement* is the classic approach to assessment in which a student's performance on a test is compared to the performance of other students who took the test. Following this principle, standardized tests of achievement are administered and norms—standards of performance—are calculated for various groups who took the tests. The scores made by students who subsequently take the tests are compared to those made by the population on whom the test was standardized.

Classroom teachers follow the same principle whenever they measure the achievement of one student against or in relationship to that of other students in class. As a gross example of this approach to measurement, the teacher will administer a test, calculate the scores, rank the scores from highest to lowest, find the middle score (which becomes a C grade), and then grade all other tests in relationship to that middle grade. In this nonstandardized situation, students are rated in relationship to performance of that particular group on that particular test.

Criterion-Referenced Measurement

Since the norm-referenced approach to measurement is so common and so universally practiced, it might be asked, "What other approach is there?" *Criterion-referenced measurement* is the alternative to norm-referenced measurement. In this approach, the performance of students on a test is compared to criteria that were established in the instructional objectives. A student's

success on a criterion-referenced test depends on demonstrated mastery of the objectives and not on his or her performance as related to others in the class.

Among the practitioners of criterion-referenced measurement are the instructional-design specialists and the district, state, and national assessment specialists. These persons desire to know whether students achieve mastery of specified objectives. Today's "high-stakes" tests are classic examples of criterion-referenced exams.

Comparison of the Two Types of Measurement

Popham identified "the most fundamental difference" between norm-referenced measurement and criterion-referenced measurement approaches to educational measurement as

> the nature of the interpretation that is used to make sense out of students' test performance.
> With *norm-referenced* measurement, educators interpret a student's performance in relation to the performance of students who have previously taken the same examination. In contrast, a *criterion-referenced* interpretation is an *absolute* interpretation because it hinges on the extent to which the criterion assessment domain represented by the test is actually possessed by the student.[12]

On the surface, norm-referenced tests look no different from criterion-referenced tests. Popham saw differences in the construction of items for the two types of tests as a matter of "set":

> The basic differences between item construction in a norm-referenced framework and item construction in a criterion-referenced framework is a matter of "set" on the part of the item writer. . . . When an individual constructs items for a norm-referenced test, he tries to produce variant scores so that individual performances can be contrasted. . . . He disdains items which are "too easy" or "too hard." He avoids multiple choice items with few alternative responses. He tries to increase the allure of wrong answer options. He does all of this to develop a test which will produce different scores for different people. . . .
> The criterion-referenced item designer is guided by a different principle. His chief purpose is to make sure the item accurately reflects the criterion behavior. Difficult or easy, discriminating or indiscriminate, the item has to represent the class of behaviors delimited by the criterion.[13]

James H. McMillan offered a helpful comparison of these two approaches as shown in Table 12.1.

We should take note that the tests developed by the states to assess achievements of both students and teachers are by and large criterion-referenced.

The Instructional Model suggested in this text places the specification of instructional objectives in a central position and, therefore, leans toward a criterion-referenced approach to classroom testing. This point of view, however, does not eliminate the use of standardized tests in the school or the use of norm-referenced teacher-made tests for the purposes they can fulfill. It does eliminate the use of a norm-centered approach to classroom testing that permits teachers to adopt the philosophy of the normal curve and to generate scores that result in a normal distribution of grades ranging from A through F on every test. Such a practice violates the philosophy of the normal curve, which holds that traits are distributed at random throughout the general population. No single class is a random sample of the general population. Therefore, to hold As to a mere handful, to condemn some students automatically to Fs, to grant a certain percentage of Bs and Ds, and to assign about two-thirds of a class to the so-called average or C grade is not a defensible practice.

TABLE 12.1   Characteristics of Norm- and Criterion-Referenced (Standards-Based) Assessment

	Norm-Referenced	Criterion-Referenced (Standards-Based)
Interpretation	Score compared to the performances of other students	Score compared to predetermined standards and criteria
Nature of Score	Percentile rank; standard scores; grading curve	Percentage correct; descriptive performance standards
Difficulty of Test Items	Uses average to difficult items to obtain spread of scores; very easy and very difficult items not to be used	Uses average to easy items to result in a high percentage of correct answers
Use of Scores	To rank order and sort students	To describe the level of performance obtained
Effect on Motivation	Dependent on comparison group; competitive	Challenges students to meet specified learning target
Strengths	Results in more difficult assessments that challenge students	Matches student performance to clearly defined learning targets; lessens competitiveness
Weaknesses	Grades determined by comparison to other students; some students are always at the bottom	Establishing clearly defined learning targets; setting standards that indicate mastery

Source: From J. H. McMillan, *Classroom Assessment: Principles and Practices for Effective Standards-Based Instruction,* 4th ed., p. 364. Published by Allyn and Bacon, Boston, MA. Copyright © 2007 by Pearson Education. Reprinted by permission of the publisher.

Because of its long history of usage, the norm-referenced approach is reasonably well understood by teachers, students, and parents. Further, imbued with a sense of competition, many parents invite the kinds of comparisons that are made under a norm-referenced system.

Among the proponents of norm-referenced testing are standardized test makers, those who advocate competitive grading, those who have a need to screen or select persons (for example, college admissions officers), those who draw up honor rolls, admission committees of honorary societies, and those who award scholarships. Norm-referenced testing is necessary when a limited number of places are to be filled from a pool of applicants in excess of the number of places and when only a limited number of awards are to be distributed among a group of aspirants.

If we may use the analogy of the smiling or frowning face, the norm-referenced tester frowns when all students pass an exam because it does not discriminate between high and low achievers. The criterion-referenced tester wears a broad smile when all students pass an exam, because students have mastered the objectives on which they were tested.

EVALUATION IN THREE DOMAINS

Objectives, as discussed in Chapter 10, have been classified into three domains—the cognitive, the affective, and the psychomotor. Although an objective may possess elements of more than one domain, ordinarily it will exhibit the primary characteristics of one of the three domains. The fact that objectives may not fall neatly into a single domain should not dissuade teachers from assessing pupils' performance in the various domains. Teachers may choose any of the numerous types of tests: actual performance, essay, or one or more objective tests such as multiple choice,

TABLE 12.2   Types of Assessment Items and Formats Related to Different Aspects of Grading

Aspects of Grading	Assessments						
	Forced-Choice	*Essay*	*Short Written Response*	*Oral Reports*	*Performance Tasks*	*Teacher Observation*	*Student Self-Assessment*
Informational Topics	M	H	H	H	H	M	H
Process Topics	L	M	L	M	H	H	H
Thinking and Reasoning	M	H	M	H	H	L	H
Communication	L	H	L	H	H	L	H
Nonachievement Factors	L	L	L	L	M	H	H

Key: H = high, M = medium, L = low.

Source: Robert J. Marzano, *Transforming Classroom Grading.* Copyright © 2000 by McRel. (Published by Association for Supervision and Curriculum Development, Alexandria, Va.), p. 87. Reprinted by permission of McRel, Aurora, CO.

alternate response, completion, matching, or rearrangement. Table 12.2 shows seven forms of classroom assessment with the level of usefulness for the various aspects of grading.[14]

Each domain presents its own unique evaluation problems. Let's look at some illustrations of test items for the major categories of each domain.

Psychomotor Domain

Objectives in the psychomotor domain are best evaluated by actual performance of the skill being taught. For example, if we wish students to be able to swim 100 yards without stopping, we require that they hop into the water and show us that they can do it. The students fail, we might say, if they sink to the bottom. We may wish to qualify the performance by requiring students to swim 100 yards in x number of minutes. To pass the test, students would have to satisfy that criterion.

The teacher has to make some judgmental calls when students are asked to demonstrate perceptual-motor skills. Form and grace might be considered in the 100-yard swim as well as completion or speed of completion. Evaluative judgments are made when students are asked to demonstrate the ability to make a mobile in art class, to design a website in a web-design class, to create a balanced menu in a food and nutrition class, to do an overhead volleyball serve in a physical education class, or to administer artificial respiration in the first-aid course.

Beyond the simple dichotomy—performance or nonperformance (pass-fail, satisfactory-unsatisfactory)—of a skill assessment lie such factors as speed, originality, and quality. The teacher may choose to include these criteria as part of the assessment process. When judgmental criteria are to be used, they should be communicated to the students in advance. The teacher will find it helpful to identify as many indicators of the criteria as possible. For example, in the case of the mobile made in art class, indicators of quality might be durability, precision of construction, neatness, and detail.

There are times when teachers settle for a cognitive recounting of how the student would demonstrate a perceptual-motor skill. Ideally, psychomotor skills should be tested by actual

performance. Because of lack of time or facilities, however, it is not always possible for every pupil to demonstrate every skill. For example, a group of students in home economics working together may have baked an apple pie. A final examination question might be, "List the steps you would take in making an apple pie." Although not altogether satisfactory from a pedagogical point of view—most of us can talk a better game than we can play—this technique may be used. We suspect, of course, that many a forlorn pie will be turned out by the inexperienced bakers before the skill is perfected.

TEST ITEMS OF THE PSYCHOMOTOR DOMAIN.   Here are examples of test items for each of the seven major categories of the Simpson taxonomy of the psychomotor domain:

1. *Perception.*   Distinguish between an *s* and a *z* sound.
2. *Set.*   Demonstrate how to hold a fishing pole.
3. *Guided Response.*   Make computer-generated mailing labels, following the teacher's explanation.
4. *Mechanism.*   Saw a six-foot two-by-four into three pieces of equal size.
5. *Complex Over Response.*   Perform an auto tune-up.
6. *Adaptation.*   Sketch a new arrangement for the furniture of a living room.
7. *Origination.*   Paint an original landscape in watercolors.

All of these test items call for actual *performance.* Observe that all seven could equally be instructional objectives. We, therefore, have a perfect match between the objectives and the test items. On the other hand, let's take the following psychomotor objective: "Objective for high school physical education: *The pupil will demonstrate skill in swimming.*" Is this objective at the same time a test item? This objective is broad, complex, and without a stipulated degree of mastery. Although it is an objective desired by the physical education instructor, it is difficult to convert into a test item as it currently stands. Establishing a series of subobjectives from which we could derive the test items would help. For example, the student will demonstrate how to:

- dive into the pool
- tread water
- float face down
- float face up
- do the breaststroke
- do the freestyle
- swim underwater the width of the pool

The instructor might limit appraisal of the pupils' performance in these skills to "satisfactory" or "unsatisfactory."

Cognitive Domain

Achievement in the cognitive domain is ordinarily demonstrated in school by pupil performance on written tests administered to a group—usually, but not always, an entire class. To administer individual written or oral tests on a regular basis would require an excessive amount of time. The teacher should seek to evaluate, when appropriate, student achievement in all six levels of the Bloom taxonomy of the cognitive domain, using both essay and objective test items.

TEST ITEMS OF THE COGNITIVE DOMAIN.   Whereas objective items sample knowledge of content on a broad scale, essay tests sample limited content and provide information about the

student's ability to organize his or her thoughts, write coherently, and use English properly. The following test items show several ways objectives in the cognitive domain can be evaluated:

1. **Knowledge**

    Essay: Explain how Samuel Clemens got the name Mark Twain.

    True-False: A whale is a warm-blooded mammal.

    Completion: The United States, Russia, Great Britain, France, and _____ hold permanent seats on the UN Security Council.

2. **Comprehension**

    Essay: What is meant when a person says, "Now you've opened Pandora's box"?

    Multiple Choice: A catamaran is a

    a. lynx
    b. boat
    c. fish
    d. tool

3. **Application**

    Essay: Describe, giving at least three current illustrations, how the law of supply and demand works.

    Multiple Choice: 4 divided by 1/2 =

    a. 2
    b. 4
    c. 6
    d. 8

4. **Analysis**

    Essay: Analyze the school board's annual budget as to categories of funds, needs of the schools, and sources of funds.

    Multiple Choice: A survey of parents showed ninety percent believe schools are too lax in discipline; five percent, too strict; and five percent, undecided. We might conclude that these parents

    a. favor looser discipline
    b. favor smaller classes
    c. favor stricter teachers
    d. favor higher taxes
    e. favor all of the above

5. **Synthesis**

    Essay: Describe the origin and significance of the Thanksgiving Day holiday. (Since synthesis and the highest category of the cognitive domain—evaluation—require extensive narration, they are best evaluated through use of essay test items.)

6. **Evaluation**

    Essay: Read the current planks from the platform of either the Democratic or Republican Party, and tell whether you believe the planks fulfill current needs in the country and state your reasons. Provide evidence to support your reasons.

The types of test items selected depend on the teacher's purpose and the amount of time that can be devoted to the test. As a general rule, a combination of test items provides variety and thereby stimulates interest. If essay items are used either alone or in conjunction with objective items, sufficient time must be provided for students to organize their answers and to respond fully to the essay questions. The passing score should always be communicated to the learners before they take a test.

Cognitive objectives, like those for psychomotor skills, are often suitable test items. For example, if we choose the objective, "The student will be able to list the steps by which a federal bill becomes a law," the teacher has a ready-made test item: "List the steps by which a federal bill becomes a law." However, if the objective is a general competency such as "The student will be able to divide whole numbers by fractions," the teacher must create specific test items that permit students to demonstrate the competency.

Affective Domain

We should refrain from using the terms "testing" and "measurement" in reference to the affective domain. As stated earlier, student achievement in the affective domain is difficult and sometimes impossible to assess. Attitudes, values, and feelings can be deliberately concealed; learners have the right to hide personal feelings and beliefs, if they so choose. Affective learnings may not be visible in the school situation at all.

The achievement of objectives in the affective domain, therefore—though important in our educational system—cannot be measured or observed like objectives in the cognitive and psychomotor domains. For that reason, students should not be graded on an A through F or percentage system for their possession or lack of affective attributes. Except for a few affective objectives such as conduct (provided it can be defined and observed), these types of learning should probably not be graded at all, even with different symbols.

We attempt to evaluate affective outcomes when we encourage students to express their feelings, attitudes, and values about the topics discussed in class. We can observe students and may find obvious evidence of some affective learnings. For example, a child who cheats has not mastered the value of honesty. The bully who picks on other children has not learned concern for other people. The child who expresses a desire to suppress freedom of speech has not learned what democracy means. The normal child who habitually feels that he or she cannot do the work has developed a low self-concept.

Thus, some affective behaviors are apparent. Teachers can spot them and through group or individual counseling can perhaps bring about a change in behavior. On the other hand, children are at school only six or seven hours a day. They are constantly demonstrating affective behaviors—positive and negative—outside of school, where the teacher will never have occasion to observe them. Are the students helpful at home? Are they law-abiding in the community? Do they protect the environment? Do they respect other people? Who can tell for sure without observing the behavior? Students may profess to behave in certain ways to please the teacher or others and then turn around and behave far differently outside the classroom.

Following the Krathwohl taxonomy of the affective domain, let's look at some affective objectives that contain ways for evaluating their achievement.

1. *Receiving.*   The student expresses in class an awareness of friction among ethnic groups in the school.
2. *Responding.*   The student volunteers to serve on a human relations committee in the school.
3. *Valuing.*   The student expresses a desire to achieve a positive school climate.
4. *Organization.*   The student controls his or her temper in class.
5. *Characterization by Value or Value Complex.*   The student expresses and exemplifies in his or her behavior a positive outlook on life.[15]

ASSESSMENT ITEMS OF THE AFFECTIVE DOMAIN.   The agree-disagree attitude inventory is a means frequently used to determine achievement of affective objectives. These types of questions

reveal a basic problem in teaching for affective learning. If the teacher or test maker has pre-conceived notions of the "correct" responses, he or she is operating in a twilight zone between achievement of affective outcomes and indoctrination. Further, remember that students can and sometimes do respond to attitudinal questions as they believe the teacher or test maker wishes them to respond rather than as they actually feel.

The attainment of affective objectives can be discerned by instruments such as opinion-naires or attitude inventories, by observation of the behavior of students, and by essay questions that ask pupils to state their beliefs, attitudes, and feelings about a given topic. Perhaps, instead of thinking of using instruments that seek to discover students' attitudes and values through an accumulation of items administered test-fashion, we should think more of asking frequent value-laden questions and listening to students' responses. Instead of leveling a continuous barrage of factual questions, teachers can interject questions such as: How do you feel about . . . ? What do you believe about . . . ? Would you be interested in . . . ? Are you in agreement with . . . ?

PERFORMANCE-BASED ASSESSMENT

Although we normally equate the word "test" with "examination" and usually think of a test in a summative context at the end of the instruction, we should remember that it is really an attempt to demonstrate mastery of objectives in whatever domain. Students can demonstrate achievement both during and at the end of instruction through means other than typical exami-nations. For example, synthesis in the cognitive domain can be tested by means of essay items. Competency in synthesizing can also be tested by written reports during the period of instruction or by term papers at the end of instruction. A skilled instructor can tell a good deal about pupils' success just by observing their classroom performance. Individual and group oral reports may be assigned for a variety of purposes, including testing the ability to speak, knowledge of the sub-ject, and, in the case of group activities, the ability to work together. Alternative techniques of evaluation other than examinations include student logs, reports, essays, notebooks, simulations, demonstrations, construction activities, self-evaluation, and portfolios.

Many teachers employ practices collectively known as performance, performance-based, or authentic assessment, basically a personalized approach to demonstration of prespecified out-comes. In discussing performance assessment Popham distinguished between the terms *authentic assessment* (real-life tasks) and *alternative assessment* (alternatives to traditional paper-and-pencil testing).[16]

Some advocates of performance-based assessment would substitute authentic measures for typical teacher-made and standardized tests. Others would supplement traditional testing with alternative techniques. *Horace's School* (via Theodore R. Sizer), for example, would require demonstrated "Exhibitions" of performance to earn a high school diploma.[17]

Alternative Assessment

Describing "most traditional standardized tests" as "poor predictors of how students will perform in other settings" and "unable to provide information about why students score as they do," Linda Darling-Hammond criticized standardized tests for not providing "information about how chil-dren tackle different tasks or what abilities they rely on in their problem-solving."[18]

An example of a widely practiced form of alternative assessment is the use of *portfolios* to show evidence of student accomplishment by assembling samples of their work. Portfolios may contain creative writings, tests, artwork, exercises, reflective essays, notes on topics, and whatever other materials portray achievement. Portfolios containing a generous sampling of

students' work can reduce the pressure from testing and marking. Portfolios—like the Exhibitions of *Horace's School* and unlike standardized tests—are judged by qualitative rather than quantitative means.

Portfolio assessment in the classroom emulates the practice engaged in by creative artists and, indeed, often by teachers. Teacher-training institutions often require student teachers to create a portfolio not only to demonstrate performance but also to carry with them as they seek employment. We should note that portfolios exemplify achievement in all three domains of learning: cognitive, affective, and psychomotor.

On the positive side, portfolios tie in directly with content studied in a particular class. They offer a means of informing parents of the accomplishments of their children. They provide an opportunity for students to assess their own performance. Further, they can evince a feeling of pride on the part of students whose portfolios are done well.

On the negative side are the disadvantage of the lack of reliability in grading and the time required for teachers to evaluate individual portfolios. Factors such as completeness, number of items, quality, neatness, attractiveness, effort, relevance, individuality, and creativity all enter into evaluation. Like other products that reflect achievement, standards or criteria should be set.

Alternative assessment measures may include practices that could reduce or eliminate homework and change marking practices. William Glasser, for example, joined teachers in noting that students dislike homework and often fail to complete it. Labeling compulsory homework as a coercive technique, Glasser recommended reducing required homework and allowing students to do the work in class assisted by the teacher and by their classmates.[19] Many (perhaps most) teachers and parents, however, emphasize the positive academic benefits of homework. Recommending limitations on the amount and type of homework assigned students, Harris Cooper observed that in the case of the elementary school, research "shows little correlation between homework and test scores."[20]

Qualitative assessment, often called holistic or subjective assessment, has appealed to many instructors in recent years. Teachers who assess students' creative efforts such as essays and portfolios look at the product in its entirety, gaining impressions of quality while eschewing analytical treatment of grammar, style, spelling, syntax, and sentence structure. Teachers who assess holistically feel that analytical treatment of a student's work discourages further effort on the student's part.[21]

Performance-based principles of assessment may affect not only homework and grading of student work but also the marking system itself. Glasser would not place Cs, Ds, or Fs on a student's permanent transcript—in effect, eliminating symbols of failure. A+, A, and B would attest to quality performance. Students who do less than quality work, designated by a temporary C, would be given the opportunity to raise the quality of their work and, therefore, their grades.[22]

Marzano took the position that "a single letter grade or a percentage score is not a good way to report achievement in any subject area, because it simply cannot present the level of detailed feedback necessary for effective learning."[23] Describing an alternative report card with no overall grade, Marzano admitted that "overall letter grades or percentage scores are so ingrained in our society that it is best not to do away with them at this time."[24] Instead, he recommended "an interim step: a report card that includes scores on standards along with overall grades."[25]

The presence of alternative assessment measures is testimony to conflicting conceptions of evaluation and, indeed, of schooling itself. Heated debate over testing, coupled with controversy over the setting of standards, centers around the issue of whether or not to continue to use quantifiable means of student achievement.

Teachers should seek to develop competency in the use of a wide range of evaluative techniques. While alternative assessments may supplement and reduce the use of some of the more traditional forms of classroom assessment, they are not likely, at least for the foreseeable future, to replace the use of standardized and teacher-made tests of student achievement.

Feedback

Evaluation yields data that provide feedback about student achievement and the instructional program. It is not sufficient for evaluative data to be used solely for the purpose of measuring pupil achievement. If pupils do poorly, teachers need to find out what caused the poor showing. Teachers need to ask themselves what they must do so that subsequent groups of students—or even the same group, if repetition of the instruction appears necessary—will not encounter the same difficulties. Teachers must know what needs to be changed, and the evaluation results provide them with this evidence.

Even if pupils do extremely well, teachers should use the data to reexamine the process. The instructional goals and objectives may have been too simple; students may have been capable of achieving higher objectives. If a test was administered, the test itself may not have been valid. The questions may have been too simple, or they may not have measured the essential objectives. At the implementation stage, the instructor may have omitted some crucial points and thereby left some objectives unachieved. The results of evaluation provide evidence for making changes in the instructional process.

Susan Brookhart sums up current thinking on feedback by pointing out that it plays an important role in serving students' cognitive and motivational needs. If done right, "good feedback gives students information they need so they can understand where they are in their learning and what to do next—the cognitive factor. Once they feel they understand what to do and why, most students develop a feeling that they have control over their own learning—the motivational factor."[26]

ASSESSMENT INITIATIVES FROM BEYOND THE CLASSROOM

District Assessments

Up to this point the focus of this chapter has been on assessment of student achievement through techniques (largely testing) designed by the classroom teacher for his or her own pupils. We should not leave the topic of evaluation of instruction without giving some attention to assessment on a broader scale than the individual classroom, assessments that are of special importance to curriculum workers. Since the 1960s, an almost unbelievable amount of student achievement assessment has been going on (and continues) at the district, state, national, and international levels.

Confronted with mounting criticism over both real and perceived deficiencies as evidenced by state, national, and international test scores, many school districts in the 1980s restructured both their curricula and instructional methods. In so doing, they also restructured or introduced assessments of districtwide student achievement. Following principles of curriculum alignment, school districts created for each subject field plans that detailed objectives, activities, and resources. At the end of each marking period, students took tests developed to match the objectives in each field. Districtwide assessment has been one response to public demand for accountability.

State Assessments

In the past two decades the assessment spotlight has focused on the state level. Responding to reports such as *A Nation at Risk*,[27] states set minimum competencies for student achievement at

various grade levels and for graduation from high school. Several factors motivated state legislators and departments of education to establish minimum standards of performance on tests. They were disappointed by the results of national and international assessments; they felt dissatisfied with the "products" their schools were turning out; and they heard the public clamor for concentration on subject matter and for accountability of teachers and administrators for their pupils' achievement. Assessment tests, therefore, were deemed necessary for determining whether students had achieved the competencies.

Currently our nation is caught up in a wave of testing aimed at school reform by holding schools accountable for their students' success in achieving state and national standards.[28] From one end of the continent to the other, we find students undergoing "high-stakes testing." Arizona's Instrument to Measure Standards (AIMS), the California High School Exit Exam (CAHASSEE), the Maryland School Assessment (MSA), the Massachusetts Comprehensive Assessment System (MCAS), the Texas Assessment of Knowledge and Skills (TAKS), and the state of Washington's High School Proficiency Exam (HSPE) are but a few examples of state efforts to assess pupil achievement.

A notable exception to the movement toward single statewide assessments is the state of Nebraska's School-based Teacher-led Assessment Reporting System (STARS), which permits the use of district-designed assessment in place of a single state test. Approved for No Child Left Behind (NCLB) in September 2006 by the U.S. Department of Education, Nebraska's assessment system is a form of standards-based assessment consisting of a combination of locally designed tests, national assessment tests, and a writing component. The information gleaned from the assessment is used to determine student success on content standards and to build instructional capacity in the schools.[29]

Assessment is, of course, an expected and necessary part of the curriculum-instructional process. Schools must determine the extent to which pupils have attained the objectives. As the movement for educational reform continues, states are taking more seriously than ever their role as authority over the public educational systems of their state. Assessment is but one phase in the exercise of that authority. States continue to evolve in the development and administration of assessment programs in order to determine whether their standards are being met.

National Assessments

SAT.   The SAT helps to predict students' ability to succeed in college by determining how much they have learned while in school. Established in 1947 by the Educational Testing Service, nearly 3 million students take the SAT annually.[30] Due to its popularity, the SAT is now used by colleges and universities world-wide in the admissions process.

Prior to 2005, the SAT's focus was primarily in the areas of quantitative (math) and verbal (reading). In early 2005, the analogy questions were dropped and the SAT was lengthened to include a writing component. The test now is scored on a 2400-point scale versus the previous version's 1600-point scale.[31] Depending on the admissions criteria that are established at the institution, all three areas may be taken into consideration for acceptance.

Though widely used, the SAT is not immune to criticism. The National Center for Fair and Open Testing (FairTest), for example, cites inaccuracy, bias, and susceptibility to coaching as fundamental flaws.[32]

ACT.   Today, the American College Testing Program (ACT) tests students in four areas: English, Mathematics, Science, and Reading. Developed in the 1950s as an alternative to the SAT, the

ACT is widely accepted by four-year colleges and universities and is administered globally to students who want to attend college and universities in the United States. The ACT has kept its core philosophy over the years by providing information to colleges and universities as a part of their admissions process. Also, the ACT serves students by helping them to determine programs of study by providing a means for them to determine which college to attend.[33]

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS (NAEP).   In 1964, with the backing of the Carnegie Corporation, Ralph W. Tyler and the Committee on Assessing the Progress of Education began to develop criterion-referenced tests for nationwide assessment. As a result of this new development, the federal government contracted with the Education Commission of the States and created the National Assessment of Educational Progress (NAEP) in 1969. The goal of the establishment of NAEP was to monitor achievement in ten learning areas and to assess change in achievement over the years. Information gathered from NAEP was then to be reviewed and used by policymakers to institute change in public education.[34] Known as "The Nation's Report Card," it is governed by the National Assessment Governing Board (NAGB). The Commissioner of Education Statistics, head of the National Center for Education Statistics (NCES) of the U.S. Department of Education, serves as administrator of the assessment program.[35]

The number of students tested depends on whether the NAEP is being conducted as a national-only sample or as a combined state and national sample. In a national-only test the NAEP uses approximately 10,000 to 20,000 student samples. In a combined national and state sample, roughly 3,000 students are chosen to test from between 45 to 55 jurisdictions. Each jurisdiction has approximately 100 schools.[36] Reassessments are conducted periodically[37] and a "report card" showing national and state results is issued to the public after each assessment. NAEP reports national scores of students in grades four, eight, and twelve.[38] Data are reported by gender, race/ethnicity, region of the country, parents' highest level of education, type of school, type of location, and eligibility for free/reduced-price school lunch programs.[39] In addition to reporting data on a nationwide basis, NAEP conducts and reports state-assessment data for those states participating in the program.

When NAEP was under formation, some educators expressed great concern that the data would identify and possibly embarrass specific schools. NAEP has allayed those concerns, reporting data only for groups and not identifying schools. On the other hand, localities and states often release the assessment data that they have gathered on individual schools so that the public and profession can make comparisons among schools within the district and state.

NAEP may be fulfilling a hitherto unforeseen role of auditor as a result of the NCLB, which requires states to administer their state-developed tests of math and reading annually in grades three through eight (NAEP assesses fourth- and eighth-graders in these same subjects every two years). Comparison of state scores with those of NAEP—with its extensive assessment experience—can result in reflecting negatively on educational progress or the quality of state assessment in those states where students do well on the state tests but poorly on NAEP. We will return to the issues of national curriculum and national standards in Chapter 15.

Advocates of national assessment argue that national testing will require schools throughout the nation to examine their instructional techniques and curricula (particularly the basic disciplines) and to take action to correct deficiencies revealed by the tests. Those who oppose national assessment argue that national testing will result in a national, common curriculum that cannot adequately provide for differences that exist among schools and among students in various communities. One benefit that can be gained for curriculum workers in analysis of these

national studies is that curriculum workers can make comparisons of their local and state assessment data against national and state norms. Once the analysis is done, they can make inferences about areas in need of remediation.

International Assessments

Since the Pilot Twelve-Country Study was conducted from 1959 to 1962, the United States has participated in international assessments of student achievement. The purpose of the Pilot Twelve-Country study was to determine the feasibility of conducting a much larger-scale examination that would produce results that could used to improve instruction on a multinational basis. Conducted by the International Association for the Evaluation of Educational Achievement (IEA), the initial study has led to an aggressive effort to gather data in a variety of instructional areas so that teaching and learning can be improved cross-culturally.[40]

Of the many international assessments, we have chosen to present information on the Third International Mathematics and Science Study (TIMSS) due to its comprehensive nature, its breadth of data collection, and its four-year cycle of implementation. Also, information is presented on the Progress in International Reading Literacy Studies (PIRLS) due to its cyclical nature, the large participation of countries throughout the world, and its emphasis on reading ability.

TIMSS.   The TIMSS has served as the most comprehensive study of its kind since 1995, when over a half million students were tested in forty-one countries, including some 33,000 in public and private schools in the United States at the fourth-, eighth-, and twelfth-grade levels. The study compared scores made by students in mathematics and science.[41] To cite a few of the findings of TIMSS in 1995:

> U.S. fourth graders score above the international average in science and are outperformed only by students in Korea. U.S. fourth graders score above the international average in mathematics.[42]
>
> U.S. eighth graders score above the international average in science. U.S. eighth graders score below the international average in mathematics. U.S. eighth graders are outperformed in *both* subjects by Austria, Bulgaria, Czech Republic, Hungary, Japan, Korea, Netherlands, Singapore, and Slovenia.[43]
>
> U.S. twelfth graders scored below the international average and among the lowest of the twenty-one TIMSS nations in both mathematics and science general knowledge in the final year of secondary school.[44]

Third International Mathematics and Science Study–Repeat (TIMSS-R)

Continuing a cycle of international assessments in mathematics and science, TIMSS-R in 1999 tested the achievement of eighth-graders in thirty-eight countries. The 1999 study found:

- In mathematics, U.S. eighth-graders outperformed their peers in seventeen nations and performed lower than their peers in fourteen nations.
- In science, U.S. eighth-graders outperformed their peers in eighteen nations and performed lower than their peers in fourteen nations.
- The mathematics and science performance of U.S. eighth-graders relative to all countries in this testing was lower in 1999 than in the previous testing in 1995.
- The achievement of U.S. eighth-graders in mathematics and science showed no change between 1995 and 1999.[45]

THIRD INTERNATIONAL MATHEMATICS AND SCIENCE STUDY (TIMSS–2003). On its regular four-year cycle in 2003, the third assessment of the IEA series surveyed students in fourth- and eighth-grade mathematics and science in over forty countries.[46] Following are among the findings in mathematics:

- U.S. students showed improvement between 1995 and 2003.
- Singapore students excelled those in all other participating countries in both fourth and eighth grades.
- At fourth grade, Hong Kong Special Administrative Region (SAR), Japan, and Taipei student achievement followed that of Singapore.
- Korea, Hong Kong SAR, and Taipei trailed Singapore at the eighth-grade level.[47]

The same Asian countries topped the science achievement list with Singapore ahead of Taipei, Japan, and Hong Kong SAR at the fourth-grade level and again at the eighth-grade level with Taipei, Hong Kong SAR, and Korea next.[48]

THIRD INTERNATIONAL MATHEMATICS AND SCIENCE STUDY (TIMSS–2007). In the fourth cycle of the test, IEA surveyed fourth-grade students from thirty-six countries and eighth-grade students from forty-eight countries. Key findings were:

- The average scores of fourth-graders from the 1995 test and the 2007 test were not significantly different.
- Fifteen percent of U.S. fourth-graders and ten percent of U.S. eighth-graders scored at or above the advanced international benchmark in science. At grade four, two countries had higher percentages of students performing at or above the advanced international science benchmark than the United States: Singapore and Chinese Taipei. Fourth-graders in these two countries were also found to outperform U.S. fourth-graders, on average, on the overall science scale.
- At grade eight, six countries had higher percentages of students performing at or above the advanced science benchmark than the United States: Singapore, Chinese Taipei, Japan, England, Korea, and Hungary. These six countries also had higher average overall eighth-grade science scores than the United States.[49]

During the writing of this text, in 2011, the TIMSS administered its fifth assessment, the results of which will be reported in December 2012. A new component that will be available for researchers is the linking of NAEP results with TIMSS results in order to make possible comparisons of student performance on international benchmarks between participating states and countries.[50]

PROGRESS IN INTERNATIONAL READING LITERACY STUDIES (PIRLS). Two studies, one in 1991 and another ten years later in 2001, revealed the following data about the reading literacy skills of U.S. students:

- (1991) U.S. nine-year-olds rated at the top of the list of larger countries on the International Association for the Evaluation of Educational Achievement study on reading literacy during the school year 1991–1992 in thirty-two countries. U.S. fourteen-year-olds came in second, just below France.[51]
- (2001) Assessing fourth-graders in thirty-four participating countries, the Progress in International Reading Literacy Study of 2001 (PIRLS), a follow-up of the 1991 study and the first in a projected five-year cycle, reported U.S. fourth-graders in ninth place, performing significantly above the international average on the combined literacy scale and outperforming their peers in twenty-three of the thirty-four countries. Of the top performers,

Sweden, the Netherlands, and England, in that order, headed the list, scoring significantly higher than their U.S. counterparts.[52]

As with the TIMSS, the PIRLS will be given in 2011 and results will not be available until after this text is published.

Interpretation of test scores is always a problem, especially so with transnational studies. Those who interpret the data can fault the philosophy, the process, and the findings. They can single out positive or negative aspects to emphasize. In spite of the difficulties in interpreting the data, we are interested, of course, in how well American students do on international assessments, particularly in the light of the previously proclaimed *America 2000* goal of having our students rank first in the world in mathematics and science—a goal that NCLB clearly shows still eludes us.

Will our students reach NCLB's performance goal of proficiency level or above in reading/language arts and mathematics by 2013–2014?[53]

Gerald W. Bracey cautioned against comparing results students made on assessments conducted by one organization with those of another organization's assessment results. In particular, he singled out the National Assessment for Educational Progress, whose test results he held to be invalid and not according with test results of other organizations. Giving examples, he stated:

> American 9-year-olds finished second in the world in reading among twenty-seven nations in *How in the World Do Students Read?* [IEA study, 1991] Yet only 32% of fourth-graders were judged proficient or better in the 2000 NAEP reading assessment. Similarly, American fourth-graders were third in the world on the TIMSS science test [1995], but only 13% were judged proficient or better on the 1996 NAEP science assessment.[54]

Bracey later pointed to the gains made by American eighth-graders shown by TIMSS between 1995 and 2003. He noted that whereas the scores of students in thirteen out of twenty-two nations had declined in mathematics, only three small countries (Latvia, Lithuania, and Hong Kong) made greater gains than the much larger United States, which serves so many more students. Further, whereas scores of students in twelve of the nations declined in science, those of American eighth-graders rose.[55]

Before he passed away in 2009, Gerald W. Bracey wrote his last report on the condition of public education. In his first report on the condition of public education, Bracey—speaking of "the big lie about public education"—commented, "[international] comparisons have generated much heat, but very little light."[56] Bracey later maintained there are difficulties in making comparisons. For example, in 2006, students from the United States ranked twenty-fourth out of the thirty Organisation for Economic Co-operation and Development (OECD) nations in mathematics and seventeenth out of thirty in science.[57] In determining the ranking, Bracey points out that our scores are based on a national average. The average does not paint the full picture, for if we were to report only our highest-scoring students on the science test, the United States would account for 25% of the highest students in the world followed by Japan with 13%.[58]

International assessments reveal how difficult it is to make comparisons of student achievement across cultures and to account for variations. Differences among nations that may affect scores include curricula, instructional strategies, political and social conditions, length of school year, time allocated to studies in school and at home, proportion of young people in school, number of pupils per teacher, motivation of students, dedication of parents to education, and traditions.[59]

Whether from international or other assessments, test scores do signal strengths and weaknesses. Low test scores demand that curriculum workers determine whether the subject matter tested is essential and, if so, what measures must be taken for students to achieve mastery.

Summary

Although evaluating instruction is generally perceived as an activity taking place at the end of the instructional process, teachers should begin selecting evaluation techniques as soon as they identify their instructional goals. Two types of preassessment are suggested: one to evaluate the pupils' possession of prerequisite knowledge and/or skills to begin study of the new subject matter, and the other to determine whether pupils have already mastered the subject matter to be presented.

Evaluation that takes place during the process of instruction is referred to as formative evaluation and is necessary to monitor both pupil progress and the ongoing success of the instructional program. Summative evaluation is evaluation that comes at the end of instruction, as represented in a final examination.

Distinction is made between norm-referenced measurement in which a student's achievement on tests is compared to other students' achievement and criterion-referenced measurement in which a student's achievement is compared to a predetermined criterion of mastery. Norm-referenced tests are used when selection must be made from among a group of persons. Criterion-referenced tests are used to determine whether students achieved the objectives specified in advance.

The major purpose of evaluating instruction is to determine whether or not students accomplished the objectives. Instructors should design means of evaluating pupil performance in the three domains of learning—cognitive, psychomotor, and affective—whenever possible. Tests in the cognitive domain are normally written essay or objective tests administered to an entire class. Discovery of psychomotor outcomes is best carried out by means of actual performance tests of the skill being taught. Although we may speak of measurement and testing in the cognitive and psychomotor domains, we should use the more general term evaluation in reference to the affective domain. Though evaluating affective achievement is difficult and normally imprecise, teachers should engage in this activity. At times, evaluation of affective objectives will not be possible, as these learnings may not be apparent at all. Nevertheless, affective learning is an important dimension of education, and instructors should strive to determine, as best they can, the extent to which students have achieved the desired objectives.

Instructors should keep in mind that there are numerous techniques other than testing for evaluating pupil performance. Good pedagogy calls for a diversity of evaluation techniques, as appropriate.

Feedback is an important feature of the Instructional Model. On the basis of evaluative data, instructors revise the preceding components of the model for subsequent instruction. Evaluation is perceived as a continuous, cyclical process.

A great deal of assessment of student achievement is planned and administered by educators and measurement specialists from outside the individual classroom. District- and state-level assessments are designed and carried out to spot both strengths and deficiencies in the curricula of the schools. National and international assessments lend a broader perspective to student achievement.

Questions for Discussion

1. What are the differences between formative and summative assessment? Explain.
2. What are the appropriate uses for norm-referenced tests?
3. What are the benefits of using criterion-referenced test results in planning instruction?
4. How would you recommend evaluating accomplishment of affective objectives? Give examples.
5. What are the benefits of states participating in national and international assessments?

Exercises

1. Distinguish between quantitative and qualitative assessment.
2. Describe procedures you would use to evaluate:
   (a) oral reports
   (b) group work
   (c) products created by students (give examples)
   (d) term papers
   (e) dramatic presentations
   (f) physical exercises (give examples)
   (g) PowerPoint presentations
3. Debate the issue: Failing grades should be eliminated from a marking system.
4. Research a school in your area to determine the performance of its Adequate Yearly Progress (AYP) subgroups as defined by the NCLB.
5. Discuss ways in which formative and summative assessment can support teaching and learning.

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Multimedia

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Evaluating the Curriculum

After studying this chapter you should be able to:

1. Describe several processes for evaluating the curriculum.

2. Explain the major features of at least two models of curriculum evaluation.

3. Describe how one or more models of curriculum evaluation can be used by curriculum planners.

4. Select and apply a model of curriculum evaluation.

5. Describe eight principles of curriculum construction and explain their significance to curriculum planners.

PURPOSES AND PROBLEMS OF CURRICULUM EVALUATION

Years ago, in a college foreign language class, the instructor lured his students into a grammatical frame of mind by promising to reveal to them "the secrets of the subjunctive." In this chapter some of the secrets of curriculum evaluation will be disclosed. We'll make this revelation right now. The secrets of evaluation are

- to ask questions
- to ask the *right* questions
- to ask the *right* questions of the *right* people

Depending on the problems, questions might be addressed to teachers, administrators, pupils, lay people, parents, other school personnel, or experts in various fields—including curriculum.

As is often necessary in pedagogical discourse, we must first clarify terms before we can talk about them. We find numerous articles and textbooks on educational, instructional, and curriculum evaluation. The broadest of these terms—*educational evaluation*—is used in this text to encompass all kinds of evaluations that come under the aegis of the school. It includes evaluation not only of curriculum and instruction but also of the grounds, buildings, administration, supervision, personnel, transportation, and so on.

Instructional evaluation, discussed in the preceding chapter, is an assessment of (1) pupils' achievement, (2) the instructor's performance, and (3) the effectiveness of a particular approach or methodology. *Curriculum evaluation* includes instructional evaluation. Recall that the Instructional Model is a submodel of the comprehensive curriculum development model. Curriculum evaluation also goes well beyond the purposes of instructional evaluation into assessment of the program and related areas. Years ago, Albert I. Oliver listed five areas of concern that call for evaluation. "The five Ps," as he termed them, are program, provisions, procedures, products, and processes.[1]

The axiom that change is inevitable not only in education but also outside of education was advanced early in this text. As curriculum planners, we wish changes in education to take place for the better. Because the creations of mortals are always less than perfect, we can always seek improvement. Evaluation is the means for determining what needs improvement and for providing a basis for effecting that improvement.

You have already encountered in Chapter 7 one dimension of curriculum evaluation: the needs assessment, a process by which you can identify gaps and overlaps in the curriculum. In this chapter we are concerned with the evaluation of curricula that have been or are now in operation.

Problems in Evaluation

Many concede that one place where we are vulnerable in education is in evaluating the programs we have already instituted. Our evaluation is often spotty and frequently inconclusive. We should be able to demonstrate, for example, whether

- Interdisciplinary teamwork results in higher student achievement than the self-contained classroom.
- Integrated curricula result in higher student achievement than discrete disciplines.
- The learning of a second language helps in learning one's native language.
- Nongraded schools are more effective than graded.
- The specification of high academic standards improves student performance.
- An inductive or deductive approach is more effective in teaching grammar.
- Cooperative learning is more effective than either didactic or individualized learning.
- Class size makes a difference in pupil achievement.
- Student achievement is higher in single-sex classrooms.
- Computer-assisted math courses result in student achievement higher than that in courses taught without computers.
- Achievement of students in virtual schools is as high as achievement of students in traditional schools.

Many of the conclusions reached about the success of educational innovations have been based on very limited evidence. The lack of systematic evaluation may be attributed to a number of causes. Careful evaluation can be very complicated. It requires know-how on the part of the evaluators and, therefore, training in evaluation. Further, it is time and energy consuming and often expensive. We could say that schools generally do not do a thorough job of evaluation and what they do is often not too helpful.

Daniel L. Stufflebeam and others observed that evaluation was ill and suffered from the following symptoms:

1. The avoidance symptom. . . . Because evaluation seems to be a painful process, everyone avoids it unless absolutely necessary. . . .
2. The anxiety symptom. . . . Anxiety stems primarily from the ambiguities of the evaluation process. . . .

3. The immobilization symptom. . . . Schools have not responded to evaluation in any meaningful way. . . .
4. The skepticism symptom. . . . Many persons seem to argue that there is little point in planning for evaluation because "it can't be done anyway". . . .
5. The lack-of-guidelines symptom. . . . Among professional evaluators. . . ., is the notable lack of meaningful and operational guidelines. . . .
6. The misadvice symptom. . . . Evaluation consultants, many of whom are methodological specialists in educational research, continue to give bad advice to practitioners. . . .
7. The no-significant-difference symptom. . . . Evaluation. . . . is so often incapable of uncovering any significant information. . . .
8. The missing-elements symptom. . . . [There] is a lack of certain crucial elements needed if evaluation is to make significant forward strides. The most obvious missing element is the lack of adequate theory. . . .[2]

Revising the Curriculum Model

As in our analysis of evaluating instruction, we will develop some general understandings about curriculum evaluation and will discuss a limited number of evaluation procedures. Let's begin by taking a look at the Curriculum Model shown in Figure 13.1, which is a submodel of the proposed model for curriculum improvement.

The Curriculum Model is conceptualized as consisting of four components: Curriculum goals, Curriculum objectives, Organization and implementation of the curriculum, and Evaluation of the curriculum. A feedback line connects the Evaluation component with the Goals component, making the model cyclical in nature. We should refine the Curriculum Model in two ways. First, as with the Instructional Model, we should show the feedback line as affecting more than just the Curriculum goals. Although the impact on Curriculum goals is felt through all subsequent components, evaluative data should feed back to each of the components of the Curriculum Model. A more precise rendering of the feedback concept would show lines from Evaluation of the curriculum not only to Curriculum goals but also to Curriculum objectives and to Organization and implementation of the curriculum, as shown in Figure 13.2.

Second, let's make clear that evaluation of the curriculum is not something done solely at the end of a program's implementation, but is instead an operation that takes place before, during, and at the end of the implementation. Figure 13.3 shows the continuous nature of curriculum evaluation in a manner similar to the way in which the continuous nature of instructional
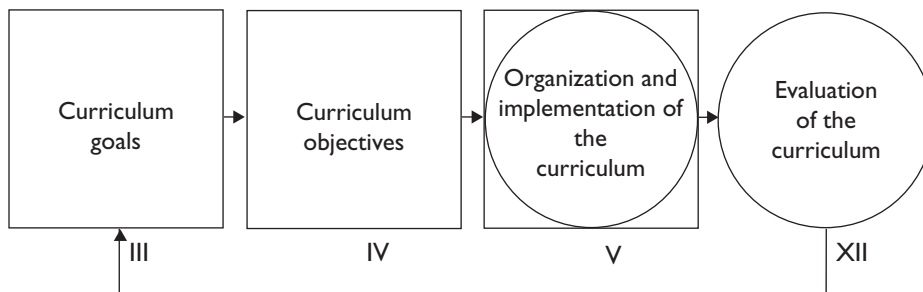
FIGURE 13.1
Curriculum Model with One Feedback Line
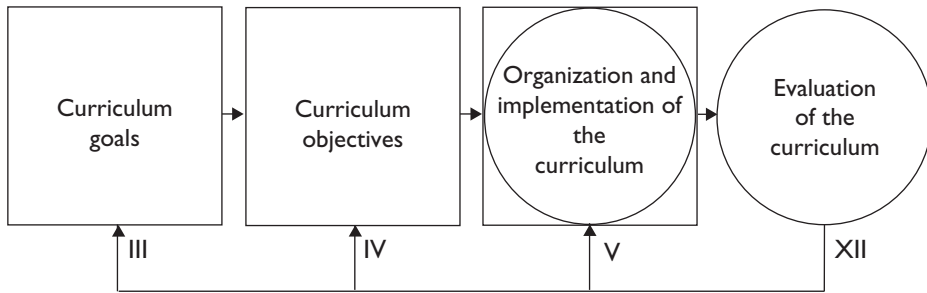
FIGURE 13.2
Curriculum Model with All Feedback Lines
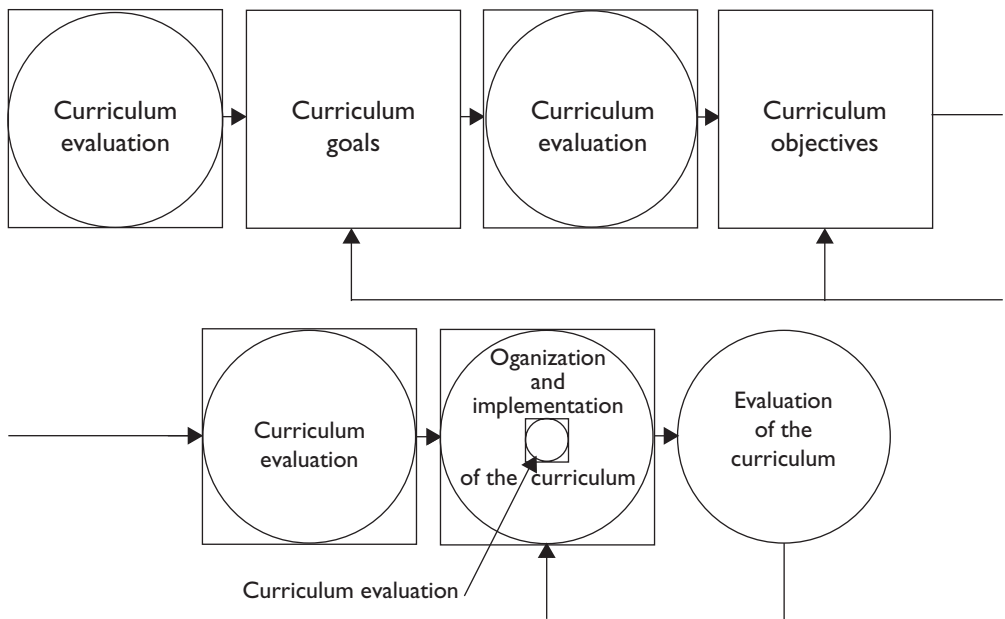
FIGURE 13.3
Continuous Nature of Curriculum Evaluation

evaluation was shown. Circles within the squares of Figure 13.3 indicate that curriculum evaluation is going on while evaluation procedures are being planned.

DELIMITING EVALUATION

Difference between Instructional and Curriculum Evaluation

Some instructors and curriculum planners believe that assessing the achievement of *instructional* objectives constitutes *curriculum* evaluation. Thus, if students achieve the cognitive, affective, and psychomotor learnings, the curriculum is considered effective. To follow that line of reasoning, we would add all the evaluations of instruction together in a one-plus-one

fashion presumably to determine the success of the curriculum. This position makes the mistake of equating curriculum with instruction. If this were the case, separate components for the evaluation of instruction and evaluation of the curriculum would not be shown in the Oliva Model for Curriculum Development (Figure 5.4).

However, instruction and curriculum are not the same. The instructional process may be very effective whereas the curriculum, like the times, may be out of joint. In Aldous Huxley's *Brave New World,* the society runs very efficiently, but few would opt to live there. Instructional evaluation may reveal that pupils are achieving the instructional objectives. On the other hand, unless we evaluate the curriculum—the programs—we may be effectively teaching all the wrong things. If we may exaggerate to make this point, we could do a beautiful job of teaching young people that:

- The earth is the center of the solar system.
- All children can be doctors and lawyers.
- White-collar workers always earn more money than blue-collar workers.
- There will always be plenty of cheap energy.
- All scientific advancements are the result of American ingenuity.

The primary purpose of curriculum evaluation is, of course, to determine whether the curriculum goals and objectives are being carried out. Yet, we want to answer other questions as well. We want to know if the goals and objectives are right to begin with. We want to learn whether the curriculum is functioning while in operation. We want to find out if we are using the best materials and following the best methods. We must learn whether the products of our schools are successful in higher education and in jobs as well as whether they can function in daily life and contribute to society. We must also determine whether our programs are cost-effective—whether we are getting the most for our money.

Difference between Evaluation and Research

Discussion of evaluation inevitably leads us into the area of research. Evaluation is the process of making judgments; research is the process of gathering data to make those judgments. Whenever we gather data to answer problems, we are engaged in research. However, the complexity and quality of research differ from problem to problem. We may engage in research ranging from simple descriptive research to complex experimental research. As an example of the former: how many books does the school media center possess per child? As an example of the latter: do children with learning disabilities perform more effectively when they are in self-contained classes or when they are placed in an inclusion model? Most ambitious of all—and very rare—are longitudinal studies such as the National Education Longitudinal Study that monitored a nationally representative cohort of tenth-grade students as they completed high school and/or postsecondary school while moving into the work force.[3]

The field of evaluation often calls for the services of specialists in evaluation and research. Some large school systems are able to employ personnel to direct, conduct, and supervise curriculum evaluation for their school systems. These people bring to the task a degree of expertise not shared by most teachers and curriculum planners. Some school systems that do not hire their own evaluation personnel invite in outside consultants to help with particular curriculum problems and research. However, most evaluative studies must be and are conducted by the local curriculum planners and the teachers. The shortage of trained personnel and the costs of employing specialists are prohibitive for many school systems. Even in large systems that employ curriculum evaluators, many curriculum evaluation tasks are performed by teachers and curriculum planners.

EVALUATION MODELS

Models have been developed showing the types of evaluation that schools should carry out and the processes they should follow. As in the case of models of instruction and of curriculum development, evaluation models differ in detail and in the points that their creators choose to include.

Those who direct curriculum evaluations—whether from inside or outside the school system—must possess a high level of expertise and be well grounded in both curriculum and assessment. They must be familiar with common approaches to evaluation. Indicative of the level of complexity in curriculum evaluation is the surprising number of approaches. Stufflebeam, for example, discussed twenty-two evaluation approaches in his book *Evaluation Models.*[4] John D. McNeil affirmed that "the field of evaluation is full of different views about its purposes and how it is to be carried out."[5]

This chapter is designed to sensitize the reader to the complexities of curriculum or program evaluation, to describe a few selected models of curriculum evaluation, and to direct your attention to other sources of information and models.[6]

For our purposes, let's look first at a rather simple approach to curriculum evaluation that we will label, for want of a better term, a *Limited Model.* Then let's turn to a frequently cited, well-known *Comprehensive Model*—developed by the Phi Delta Kappa National Study Committee on Evaluation.[7]

Limited Models

ASSESSMENT OF CURRICULUM OBJECTIVES. Recall that Chapter 8 described curriculum goals and objectives and distinguished them from instructional goals and objectives. Recall also that we defined curriculum objectives as "specific, measurable, programmatic statements of outcomes to be achieved by students as a group in the school or school system."[8]

We ascribed the following characteristics to curriculum objectives, paralleling characteristics of instructional objectives:

- they specify performance or behavior to be demonstrated
- they include a degree of mastery
- they state conditions under which the performance will take place, if not readily understood

Drawing on previously specified nonmeasurable curriculum goals, curriculum objectives pertain to programs, not specific content, and refer to accomplishments of groups of students (all students, students in general, most students, groups of students) rather than the achievement of individual students. Curriculum evaluation assesses programs directly and individual student performance indirectly. Instructional evaluation assesses individual students directly and programs indirectly.

The most fundamental approach to curriculum evaluation—one that must be taken regardless of other supporting approaches—is the assessment of achievement of the specified curriculum objectives. Observations, surveys, portfolios, and test results are all means by which to gather evaluative data. Let's take a few examples of curriculum objectives for a given year and mention a corresponding technique for evaluating.

- All students will demonstrate 90 percent proficiency in performance on a selected number of computer skills (samples of work, observation).
- The high school dropout rate will be decreased by 10 percent (statistics).

- Pupils will increase their leisure-time reading by 10 percent (classroom library checkout, school media center circulation figures).
- Eighth-graders will raise their scores on a state standardized assessment of mathematics by ten percentile points (test results).
- All students will demonstrate knowledge of the seriousness and facts of AIDS and what they must do to protect themselves from the disease (class discussions, counseling, portfolios, and quizzes).

Curriculum planners must determine whether the programmatic (i.e., curricular) objectives have been achieved. If the curriculum objectives have been reached, planners would then identify next steps by specifying new curriculum objectives and establishing new priorities. If the curriculum objectives have not been met, planners must decide whether the objectives still merit pursuing and if so, what measures must be taken to achieve them.

ASSESSMENT OF GUIDING PRINCIPLES OF CURRICULUM CONSTRUCTION AND ORGANIZATION.   Certain principles are inherent in constructing and organizing the curriculum. In one sense these principles are characteristics of curriculum construction and organization. In another sense, they are continuing problems for curriculum developers.

Supplementing assessment of the curriculum objectives, curriculum workers should assess the degree to which they implement basic principles of curriculum construction and organization. In this chapter we will describe eight perennial problems of curriculum construction and organization: scope, relevance, balance, integration, sequence, continuity, articulation, and transferability.

An evaluation process cognizant of these problems would provide answers to such questions as:

- Is the scope of the curriculum adequate? Realistic?
- Is the curriculum relevant?
- Is there balance in the curriculum?
- Is curriculum integration desirable?
- Is the curriculum properly sequenced?
- Is there continuity of programs?
- Are curricula well articulated between levels?
- Are learnings transferable?

To answer questions such as these, curriculum planners must understand the nature of the underlying principles. The assessing of principles of curriculum construction and evaluation calls not only for gathering of considerable data, but also for intelligent reflection on the part of the evaluators.

EIGHT CONCEPTS OF CURRICULUM CONSTRUCTION

Although a model for curriculum improvement may show us a process, it does not reveal the whole picture. It does not show us, for example, how we go about choosing from competing content, what we do about conflicting philosophies, how we assure articulation between levels, how we learn to live with change, how dependent we are on effective leadership, what incentives motivate people to try out new ideas, how to go about finding the information we need to make intelligent decisions, and how we release human and material resources to do the job.

We already examined in Chapter 4 several major problems of curriculum development, including effecting change, group dynamics, interpersonal relationships, decision making, curriculum leadership, and communication skills. The eight guiding principles to be discussed are not only perennial problems for curriculum developers but are also, in essence, concepts that lead to the formulation of principles of curriculum development. The creation of a well-functioning sequence, for example, is a continuing problem for the curriculum developer. At the same time, the curriculum planner must understand the concept of sequencing, which is essential to an effective curriculum. Bringing together the two elements, curriculum and sequencing, we formulate the principle: an effective curriculum is one that is properly sequenced. We will, therefore, refer to these eight guiding factors as problems, concepts, or—by inference—principles.

All eight concepts are interrelated. We shall first examine four concepts that are closely related to each other: scope, relevance, balance, and integration. The last three are dimensions of scope; all four relate to the choice of goals and objectives. We shall then consider three other closely interrelated concepts: sequence (or sequencing), continuity, and articulation. The last two are dimensions of sequencing. Finally, we shall look at the concept of transferability.

Scope

Scope is usually defined as "the breadth" of the curriculum. The content of any course or grade level—identified as topics, learning experiences, activities, organizing threads or elements,[9] integrative threads,[10] or organizing centers[11]—constitutes the scope of the curriculum for that course or grade level. The summed content of the several courses or grade levels makes up the scope of the school curriculum. J. Galen Saylor and William M. Alexander, in an earlier work, defined scope in the following way: "By scope is meant the breadth, variety, and types of educational experiences that are to be provided pupils as they progress through the school program. Scope represents the latitudinal axis for selecting curriculum experiences."[12]

When teachers select the content that will be dealt with during the year, they are making decisions on scope. When curriculum planners at the district or state level set the minimum requirements for graduation from high school, they are responding to the question of scope.

We encounter a problem when we equate the activities or learning experiences with scope. It is true that the sum of all activities or learning experiences reveals the scope of the curriculum. However, the activities or learning experiences are the operational phases of the topics. For example, to present the topic of the Renaissance, we can design many activities or learning experiences to teach that topic, including viewing photographs of works of art of the period, writing biographies of famous artists, reading novels about the period, reading histories of the period, writing reports on the roles of the church and state during this time, and so on.

ORGANIZING CENTERS OR THREADS. John I. Goodlad defined the elements of scope as "the actual focal points for learning through which the school's objectives are to be attained."[13] He wanted to convey the meaning of these elements as one term for the following reason:

> Nowhere in the educational literature is there a term that conveys satisfactorily what is intended in these focal points. The words *activities and learning experiences* are used most frequently but are somewhat misleading. Under the circumstances there is virtue in using the technical term *organizing centers*. Although somewhat awkward, the term does permit the inclusion of such widely divergent focal points for learning as units of work, cultural epochs, historical events, a poem, a film on soil erosion, and a trip to the zoo. The *organizing center* for teaching and learning may be as specific as a book on trees or as general as press censorship in the twentieth century. *Organizing centers determine the essential character of the curriculum.*[14]

In a similar vein, Tyler advised those who are organizing the curriculum to identify the organizing threads or elements—that is, the basic concepts and skills to be taught.[15] Thus, curriculum planners must choose the focal points, the basic concepts and skills, and the knowledge that will be included in the curriculum. A central problem of this horizontal organization that we call scope is the delimitation of the concepts, skills, knowledge, and attitudes to be included.

EXPLOSION OF KNOWLEDGE.   Teachers must continuously wrestle with the problem of limiting subject matter. Knowledge, spurred on by constantly evolving technology, increases at a fantastic—and often alarming—rate. Have you tried to keep up with the mind-boggling amount of information on the Internet? Have you ridden the learning curves of every new technological invention from DVD recorders to digital cameras to high-definition television to smart phones and ever-increasingly complex software that requires more and more computer memory?

Humankind has no sooner begun to live more or less comfortably with the computer than it has become involved in cloning, in vitro fertilization, stem-cell research, and splicing genes to create new life forms. Humankind has journeyed through space but now worries about the debris floating around in our solar system. Humankind has harnessed the atom but has not learned to dispose of radioactive waste safely.

AIMS PROCEDURE.   Somehow, someway, curriculum workers must select the concepts, skills, and knowledge to be incorporated into the curriculum. Many years ago Hollis L. Caswell and Doak S. Campbell suggested a procedure for determining the scope of the curriculum. Referring to the process as the "aims procedure," they outlined the steps as follows:

> First, a general all-inclusive aim of education is stated. Second, this all-inclusive statement is broken up into a small number of highly generalized statements. Third, the statement of a small number of aims is divided to suit the administrative organization of the school [for the elementary, junior high, or senior high school divisions]. . . . Fourth, the aims of each division are further broken up by stating the objectives to be achieved by each subject. Fifth, the general objectives for the subjects in each division are analyzed into specific objectives for the several grades; that is, statements in as specific terms as possible are made of the part of the subject objectives to be achieved in each grade. The specific objectives for all the subjects in each grade represent the work to be carried forward in the respective grades and indicate the scope of work for the grades.[16]

Caswell and Campbell perceived the specific objectives—not learning experiences, focal points, topics, or organizing threads—as indicating the scope of the curriculum.

NECESSARY DECISIONS.   With time so precious and the content burden so great, every organizing center included in the curriculum must be demonstrably superior to those not included. Decisions as to the superiority of the selected elements are reached by group consensus, by expertise, or by both. Curriculum planners must answer questions to which there are no easy answers, like these:

- What do young people need to succeed in our society?
- What are the needs of our locality, state, nation, and world?
- What are the essentials of each discipline?

Decisions on the scope of the curriculum are multiple and relate to the curriculum as a whole, the various disciplines, courses or content within the disciplines, units, and individual lessons.

Curriculum workers must make decisions on scope not only within each of the three domains of learning but also from among the domains. Within the domains they must raise questions such as the following:

- Shall we include a course in geology as well as biology (cognitive)?
- Shall we include development of charity as a value as well as the attitude of cooperation (affective)?
- Shall we teach auto mechanics as well as driver education (psychomotor)?

Curriculum planners and teachers may find the determination of scope within a domain, albeit taxing, easier to resolve than making decisions between domains. Which domain, it must be asked, is most important? This question resurrects philosophical arguments about the nature of knowledge as well as the nature and needs of learners and of society. The question brings us back to Herbert Spencer's classic query, "What knowledge is of most worth?"[17] Arno Bellack addressed the same question and concluded that schools should enable teachers to develop students' knowledge in the major disciplines.[18]

Others have stressed the domain of knowledge—the cognitive domain. Jerome S. Bruner wrote: "The structure of knowledge—its connectedness and its derivations that make one idea follow another—is the proper emphasis in education";[19] Robert L. Ebel championed cognitive learning;[20] and Philip H. Phenix said: "My thesis, briefly, is that all curriculum content should be drawn from the disciplines, or to put it another way, that only knowledge contained in the disciplines is appropriate to the curriculum."[21]

Arthur W. Combs, Abraham H. Maslow, and others, on the other hand, looked beyond the realm of knowledge to the development of values and the self-concept as central to the educational process.[22] We shall not reopen the great debate between cognitive and affective learning, but we should point out that the issue looms large in determining the scope of the curriculum.

Many teachers and curriculum planners, refusing to rely on their own judgment, leave decisions on scope to others—to curriculum consultants, to writers of curriculum guides, and to the authors and publishers of textbooks. Thus, the scope consists, for example, of many pages of one or more texts, and the determination is made simply by dividing the number of pages by the number of days' schooling or by dividing the number of topics and learning activities in a course of study by the number of days or weeks. Although this simplistic planning is better than none, the curriculum would be far more pertinent if planners exercised, through a systematic, cooperative process, their own combined professional judgment and selected from the entire field only those concepts, skills, and knowledge they deemed appropriate to their school, learners, society, state, region, and country.

On today's scene it seems as if the scope of the curriculum is all laid out for teachers in the form of state or national standards and assessments, and that all teachers have to do is assure that the curriculum is aligned with the standards and assessments and then teach to those standards and tests. Though standards-based education does impose limitations on curriculum decision making, it does not eliminate the many daily decisions that teachers must make in planning, organizing, presenting, and evaluating their lessons. We will return to standards-based education in Chapter 15.

Relevance

To assert that the curriculum must be relevant is to champion Mom's blueberry pie. For who can disagree that Mom's blueberry pie is one of the tastiest dishes ever concocted and in keeping with the great American tradition? No one will stand up and argue for an irrelevant curriculum. However, the repeated demand for relevance in the curriculum—unless it is a straw man—must indicate a lack of this essential characteristic in the curriculum.

VARYING INTERPRETATIONS. The difficulty of determining relevance lies in the multitude of interpretations of the word. What is considered relevant education for suburbia may not be for the inner city. What is considered relevant for the Anglo may not be for the Hispanic. What is relevant to the essentialists may not be to the progressivists. Relevance, like beauty, is in the eyes of the beholder. "Like the words 'relation' and 'relating,'" said Harry S. Broudy, "'relevance' excludes virtually nothing, for everything mentionable is relevant in some sense to everything else that is mentionable."[23]

We should stress the word *considered* in "what is considered relevant." Whether the curriculum is relevant or not may be beside the point. The consumers of curriculum—the constituents and patrons of the school—will form attitudes toward relevance. Curriculum planners must deal first with perceptions of relevance before they can deal with the question of relevance itself. William Glasser attributed students' perceptions of their lessons as "boring" to the fact that they could not relate what they were studying to their lives.[24]

Conflicts come about between the academic studies and the career-technical (i.e., vocational) curricula. Preparation for careers is of extreme importance to young people. They can see the value in skill courses but often do not realize that the academic areas may (1) provide a foundation needed in every curriculum and (2) open new vistas toward other careers. English teachers, for example, must feel an increasing despair that, in spite of their best efforts, the American population—arguably a more or less literate public in one of the most highly developed countries on earth—is not really a reading public. Furthermore, what is read is not of the highest quality. We can attribute the lack of reading in part to difficulties young people experience when learning to read in school. Children acquire early a like or dislike for reading.

Computer gaming and the television have been seen as delivering a significant blow to the printed word. Certain advances in technology—in the form of handheld technologies that connect to the Internet from almost anywhere in the world, or the ubiquitous television—are easier and more enjoyable to many, though perhaps less imaginative than reading. Will new offerings in technology lead to increased reading, if not of great literature, then of the plethora of material that is offered electronically today?

Disagreements over relevance arise from differing conceptions of what exists in society and what should exist in society. The question becomes: should curriculum planners educate young people for life as it is or as they think it should be? Should the curriculum develop the desire of citizens to read nonfiction, to subscribe to scholarly journals, to listen to classical music, and to frequent art galleries? Should the curriculum encourage young people to make money, to prefer pop fiction, to enjoy rock music, and to artistically liven up their own homes? Should the curriculum remain neutral and abstain from all such value-laden content, or, conversely, should it expose the learners to both "highbrow" and "lowbrow" content?

Arguments arise over the relative merits of the concrete versus the abstract. Some prefer to concentrate on content that can be experienced with the senses whereas others prefer to concentrate on developing the intellect through high-level generalizations.

AN EXPLANATION OF RELEVANCE. B. Othanel Smith clearly explained relevance when he wrote:

> The teacher is constantly asked "Why should I learn that?" "What is the use of studying history?" "Why should I be required to take biology?" If the intent of these questions is to ask what use can one make of them in everyday activities, only general answers are possible. We

can and do talk about the relevance of subject matter to the decisions and activities that pupils will have to make. We know, among other things, that they must:

- choose and follow a vocation,
- exercise the tasks of citizenship,
- engage in personal relationships,
- take part in culture-carrying activities . . .

. . . the question of relevance boils down to the question of what is most assuredly useful.[25]

Smith admitted that it is difficult to show the utility of abstract subject matter:

> Unfortunately, the utility of this form of subject matter is much more difficult to demonstrate. . . . Perhaps the chief reason utility of abstract knowledge cannot be demonstrated to the skeptic is that a great deal of it functions as a second-order utility. A first-order utility is illustrated in the skills that we use in everyday behavior such as handwriting and reading. The second-order utility consists of a learning that shapes behavior, but which is not itself directly observable in behavior.[26]

USES OF KNOWLEDGE.   Smith classified the uses of knowledge that are not directly observable as associative, interpretive, and applicative.[27] By associative Smith meant the learner's ability to relate knowledge freely, sometimes bringing about solutions to problems. Abstract knowledge helps individuals to interpret their environment, which they cannot do without fundamental knowledge. Abstract subject matter enables learners to apply concepts to solve new problems.

Curriculum workers must, with considerable help from students and others, decide what is meant by relevance and then proceed to make the curriculum as relevant as possible.

Balance

Balance is an unusual curriculum concept that on the surface seems obvious but with some probing becomes somewhat cloudy. Nailing down a precise definition of balance is difficult. Many—perhaps most—educators feel that somehow the curriculum is in a state of imbalance. Years ago Paul M. Halverson made an observation that we could well repeat today: "Curriculum balance will probably always be lacking because institutions of all kinds are slow in adapting to new needs and demands of the culture except when social change is rapid and urgent in its implications for these institutions."[28]

Balance, then, is something that schools may not have but apparently should. How would we know a balanced curriculum if we saw one? This is the key question for us to examine.

The search for a definition is complicated by differing interpretations of the word "balance" as it applies to the curriculum. Halverson spoke of balancing ends and means, as follows: "A balanced curriculum implies structure and order in its scope and sequence (means) leading to the achievement of educational objectives (ends)."[29]

Goodlad would bring the learner-centered curriculum and the subject-centered curriculum into balance, commenting:

> Much recent and current controversy over the curriculum centers on the question of what kind and how much attention to give learners and subject matter, respectively. The prospect of stressing one to the exclusion of the other appears scarcely worthy of consideration. Nonetheless, the interested observer has little difficulty finding school practices emphasizing one component to the impoverishment of the other.[30]

Ronald C. Doll looked at balance from the learner's standpoint and described it as follows:

> A balanced curriculum for a given learner at a given time would completely fit the learner in terms of his or her particular educational needs at that time. It would contain just enough of each kind of subject matter to serve the individual's purposes and to speed his or her development. . . . Perhaps the best that can be done in working toward balance is to be clearer about what is valued for the growth of individual learners and then to apply these values in selecting curriculum content, grouping pupils for instruction, providing for articulation, and furthering guidance programs.[31]

In the foregoing comments Goodlad stressed the need for balance between the learner and the subject-centered curriculum, whereas Doll emphasized the need for a curriculum that fits individuals through a judicious balance of group and individual experiences.

SETS OF VARIABLES.　We can apply the principle of balance in a number of ways. Given the typical elementary school, middle or junior high school, and comprehensive senior high school, curriculum planners should seek balance between the following sets of variables. You will note below that some of the sets of variables call for proportions or splits other than a fifty-fifty distribution. When we speak of proportions, we distort the mathematical concept of balance as equilibrium. In reference to the curriculum, however, we cannot and probably should not always seek to achieve a fifty-fifty balance. There are times when a "balance" of one-third/two-thirds is defensible.

1. ***The child-centered and the subject-centered curriculum.***　This variable presupposes a balance between the conflicting philosophies of progressivism and essentialism.
2. ***The needs of society and the needs of the learner.***　The curriculum must be not only socially but also personally oriented.
3. ***General and specialized education.***　While the curriculum of a comprehensive high school consists of core education courses that could comprise a majority of the curriculum offerings, electives must be available for learners in specialized fields. School systems in various parts of the country offer alternatives to the general-specialized-education balance by providing magnet programs in separate high schools or within a high school for specialized education. Also, they meet student needs by allowing dual enrollment in both the regular high school and a vocational secondary school or community college, or by joining forces with other public schools to operate an area career-technical center. Online courses are another approach that allows the comprehensive high school to meet the needs of their students.
4. ***Breadth and depth.***　The curriculum can be so broad as to be superficial or conversely so profound as to limit learning. In either extreme learning is restricted.
5. ***The three domains, if we may create a three-way balance.***　We cannot ignore the cognitive or affective or psychomotor domain. Youngsters cannot find their own balance when learning is limited to one domain.
6. ***Individualization and mass education.***　We must find some way to individualize or personalize instruction within the context of a mass educational system. Many recommendations have been made to achieve individualization—ranging from programmed instruction to individually prescribed instruction to diagnostic-prescriptive teaching to independent study. However, of necessity, education remains largely a group process. We must discover effective ways of combining grouping techniques such as cooperative learning, subgroupings both small and large, and instruction of the total class with personalized techniques.
7. ***Innovation and tradition.***　Tradition provides for stability and finds favor with the public. Constant innovation, often for its own sake, keeps faculties, students, and parents in a

state of perpetual turmoil. We must pace innovations as to frequency and quantity in order to digest and evaluate changes taking place.

8. *The logical and psychological.* These variables are equated in a philosophical context with the differences between essentialism and progressivism. Some content must be organized according to the logic of the subject matter; some to the logic of the learner.

9. *The needs of the exceptional child and the nonexceptional child.* If intelligence is distributed at random among the population, some two-thirds of the students are in the "average" range. Curriculum planners must be careful that attention to the needs of special groups does not far outstrip attention to the needs of the more numerous average students, who are sometimes referred to as "woodwork children."[32]

10. *The needs of the academically talented or gifted and the average student.* Teachers today are often accused of teaching to the middle or to the average-level students in their classes. Perhaps we assumed that the academically talented and the gifted will teach themselves in spite of school. Or perhaps we were guided by statistics; there are more average students than academically talented (the top 15 percent) and gifted (the top 3 percent). Schools must address the needs all learners.

11. *Methods, experiences, and strategies.* Teachers should use a mixture of techniques, including print, audio, and visual media. Some schools rely almost exclusively on the printed word, which runs counter to the public's addiction to mediated learning—films, recordings, television, and the computer with its access to the Internet.

12. *The immediate and the remote in both time and space.* Some people would omit the study of ancient history (too remote) or the study of the non-Western world (too distant or irrelevant). In fact, some discount the value of history per se. They would design only sparkling, new, contemporary curricula. In an era of globalization, people of the twenty-first century need a sense of the roots of civilization combined with an understanding of the many present-day diverse cultures across our shrunken planet and, indeed, among us.

13. *Work and play.* At all levels youngsters need some balance between academic work and leisure or physical activity. Play in the form of games, sports, and personal pursuits not only helps alleviate incipient boredom but can be an education in itself. Some of the avocations pursued by young people may become vocations or lifelong interests.

14. *The school and the community as educational forces.* Teachers sometimes forget that there is much to be learned outside the walls of the classroom. Curriculum planners should build ways of using the community as an educational laboratory. If the world can be one's oyster, the community can be one's pearl.

15. *Between disciplines.* Disciplines, especially elective ones in the secondary school, vie with each other for student enrollment. Occasionally, a school becomes known for an exceptionally strong department in some discipline. Although excellence is to be encouraged, this situation may imply less than excellence in other disciplines. Curriculum planners should seek to foster excellence in all fields.

16. *Between programs.* The college preparatory program of the secondary school often dwarfs other curricula. Curriculum planners must ensure that the general, career-technical, business, and other curricula have their place in the sun as well as the college preparatory curriculum.

17. *Within disciplines.* The natural and social sciences, as examples, should offer a mixture of didactics and inquiry learning. The foreign language curriculum should seek achievement in comprehension, speaking, and writing as well as in reading. No single phase of a particular discipline should be permitted to crowd out other important phases.

Striving for balance in the curriculum is an essential responsibility of the curriculum planner.

Integration

Curriculum workers should concern themselves with the problem of integrating subject matter. Integration, in the context of a curriculum construction concept, means the blending, fusion, or unification of disciplines, a concept visited in Chapter 9 when we discussed the activity and core curricula. A fully integrated curriculum tears down barriers between disciplines and fuses disciplines under overarching themes or topics. Unlike the determination of scope and sequence, which must be accomplished, the integration of disciplines is an optional and controversial undertaking. Whether to integrate the curriculum is an issue that divides educators.

Whether curriculum planners choose to integrate subject matter hinges upon their philosophy of the nature of knowledge, the nature of learners, and the purposes of education. Many educators support the integration of subject matter based on their analyses of studies pointing to successes with interdisciplinary curricular plans. Tyler defined integration as "the horizontal relationship of curriculum experiences" and went on to say, "The organization of these experiences should be such that they help the student increasingly to get a unified view and to unify his behavior in relation to the elements dealt with."[33] Hilda Taba commented that learning is more effective when connections among various fields of study are made explicit, especially when one is applying knowledge.

However, our schools have typically and traditionally behaved as if the integration of subject matter were not too important or were even detrimental to student achievement. The tenacity of the subject-matter curriculum, which organizes subject matter into discrete disciplines, has been shaken only briefly by experiments such as the activity curriculum and the core curriculum. The activity curriculum on the elementary school level and the core curriculum on the secondary school level sought to break down the disciplinary barriers and to organize education around problems to be solved, using whatever subject matter was applicable. The popularity of integrated curricula has waxed and waned over the years.

Subject matter may be organized on the basis of separate disciplines with their own time blocks. Another approach is to integrate it either on a schoolwide basis (as with the core curriculum) or on the classroom level (as with certain types of unit plans) without regard for disciplines.

Not all educators, of course, are advocates of integrating subject matter. Some believe that the various disciplines should be taught separately. Thus, they reject the broad-fields approach to curriculum organization and recommend that teachers and students concentrate on the separate disciplines.

The progressives feel with considerable logic that understanding is enhanced when the artificial barriers between disciplines are removed. It is true that human beings solve their problems by judiciously selecting whatever subject matter is needed. However, whether a program to educate the immature learner must consist of integrated disciplines is debatable. Two responses have been made over the years to reduce the separateness of disciplines. Subject matter has been both correlated and integrated. Curriculum planners have positioned themselves somewhere on a continuum that appears as follows:

Discrete
subjects   Correlation   Integration

CORRELATION OF SUBJECT MATTER.   Correlation is the relating of subjects to one another while still maintaining their separateness. Relationships between subjects taught at a particular school level are shown to pupils, as in the cases of history and literature; math and science; art, music, and literature. Subjects may be correlated horizontally across one grade level or vertically across two or more. As an example of the latter, ancient history, taught in the sophomore or

junior year of high school, may be correlated with Latin, taught in the junior or senior year. The study of Latin is therefore enriched by this progression. If the courses are taken concurrently, the study of both disciplines is enhanced.

Correlation becomes integration when the subjects lose their identities. In the cultural-epoch core approach to curriculum organization, epochs of humankind's history provide the framework; the subjects—English, social studies, science, mathematics, art, music—illuminate the cultural epochs. In the case of either correlation or integration, cooperative planning by all teachers affected is necessary.

TWO VIEWS OF CURRICULUM INTEGRATION. Taba offered two views of curriculum integration. The first view is the one we have been discussing: the horizontal relationship of subjects. In addition, said Taba, "Integration is also defined as something that happens to an individual."[34] If we follow the second view, "The problem, then, is that of developing ways of helping individuals in this process of creating a unity of knowledge. This interpretation of integration throws the emphasis from integrating subjects to locating the integrative threads."[35]

Regardless of whether the subject matter is presented to the learner in an integrated fashion by the teacher, the learner must integrate the knowledge into his or her own behavior. The distinction between an educated and an erudite person lies in the degree to which knowledge is integrated in the person.

Taba remarked:

> Unification of subjects has been a theme in education ever since the Herbartians. By far the greatest number of experimental curriculum schemes have revolved around the problem of unifying learning. At the same time we are far from achieving unification, partly because of fear of loss of disciplined learning if the study of specialized subjects is discarded, and partly because as yet no effective basis has been found for unifying school subjects.[36]

You have seen and will see a number of references to interdisciplinary/multidisciplinary integrated curricula in this text. Although many schools seek to employ an interdisciplinary approach to curriculum and instruction at more than one level, integration of the curriculum was, in the days of the core curriculum, found more frequently in middle schools.

Integrated curricula challenge the time-honored organization of curricula into separate disciplines. James A. Beane pointed to the difficulty of implementing an integrated curriculum when he said, "To resist the powerful push for a prescribed, separate subject curriculum and related tests is no easy thing to do."[37] Curriculum planners must decide whether they will make a conscious effort either to correlate or to integrate subject matter and, if they plan to do either, what organizational structure they will create to do so.[38] Scope, relevance, balance, and integration are interrelated principles to which curriculum workers must give attention.

Sequence

Sequence is the order in which the organizing elements or centers are arranged by the curriculum planners. Whereas scope is referred to as "the what" of curriculum organization, sequence is referred to as "the when." Sequence answers the questions of when and where the focal points will be placed. Some time ago Saylor and Alexander defined sequence as

> the order in which educational experiences are developed with pupils. Sequence refers to the "when" in curriculum planning. Determination of the sequence of educational experiences is a decision as to the most propitious time in which to develop those educational experiences suggested by the scope. If we think of scope as the latitudinal aspect of curriculum planning, sequence becomes the longitudinal axis.[39]

Once we identify the scope of the curriculum, we must put the elements into some kind of meaningful order. Let's take a simplified illustration from the reading curriculum. Suppose as reading teachers we wish students to be able to

- read novels
- read words
- read paragraphs
- read sentences
- recognize letters of the alphabet

Is there some particular order in which pupils learn those elements? The answer is obvious here. The student should recognize letters of the alphabet first, and then proceed to reading words, sentences, paragraphs, and novels. Unless one is a Mozart-like prodigy, one does not normally begin to demonstrate reading skills by reading adult tomes.

But take the following organizational threads in economics:

- insurance
- real estate
- banking
- stock market
- inflation
- recession
- foreign exchange

What is the sequence in this case? Is there a preferred sequence? What makes it preferred? As another example, in what order should we study the American Revolution, the War of 1812, the war in Afghanistan, the Korean War, World War I, the Civil War, the Vietnam War, World War II, the Persian Gulf War, the War in Iraq, and the Spanish-American War? The answer in this case is simple, you say. Simply place the wars in chronological order. But could there be any other defensible way of sequencing these items?

The problem of sequencing produces questions about

- the maturity of the learners
- the interests of the learners
- the readiness of the learners
- the relative difficulty of the items to be learned
- the relationship between items
- the prerequisite skills needed in each case

WAYS OF SEQUENCING. How do curriculum workers decide which content comes first? Sequencing is accomplished in a variety of ways, including arranging the content:

1. From the simplest to the most complex. We must deal with tens, for example, before we work with hundreds.
2. In chronological order. History is most often taught in this fashion.
3. In reverse chronological order. Occasionally, a history teacher will start with the most recent events and work backward to the most ancient under the assumption that pupils'

attention can be grasped quicker with more recent and therefore more familiar events. Themes that exist in the present may be seen repeated as they go backward in time.

4. From the geographically near to the geographically far. Some argue that it makes more sense to study phenomena and conditions close to home and to gradually expand the learner's horizons ultimately to the world and even the universe.

5. From the far to the near. This procedure focuses on distant lands and reserves study of the home environment—the pièce de résistance—until the end.

6. From the concrete to the abstract. The pupil learns to count blocks by first manipulating them physically and only later manipulating them mentally.

7. From the general to the particular. This approach starts with the principle and proceeds to examples.

8. From the particular to the general. This approach starts with examples and proceeds to the principle.

When we are determining sequencing, we will find that there are times when the order of the units of content does not matter. When we are studying the works of twentieth-century American authors, we might want to group writers of drama, short stories, novels, and nonfiction, but it is not likely to make a great deal of difference which grouping or which author within the grouping we study first.

There are times when we will deliberately violate a sequence. The class may be studying the political structure of ancient Rome, for example, when a landmark case affecting the country's political and social system is decided by the U.S. Supreme Court. This immediate and significant case is permitted to alter the planned sequence.

Prerequisite Skills. As a rule, pupils cannot engage in a unit of content until they have mastered the preceding skills. The student of algebra is hard pressed unless he or she has mastered arithmetic skills. The student cannot succeed in a second-year foreign language class without mastering the skills developed in the first year. For this reason the assessment of prerequisite skills is sound pedagogy. Teachers must know whether the students have mastered the skills needed to proceed with the tasks before them.

DUBIOUS SEQUENCING.   Some curriculum planners in the past, following their own notions of what constitutes prerequisite skills, have instituted sequencing that is hard to defend on any solid grounds. For years, high school students were required, for example, to take general science, biology, chemistry, and physics in that order. Actually, none is necessarily dependent on the other. Each science depends more on mastery of reading and mathematics than on mastery of other sciences. We can find evidence of dubious sequencing in mathematics with the prescribed order of algebra I, geometry, algebra II, trigonometry, and calculus. Although it may be wise planning to start with algebra I and hold calculus for the end, there is little reason to hold algebra II until after the completion of geometry. Why is *Macbeth* invariably taught after *Julius Caesar*? Why does American history often come after world history? From a chauvinist point of view, we could argue that American history ought to come first in the senior high school sequence.

CONCEPTIONS OF SEQUENCING.   Donald E. Orlosky and B. Othanel Smith discussed three conceptions of sequencing: (1) sequencing according to need, (2) macrosequencing, and (3) microsequencing. According to the first conception,

the learner orders his own learning as he deals with a situation from moment to moment. He selects what he wants to know as the need arises. If he makes a mistake in the selection he

simply goes through the process again until he finds that which satisfies his present need. This is an opportunistic notion of sequencing but those who advocate it maintain that it is psychologically sound.[40]

This perception of sequencing fits the views of some progressive educators and proponents of open education.

Macrosequencing follows principles of child development expounded by persons such as Arnold Gesell, Frances L. Ilg, and Jean Piaget. Macrosequencing, said Orlosky and Smith, is the organization of knowledge and the formulation of instruction to coincide with the different stages of the individual's development. For a long time teachers have arranged the knowledge of instruction roughly in accordance with the development of the child. Examining the existing program of studies of almost any school proves that it corresponds roughly to the child's development.[41]

Microsequencing is the ordering of subject matter according to the prerequisite knowledge required of each unit of content. "This assumes," said Orlosky and Smith, "that for any learning task there is a hierarchy extending from the very simple to the more abstract and complex elements which lead to the attainment of a specified objective."[42]

Curriculum planners are called on to make decisions on placement of content at the appropriate grade levels. Using the terms "sequence" and "grade placement" together, B. Othanel Smith, William O. Stanley, and J. Harlan Shores observed:

> There are only two possible approaches to the solution of problems of grade placement and sequence. *The first* accepts the child as he is and adjusts the experience to his level of development while holding the instructional goals constant. . . . *The second approach* assumes curriculum experiences to be located at a given grade level and provides learnings to adjust the child to these experiences—that is, to get him ready for the learning.[43]

WHERE TO BEGIN.   Disagreements over the process of sequencing center on whether curriculum planners should start with learners or subject matter. The first demands choosing emphases in keeping with the learners' actual growth and development, i.e., when learning experiences are, in current terminology, "developmentally appropriate"; the second, placing subject matter at the grade level at which it is assumed learners will be able to master it. The latter approach to sequencing has been the historic approach.

Smith, Stanley, and Shores advocated a blending of the two approaches, holding it unrealistic to subscribe wholeheartedly to either approach.[44]

They counseled curriculum workers to take into account the maturation, experiential background, mental age, and interests of the learners and the usefulness and difficulty of the subject matter when developing a sequence.[45] The ordering of the organizing elements of the curriculum is one of the major tasks of the curriculum developer.

Continuity

Continuity is the planned repetition of content at successive levels, each time at an increased level of complexity. Tyler described continuity as follows:

> Continuity refers to the vertical reiteration of major curriculum elements. For example, if in the social studies the development of skills in reading social studies is an important objective, it is necessary to see that there is recurring and continuing opportunity for these skills to be

practiced and developed. This means that over time the same kinds of skills will be brought into continuing operation. In similar fashion, if an objective in science is to develop a meaningful concept of energy, it is important that this concept be dealt with again and again in various parts of the science course. Continuity is thus seen to be a major factor in effective vertical organization.[46]

SPIRAL CURRICULUM.   The principle of continuity is represented in what has been called the spiral curriculum.[47] Concepts, skills, and knowledge are introduced and reintroduced—for example, the repetition of addition, study of democracy, writing, personal health, and conservation, each reintroduction enhancing the earlier exposures.

EXPERTISE NEEDED.   Planning a curriculum for continuity requires a high degree of expertise, which demands both knowledge of the subject field and knowledge of the learners. For example, to plan a mathematics sequence for twelve grades with appropriate scope, sequence, and continuity requires the combined skills of subject-matter specialists and teachers. Continuity is not simply repetition of content but also repetition with increasing levels of complexity and sophistication. Whereas elementary school youngsters, for example, may learn that democracy means government of the people, by the people, and for the people, secondary students may wrestle with controversial and unresolved problems of democracy.

Experience will reveal to curriculum developers which units of content must be reintroduced and at what point. Preassessment, if only of the most rudimentary kind, is essential before each new organizing element is broached. Preassessment will uncover whether the learners are ready for (1) new content based on prior content and (2) prior content that will be repeated at a more complex level.

Articulation

If we view continuity as the spiraling of content upward through the grades of a particular school, we should view articulation as the meshing of organizing elements across school levels—that is, across elementary and middle or junior high schools, across junior high or middle and senior high schools, and across senior high school and college. Like continuity, articulation is a dimension of sequencing.

HORIZONTAL AND VERTICAL.   Oliver used the term "articulation" synonymously with "horizontal articulation" or "correlation." He equated the concept of "continuity" with "vertical articulation."[48] Regarding correlation as a halfway move toward integration, we would agree with calling correlation horizontal articulation. Sequence, continuity, and articulation are all interrelated. We would separate continuity from vertical articulation and define continuity as a reintroduction of content at progressively more complex levels and articulation as the meshing of the curriculum of the various levels of the educational ladder to provide for smooth transition on the part of the learners. This meshing may or may not involve reintroduction of units of content, progressively more difficult. When speaking of articulation, we are addressing the problem of vertical articulation.

Unfortunately, efforts at articulation between levels are in many cases feeble and ineffective. Cooperative efforts are necessary among curriculum workers if articulated sequences are to be planned from kindergarten through twelfth grade and beyond.

We find considerable unplanned repetition of content among levels. This is neither articulation nor continuity but a laissez-faire attitude that permits curriculum workers to develop their own programs without knowledge of what instructors at preceding and succeeding levels are teaching.

With our decentralized system of education, lack of articulation occurs frequently. Articulation is particularly difficult in some states where separate school districts managing different levels of schooling exist side by side under separate administrators and separate school boards. Even when all levels of schooling are centralized under a single administrator and school board, articulation remains a problem.

GAPS AND OVERLAPS BETWEEN LEVELS. We often find great gaps between levels. If given the authority, teachers could "pick and choose" which content will be delivered, which will lead to gaps in the curriculum. Likewise, there is legitimate concern that students could be introduced to the same content as they move up the educational continuum. Gaps and overlaps can be avoided by providing opportunities for teachers to articulate between the grade levels. Schools that plan contiguously by providing planning opportunities between school levels to align curriculum offerings and/or operate as professional learning communities stand a far better chance of eliminating concerns in this area.

PERSONAL ARTICULATION. There is not only a need not only for planned articulation of subject matter but also for pupils' personal articulation. Schools look for ways to respond to students' varied capabilities. Some junior high/middle school pupils, for example, are able to tackle senior high school subjects. Some senior high school pupils can perform ably in advanced placement courses given in the high school or can dual-enroll at a local community college due to their educational prowess.

Improved articulation eases the movement of pupils from one level to the next, which can be a traumatic experience for most young people. With all the problems of social adjustment as they enter a higher level, pupils have little need for suffering either needless repetition, or exposure to subject matter that is too easy for them, or—worse yet—grasping for learnings beyond their abilities and skills. Thus, curriculum planners cannot avoid the problem of articulation.

Let's recap what has been said about sequencing, continuity, and articulation. Continuity and articulation are dimensions of sequencing. Sequencing is the logical or psychological arrangement of units of content within lessons, units, courses, and grades. Continuity is the planned introduction and reintroduction of the same units of content through the grades of a school system at ever-increasing levels of complexity. Articulation is the planned sequencing of units of content across grade levels—that is, from one grade level to the next to ensure that the next grade level takes up where the previous grade level left off.

The three principles—sequence, continuity, and articulation—are interrelated and complement each other. Material must be appropriately sequenced at whatever level. Articulation must be observed to ensure that there are no gaps in a sequence from one grade level to the next, whereas continuity must be sought to permit students to achieve greater depth in a subject.

Although this text presents sequencing and related principles in a favorable light as useful concepts in planning, organizing, and evaluating the curriculum, as we have noted many times in this text, views on many concepts and practices in education differ. The concepts of sequencing and the spiral curriculum are no exception. Holding that "there is little interest today in sequencing,"[49] John D. McNeil wrote, "Current research casts doubt on rigid conceptions of skill hierarchies and spiraled curriculum. Although there may be some valid skill hierarchies such as teaching addition before multiplication, little evidence supports hierarchies such as those in Bloom's taxonomy."[50]

Transferability

Whatever is taught in school should in some way possess transfer value; that is, learning in school should have applicability in either a broad or narrow sense outside of school and after the school years. Education for education's sake—the mark of the learned person—is simply not sufficient as a goal of education. Education should in some way enrich the life of the individual.

The transfer of learning or transfer of training, as it is sometimes called, has been discussed at some length in the literature of educational psychology.[51] Transfer gives a permanence to learning beyond the moment of its first introduction into the classroom.

Career-technical education possesses a built-in one-upmanship in transferability. You can see the transfer; it's apparent. Skills learned in industrial arts and career education classes can be transferred to life situations. Teachers of psychomotor skills are particularly fortunate because pupils have no difficulty seeing the transfer value of these areas of study. Students can and will use the skills they learn in such areas as music, art, physical education, word processing, and homemaking. Transfer is paramount with most teachers of perceptual-motor skills. Physical educators tout the carry-over value of their activities—that is, transfer.

Transfer in the affective and cognitive areas is more difficult to discern. Of course, we wish students to carry over ethical values and positive attitudes into their daily living. We would like a student who demonstrates democratic principles in the classroom to retain that behavior all his or her life. Transfer of cognitive learning is most often visible in student performance on assessment and standardized tests, in admission to and success in college, and in the evaluations employers give of the intellectual competence of their employees.

Proponents of faculty psychology (mental or formal discipline) maintained that rigorous subjects disciplined the mind; thus, such education was generally transferable. Some of the essentialists have held that education is the storing of data—computer fashion—for use at a later date when the occasion arises. Unfortunately, disuse sets in; we forget, and when we need to retrieve the supposedly stored data, we find that they have slipped away. Unlike the cases of bicycling and swimming—skills never forgotten—we can but cite the difficulty of retrieving locations and steps in using computer applications after a period of disuse.

It has generally been believed by many—a holdover of the formal discipline days—that certain subjects lead to transfer more than other subjects. After an exhaustive study of more than 8,000 students, Thorndike concluded:

> The expectation of any large difference in general improvement of the mind from one study rather than another seems doomed to disappointment. The chief reason why good thinkers seem superficially to have been made such by having taken certain school studies is that good thinkers have taken such studies, becoming better by the inherent tendency of the good to gain more than the poor from any study.[52]

Daniel Tanner and Laurel Tanner pointed out that the Eight-Year Study disproved the notion that a high school student must complete a prescribed sequence of subjects in order to be successful in college.[53]

CURRENT BELIEFS.   Let's summarize some of the current beliefs about transfer.

- Transfer is at the heart of education: it is a—if not the—goal of education.
- Transfer is possible.
- The closer the classroom situation is to the out-of-classroom situations, the greater is the transfer.

- Transfer can be increased and improved if teachers consciously teach for transfer.
- Transfer is greater when teachers help pupils to derive underlying generalizations and to make applications of those generalizations.
- Generally speaking, when the learner discovers knowledge for himself or herself, transfer is enhanced.

Bruner provided an example of children in a fifth-grade class learning "a way of thinking about geography" as opposed to being dished out selected, unconnected geographical facts.[54] Bruner encouraged teachers to use a discovery approach, justifying it on the grounds of "increased intellectual potency, intrinsic rewards, useful learning techniques, and better memory processes."[55]

GUIDED DISCOVERY.   The jury is still out on the question of the extent of use of inquiry or discovery methods. David Ausubel pointed out that some discovery techniques can be an inefficient use of time.[56] Renate Nummela Caine and Geoffrey Caine were critical of discovery learning when they said, "Unfortunately, even this often fails to work because discovery learning is used as a trick or device to get students to remember the facts that the teacher wants them to remember."[57] Some authorities prefer to speak of guided discovery rather than discovery per se. Whatever the process used—discovery or other—enhancement of meaning during the process of instruction should increase the degree of transfer.

Transferability is a principle of both instruction and the curriculum. When we talk about methods of teaching for transferability, we are referring to the instructional process. When we analyze what the learner has transferred, we are in the area of curriculum. Curriculum developers should specify objectives, select content, and choose instructional strategies that will lead to maximum transfer. Furthermore, plans for evaluating the curriculum should include means of judging the degree of the transfer of the many segments of the curriculum.

Implications of the Continuing Curriculum Concepts

Given the range and the many facets of the curriculum concepts covered, it is useful to briefly redefine them in the light of the curriculum worker's responsibilities. Curriculum workers attend to

- *scope.* when they select topics to be studied and specify the instructional objectives
- *relevance.* when they "effect a congruence between the entire school system and the social order in which the young of today will spend their adult lives"[58]
- *balance.* when they maintain certain sets of elements proportionately
- *integration.* when they make an effort to unify subject matter
- *sequence.* when they determine the order in which subject matter will be made available to the students
- *continuity.* when they examine the curriculum of each course and grade level to discover where units of content may fruitfully be repeated at increased levels of complexity
- *articulation.* when they examine the curriculum of each discipline at each grade level to be sure the subject matter flows sequentially across grade-level boundaries
- *transferability.* when they seek ways to achieve maximum transfer of learning

In identifying the eight guiding principles of curriculum development, we give structure to a philosophy of curriculum development, saying that we believe a functional curriculum is one that attends to scope, relevance, balance, integration, sequence, continuity, articulation, and transferability.

COMPREHENSIVE MODEL

The foregoing limited models focus on specific aspects of the curriculum: accomplishment of the curriculum objectives and the presence or absence of selected guiding factors in curriculum construction. Let's study some additional aspects in curriculum development.

EVALUATION OF SPECIFIC SEGMENTS.   Assessment data from district, state, and national sources should be gathered by the curriculum planners for purposes of formative evaluation of the specific program segments. At this stage, data from the National Assessment of Educational Progress, for instance, can prove helpful. If, for example, the NAEP data revealed that nine-year-old children in urban areas in one part of the country are more deficient in reading skills than children in comparable urban areas elsewhere in the country, intensive examination of the reading program of the particular school system is essential. SAT and ACT scores will provide clues. International assessments such as TIMSS may also provide helpful data.[59] State and district assessments, focusing as they do on children of the state and locality, will be even more meaningful in this respect.

EVALUATIVE INSTRUMENTS.   At this stage, too, the evaluation instruments of the National Study of School Evaluation (NSSE) may be used to gather empirical data about specific areas of study and other segments of the program.[60] This particular set of standards is often used by schools as part of a self-study process for regional accreditation. These instruments permit faculties to analyze the principles related to the particular program, the evaluation techniques used, plans for improvement, and the current status.

Fenwick W. English proposed a way of looking at specific segments of the curriculum through a technique referred to as "curriculum mapping."[61] Following this technique, teachers analyze the content they present and the amount of time spent on each topic. Advocating calendar-based curriculum mapping as a means of integrating the curriculum and assessment, Heidi Hayes Jacobs likened a curriculum map to

> a school's manuscript. It tells the story of the operational curriculum. With this map in hand, staff members can play the role of manuscript editors, examining the curriculum for needed revision and validation.[62]

Jacobs saw the technique in which each teacher creates a map showing the processes, skills, concepts, topics, and assessments to be incorporated in his or her teaching over the course of a year as more effective than lists of goals, objectives, skills, and concepts prepared by usual curriculum committees.[63]

In a later work Jacobs explained, "Primarily, mapping enables teachers to identify gaps, redundancies, and misalignments in the curriculum and instructional program and to foster dialog among teachers about their work."[64]

Curriculum planners must design summative measures to determine whether the curriculum goals and objectives of the specific segments have been achieved. If it were desired, for example, that 75 percent of the students in a senior high school be involved in at least one extraclass activity, a simple head count would reveal whether this objective has been realized. As is the case when evaluating instruction, sometimes the objective itself is the evaluation item. On the other hand, if it is desired to know whether a fourth-grade class whose members average two months below grade level in mathematics at the beginning of the year raised its scores to grade level by the end of the year, pretesting and post testing will be necessary.

PROFESSIONAL LEARNING COMMUNITIES.   The practice of instituting professional learning communities into the fabric of schools has become a popular way of establishing collaborative groups that focus on what students should learn. In an effort to eliminate the "silo effect" that is present in many educational environments, Robert Eaker, Richard Dufour, and Rebecca Dufour offer educators a conceptual framework in which to operate by basing it on three major themes:

1. a solid foundation consisting of collaboratively developed and widely shared mission, vision, values, and goals
2. collaborative teams that work interdependently to achieve common goals
3. a focus on results as evidenced by a commitment to continuous improvement[65]

Professional learning communities provide a means in which educators at the school level can drive curriculum initiatives, establish common assessments, evaluate student data and student learning, adjust curriculum offerings, and improve teacher pedagogy.[66] By working as a team with a common focus, the schools can determine:

> what it is that we want them to learn? How can we be certain all students have learned it? How can we respond to assist those students who are not mastering the intended outcomes? . . .[67]

The concept of the professional learning community resonates well with educators but it does receive criticism. Many schools state they are collaborative in nature but in fact do not provide the necessary framework for collaboration to take place. Fundamental to the learning community concept is the creation of time for the professionals to meet and to collaborate. Diminishing budgets, lack of understanding of the core concepts of the framework, staff attrition, and tight scheduling options all contribute to the challenges educators face in establishing effective professional learning communities.

EVALUATION OF THE TOTAL PROGRAM.   The functioning of the curriculum as a whole must be evaluated. The curriculum planners want to learn whether the goals and objectives of the total curriculum have been realized.

The aforementioned National Study of School Evaluation enables schools to gather the opinions of their constituencies by making inventories available for teachers, students, and parents to register their perceptions about the school and its programs. English adapted the concept of a management audit to curriculum evaluation, defining an audit as "an objective, external review of a record, event, process, product, act, belief, or motivation to commit an act."[68] English went on to describe a curriculum audit as "a process of examining documents and practices that exist within a peculiar institution normally called a 'school' in a given time, culture, and society."[69] From documents, interviews, and on-site visits, the auditor—sometimes an external agent—seeks to determine how well programs are functioning and whether they are cost-effective. English pointed out that the curriculum audit is both a process and a product in that the auditor engages in collecting and analyzing data and prepares a report delineating the results. Standards applied by English to a school district's curriculum audit include district control over its people, program, and resources; clear program objectives; documentation about its programs; use of district assessments; and program improvements.[70]

Studies of the needs of society and of young people speak to the question of the school's total program. Unless one limits the school's program to purely cognitive goals, some response should be made to some of the pressing problems of the day. These studies provide formative data for the curriculum planners. Surely problems such as abuse of the environment, waste of

natural resources, discrimination of all types, and the misuse of chemical substances should be examined by young people.

J. Galen Saylor, William M. Alexander, and Arthur J. Lewis recommended formative evaluation of the program of education as a totality by means of "judgments of competent persons, research data on human needs, recommendations of study groups." They recommended summative evaluation of the educational program through "surveys; follow-up studies; judgments of scholars, citizens, and students; test data."[71]

Summative evaluation of the total program is conducted in several ways. Empirical data are gathered to determine if curriculum objectives have been accomplished. Schoolwide test data are analyzed. Follow-up studies reveal the success or lack of success of young people after leaving the school. Finally, surveys ask teachers, parents, students, and others to evaluate the school's program.

EVALUATION OF THE EVALUATION PROGRAM.   The program for evaluating the curriculum should be continuously assessed. Judgments about how evaluation will be conducted should be made before an innovation or change is put into practice. The techniques for ongoing evaluation and final evaluation must be carefully planned and followed.

Sometimes it is beneficial to enlist the services of an evaluation specialist to review the evaluation techniques proposed by the curriculum planners. Questions must be answered as to whether the instruments to be used are reliable and valid; whether the evaluation program is comprehensive, covering all the dimensions of the curriculum to be evaluated; and whether the procedures are appropriate and possible. Reactions and suggestions about the evaluation procedures should be obtained from those who are most intimately exposed to them: the students and teachers.

If research studies are to be conducted, specialists inside or outside the system should review the proposed research techniques to determine whether they meet the standards of acceptable research.

When data are ultimately gathered, the planners may feel the need to request the help of evaluation specialists to treat and interpret the data. It must now be determined whether all the variables have been considered and appropriately controlled and whether the evaluation measures are designed to assess the appropriate objectives. For example, a cognitive test of American history will not assess student performance of citizenship skills. The ability to recite rules of grammar does not guarantee skill in writing.

When flaws are discovered in the evaluation program, changes should be made. Conclusions reached as a result of research and evaluation are often attacked, not on their substance, but on the evaluation processes by which they were reached.

For example, why is it that we can find skeptics for almost every curricular innovation ever tried? You name it—core curriculum; competency-based education; open education; team teaching; nongradedness; the once new, now old math; and so on—and we can find criticisms of it. Some who object do so because they are not convinced that the evaluation techniques purported to have been used actually proved the superiority of an innovation. Students of curriculum might well examine the processes for evaluating almost any program, change of program, or innovation in their school system—past or present, and at any level—to find out if curricula were evaluated rigorously. Students are also likely to discover many innovations that were evaluated on the basis of perceived opinion of success (without adequate data), participants' feelings about the program (like/dislike), change of pace (variety as a spice), pleasure of being involved (Hawthorne effect), administrative assertion ("I say it works"), cost (if it was an expensive undertaking, it has to be

good), public relations ("Look what we've done for your/our young people"), and perceived leadership ("We're in the vanguard," also known as "on the cutting edge"). Let's examine a model that asks us to evaluate the entire curriculum development process.

The CIPP Model

The Phi Delta Kappa National Study Committee on Evaluation, chaired by Daniel L. Stufflebeam, produced and disseminated a widely cited model of evaluation known as the CIPP model.[72] Reference has already been made in Chapter 4 to two of the major features of the CIPP model: stages of decision making and types of decisions required in education.[73]

Comprehensive in nature, the model reveals types of evaluation, types of decision-making settings, types of decisions, and types of change. Defining evaluation in the following way, "Evaluation is the process of delineating, obtaining, and providing useful information for judging decision alternatives," Stufflebeam clarified what was meant by each of the parts of the definition:

1. *Process.* A particular, continuing, and cyclical activity subsuming many methods and involving a number of steps or operations.
2. *Delineating.* Focusing information requirements to be served by evaluation through such steps as specifying, defining, and explicating.
3. *Obtaining.* Making available through such processes as collecting, organizing, and analyzing, and through such formal means as statistics and measurement.
4. *Providing.* Fitting together into systems or subsystems that best serve the needs or purposes of the evaluation.
5. *Useful.* Appropriate to predetermined criteria evolved through the interaction of the evaluator and the client.
6. *Information.* Descriptive or interpretive data about entities (tangible or intangible) and their relationships.
7. *Judging.* Assigning weights in accordance with a specified value framework, criteria derived there from and information that relates criteria to each entity being judged.
8. *Decision Alternatives.* A set of optional responses to a specified decision question.[74]

"The evaluation process," said Stufflebeam, "includes the three main steps of delineating, obtaining, and providing. These steps provide the basis for a methodology of evaluation."[75]

FOUR TYPES OF EVALUATION. The Phi Delta Kappa Committee pointed to four types of evaluation—context, input, process, and product—hence the name of the CIPP model. Context evaluation is "the most basic kind of evaluation," said Stufflebeam. "Its purpose is to provide a rationale for determination of objectives."[76] At this point in the model, curriculum planner-evaluators define the environment of the curriculum and determine unmet needs and reasons why the needs are not being met. Goals and objectives are specified on the basis of context evaluation.

Input evaluation has as its purpose "to provide information for determining how to utilize resources to achieve project objectives."[77] The resources of the school and various designs for carrying out the curriculum are considered. At this stage, the planner-evaluators decide on which procedures are to be used. Stufflebeam observed, "Methods for input evaluation are lacking in education. The prevalent practices include committee deliberations, appeal to the professional literature, the employment of consultants, and pilot experimental projects."[78]

Process evaluation is the provision of periodic feedback while the curriculum is being implemented. Stufflebeam noted, "Process evaluation has three main objectives—the first is to

detect or predict defects in the procedural design or its implementation during the implementation stages, the second is to provide information for programmed decisions, and the third is to maintain a record of the procedure as it occurs."[79]

Product evaluation, the final type, has as its purpose

> to measure and interpret attainments not only at the end of a project cycle, but as often as necessary during the project term. The general method of product evaluation includes devising operational definitions of objectives, measuring criteria associated with the objectives of the activity, comparing these measurements with predetermined absolute or relative standards, and making rational interpretations of the outcomes using the recorded context, input, and process information.[80]

Stufflebeam outlined the types of evaluation in respect to objectives and methods and in relation to decision making in the change process as shown in Figure 13.4.

FOUR TYPES OF DECISIONS. The hexagons in Figure 13.4 represent four types of decisions, which were mentioned in Chapter 4: Planning, Structuring, Implementing, and Recycling. Note in the figure that the hexagon Planning decisions follows Context evaluation; Structuring decisions follows Input evaluation; Implementation decisions follows Process evaluation; and Recycling decisions follows Product evaluation.[81]

Decision making, according to the Phi Delta Kappa Committee, occurs in four different settings:[82]

1. small change with high information
2. small change with low information
3. large change with high information
4. large change with low information

FOUR TYPES OF CHANGES. In the aforementioned settings, four types of changes may result: neomobilistic, incremental, homeostatic, and metamorphic. *Neomobilistic change* occurs in a setting in which a large change is sought on the basis of low information. These changes are innovative solutions based on little evidence. *Incremental changes* are series of small changes based on low information. *Homeostatic change,* which is the most common in education, is a small change based on high information. Finally, *metamorphic change,* a large change based on high information, is so rare that it is not shown on the CIPP model.

The model plots the sequence of evaluation and decision making from context evaluation to recycling decisions. The committee has touched up the model with small loops that look like lightbulbs on the evaluation blocks to indicate that the general process of delineating, obtaining, and providing information is cyclical and applies to each type of evaluation.

The ovals, the circle, and the *E* in the model represent types of activities, types of change, and adjustment as a result of the evaluations made and decisions taken. The CIPP model presents a comprehensive view of the evaluation process. Like Saylor, Alexander, and Lewis, Stufflebeam and his associates also called for evaluation of the evaluation program. Said the Phi Delta Kappa Committee: "To maximize the effectiveness and efficiency of evaluation, evaluation itself should be evaluated. . . . The criteria for this include internal validity, external validity, reliability, objectivity, relevance, importance, credibility, scope, pervasiveness, timeliness, and efficiency."[83]
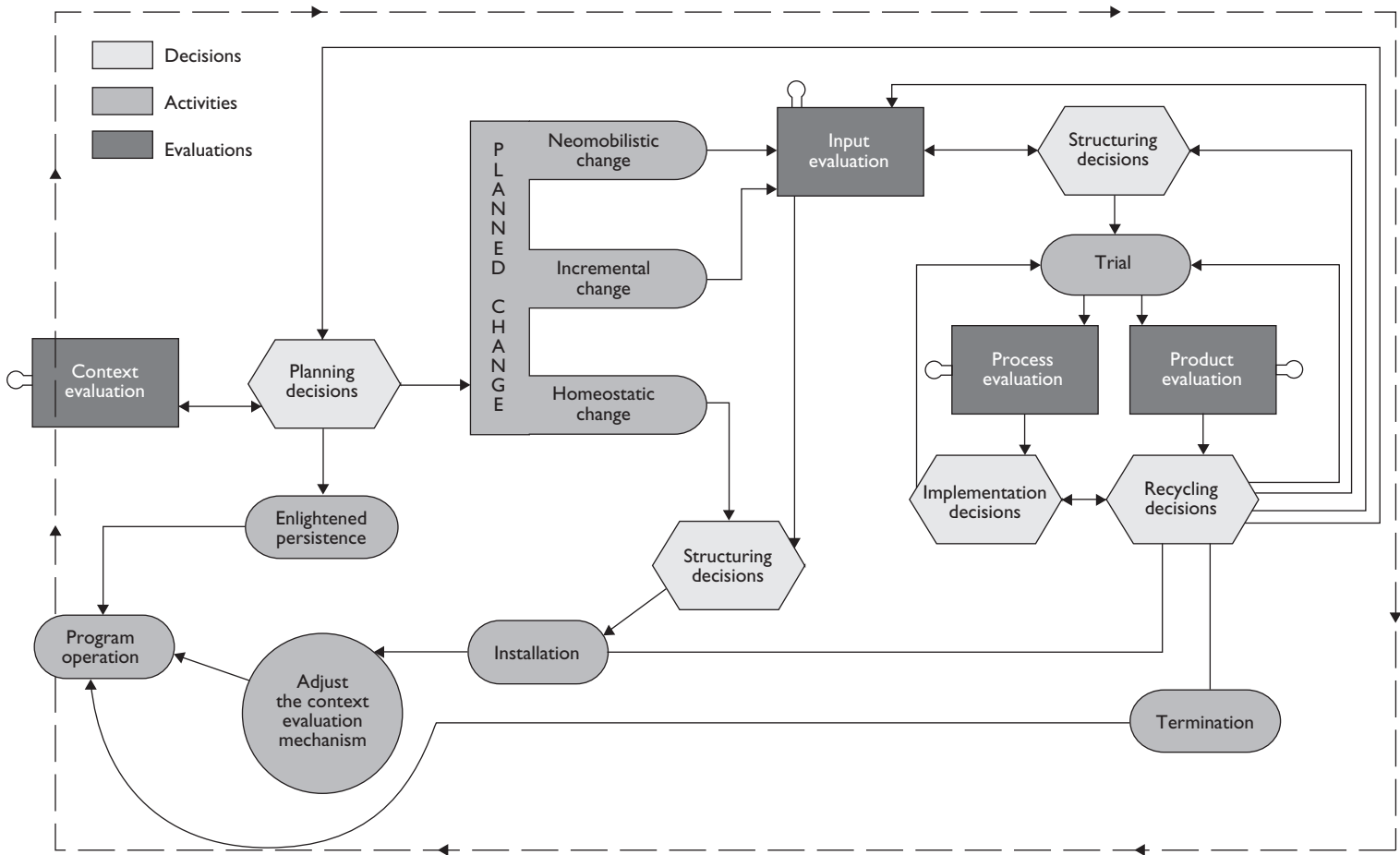
FIGURE 13.4
The CIPP Evaluation Model

From Daniel L. Stufflebeam et al., *Educational Evaluation and Decision Making* (Itasca, Ill.: F. E. Peacock, 1971), p. 236. Reprinted by permission.

THE CURRICULUM MODEL WITH TYPES OF EVALUATION

To refine our concept of the necessary types of evaluation and to show what types are carried out at specific stages, we have rediagrammed the Curriculum Model in Figure 13.5. In this submodel of the model for curriculum development, the types of evaluation are now numbered for easy reference.

Let's review each of the numbered elements:

1. As a part of context evaluation, needs are assessed.
2. Curriculum goals are validated.
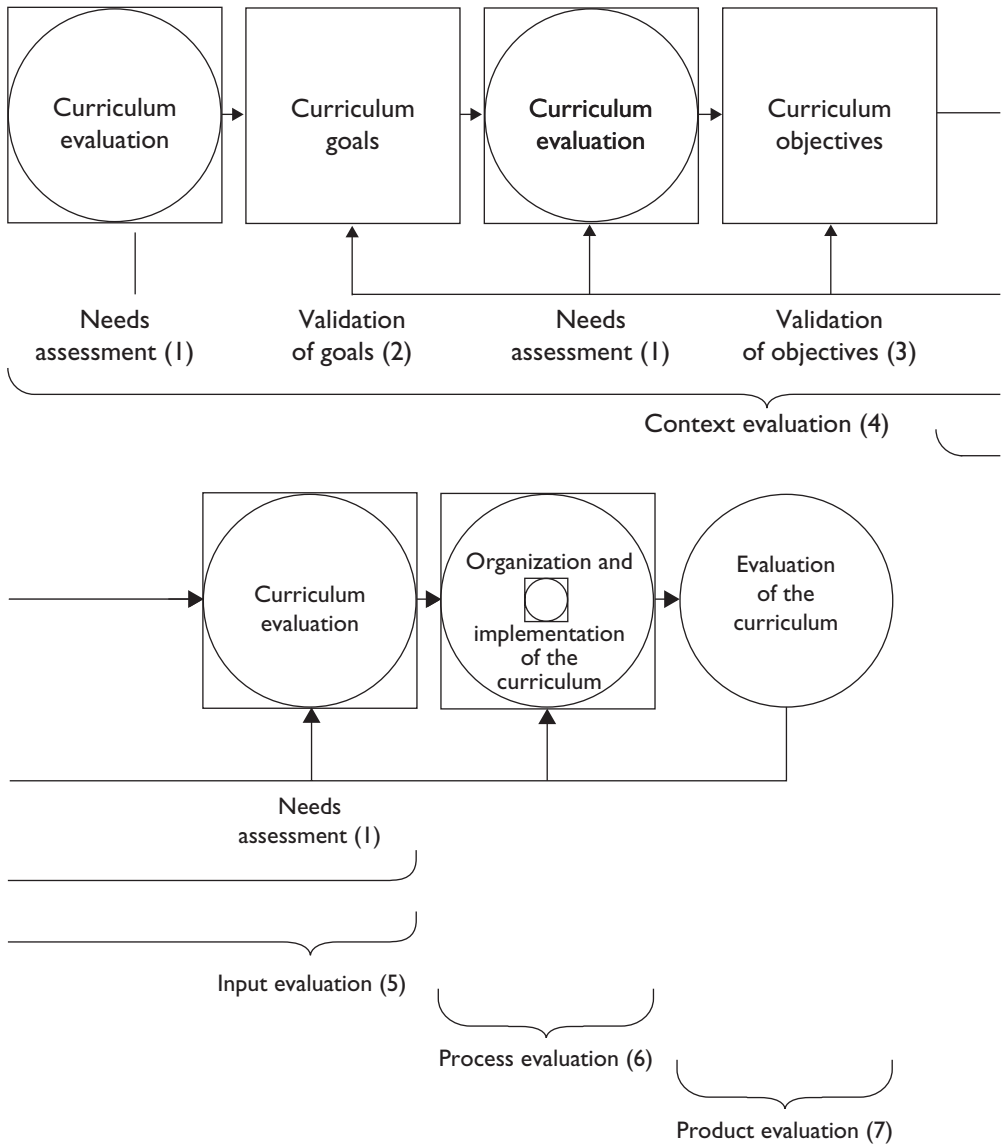
FIGURE 13.5
Sequence and Types of Evaluation

3. Curriculum objectives are validated.
4. Context evaluation begins with the needs assessment and continues up to the implementation stage.
5. Input evaluation takes place between specification of curriculum objectives and implementation of the curriculum.
6. Process evaluation is carried out during the implementation stage. Michael Scriven described three types of process research: noninferential studies, investigations of causal claims about the process, and formative evaluation.[84] Noninferential studies are those observations and investigations of what is actually happening in the classroom. Investigation of causal claims is referred to by some educators as "action research."[85] This type of research is a less-than-rigorous attempt to establish whether one teaching technique is better than another. If the action research is tied to a school wide performance objective, and data are collected and the initiative substantiated on an ongoing basis, action research can provide valuable information for a school. Formative evaluation is assessment during the course of a study or program. To these three types of process research we might add the term "descriptive research," of which noninferential studies of teacher and student classroom behavior represent one form. The use of survey instruments and the application of the instrument standards also fall into the category of descriptive research.
7. Product evaluation is summative evaluation of the entire process. This type of evaluation is sometimes referred to as outcome evaluation or program evaluation. Program evaluation, however, is used not only in the sense of summative evaluation but also as a synonym for the entire process of curriculum evaluation. Thus, a model for curriculum evaluation might also be called a model for program evaluation.

The CIPP model provides us with a way of viewing the process of curriculum evaluation. The model urges a comprehensive approach to evaluation. The CIPP model may be more appealing to specialists in curriculum evaluation, as some dissatisfaction has been expressed for so-called process-product research. McNeil discussed what he perceived as the continuing methodological and theoretical problems of this form of research. He cautioned against overemphasis on generalization of results.[86]

STANDARDS FOR EVALUATION

The use of any evaluation model will be more effective and proper if the evaluators follow some agreed-on standards. The Joint Committee on Standards for Educational Evaluation, chaired by James R. Sanders, identified four attributes of an evaluation: utility, feasibility, propriety, and accuracy.[87] This committee proposed seven utility standards "to ensure that an evaluation will serve the information needs of intended users."[88] They offered three feasibility standards "to ensure that an evaluation will be realistic, prudent, diplomatic, and frugal."[89] Eight propriety standards were advanced "to ensure that an evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results."[90] Twelve accuracy standards were suggested "to ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated."[91]

With evaluation of the curriculum, we conclude the model for curriculum development proposed in this text. However, we must stress that there is really no fixed end to the model; it is cyclical. Results of evaluation produce data for modifying earlier components. Without evaluation there can be no considered modifications and, therefore, little likelihood of improvement.

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Summary

Evaluation is a continuous process by which data are gathered and judgments made for the purpose of improving a system. Thorough evaluation is essential to curriculum development. Evaluation is perceived as a process of making judgments, whereas research is perceived as the process of gathering data as bases for judgments.

Eight concepts that present perennial or continuing problems were considered. Each was presented as a guiding principle to which curriculum workers must give attention.

Scope is the breadth of the curriculum—the "what." The major task in planning the scope of the curriculum is selection of content, organizing elements, organizing centers, or integrative threads from the wealth of possible choices.

Relevance is the usefulness of content to the learner. What makes determining the relevance of a curriculum difficult is the variety of perceptions of what is relevant. A consensus of the opinions of the various constituencies and patrons of the school should be sought by curriculum workers to determine what is of sufficient relevance to be included in the curriculum.

Curriculum planners should strive for balance among a number of variables. When a curriculum gives excessive attention to one dimension or to one group and ignores or minimizes attention to others, the curriculum may be said to be out of balance and in need of being brought into balance.

Integration is the unification of disciplines—the weakening or abandoning of boundaries between discrete subjects. Many educators feel that integrated content helps students in the task of problem solving. Relevance, balance, and integration are perceived as dimensions of scope.

Sequence is the "when"—the ordering of the units of content. Attention must be paid to prerequisite learning requirements.

Continuity is the planned introduction and reintroduction of content at subsequent grade levels and at ever-increasing levels of complexity. This concept is at the heart of the "spiral curriculum."

Articulation is the meshing of subject matter and skills between successive levels of schooling to provide a smooth transition for boys and girls from a lower to higher level. Sequence, continuity, and articulation are all related concepts. Continuity and articulation are perceived as dimensions of sequencing.

Transferability is that characteristic of learning which when realized in one setting permits it to be carried over into another setting. Although there is no proof that certain subjects per se enhance the

transfer of learning, there is some evidence to support the thesis that teaching basic principles of a discipline and stressing their application increase transfer. Transfer is a much-desired goal of education.

Curriculum planners engage in various types of evaluation and research. Among the types of evaluation are context, input, process, and product. Among the types of research are action, descriptive, historical, and experimental. In another vein, curriculum planners engage in both formative (process or progress) evaluation and in summative (outcome or product) evaluation.

Two models of curriculum evaluation (assessment of curriculum objectives and assessment of guiding principles of curriculum organization and construction) and a comprehensive model of curriculum evaluation (the CIPP model) were discussed. The CIPP model was designed by the Phi Delta Kappa National Study Committee on Evaluation, which was chaired by Daniel L. Stufflebeam. It combines "three major steps in the evaluation process (delineating, obtaining, and providing), . . . three classes of change settings (homeostasis, incrementalism, and neomobilism), . . . four types of evaluation (context, input, process, and product), and . . . four types of decisions (planning, structuring, implementing, and recycling)."[92] Phi Delta Kappa also urged an evaluation of the evaluation program. The limited and comprehensive models may be used independently or in conjunction with each other.

Curriculum evaluators from both inside and outside are employed by school systems. Much of the burden for curriculum evaluation falls on teachers as they work in the area of curriculum development. Following a set of agreed-on standards improves the evaluation process. Attention should be given to utility, feasibility, propriety, and accuracy standards.

Evaluation of the curriculum is the culmination of the model for curriculum development proposed in this textbook. Though placed at the end of the diagrammed model, evaluation connotes the end of one cycle and the beginning of the next. Improvements in the subsequent cycle are made as a result of evaluation.

Questions for Discussion

1. What are several signs other than test scores that reveal a curriculum is not working?
2. What is the role of the teacher in curriculum evaluation?
3. What are the pros and cons of employing a curriculum evaluator from outside the school system?
4. What are the pros and cons of action research?
5. How does the Hawthorne effect enter into curriculum evaluation? Cite examples from your experience or from the literature.

Exercises

1. Outline the scope of a course you have taught or plan to teach.
2. Outline and explain the rationale of the sequence of the topics or elements of a course you have taught or plan to teach.
3. Show the transfer value of a discipline that you are certified or becoming certified to teach.
4. Look up and explain to the class what is meant by internal validity, external validity, reliability, objectivity, relevance, importance, credibility, scope, pervasiveness, timeliness, and efficiency as they relate to the evaluation of evaluation programs.
5. Define empirical data, descriptive research, action research, historical research, experimental research, and dynamic hypotheses.

Websites

Educational Resources Information Center (ERIC): eric.ed.gov

Effective Schools Process: pdkintl.org

National Center for Accelerated Schools: acceleratedschools .net

National Study of School Evaluation: advanc-ed.org

UMI ProQuest Digital Dissertations: proquest.com

Multimedia

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Curriculum Development

Technology in Curriculum and Instruction

Chapter 14   Digital Curriculum

Digital Curriculum

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NEW OPPORTUNITIES

John Dewey once said "if we teach today as we taught yesterday, we rob our children of tomorrow."[1] If Dewey were alive today, he would enjoy seeing the educational opportunities our children will experience in the digital classroom.

Let's imagine that you are a principal who learns your school will receive a long-overdue technology retrofit. A major component of the plan is a common technology package for each classroom that will include a teacher's computer, a projector, an interactive white board, a document camera, wireless Internet access, and sound-field amplification.

Once your excitement abates, you begin to realize how much of a paradigm shift you and your staff will have to make to embrace this new opportunity. Because of aging technology at your school, you have limited knowledge on new offerings that are now available for digital classrooms. In addition to the aging technology in the building, most of your staff is comprised of veteran teachers who are not technology-savvy. You note that most will have a huge learning curve on how to incorporate technology into their lessons and the instructional capacity at your school in this area is minimal. You will need help!

In an effort to move forward, you decide to develop a technology team comprised of school administrators, district personnel,

business leaders, teachers, parents, and students to help guide you in the decision-making process. As the team conducts meetings, questions begin to arise:

- Will the school have more than one platform to offer?
- What is the operating system?
- What instructional management system will be used?
- What is the capacity of the new hardware?
- What is the size of the bandwidth into the school?
- What kinds of curriculum products will be available?
- Will we offer online courses?
- What professional development training will be available for staff?
- How we ensure that students will use the new technology safely?
- How will the teachers embrace this gift horse and not look it in the mouth?

If you were the principal in this scenario, what steps would you take to maximize this tremendous opportunity? Imagine you are a curriculum resource teacher at the school. How would you assist the principal and his or her team in making good decisions about the curriculum products and offerings? If you were a parent or student on the team, what types of electronic learning opportunities would you advocate in your school?

In the digital classroom, new experiences and opportunities for learning will present themselves. This chapter will help us explore how we can embrace the complexity, intensity, and exciting learning opportunities that technology brings to the classroom.

CHANGING WORLD

All of us have experienced how technology has influenced our lives in recent years. Consider the cell phone. Fifteen short years ago large cellular phones in a bag were in vogue and only owned by a few elite people. Now, due to micro-technology, cell phones are hand-held electronic gateways to the world, available for people from all walks of life across the globe to use. Truly, technology has made our world a smaller place.

Global Competition

As our world continues to shrink and global competiveness dominates the workplace, curriculum planners need to consider the changing environment that technology creates. Daniel Pink points out that the future is here and that the job market is transforming and will not be dominated by traditional jobs such as accountants, lawyers, and software engineers.[2] Further, he states:

> in order to survive in this age, individuals and organizations must examine what they are doing to earn a living and ask themselves three questions:
>
> 1. Can someone overseas do it cheaper?
> 2. Can a computer do it faster?
> 3. Is what I am offering in demand in an age of abundance?[3]

Pink's reasonable suppositions on the changing global workplace can be supported by the rapid emergence of jobs in the Asian markets. Recently, China became the world's second-largest

economy, surpassing Japan. Mega-corporations such as Caterpillar, General Electric, General Motors, and Siemens are transitioning jobs at a more aggressive rate into China.[4]

In 2009, in a speech to the National Hispanic Chamber of Commerce, President Barack Obama acknowledged global competiveness by stating:

> In a 21st-century world where jobs can be shipped wherever there's an Internet connection, where a child born in Dallas is now competing with a child in New Delhi, where your best job qualification is not what you do, but what you know—education is no longer just a pathway to opportunity and success, it's a prerequisite for success. . . .[5]

With competition comes opportunity. Schools will have to make the most out of their limited resources to provide strong educational opportunities that include the use of new technologies in classrooms.

Literacies

The workplace is changing and so is the classroom. Using the same digital tools as businesses, teachers are reaching out to students in nontraditional manners. It is not uncommon for teachers to use websites, social media, blogs, and interactive forums to connect with their students and to connect with the far reaches of the world.[6]

In Chapter 7, we defined the *21st Century Learner* by adopting Tony Wagner's paradigm. We can take Wagner's model one step further by expanding on the 21st Century Learner to include *21st Century Literacies*. In 2008, the National Council of Teachers of English (NCTE) defined "21st Century Literacies" by stating that the demands technology presents in society today make it critical that the literate person have proficiency in a variety of electronic environments.[7] Further, NCTE expressed:

> [T]hese literacies—from reading online newspapers to participating in virtual classrooms—are multiple, dynamic, and malleable. As in the past, they are inextricably linked with particular histories, life possibilities and social trajectories of individuals and groups. Twenty-first century readers and writers need to:
>
> • Develop proficiency with the tools of technology
> • Build relationships with others to pose and solve problems collaboratively and cross-culturally
> • Design and share information for global communities to meet a variety of purposes
> • Manage, analyze and synthesize multiple streams of simultaneous information
> • Create, critique, analyze, and evaluate multi-media texts
> • Attend to the ethical responsibilities required by these complex environments[8]

According to Margaret Weigel and Howard Gardner, the content a student accesses online is very different from that which is found offline. While online, students can be exposed to information that is neither professionally produced nor properly researched or cited by authors or editors.[9] Today's students need to be critical consumers of information and must be able to scrutinize the content and make appropriate decisions about the "worth" of the material they are reading.

Changing Classrooms

Emerging technologies such as online classes, blended learning, and mobile learning are a few ways in which teachers and administrators can meet the vision of the 21st century classroom.

In May 2011, a large-scale survey's results were produced from a poll of 290,000-plus students, 42,000-plus parents, 35,000-plus teachers, and 3500-plus administrators, representing both private and public schools, on digital learning and the role that technology plays in education. The annual 2010 Speak Up National Research Findings showed:

- Educators are beginning to embrace technology in the classroom because their comfort level has been increased by their own use of technology in their daily lives. Mobile devices, online classes, and digital content are contributors to the increased comfort level.
- Students and parents are contributing to the demand for technology in classrooms and for more nontraditional forms of learning. Students want classroom environments that are rich in technology, wireless, and support social networking. Parents are interested in digital choice (online courses) as an option for student learning.
- The economy is a factor in school-district decisions to explore technology options. In the era of tight budgets and increased competition, school districts are seeking ways to stay competitive by decreasing costs.[10]

When a comparison is made between the Speak Up surveys conducted in 2008 and 2010, it is apparent that incorporation of emerging technology into the classroom is still in its infancy. Box 14.1 shows that teachers are increasing their use of technology, but there is still room for improvement.

As the practice of implementing technology offerings in the classroom increases, so do the challenges. District personnel and school-based administrators who participated in the 2010 Speak Up survey acknowledged that ongoing costs associated with implementing and updating classroom technology is a perpetual challenge.[11] Box 14.2 shows other challenges that officials considered important.

While the challenges of incorporating technology may seem great, the potential for engaged students and increased learning is even greater. By harnessing technology and its benefits, school leaders are able to create a variety of environments for students to learn. In the near future, brick-and-mortar schools may be but one of many ways in which students are afforded opportunities to get an education. Let's take a look at trends in today's school systems.

BOX 14.1 Teacher Use of Technology to Support Student Learning

Use of Technology	2008	2010
Giving Feedback	41%	41%
Providing a Network for Group Collaboration	18%	28%
Setting Goals for Students	25%	26%
Lessons, Exercises, and Other Homework	30%	57%
Documenting Student Achievement	12%	20%
Desktop Publishing	30%	48%
Research	20%	47%
Recording Information	31%	41%

Source: Project Tomorrow, *The New Three E's of Education: Enabled Engaged Empowered*, Speak Up 2010 National Findings, tomorrow.org

BOX 14.2   Some Challenges in Increasing Technology Integration in Classrooms

Percent of Respondents	Challenges
15%	Student Internet Safety
25%	Evaluation of New and Emerging Technologies
33%	Technology Equity Issues
38%	Technology Support
50%	Staff Training

Source: Based on Project Tomorrow, *The New Three E's of Education: Enabled, Engaged, Empowered*, Speak Up 2010 National Findings, tomorrow.org, accessed May 25, 2011.

CURRENT TRENDS

Online Learning

The concept of using technology as a means to provide learning opportunities for students is not new to education circles, but the recent availability of the Internet has made it more accessible to learners. As technology continues to improve, teachers, parents, and students have become interested in understanding how online courses can help broaden their learning experiences.

In October 2010, the International Association for K-12 Online Learning (iNACOL) reported on how online learning experiences are being used through a variety of providers such as school districts, charter schools, university systems, state virtual schools, consortium-based schools, blended programs, and private schools. In general, the findings showed that online courses:

- allow rural and inner-city students access to expanded educational opportunities beyond what brick-and-mortar schools can provide;
- provide access to highly qualified teachers in areas where qualified teachers are not available;
- allow students with challenging schedules access to flexible scheduling;
- accommodate at-risk students, elite athletes and performers, dropouts, migrant youth, pregnant or incarcerated students, and students who are homebound due to illness or injury, allowing them to continue their education outside the classroom;
- provide credit recovery programs for failing students and/or those who have dropped out of school, allowing them to graduate;
- help struggling students performing below grade level to begin catching up through blended learning, tailoring lessons to the Millennial student, and providing on-demand online tutoring;
- facilitate the teaching of technology skills by requiring technology literacy through academic content; and
- provide professional development opportunities for teachers, including mentoring and learning communities, which expand the base of knowledge beyond that available within the brick-and-mortar school.[12]

Organizations that enter into the online arena need to determine which type of online program they will provide. In August 2006, Greg Vanourek reported that there are ten common dimensions that are present in all online programs. The dimensions include comprehensiveness, reach, location, type of instruction, and delivery. [13]

By defining common dimensions of online courses, one might see a variety of models that can be established; however, iNACOL states that four of the dimensions are noteworthy when considering the type of program to provide. The four noted dimensions are:

- Comprehensiveness—whether a school offers a full set of courses or if it provides courses to supplement those of other schools.
- Reach—policy implications must be considered if programs are offered at a school district, across multiple school districts, across a state, nationally, or internationally. What is accepted in one area may not be transferrable to other areas.
- Delivery—whether students and teachers are working in an asynchronous (i.e., not working in real time) manner or in a synchronous environment.
- Type of Instruction—whether the instruction is provided face-to-face or in a blended or hybrid environment.[14]

A widely followed practice by organizations is to use a software package, or Learning Management System (LMS), to provide the framework for the teacher to manage the course and deliver the content. This software package is usually developed by a third party.[15] In 2009, Ryann Ellis stated that a robust LMS is able to:

- centralize and automate administration
- use self-service and self-guided services
- assemble and deliver learning content rapidly
- consolidate training initiatives on a scalable web-based platform
- support portability and standards
- personalize content and enable knowledge reuse.[16]

The Learning Management System also allows teachers to distribute and collect completed assignments, post classroom schedules, provide tests and quizzes, and track student progress and learning outcomes as well as other essential tasks.

Great consideration should be given by organizations in determining what curriculum offerings will be provided. In some cases courses are designed by individual teachers; however, due to the highly technical aspect of creating an online course, teams of highly specialized workers in the areas of instructional design, graphic arts, and teaching provide a stronger approach.[17] The curriculum matters, because it is the main vehicle that creates student engagement and is at the core of student learning.

The instructor's role in the online environment is in many ways similar to that of the traditional classroom teacher. As with any classroom, providing support and building relationships with the student are critical aspects for student success. Teachers are expected to communicate regularly, give feedback, grade assignments, provide interventions, and take attendance, as well as other traditional teacher functions.[18]

Online teachers face unique challenges related to their instructional environment. In some programs, teachers are expected to "push" the information out and become managers of student learning by focusing on the student's time-management skills or by becoming facilitators of coursework. In other programs, teachers use blended learning practices as the delivery model.

BLENDED LEARNING.   The practice of combining online instruction with traditional class-room instruction (blended learning) is increasing in school districts across the country. As with most online terminology, educators have different mental models for blended learning. Heather Staker, Senior Research Fellow at the Innosight Institute, defines blended learning as:

> any time a student learns at least in part at a supervised brick-and-mortar location away from home *and* at least in part through online delivery with some element of student control over time, place, path, and/or pace.[19]

Staker's team of researchers studied forty programs in the United States that currently blend their learning environments or are in the stages of becoming blended. The research found that while there are multiple models for blended learning, six emerged as practical to implement in the our current school system structures.[20] These models are discussed below.

Models for Blended Learning

1. **Face-to-Face Driver.** The teacher delivers the online curricula in a face-to-face setting such as a technology lab or classroom.
2. **Rotation.** While in a traditional classroom environment, students rotate on a set schedule to a one-to-one, self-paced online program that is accessed on computers in the classroom. The teacher oversees both the online instruction and the classroom instruction.
3. **Flex.** Teachers support students, in small groups or in tutoring sessions, using an online platform that delivers the curricula on a flexible, as needed basis.
4. **Online Lab.** Teachers deliver the entire course through an online platform, in a physical lab environment, while paraprofessionals oversee the classroom. In addition, students take traditional courses during the day.
5. **Self-Blend.** Students choose to take online courses to supplement their traditional school's course offerings. The online classes are always remote, but the traditional classes are taken in a brick-and-mortar environment. This is the most common blended approach used in American high schools.
6. **Online Driver.** The teacher delivers all curricula from a remote location to the students through an online platform. Some direct contact with the teacher may be required.[21]

The delivery model is significant, because it engages the teacher and student in the learning process. To make best use of the blended learning environment, Ruth Reynard points out that technology should be:

> integrated into the actual course design and used for instruction, rather than simply used to deliver and distribute content. It is vital that teachers are given time to explore the different pedagogical implications of both environments, and think through how the two environments can be brought together for students.[22]

Blended learning provides more opportunities for increased flexibility, convenience, and student engagement, but also presents challenges. It not only requires teachers to have a thorough understanding of the content, but also requires them to have the pedagogy necessary to allow student learning to take place in combined environments. A challenge for teachers in blended learning environments is to use technology to enhance instruction instead of using it to drive instruction. Furthermore, students can perceive assignments as not meaningful if the technology

is used as supplemental to and not as a part of the course. Both of these concerns can diminish the benefits of blended learning.[23]

MOBILE LEARNING.   We would be hard pressed to find, in our world today, any industry that has not incorporated some form of mobile technology into its business plans. Likewise, in the education arena, hand held digital tools (wireless mobile devices) that can access the Internet 24/7 are now opening new avenues for learning. Just a few short years ago, breakthroughs in the implementation of mobile technologies into the classroom were beginning to take place. Now, with greater wireless access and faster broadband speeds, mobile learning is on its way to becoming omnipresent.

Mobile learning can be defined as using wireless digital tools to afford individuals learning opportunities while on the move.[24] Wireless mobile devices such as smart phones, tablets, personal media players, laptops, and cell phones serve as conduits to the curricula. Furthermore, the advent of social media and the use of Web 2.0 user-generated or cloud computing applications have made mobile learning a viable option for educators to capture educational opportunities for today's students.[25] Consequently, as demand grows from students and parents to implement mobile technology into classrooms, administrators and teachers are taxed with finding ways to incorporate them in a safe and meaningful manner.

Results from the 2010 Speak Up survey show that both teachers and administrators are ready to embrace the use of mobile technology as a means to enhance learning. Of those surveyed:

- Just over seventy-five percent of teachers feel that mobile devices enhance student learning.
- Nearly sixty-five percent of teachers believe that mobile devices increase interactive communication with stakeholders.
- Almost sixty-five percent of teachers believe mobile technology increases flexibility in accessing literary works and digital curriculum.
- Nearly eighty-five percent of administrators see mobile devices as an avenue to enhance student learning.
- Just over sixty-five of administrators feel that mobile devices increase the scope of the learning environment.
- About sixty-five percent of administrators contend that mobile devices meet the educational needs of the individual.[26]

While the survey shows that administrators and teachers are interested in using mobile technologies to create opportunities for learning, there are implications in their use. In 2005, a report from the NESTA Futurelab described key factors that educators, technology developers, and curriculum developers need to consider regarding how to facilitate the successful implementation of mobile technologies into classroom settings. The identified factors were:

- *Context.* Many users wish to remain anonymous. Surfing the Web to gather and utilize contextual information may clash with their desire. Secure access to the Internet must be considered to prevent exposure to third parties.
- *Mobility.* The ability for the student to access the Internet anytime during class time may compete with the teacher's lesson or the curriculum.
- *Learner over Time.* Tools will have to be developed for the recording and organization of mobile learning experiences.

- *Informality.* Students may choose to abandon certain technologies if their social networks are attacked.
- *Ownership.* Students want to use their own personal devices, which creates standardization issues and control issues for the institution.[27]

Even though challenges exist, engaging students in mobile learning opportunities may better facilitate learning and promote various 21st Century Literacies such as group work, composing in multiple environments, and increased information literacy.

COMPUTER-BASED ASSESSMENTS

In the era of electronic learning, computer-based assessments play an important role in providing educators with new ways to gather student performance data to drive instructional practices. By using technology as a means to conduct formative and summative assessments, educators are better positioned to provide meaningful instruction. Let's take a look at some ways in which assessments of this nature can prove useful to educators.

DIFFERENTIATING THE INSTRUCTION.   The use of computer-based programs to improve the individual skills of the learner is a widely used practice. Currently, technology is readily available to support individualized learning in the classroom, but assuring that the correct type of content is provided to the learner is a key component of a successful e-learning program.

Electronic differentiation is not designed to supplant strong instructional practices carried out in the classroom, but rather to enhance them. Through technology, augmenting the instruction is accomplished by adjusting the delivered content within the goals and scope of the product. Electronic differentiation allows the teacher to meet the learning objectives in different ways as well as to meet the prescribed standards.[28]

COMMON CORE STATE STANDARDS.   In Chapter 3 we briefly touched on the Common Core State Standards initiative. Prior to the establishment of NCLB, some states began to develop clear and consistent standards in English and Mathematics as an effort to reform educational practices to meet the needs of their citizenry.[29] The standards are "what" students are expected to learn on each grade level and by graduation. States, districts, and schools will have the autonomy to determine "how" to implement curriculum and instruction to best address the standards. It is not a packaged curriculum, but it does bring to light the expectation that 21st Century Skills will be addressed. Technology-based assessments make it possible for educators to evaluate these skills—as long as the measurements are based in cognitive research and theory about how students think in terms of multimedia, interactivity, and connectivity.[30]

The computer-based assessment component of the Common Core State Standards will be determined by two consortia: the Partnership for the Assessment of Readiness for College and Careers (PARCC) and the SMARTER Balanced Assessment Consortium (SBAC).[31] As of December 2011, twenty-three states and the District of Columbia have joined forces in an effort to share resources in order to establish common assessments that will measure performance standards in Mathematics, English, and Reading Literacy beginning in 2014–2015.[32]

ANOTHER FORUM

OPEN EDUCATION RESOURCES (OER).   New opportunities are now present for educators to access high-quality resources in digital formats via the Internet. The concept of OER resonates well with educators because it provides a free, legal resource for teachers and students to build upon, while increasing equity in access to lesson plans, tools, and content. What makes OERs attractive is that they are free from copyright restrictions, so they can be remixed or redistributed by anyone.[33]

The legal aspects of using OER content is directly related to how the creator deems the content available.[34] OER serves another substantial purpose because it increases access to materials for educators from all over the world. It can play an important role in educating the masses, especially in third-world countries, because it is free and can be accessed digitally from all parts of the world.[35]

DIGITAL CITIZENSHIP

Throughout this chapter we have addressed both the excitement and the challenges that technology presents in the school setting. We would be remiss if we did not discuss the importance of providing opportunities for students to learn how to function both ethically and safely so they can become positive digital citizens.

In the National Education Technology Plan 2010, "Digital Citizenship" is defined as:

> the ability to evaluate and use technologies appropriately, behave in socially acceptable ways within online communities, and develop a healthy understanding of issues surrounding online privacy and safety.[36]

Our federal government has tied funding for infrastructure and curriculum initiatives to promoting safe access to the Internet. Several federal laws have been designed to ensure student privacy and safety on the Internet. For example, the Children's Internet Protection Act (CIPA) requires schools that receive federal funds to implement filters that block students' access to content that may be harmful to minors. CIPA also requires schools to teach online safety to students and to monitor their online activities.[37]

In addition to federal laws, the National Telecommunications and Information Administration (NTIA) commissioned the Online Safety and Technology Working Group (OSTWG), in June of 2010, to report on youth safety on the Internet. In the study, the complexity of Internet safety is pointed out and recommendations for stakeholders were made. Some of the recommendations are:

- Establish an electronic clearinghouse for stakeholders to access research regarding online safety.
- Create a national campaign for school-age children to promote safe responsible use of the Internet.
- Develop industry benchmarks and standards.
- Involve young people in developing Internet safety policies and programs.[38]

The recommendations provide strong insights for curriculum workers to consider. Promoting digital citizenry through digital media literacy and Internet safety education can play

an important role in safeguarding the use of digital media in schools. In addition to the recommendations, OSTWG recognized that there are various nonprofit organizations that provide resources to schools and communities regarding online safety. Box 14.3 shows some areas in which organizations provide resources.

Specific topics that are addressed by nonprofit resources are found in Box 14.4.

Drawing on available resources on topics related to Internet safety can provide assistance to educators in their quest to use technology in the school setting. Many materials are available for use by stakeholders, including curriculum developers, when designing curricula.[39]

BOX 14.3 Internet Safety Nonprofit Education Resources

Safety tips and guides	Videos and cartoons	In-school assemblies
Safety curriculum, classroom activities, and workbooks	Online interactive forums	Reporting mechanisms to resolve safety and privacy-related problems
Resources about parental control tools	Safety-related games	Mobile phone apps
Presentations at parent nights and community events	Brochures, handouts, and books	Youth-organized events and initiatives
Comic books	Public service announcements (print, TV, radio, online)	Websites, e-newsletters, and online widgets

Source: The National Telecommunications and Information Administration Online Safety and Technology Working Group (OSTWG), *Safety on a Living Internet: Report of the Online Safety and Technology Working Group,* ntia.doc.gov, accessed June 3, 2011.

BOX 14.4 Topics for Internet Safety from Non-profit Organizations

Cyberbullying and harassment	Hate speech	Violence
Digital citizenship and ethics	Digital literacy and critical thinking	Cell phone safety
Video game ratings, parental controls, and playing games online	Predators	Media literacy
Distracted driving, including texting while driving	Obsessive use of technology	Virtual world safety
Cyber security	Password protection	Social networking skills
Copyright and piracy	Security and privacy	Cyberwellness and balance
Social engineering awareness	Online/digital reputation	Gaming safety

Source: The National Telecommunications and Information Administration Online Safety and Technology Working Group (OSTWG), *Safety on a Living Internet: Report of the Online Safety and Technology Working Group,* ntia.doc.gov, accessed June 3, 2011.

The topic of Internet safety does warrant strong consideration by the curriculum developer. By creating a positive digital footprint, students can enjoy the benefits of digital curriculum without facing potential negative repercussions throughout their lives. Strong educational practices, coupled with safe Internet practices steeped in high moral standards, can prompt students to make choices that will allow them to enjoy the benefits of the digital classroom.

Summary

It is widely recognized that access to technology in the education environment has increased exponentially in recent years. The increased role of technology in the workplace, school environment, and society makes it imperative that people be able to function in a variety of media literacies. In defining new literacies we acknowledged that the content delivered online is very different from what is presented in print. This difference creates a demand that students become critical consumers of information.

In this chapter, we investigated the components of traditional online programs and blended learning programs. We also studied how online experiences are being made available by a variety of providers, including school districts, charter schools, university systems, state virtual schools, consortium-based schools, blended programs, and private schools. We pointed out common dimensions that are present in online courses. Of the common dimensions, four are critical aspects to consider when making a decision regarding which online program to offer.

We studied forms of electronic learning and the implications that online learning present in the educational environment. While the implications were both positive and negative, we noted that online learning can reach nontraditional learners by providing opportunities to engage both the learner and the teacher.

Another area we addressed is the new opportunities afforded to teachers and learners in the area of mobile learning. We learned that there are key factors that educators, technology developers, and curriculum developers need to consider when facilitating mobile technology in the classroom setting.

We briefly touched on how online assessments can help drive instruction and we learned about the forces that are behind the use of technology in standards-based assessment. We also learned that although there are free resources available via the Internet, teachers, administrators, and curriculum workers need to evaluate the content prior to use.

Finally, we discussed the importance of providing opportunities for students to learn how to function both ethically and safely in the digital world. We also discussed resources available to assist educators in creating safe learning environments, and we addressed the key components stakeholders need to consider when creating online opportunities for students.

Questions For Discussion

1. How can mobile learning create new avenues for learning?
2. How can schools make the most out of their limited resources to provide robust technology opportunities for students?
3. How can Open Education Resources provide equity in access to educational materials?
4. Why is it important for society that educators play a part in creating positive digital citizens?
5. What steps can schools take to provide safe online experiences for their students?

Exercises

1. List ways in which educators can support 21st century students to become critical consumers of information. Support your answer.
2. State the differences, if any, between online learning, blended learning, and mobile learning.
3. State similarities and differences between online and traditional classrooms.
4. List ways in which online assessments prove useful to educators. Support your answer.
5. List ways students can act ethically and safely in the digital world.

Websites

National Council of Teachers of English: ncte.org

Association for Supervision and Curriculum Development: ascd.org

Creative Commons: creativecommons.org

Freereading: freereading.org

Startup America: ed.gov

Race to the Top: 2.ed.gov

Race to the Top Assessment: 2.ed.gov

Report of the Online Safety and Technology Working Group: ntia.doc.gov

Online Resources

International Association for K-12 Online Learning: inacol.org

Investing in Innovation: 2.ed.gov

Association for Supervision and Curriculum Development: ascd.org

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33. Karen Fasimpauer, *Open Education Resources: Backgrounder*, http://www.k12opened.com/, accessed May 10, 2011.

34. For restrictions on using OER, see Creative Commons, *About the Licenses*. http://creativecommons.org/licenses/.

35. Karen Fasimpauer, *Open Education Resources*, http://www.k12opened.com/, accessed May 10, 2011.

36. See The National Education Technology Plan, *Transforming American Education: Learning Powered by Technology*, http://www.ed.gov/technology/netp-2010, accessed June 10, 2011.

37. See *The Children's Internet Protection Act (CIPA)*, http://www.fcc.gov/guides/childrens-internet-protection-act.

38. See The National Telecommunications and Information Administration Online Safety and Technology Working Group (OSTWG), *Safety on a Living Internet: Report of the Online Safety and Technology Working Group*, http://www.ntia.doc.gov, pp. 6–7.

39. For a list of non profit organizations that provide Internet-safety resources, see The National Telecommunications and Information Administration Online Safety and Technology Working Group (OSTWG), *Safety on a Living Internet: Report of the Online Safety and Technology Working Group*, http://www.ntia.doc.gov., pp. 34–49.

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Curriculum Development

Issues in Curriculum Development

Chapter 15   Current Curriculum Issues

Current Curriculum Issues

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CURRENT CURRICULUM ISSUES

Curriculum planners are buffeted by strong educational, social, and political forces affecting the curriculum decisions they must make. Movements have emanated from networks of like-minded professional educators, from the public in general, and from individuals and pressure groups from outside of the teacher education profession. In this chapter we explore the effects of some of these pressures in shaping the school curriculum.

Some of the desires of both pressure groups and the public generally—and even, on occasion, of professional educators—have been enacted into law, for example, the formulation and testing of state standards. No state or federal law, however, mandated the strong movement of cooperative learning or the rise and fall of open-space education. Nonmandated movements that have become practices in the schools have done so by gathering enough voluntary support among the *teacher education* and *public school professionals* to be translated into action. Conversely, when a nonmandated practice (such as, for example, open-space education) no longer maintains support, it becomes diminished or disappears.

In the following pages we will explore some of the significant contemporary curriculum developments set forth as responses to some of the problems plaguing schools. Some of the issues and their related developments are not new but remain highly controversial—for

example, the place of religion in public education. Others are relatively new attempts at solving perennial problems.

For purposes of discussion the issues and related developments are divided into twelve categories, as follows:

1. Academic area initiatives
2. Alternative schooling arrangements
3. Bilingual/bicultural education
4. Censorship
5. Gender
6. Health education
7. Multiculturalism/diversity
8. Privatization
9. Provision for exceptionalities
10. Religion in public education
11. Scheduling arrangements
12. Standards/assessment

You can easily see that discrete separation of these twelve categories, or *rubrics* (which we'll refer to as issues), cannot be made. In one sense, they are all interrelated. Some bear close relationship to each other. For example, you cannot divorce academic area initiatives (i.e., programs) from standards and testing. You cannot discuss bilingual/bicultural education without relating to multiculturalism and diversity. You cannot separate problems of censorship from religion. As curriculum and instruction cannot be truly separated except for purposes of discussion, so the twelve categories cannot be completely separated except for purposes of clarification.

In this chapter we discuss the differences of opinion, controversies, and developments emanating from these issues.

1. Academic Area Initiatives

By *academic area initiatives* we mean curriculum developments that have been undertaken to correct perceived lacks in the schools' course offerings. Initiatives may apply to changes in programmatic responses to satisfy current curriculum goals or may be dramatic revisions of those goals, changing the academic programs radically. In this section we will look generally at forces effecting academic changes. Many modifications of traditional school curricula can be readily identified. Throughout the discussion of the remaining eleven categories we will identify and explore specific academic areas other than those presented in this first category.

Reform—constant reform—remains a central theme of American education. All agree that our public schools are not doing as well as we would like, but all do not agree on what to do about perceived problems. Some, espousing essentialist thought, recommend focusing narrowly on reading, mathematics, and science; others, following progressive doctrine, maintain that attention must be paid to the whole child, not just the child's intellect. Among the goals of current proposals for reform are increasing the number of students graduating from high school with the regular diploma, preparation of students for success in college and the workforce, and the preservation (some would say resurrection) of America's standing as an economic power and world leader.

NECESSARY SKILLS.   Representative of contemporary thinking about the status of American education and recommendations for correcting its deficiencies was the 2006 report of the

National Center on Education and the Economy's New Commission on the Skills of the American Workforce, funded by the Annie E. Casey Foundation, Bill and Melinda Gates Foundation, William and Flora Hewlett Foundation, and Lumina Foundation for Education.[1] In its report, *Tough Choices, Tough Times*, the Commission admitted about America that "we never dreamed that we would end up competing with countries that could offer large numbers of highly educated workers willing to work for low wages,"[2] namely, China, India, and elsewhere.

Affirming that America can no longer claim to have the best educated workforce in the world, the Commission called attention to the fact that the percentage of the world's population of college students has declined in America from 30 percent to 14 percent over the past thirty years.[3] The Commission observed that to cope with a global economy gone digital, America must adapt to the new economic era by restructuring its educational system so its students will graduate with skills that will permit them to compete in the global marketplace. Specifically, the Commission report recommended a broad-based education that goes beyond mastery of the traditional content areas and into the development of personal traits such as creativity, self-discipline, flexibility, and adaptability.[4]

STRENGTHENING THE ACADEMIC PROGRAMS. In addition to following mandates of No Child Left Behind (NCLB) for specification of state standards and subsequent testing (discussed later in this chapter), school systems are adding subject requirements and credits for graduation. Beginning in the year 2008–2009, four years of language arts, three years of mathematics, and two years of science are among the courses Illinois pupils entering high school have been required to take for graduation.[5]

Core Knowledge. Concentrating on overcoming American students' deficiencies in cultural literacy (i.e., basic knowledge), the core knowledge schools, conceptualized in the 1980s by E. D. Hirsch, Jr., emeritus professor of English, University of Virginia, offer a core of academic subjects in grades K–8 comprising 50 percent of their school curriculum. The Core Knowledge Foundation conducts research, publishes materials, conducts workshops for teachers, and promotes core knowledge schools.[6]

Hirsch perceived core knowledge (initially called *cultural literacy*) as broad general knowledge that ideally should be possessed by all members of our democratic society. This knowledge, in Hirsch's view, should be the major goal of schooling in America.[7]

A CoreKnowledge curriculum starts in the elementary school and imparts that knowledge deemed by scholars, educators, and lay people to be important information about American culture. A culturally literate person is one who possesses a store of knowledge about the culture—people, places, facts, vocabulary, and historic and current events. Although elements of this knowledge may change from time to time, most items remain the same or change slowly. Advocates of core knowledge see cultural literacy as enabling citizens of our society to read with understanding, to communicate thoughts to others within our society, to contribute to the development of our society, and to open doors that lead to success in our nation. Some people would view core knowledge as basically traditional education.

Hirsch called for knowledgeable people to join him in developing a list of cultural items sufficiently important to be incorporated in the curriculum, especially at the elementary school level.[8] Cultural literacy would not require in-depth knowledge of all items; in many cases an imprecise or even superficial knowledge—enough for a reader or listener to comprehend what a writer or speaker means—would suffice.

Cultural literacy gives precedence to an overriding American culture and the English language, rejecting the concept of pluralism espoused by some in which aspects of all subcultures in the nation are studied with equal concentration. Supporters of cultural literacy view the fragmentation of the culture and the populace's lack of commonly shared information as serious problems that schools face in their attempts to develop literate citizens.

Opponents of cultural literacy view lists of cultural items as superficial learning, considering them memorized trivia that can be looked up rather than stored in the brain. They also hold it presumptuous for any individual or group to deign to draw up a list of items that all pupils in America must know. However, Hirsch and his colleagues began with a tentative list, urged study and review of the list by others, and made clear that their list was *descriptive*—not *prescriptive*—of information possessed by culturally literate Americans.[9]

That Hirsch's proposals have proved appealing to many curriculum planners is evidenced by the rapid growth of CoreKnowledge Schools—public, charter, parochial, and private—since their conception in the 1980s. Three Oaks Elementary School in Fort Myers, Florida, and P.S. 67 in South Bronx, New York, are credited as the first and second schools of this type.[10] The Core Knowledge Foundation reported 770 schools in the United States following all or part of its curriculum plus an additional 414 preschools using its materials.[11]

DIVERSIFICATION OF PROGRAMS.   Many of the students who drop out do so because the curriculum is of little interest to them. With the overall national graduation rate around 75 percent,[12] school districts are resorting to a variety of plans to encourage students to remain in school and earn the regular diploma. Whereas some school districts are intensifying emphasis on the traditional subjects, other school systems are experimenting with adding content to the academic program that may be more appealing to some students.

With Congress's 2006 reauthorization of the Carl D. Perkins Act, initially passed in 1990, Vocational Education, now called Career and Technical Education (CTE), has become a desired alternative to the college preparatory program, leading to growing enrollments. CTE, no longer limited to the former concepts of "industrial arts," "shop," and "ag" (agriculture), has branched out into secondary and/or postsecondary instruction in courses such as engineering, health care, and technology.

Aiming at offering academic programs that would encourage students to stay in school and graduate, Florida made national news in late 2006 by designating 440 high school major areas of interest. In addition to earning sixteen credits in a common academic core, students would choose within the remaining eight elective courses a sequential major of four credits. Majors range from College Studies to Digital Arts to Music-Orchestra to Sports Medicine to Television Production. School districts would select from the 440 approved majors those that would be most feasible and applicable to their schools, student body, and community.[13]

OTHER PERSONALIZING OF THE CURRICULUM.   As we noted in Chapter 9, James B. Conant, as long ago as 1959, was urging special attention to the needs of the academically talented (top 15 percent) and the highly gifted (top 3 percent). Along with efforts of schools to meet the needs of low achievers and minority populations through special classes and tutoring, increased attention is now returning to the needs of the academically talented and gifted students. For example, located on the campus of the University of Nevada–Reno, in cooperation with the University of Nevada–Reno, is the Davidson Academy of Nevada, a public school for exceptionally gifted middle and high school students.[14] At Davidson Academy students are taught by Davidson, university, and community instructors and have the opportunity to take college-level courses.

Dual enrollments, wherein high school students earn credit in college courses, are relatively common offerings for the college bound.[15]

In recounting examples of current curricular and instructional initiative across the nation, we cannot but note the diversity of efforts schools are making to enable students to succeed in college and afterward.

2. Alternative Schooling Arrangements

In the 1960s and 1970s school districts were engaged in efforts to accommodate students who could not fare well in the established public schools by offering options either within or outside the school. Among the more common alternatives outside the established schools were the so-called free schools, storefront schools, and "schools without walls" in which individuals, organizations, and businesses in the community participated in the education of youth. School systems took advantage of the human and material resources available in the community and offered students practical instruction in a setting less structured than the established school. A common plan was the assignment of students to these learning stations for a portion of the day, with the remainder of the day spent at the established school. This type of alternative, posing numerous problems regarding quality of instruction, administration, and accountability, has diminished in popularity to the point where we rarely hear of this kind of experimental offering.

Still popular, however, are alternatives within the school systems themselves, particularly magnet schools with their special foci. Among well-known magnet schools seeking to meet current needs are Alexandria, Virginia's Thomas Jefferson High School of Science and Technology; Indianapolis's Crispus Attucks Medical Magnet High School, emphasizing health care; Maryland's Joppatowne High School with its unique emphasis on homeland security; and high school residential magnets Natchitoches, Louisiana's School for Math, Science, and the Arts, and Durham, North Carolina's School of Science and Mathematics.

Also on the scene are schools not meant to serve as magnets, but rather as models to be emulated, such as Philadelphia's School of the Future—a high-tech, state-of-the-art public school designed by the Microsoft Corporation in cooperation with the school district.

In calling these structures options we should mention that, although parents and students may opt to attend a magnet or model school, admission depends on availability and students' meeting entrance requirements, often in the form of a test or, as in the case of Philadelphia's School of the Future, by lottery.

In passing we should mention that some school systems maintain alternative schools where students posing behavior problems are assigned for varying periods of time. Assignment to the alternative school for students with behavior problems is at the option of school personnel.

Most of the foregoing types of alternative schools have been perceived as strengthening the public school system.

PARENTAL CHOICE.   In recent years, pressure has been building for states to support parental choice of schools, whether public or private. Wrapped up in the concept of school choice are movements toward school vouchers, tax credits, charter schools, and homeschooling, all strong and growing. The movement towards *privatization*, that is, the management of public school systems by private corporations, is a topic to be discussed later in this chapter.

Historically, parents who had children in a school district with more than one school at the same level were required to send their children to schools within the assigned subdistrict of their local school district. Parents could send their children to schools outside their

assigned subdistricts only in special cases, such as to attend a magnet school or another school that offered programs that were not available within the child's assigned subdistrict. Also, parents have encountered difficulty when they wished to send their children to public schools across school-district lines; this type of move, if permitted, could result in parents paying tuition to the school district of choice. Since 1985, however, Minnesota's School District Enrollment Options Program (Open Enrollment) has allowed parents a choice of a variety of school options.[16]

Choice within school districts has become increasingly more common. For example, in 1995 Berkeley, California, divided its district into three zones and permitted choice of elementary schools within a resident's zone. In the fall of 1998, Seattle ceased arbitrary assignment of students to schools and permitted parents to select the public school they would like their children to attend. Plans cannot, of course, guarantee that parents and students will receive their first choice. Factors such as demand, facilities, and racial balance affect whether choices can be honored. Choice of school within the public system, although resisted by some school administrators and school boards, is a less contentious issue than the larger issue of provision of public funds for parental choice of school from among private and parochial schools. Working with schools to help parents become informed, the Great Schools Network engages parents in evaluating and improving schools and shares information about understanding standards, learning activities, state tests and scores, understanding report cards, and best practices.[17]

School Vouchers/Tax Credits.   Growing since the early 1900s is the practice of issuing taxpayer-funded vouchers to enable public school students to attend private and parochial schools.[18] Milton Friedman, Nobel Prize–winning economist, is credited with proposing in 1955 the use of vouchers to enable parents to send their children to schools of their choice. The requirements for participation in voucher programs vary from state to state and community to community. Some states provide vouchers only to low-income families. Some state or community plans permit use of vouchers in religious schools, as in Milwaukee and Cleveland, whereas others do not, as is the case in Maine and Vermont.

Funding of vouchers varies. Arizona and Pennsylvania have opted for income tax credits— in Arizona, to taxpayers, and in Pennsylvania, to corporations that support vouchers. Voucher/ tuition plans of one type or another have been on the scene for many years. Maine's and Vermont's plans date back to the late 1800s. In these two states tuition is issued to "tuition towns" where no public school exists. Maine and Vermont towns share the funding with the state.

Ever since the U.S. Supreme Court rendered its decision in the case of *Pierce v. Society of Sisters* in 1925, parents have had the choice of sending their children to private schools—at their own expense, of course.[19] Litigation over vouchers has erupted, however, particularly over allowing the use of vouchers in religious schools, which opponents of voucher plans hold as an unconstitutional infringement on the First Amendment.

In 1990, Wisconsin became the first state to offer parents in low-income brackets payments up to $2,500 per pupil so that their children might attend Milwaukee's private/nonsectarian schools. In 1995 the Wisconsin legislature permitted use of the vouchers in religious schools. Overturning a 1997 decision by the state appeals court, the Wisconsin Supreme Court in June 1998 ruled the Milwaukee voucher program constitutional. The U.S. Supreme Court, by an 8–1 vote in December 1998, refused to hear an appeal from Wisconsin, thereby affirming the action of the Wisconsin Supreme Court.

The Milwaukee Parental Choice Program offered vouchers in 2010–2011 at a maximum of $6,442 per Choice Program student in either sectarian or nonsectarian schools.[20]

Initiated in 1996–1997, Cleveland's voucher program allows use of the vouchers in religious schools. Challenges to the plan took the case to the Sixth U.S. Circuit Court of Appeals, which in December 2001 held the Cleveland plan unconstitutional. The following June, by a 5–4 decision, the U.S. Supreme Court reversed the decision and declared that the Cleveland plan, which allowed the use of vouchers in religious schools, was not an infringement on the First Amendment, thus allowing Cleveland's program to continue. An analysis of the Cleveland voucher program by Amy Hanauer reported in January 2002 that more than 99 percent of the students in the program were enrolled in religious schools.[21]

The sides in this controversy are sharply drawn. Supporters of voucher systems include private and parochial schools, the religious right, parents who are dissatisfied with public schools for one reason or another, parents and politicians who do not subscribe philosophically to a public education system, and organizations such as the Alliance for School Choice, Center for Education Reform, Children's Scholarship Fund, and the Foundation for Educational Choice. Numbered among the opponents of voucher systems are the National Education Association, the American Civil Liberties Union, Americans United for Separation of Church and State, People for the American Way, teachers' unions, parents who are satisfied with their public schools, and parents and politicians who believe in a unifying public school system.

Advocates of voucher programs argue that provision of choice will, in the long run, strengthen the public schools by forcing them, for economic reasons, to overcome those problems that have provoked parental dissent. Opponents view vouchers as breaking the Jeffersonian wall of separation of church and state.

Advocating a federally funded voucher program, in 2005 President George W. Bush proposed federal funding of vouchers for students who had been attending private schools when displaced by Hurricane Katrina, to enable them to attend private schools in other parts of the nation. Then again, in 2006, President Bush proposed a national voucher plan for low-income families whose children are in low-performing schools.

Ambivalence regarding school vouchers exists throughout the country, with some states accepting and some states rejecting voucher programs.

Public opinion on vouchers fluctuated during the 1990s.[22] The public's uncertainty clearly continues, as revealed by Phi Delta Kappa/Gallup polls. A large majority supported improving public schools in place of awarding vouchers in 1999,[23] favored vouchers in 2002,[24] and again approved choice of private schools at public expense in 2006.[25] Georgia furnished an example of support for school choice through its 2007 law providing state funds for parents to send special education students to private schools.

Even though private schools possess advantages over public schools, in that they can usually select their students and have smaller classes, the jury is out as to whether shifting funds from public schools to private and parochial schools actually improves student achievement.[26] Critics of vouchers argue that parental choice of school is not the answer to the social ills that impede learning.

CHARTER SCHOOLS.   Rapidly developing in the late 1990s and continuing to the present, charter schools have added another dimension to the element of school choice.

Based on a free-market, neoliberal concept derived from the economic theory of Adam Smith,[27] charter schools, supported by tax moneys, are freed of some of the regulations of their local school district and state. These schools may be housed within a school system or operated outside of the school system, they may or may not use public school personnel, and they may be run for or without profit.

Minnesota is credited with establishing the first American charter school, in 1991. Charter schools have grown exponentially since that date, with Arizona, California, and Michigan leading the nation in the development of charter schools. Figures on the growth of charter schools between 1999 and 2006 reveal a rapid growth of the charter school movement. Whereas 1999 statistics showed close to 1,500 charter schools operating in 31 states and the District of Columbia and serving more than 250,000 students,[28] figures reported by the National Alliance for Public Charter Schools for 2011 revealed considerable growth, with more than 2 million students being served in some 5,600 public charter schools in the United States.[29]

Charter schools gain their status through the issuance of a charter by the local school board or the state department of education. Teachers, lay people, and organizations may apply for charters, which will grant them, as Donna Harrington-Lueker explained, "waivers exempting them from the state education code, local school board policies, and provisions of the union contract,"[30] leaving in place provisions pertaining to disclosure of finances, health, safety, and civil rights.

States vary in their procedures for granting a charter. Michigan, for example, has allowed local school boards, boards of intermediate service districts, and boards of community and senior colleges and universities to grant charters. Whereas charters in Massachusetts are issued by its state department of education, charters in Georgia must be approved by both the local school board and the state department of education.[31]

In Arizona, a state charter board, local school boards, and the Arizona Board of Education have the power to grant school charters. New York State has empowered the State University of New York (SUNY) as well as the New York State Board of Regents to authorize charters and, in the case of New York City, the Chancellor of the New York City school system.[32]

Paralleling Britain's grant-maintained schools, U.S. charter schools are supported by tax moneys. They put into practice principles of site-based management, placing responsibility for student success squarely on the shoulders of the schools' personnel. Unlike contractual schools managed by corporations with a profit motive, charter schools may be operated by either for-profit business organizations or by individuals or groups not for profit.

Charter schools come in all shapes and sizes. Some operate making use of school personnel, although management rests in the hands of the founders of the school, not the local school board. The number or limit on the number of charter schools varies state by state. States may allow existing schools as well as new schools established by individuals and groups to apply for a charter; in California, charters may also be granted to homeschools. Initial charters may run for a varying length of time, typically three to five years.

What of the programs of the charter schools? All charter schools promote achievement in the basic skills. Many seek to prepare students for college admission. Some charter schools are established for students who are experiencing difficulty in the public schools (e.g., those with learning disabilities, those at risk, and those demonstrating behavior problems). Others aim not only to develop traditional skills but also to offer a particular focus: examples include Advanced Math and Science Academy, Marlborough, Massachusetts (Russian curriculum model); Cesar Chavez Public Charter for Public Policy, Washington, D.C.; Conservation Corps Charter School, San Jose, California (work-study); Fast Forward Charter High School, Logan, Utah (students-at-risk); Marlton Charter School for the Deaf, Los Angeles; Harlem Children's Zone Promise Academy, New York City (educationally deprived); Media Technology Charter High School, Boston; Medical Center Charter School, Houston, Texas (health care); Odyssey-Magellan Charter School, Appleton, Wisconsin (gifted); and The Seed School, Washington, D.C. (boarding school). Coming into service as well as the place-bound schools are the distance-learning online charter schools. These few examples reveal the great differences in charter school programs. Although

all seek to improve achievement of students in basic skills, they diverge in their educational focus and programs. Seeking to help managers of charter schools for low-income families, for example, are philanthropic funds raised and granted by the New Schools Venture Fund.[33]

That the public is generally favorable toward charter schools is demonstrated by the 42nd Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools, which showed approval of charter schools by the public rising sharply between 2000 and 2010.[34]

Dissatisfaction with student achievement in the public schools motivates many, if not most, of the parents who opt for charter schools. Searching for an alternative to the public schools, some parents embrace charter schools as a more acceptable alternative than vouchers. Parents who perceive the public schools as promoting values unacceptable to them join with the free marketers in supporting charter schools.

Those who oppose charter schools object to the use of tax moneys for private and parochial schools while public schools suffer from inadequate funding. Supporters argue that competition from the charter schools will force public schools to improve.

Charter schools manifest the problems of church–state relations when public tax moneys flow to sectarian schools. Proponents of vouchers for religious schools argue that there is no inherent violation of the principle of separation of church and state inasmuch as the funds go to the student, not to the school.

Coming onto the scene, raising issues of bilingual education, diversity, and religion, are publicly funded, language-oriented charter schools such as Ben Gamla Charter School, a Kindergarten–8 English-Hebrew school in Hollywood, Florida,[35] and the Khalil Gibran International Academy, an English-Arabic middle school, in Brooklyn, New York.[36] Although proponents of public schools of this type maintain that instruction in religious doctrine can be excluded, critics question whether teaching of religious beliefs can be avoided. Like public schools, in general the success of charter schools varies from school to school. We can find charter schools meeting parental expectations. We can find charter schools that have opened with fanfare and have folded for one reason or another, often financial. The research comparing success of students in charter schools with that of students in public schools is inconclusive. Some studies point to success of students in charter schools,[37] while others point to success of students in public schools.[38]

Reporting in 2009 on comparison of student success in mathematics in charter schools versus traditional public schools, the Center for Research on Education Outcomes at Stanford University found students in some charter schools exceeding those in traditional public schools, while mathematics scores of students in other charter schools could not be statistically distinguished from those in traditional public schools.[39] Parents do, however, appreciate the smaller classes of the charter schools and the relatively more secure environment.

Failure to fulfill expectations will result in nonrenewal of charters. Existing public schools are attempting to counteract demands for charter schools by restructuring their programs, by working more closely with parents and community advisory groups, by offering appealing in-system alternatives such as magnet schools or pilot schools, and, of course, by evaluating the success of charter schools. Further, they themselves have established charter-like schools, that is, schools that remain an integral part of the school system but have been granted a degree of autonomy by the school board.

HOMESCHOOLS/UNSCHOOLING. An increasingly popular option that also discomforts public school personnel is homeschooling and its variant of *unschooling* as an alternative to public education. The number of children homeschooled in the United States ranges from 850,000 found

in 1999 by the Parent Survey of the National Household Education Surveys Program (NHES) (a data-collection agency of the National Center for Education Statistics),[40] to more than 2 million in 2010.[41] Compared to the nearly 54 million public school students and nearly 6 million private school students in the United States projected for the year 2018,[42] homeschooling remains a smaller—though expanding and significant—portion of the enterprise of education in America. Whereas in earlier years public schools sought to provide alternative education under their supervision and control, homeschools seek to provide alternative education outside of the control of public school administrators and faculty.

The education of children in the home dates back to the "dame" or "kitchen" schools of colonial days, where parents or other educated adults would tutor individuals or instruct small groups in private homes. John Holt, one of the leading exponents of homeschooling, has encouraged parents to take their children out of the public schools and provide for their education at home.[43]

Homeschooling has threatened the time-honored tradition of compulsory education. In the early 1980s, Mississippi was reportedly the only state in the nation that gave legal sanction to homeschooling. Today, however, homeschooling is permitted in all fifty states. One of the more serious blows against state compulsory attendance laws was the U.S. Supreme Court's decision in *Wisconsin v. Yoder*, the First Amendment religious liberty case in which the Supreme Court ruled that Amish parents could not be required to send their children to school beyond the eighth grade.[44]

Advocates of homeschooling may be found among conservatives on the right and liberals on the left. The same disillusionment with the public schools that led parents to establish private and parochial schools has also led to the increase in home education. Parents may choose homeschooling for their children because they are dissatisfied with, among other factors, the secular orientation of the public schools, poor academic achievement, lack of safety in the schools, drug use among students, lack of discipline and bullying, violence, large classes, peer pressures, and the forced socialization of their children with others whom they deem undesirable. On the other hand, those parents who reject the option of homeschooling see value in their children's participation in the many extra-class activities offered in the public schools and in their socializing with their classmates.

The statistics regarding homeschooling are imprecise and difficult to obtain, in part because of the nebulous definition of "homeschool." In some cases, a homeschool consists of parents instructing only their own children in their own home. In other cases, groups of parents band together to form a school for their children in someone's home, in their church, or at another location.

The curricula vary and range from the use of structured lessons and textbooks from educational publishers to online instruction; to private tutoring, including the hiring of online tutors in India and elsewhere[45]; to "unschooling," a variation of homeschooling that permits students to tailor their own education.[46] *Unschooling* should be distinguished from *deschooling*, as recommended by Ivan Illich, in which boys and girls find their education in the community at large.[47]

Restrictions on homeschools vary from state to state. Some states require homeschools to obtain approval of their curricula and to accept varying degrees of monitoring by the boards of education of their local school districts. For example, homeschool instructors may have to furnish to the local school board copies of their curriculum materials, lists of textbooks, information on number of days and hours of instruction, attendance data, and test results. Some may be required to administer standardized tests. Some groups of homeschoolers have bypassed local school districts by conducting their programs under the aegis of an established private school.

Advocates of homeschools will most likely continue to challenge both the constitutionality of compulsory attendance laws per se and state restrictions on homeschooling. The U.S. Congress took note of the popularity of homeschooling by exempting homeschools from

provisions of the 1994 reauthorization of the Elementary and Secondary Education Act concerning the licensing of homeschool teachers.

Success of pupils in homeschooling is difficult to measure, as monitoring of homeschooling is spotty and results vary from school to school. Lawrence M. Rudner of the ERIC Clearinghouse on Assessment and Evaluation reported some positive data gathered on a 1998 assessment of achievement of more than 20,000 homeschooled K–12 students in almost 12,000 families. Median test scores of homeschooled students were found to be above scores made by students in public, parochial, and private schools. In addition, demographic data revealed that parents of homeschoolers had a higher level of education and higher median income than parents generally across the nation.[48]

Although secular public schools can never satisfy those who prefer a sectarian education, renewed academic excellence in the public schools—a result of restructuring and reform—may make the public school more attractive to some of those now involved in homeschooling.

Magnet schools, charter schools, pilot schools, vouchers, and homeschooling offer alternatives to traditional public schools.

Speaking of the various forms of alternative schooling a number of years ago, David S. Hurst observed:

> Like it or not[,] the ultimate adoption of some of these alternatives appears inevitable. . . . Schools in the United States will not become victims of a single alternative to traditional structures; instead we will wind up with levels of alternatives, ranging from our most traditional schools today to avant-garde institutions on the fringes of society.[49]

Gerald W. Bracey, in his analysis of successes, criticisms, and the privatization of public schools, however, saw current alternatives to public education as a war being waged to destroy the public schools.[50]

3. Bilingual/Bicultural Education

Of the 280 million-plus U.S. population five years of age and older in 2007, more than 55 million, or about 20 percent, spoke a language other than English at home. Of these 55 million, some 34 million, or approximately 62 percent, spoke Spanish or Spanish Creole.[51] As ethnic groups whose first language is other than English grow in size and power, more and more curriculum workers find themselves charged with the task of developing bilingual education programs. In 1967 amendments to the Elementary and Secondary Education Act, the U.S. Congress provided support for bilingual education.

Second-language instruction is not limited to the most widely spoken languages. As a result of state legislation requiring second-language studies in the public schools, some children of Native Americans in Oklahoma, starting in 1993–1994, were learning the Cherokee, Chickasaw, Choctaw, Creek, and Seminole languages. Although bilingual education programs are offered in a number of languages, the largest number of students in bilingual programs is Hispanic. The U.S. Bureau of the Census numbered the Hispanic population in the United States in 2010 at more than 50 million, or 16.3 percent of the more than 308 million total.[52] Census Bureau figures for 2005 revealed that minorities—that is, other than single-race whites—constituted majorities in four states: California, Hawaii, New Mexico, and Texas, as well as the District of Columbia.[53]

The U.S. Supreme Court's decision in the *Lau v. Nichols* case in 1974, which required San Francisco to provide English language instruction for its Chinese-speaking students,

advanced the cause of bilingual education.[54] The efforts of Hispanic groups have largely brought about the current emphasis on bilingual (and, in addition, bicultural) education.

Bilingual education is an educational, linguistic, social, cultural, political, and economic issue. As such, it has become highly controversial. Dade County (Florida) provides an example of continuing public discord over this issue. In April 1973, after a large number of Spanish-speaking refugees had immigrated from Cuba, Dade County was declared a bilingual community. Many "Anglos" took issue with the designation of the county as bilingual. This sentiment came to a head in 1980, when county voters approved an ordinance prohibiting the conduct of government business in any language other than English except in the cases of emergencies and elections. Thirteen years later, with almost 50 percent of the population of Dade County being Hispanic and with more than 50 percent speaking languages other than English, the Dade County Commission repealed the English-only ordinance. In 1994 the Third District Court of Appeals rejected a challenge to the authority of the county commission to repeal the English-only ordinance and upheld the commission's right to do so.

The English-only/Spanish-only argument flared again the summer of 1999 in Texas. With most of its population speaking Spanish, the small town of El Cenizo attracted attention and controversy by passing an ordinance to conduct local government business in Spanish, with provision for translation in English. A Texas pizza chain met with strong criticism in early 2007 when it announced it would accept Mexican pesos in payment.

Bilingual education in the schools, the designation of English as an official language, and the mandating of the use of only English in schools and government offices are related issues that continue to generate considerable controversy. Voters have spoken on both sides of the issue. The National Association for Bilingual Education promotes the cause of bilingual education, whereas the Center for Equal Opportunity opposes it. Championing the cause of English as the official national language are English First and U.S. English, Inc., whereas the American Civil Liberties Union stands opposed.

English-only legislation at the state level has met with mixed results. In the spring of 1990, Alabama voters overwhelmingly adopted an amendment to their state constitution recognizing English as the official language of their state government. In the spring of 1991 Puerto Rico passed a law that designated Spanish as the only official language of the commonwealth, rescinding a 1902 law that had designated both Spanish and English as official languages. In 1995 Puerto Rico passed and the governor signed the English-also law declaring both English and Spanish as official languages. The language issue has heated up periodically in Puerto Rico. One of the reasons for Puerto Ricans rejecting statehood has been the effort of some members of the U.S. Congress to make English the official language if Puerto Rico becomes a state.

Arizona and California provide cases that demonstrate the divisiveness of the English-as-official-language issue. In 1988 Arizona passed, by voter initiative, a law making English the official language. Two years later the federal district court in Phoenix declared the law unconstitutional. An advocacy group, Arizonans for Official English, appealed the district court decision. In 1996, the Ninth Circuit Court of Appeals upheld the decision of the federal district court. With an appeal to the Arizona Supreme Court on hold, in 1997 the U.S. Supreme Court vacated the decisions of the district and circuit courts. The following year the Arizona Supreme Court agreed with the district and appeals courts and ruled the law unconstitutional. In 1999 the U.S. Supreme Court refused to consider the Arizona voter initiative, thus allowing the decision of the Arizona Supreme Court to stand. However, on its eighth attempt, voters in Arizona in November 2006 approved Proposition 103 adopting English as the official language, making it the twenty-eighth state to do so.[55] In 2011 several more

states were moving toward making English their official language or requiring that driver's license examinations be conducted in English.[56]

Since the late 1960s, California, with its polyglot population, has offered programs of bilingual education in its schools. In June 1998 California voters overwhelmingly endorsed Proposition 227, which scuttled bilingual education and in its place mandated an English-language immersion program for students of limited English-language ability. Although some school districts threatened not to abide by the law, a federal judge ruled that the law did not violate the rights of minorities. Proposition 227 left some room for schools to offer English-language instruction part of the time and for parents through waivers to continue their children in bilingual education programs. Although bilingual education is championed by language minorities, some members of minority groups supported the banning of bilingual education programs because they perceived fluency in English as essential for career opportunities for their children.

From as far back as 1811, states have passed a law or constitutional amendment that specifies English as the official language of their state governments. Hawaii, however, in 1978 designated both English and Hawaiian as official languages of the state and teaches both English and Hawaiian in its schools.

The controversy over bilingual education brings into sharp focus the opposing philosophies of acculturation versus pluralism. The resurgence of the melting-pot concept, with its emphasis on blending, has challenged the salad-bowl concept of pluralism. Proposals from both Democrats and Republicans to establish English as the official language of the federal government have surfaced from time to time in both the Senate and the House of Representatives, mostly currently with the English Language Unity Act of 2011 in the House of Representatives.[57]

Those who support making English the official language note that throughout our nation's history immigrants have learned English. Proponents of bilingual education, however, believe that curtailment of bilingual education and designation of English as the official language are discriminatory. They maintain that an English-only instructional approach impedes the learning of children who are not native speakers of English. Critics, on the other hand, argue that bilingual education segregates students, exacerbates problems posed by diversity, and has proved ineffective.

Curriculum planners as well as the public are also divided as to the exact definitions of "bilingual" and "bicultural." To some, bilingual education may simply mean setting up English classes for students who are not native speakers of English. Others often extend bilingual education to include additional dimensions, including teaching courses in the native language. Fitchburg High School (Massachusetts), for example, offers courses in Spanish for Native Speakers to enable native speakers of Spanish to improve their use of their own language.[58]

Educators are in disagreement as to whether programs designed to promote mastery of English should allow for instruction of students in their native language until they achieve English-language skills, or whether they should immerse students in English from the start. The U.S. Department of Education has usually required schools that wished to receive bilingual education funds to provide instruction in the native language. When the U.S. Department of Education sought to force Fairfax County, Virginia, to offer instruction to all students in their native language, Fairfax County brought suit on the grounds that its program of intensive English for speakers of other languages was successful, as shown by their test scores. In late 1980, the U.S. Department of Education, on the strength of the success of Fairfax County students, decided not to force Fairfax County to provide instruction in the native language.

Immersion in English has been an alternative to bilingual education. Results of English-immersion programs, though not conclusive, show some indications of improvement in English-language learning by nonnative speakers of English. Although California and Arizona,

for example, have both used language-immersion techniques, exemptions and waivers are possible under certain circumstances. However, responding to Proposition 227, Oceanside, California, ceased all non-English instruction and reported in the summer of 1999 that its English-immersion program resulted in significant improvement in English and other subjects by non-English-speaking students.

The U.S. House of Representatives has jumped into the fray on more than one occasion since passage of the 1968 Bilingual Education Act, as seen, for example, in its proposals for an English-Language Empowerment Act (1996) and its English Language Fluency Act (1998), which offered funding to the states in the form of block grants and set a maximum of three years for student participation in federally funded bilingual education programs. The English Language Acquisition, Language Enhancement, and Academic Achievement Act replaced the Bilingual Education Act that expired in 2002. The thrust of the English Language Acquisition Act is on the development of English-language skills rather than on bilingual education.

Terminology has contributed to the public's negative views about bilingual education. An early term for an instructional program known as "English as a second language" has encountered strong objections on the part of champions of English who misinterpret the term to imply relegating English to second place. The terms "English for Speakers of Other Languages," referred to as ESOL, and "English Language Learners" (ELL) have reduced the misunderstanding. The public's continuing ambivalence toward bilingual education is readily documented. While Arizona and California, for example, were curtailing bilingual education, Colorado voters in 2002 refused to ban bilingual education.

To overcome some of the objections to typical bilingual education, schools in some states, such as California and Washington, have been attempting dual-language classes with half the class composed of native speakers of English and half composed of native speakers of Spanish. In addition to mastery of the subject matter, objectives of dual-language classes include the development of fluency in two languages and increased understanding between cultures.

Both the existence of bilingual education and its methodology remain sensitive and controversial issues. An alternative school in Kansas City, Kansas, for example, ran into difficulty with its English-only policy in 2005 when it suspended a boy who was speaking Spanish, his native language, in the hall. His suspension, however, was rescinded. How best to improve the achievement of nonnative speakers not only in mastering English but also other subjects that require mastery of English, plus how to raise their success rate on state standardized tests, are issues yet to be resolved.

Observing that students in other countries study foreign languages from an early schooling age, a body of sentiment holds that mastery of more than one language benefits not only the individual but the community and nation as well. In spite of this sentiment, the Center for Applied Linguistics survey mentioned earlier in this text (Chapter 2) noted that foreign-language enrollments have declined in many schools.[59]

Intertwined with bilingual/bicultural education are the issues of multiculturalism and multicultural education, which are discussed later in this chapter.

4. Censorship

Schools in many communities throughout the United States find themselves enmeshed in a seemingly endless struggle with individuals and groups in the community seeking to censor textbooks and library books and to prohibit certain types of instruction or, conversely, to promote certain types of instruction. Attempts to remove library books, textbooks, and other teaching materials

from the schools are frequent and widespread. Dissension over this issue and over religion, as we shall see again later in this chapter, stems from differing interpretations of the First Amendment to the U.S. Constitution, which says:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

The seven books of the phenomenal Harry Potter series have made British author, J. K. Rowling, one of the best-selling authors of all time. Although these imaginative books have delighted children around the world and have turned many children on to reading, they are not without challenge. In fact, the Harry Potter series in 2005 was ranked as the most challenged book of the twenty-first century.[60]

Endorsed by the Vatican on one hand for their theme of the triumph of good over evil, the Harry Potter books have brought challenge from parents and pastors of some religious sects perceiving a lack of family values and the presence of witchcraft and occultism. Some school districts have required written permission from parents before allowing pupils to check out the Harry Potter books. When the Cedarville, Arkansas, school board placed the Harry Potter books on restricted shelves, a circuit judge ruled in 2003 against the school board and ordered the books returned to the open shelves. In a similar vein, the Georgia Board of Education in 2006 supported the refusal of the suburban Atlanta Gwinnett School Board to remove the Harry Potter books from its schools.

The Harry Potter books, of course, are not the only books challenged or banned from schools and public libraries. Between 1990 and 2010 the Office of Intellectual Freedom of the American Library Association (ALA) recorded more than ten thousand challenges to books.[61]

Protest over schoolbooks has been a big problem in some communities. Schoolbook protestors have made their appearance in communities from one end of the United States to the other. Protests against certain schoolbooks include charges that they:

- portray too much sex or violence
- use profanity
- use poor English
- promote "secular humanism," are irreligious, anti-Christian
- are un-American, lacking in patriotism
- promote "one-worldism" and globalization
- are racist
- depict the "wrong" values
- teach the theory of evolution instead of scientific creationism or intelligent design
- are too graphic
- are antifamily
- condone gay lifestyle

Books have been challenged on political grounds as well. For example, the Miami-Dade School Board decided in 2006 to ban *Vamos a Cuba* and its English translation, *A Visit to Cuba*, as an inaccurate portrayal of life in Cuba. Pressures can arise for material to be *included* as well as excluded, as in the case of the Texas Board of Education in 2004 requiring the publisher of health textbooks to define marriage as between a man and a woman.

Efforts to censor topics of public discussion, reading matter, films, video recordings, drama, television, music, and artwork recur in the schools—and in society at large—with great

frequency, testing First Amendment rights to free speech and press. In recent years, charges of obscenity, for example, have produced vigorous challenges to art exhibitions, novels, films, and lyrics to musical compositions.

The definition of obscenity has proved to be elusive. The U.S. Supreme Court has let local communities determine what printed and visual matter violates their community standards and possesses "no redeeming value." Many people consider the sufficient standard to be U.S. Supreme Court Justice Potter Stewart's famous statement about obscenity, "I know it when I see it."

Schools have both engaged in self-censorship and responded to pressures for censorship from outside forces. Candidates for repeated banning or challenge over the years and/or subject to multiple challenges in the same year are J. D. Salinger's *Catcher in the Rye*, Mark Twain's *The Adventures of Huckleberry Finn*, John Steinbeck's *The Grapes of Wrath* and *Of Mice and Men*, Maya Angelou's *I Know Why the Caged Bird Sings*, Katherine Paterson's *A Bridge to Terebithia*, Judy Blume's *Forever*, Maurice Sendak's *In the Night Kitchen*, Robie Harris's *It's Perfectly Normal*, Robert Cormier's *The Chocolate War*, Harriet Beecher Stowe's *Uncle Tom's Cabin*, Harper Lee's *To Kill a Mockingbird*, Khalil Hosseini's *The Kite Runner*, Hans Christian Andersen's *The Little Mermaid*, the Grimm brothers' *Fairy Tales*, and Richard Wright's *Black Boy* and *Native Son.* Books dealing with racial themes, whether written by a white author (Twain) or a black author (Wright), can provoke controversy.[62]

Efforts have been made to remove or revise textbooks in the field of health because of material on sexuality education and in historical treatments of Columbus's discovery of the New World and the contributions of European Western civilization. You will note that efforts to censor materials come from both the right (*My Friend Flicka, Catcher in the Rye*) and the left (*Peter Pan, Huckleberry Finn*).

Any work dealing with homosexuality stirs considerable protests, as in the case of Michael Willhoite's *Daddy's Roommate* (1992). Even suggestions that it is all right to be different, as in the case of Todd Tuttle's *Spot* (2001), can become controversial. Not only is literature concerning homosexuality an issue but also related is the controversy over gay-supported or gay–straight clubs meeting on school campuses.

The teaching of values has come under attack by protesters who hold that some of the schoolbooks undermine traditional American values. Protesters have taken special exception to the book *Values Clarification*, ostensibly because the program that it proposes allows students to express their own views on personal problems.[63]

The teaching of the Darwinian theory of the evolution of humankind has long been a cause of concern to those espousing intelligent design or scientific creationists, who champion the biblical account of creation in *Genesis.* Mentioned in Chapter 3, the *Scopes* trial in Tennessee in the 1920s reflected the sentiments of the creationists. In 1968, in the case of *Epperson v. Arkansas*, the U.S. Supreme Court ruled that the theory of evolution may be taught.[64]

The evolution–creationism issue a rose frequently in the 1980s and 1990s. In 1982 a federal district court holding that scientific creationism was a religious doctrine struck down an Alabama statute that would have required instruction in scientific creationism in addition to the theory of evolution. In June 1987, the U.S. Supreme Court ruled unconstitutional Louisiana's Balanced Treatment for Creation Science and Evolution Science Act of 1981, which would have required that scientific creationism be given equal instructional time with the theory of evolution. In October 1990, more than twenty years after *Epperson*, the Texas Education Agency's approval of state-adopted textbooks that taught the theory of evolution made national news.

In October 1999, the New Mexico State Board of Education barred the study of creationism in the public school science curriculum while retaining the study of the theory of evolution.

Also in October 1999, Illinois lent yet another dimension to the issue when its state Board of Education eliminated the word "evolution" from its state standards, using the expression "change in time." Challenges to the teaching of evolution continue up to the present, as we will see later in this chapter when we discuss the companion issue of religion in education.

Often protests over schoolbooks are not intended to force the schools to eliminate certain material, but rather to adopt textbooks that incorporate particular topics, such as scientific creationism or intelligent design. Although the Supreme Court has ruled that reading the Bible and prayers for devotional purposes in the school are unconstitutional, many groups are still attempting to reintroduce or introduce these sectarian practices into the public schools' curriculum.

Underlying some of the protests over textbooks is the perennial conflict of differing secular and religious values in a pluralistic society and the interpretation of the Jeffersonian doctrine of separation of church and state, an issue explored later in this chapter.

First Amendment cases have cropped up in the arena of student expression. Schools, establishing dress codes, have sought to ban T-shirts that they deemed to carry disruptive, offensive, vulgar, profane, or lewd language. In the fall of 1999, in the face of a possible lawsuit, the Roswell, New Mexico, school board, for example, rescinded a decision banning student displays of pentagrams, a symbol of the Wiccan religion. A Minnesota high school disallowed a student from wearing a sweatshirt with the words "Straight Pride." The U.S. District Court in St. Paul, in the spring of 2001, held the school's ban on the sweatshirt unconstitutional. Likewise, when a student was suspended at a New Jersey high school for wearing a T-shirt with the word "redneck" on it, he and his brothers contested the action. Although the district court supported the school, the Third Circuit Court of Appeal in October 2002 ruled that the student was within his First Amendment rights to wear the shirt. A middle school student in Pennsylvania in 2006 won his case against his school district that had expelled him for writing violent rap lyrics. Principals have had to decide whether to allow an elementary school student to sing a song critical of the U.S. president (Florida), a high school student wearing clothing with a Confederate flag (South Carolina), a high school student wearing an antigay T-shirt (California), and a high school student bearing a banner with the words "Bong Hits 4 Jesus" (Alaska). The courts must consistently weigh First Amendment rights to free speech against the potential for disruption of the ongoing educational program.

The student press has run afoul of internal censorship by school administrators who frequently or regularly review and restrict student articles, stories, and photographs prior to publication. Administrators tend to expunge materials that are critical of the school, appear racist, or are offensive or obscene.

The U.S. Supreme Court, in a 5–3 decision in *Hazelwood v. Kuhlmeier* (1988), affirmed school officials' authority to censor student publications. Reversing an appellate court decision, the Supreme Court ruled that school officials may exercise prior review and restraint of student publications if such action serves any valid educational purpose.[65]

Hazelwood erupted in 1983 when the principal of a high school suppressed articles in the school newspaper on student pregnancy and divorce. The Supreme Court decision permits administrators to censor various forms of student expression, although nondisruptive expression as determined in *Tinker v. Des Moines Independent Community School District* (1969) still stands. In the latter case the Supreme Court ruled that students had the right to protest the Vietnam War by wearing black armbands.[66] *Hazelwood*, in effect, permits censoring of articles that may reflect unfavorably on the school, as in the case of articles on religion, sex, drugs, alcohol, and even partisan political statements. Administrators have chastised teachers directing class writing projects and those serving as sponsors of student newspapers and yearbooks when

they have allowed text and photographs to be printed that officials felt were objectionable. Such cases transpired in Tennessee in 2005 when the school confiscated copies of the student newspaper that discussed birth control and condoms, and in Rhode Island in 2006 when a parent sued the school board for refusing to allow the yearbook photo of her son posed in chain mail and carrying a sword. As a rule, administrative decisions to censor student publications are not frequently challenged, especially in the light of *Hazelwood.* However, the state of Oregon saw fit to enact legislation in 2007 protecting the First Amendment rights of student journalists in public high schools and colleges.[67]

To respond to various social and political pressures, curriculum planners need not only professional knowledge and skills but also skills in public relations and working with community groups. When dealing with controversial issues in the curriculum, they should have channels through which they may determine the seriousness of problems, the strength of community feelings, and the ways in which issues might be resolved before they become magnified and disproportionate. They need established procedures by which parents can register objections to materials and at the same time secure broad-based review of those objections. Some objections may prove valid, necessitating removal of the materials; some may prove valid at certain levels; and some may prove invalid. Community mores, state and national law, national educational needs, learners' maturity level, and children's right to learn must all be taken into consideration when making decisions on suppressing or, conversely, including materials. School officials must avoid the extremes of, on one hand, everything goes, and on the other, that nothing controversial may be published.

Before leaving our discussion of censorship, we should not neglect to note a less recognized form, that is, self-censorship by the publishing industry. Diane Ravitch candidly described how publishers of textbooks and tests, in order to gain state adoptions via their guidelines on bias, advise their editors and authors to guard against those choices of words, topics, and locations that might in any way be taken exception to by any group or subgroup of our society.[68] Thus, pressure groups both directly and indirectly can influence what is taught in schools. To reduce or eliminate controversy, some school systems appoint committees consisting of teachers, lay persons, and, in some cases, students to make recommendations to school authorities on whether or not to keep or remove challenged books and other media. Another means by which schools seek to reduce parental objections to literature assigned to be read by students is granting parents the right to request substitute titles for their children.

5. Gender

Madeleine R. Grumet highlighted the significance of gender not only in education but universally as well when she wrote, "What is most fundamental to our lives as men and women sharing a moment on this planet is the process and experience of reproducing ourselves."[69] Gender as an issue in the schools revolves around practices in instruction, curriculum, and administration that result in one gender demonstrating higher achievement or having greater opportunities in certain fields and activities than the other, leading to inequity or discrimination.

Gender inequity has been a perennial problem in education. Title IX of the Educational Amendments of 1972 passed by the U.S. Congress caused school personnel to examine programs and to remove practices that discriminate between the sexes. Restricting homemaking to girls and industrial arts to boys, for example, is a sexist practice. Funding of interscholastic athletics, with the lion's share traditionally going to boys' athletics, has been challenged as sexist. The integration of females into male athletic teams and males into female teams has stirred controversy within the profession and outside.

We can find considerable argument as to what degree, if any, sex stereotypes and gender discrimination in school actually exist. In the mid-1980s Myra and David Sadker studied fourth-, sixth-, and eighth-graders in more than a hundred classes in four states and the District of Columbia, observing language arts, English, mathematics, and science classes. The Sadkers held that, regardless of the subject or grade level, boys dominated classroom interaction and received more attention from the teacher than did girls.[70]

A 1992 study commissioned by the American Association of University Women (AAUW) and researched by the Wellesley College Center for Research on Women reported data on gender discrimination and concluded that schools were shortchanging girls.[71] In the winter of 1994 the American Civil Liberties Union filed a complaint with the U.S. Department of Education against the Educational Testing Service (ETS) and the College Entrance Examination Board on behalf of the National Center for Fair and Open Testing (FairTest), charging discrimination against females on the Preliminary Scholastic Achievement Test (PSAT) and the National Merit Scholarship Qualifying Test (NMSQT), citing the fact that more males than females were National Merit Scholarship semifinalists and winners.[72] ETS and the College Board responded by consenting to add a writing portion to the PSAT/NMSQT under the presumption that females would do well on writing.[73]

For years the theme has prevailed that our educational system discriminates against girls. We see evidence of the fact that girls have moved educationally to the forefront and boys may now be the ones experiencing inequity.

- The National Center for Education Statistics' study, *Trends in Educational Equity of Girls & Women: 2004*, found females in elementary and secondary school "now doing as well as or better than males on many indicators of achievement and educational attainment, and that large gaps that once existed between males and females have been eliminated in most cases and have significantly decreased in other cases. Women are still underrepresented in some fields of study, as well as more generally in doctoral and first-professional degree programs, although they have made substantial gains in the past 30 years."[74]
- Surveying gender gaps in 2006 for white, black, and Hispanic students, the Manhattan Institute for Policy Research found for each ethnic group females leading males in high school graduation rates.[75]
- National Center for Education Statistics calculated that more than 7 million males enrolled in college in 2007 versus more than 10 million females, 43 percent to 57 percent, close to a reversal of percentages for 1975.[76]

While Janice Weinman described barriers girls face in school, Judith Kleinfeld noted the bias that exists is against boys, especially those of minority groups.[77] Although boys continue to outshine girls in mathematics, science, engineering, and technology, girls demonstrate higher achievement in other fields and the gap between girls and boys in traditional male areas has narrowed.

The AAUW, in a 1998 follow-up study conducted for it by the American Institutes for Research, reflected on the progress made by females in education, noting, however, males' continued dominance in technology.[78] Historically, more boys have enrolled in mathematics and science courses than girls, whereas more girls have gravitated to language and the humanities. The 1998 AAUW study found girls closing the gap in some mathematics and science courses while boys continued to lead in participation in computer science and in higher-level courses in mathematics and science. Greater numbers of girls continue to participate in the language arts, foreign languages, fine arts, sociology, and psychology. Although the gender gap in studies may

be narrowing in some respects—a plus for the girls—the study concluded, "In fact, course-tak-ing patterns, when viewed as a whole, suggest that girls may be getting a broader education than boys by deepening their exposure to math and science and by enrolling in more courses in other subject areas."[79] The Horatio Alger Association provided further evidence that girls' attention to studies, academic achievement, and career goals surpass those of boys.[80] Sara Mead made note of the fact that more boys drop out of school, are held back a grade, or are suspended than girls. However, she concluded that boys' overall achievement and attainment of certificates and degrees are not in decline, that the plight of boys is exaggerated, and that the racial and economic gaps are more serious than the gender gap.[81]

Children's attitudes about gender roles are shaped early and, like many attitudes and val-ues, are strongly influenced by the children's significant others: parents, relatives, close friends, teachers, coaches, role models, and other persons whom they respect. A study by Jacquelynne C. Eccles and Rena D. Harold at the University of Michigan found that "already by the first grade, girls have a more negative assessment of their general athletic ability than do boys."[82] Athletic skills at early ages are virtually comparable regardless of gender. Not until puberty can physi-ological differences between boys and girls account for differences in athletic abilities. Sex roles are to a large extent culturally determined; the school often perpetuates those social determiners, either through the intentional or the hidden curriculum. One has only to look at the subordinate role in which females are cast and the superordinate role accorded males by some societies on this globe to provide evidence of the impact of culture in shaping male and female behavior. If culture is a determining factor, as most people believe, we should perhaps be concerned about some of the changes in the culture itself since, on the flip side, as observed by Lynn Phillips, girls are beginning to exhibit some of the lesser-admired traits demonstrated more often by males, such as aggressive antisocial behavior and use of tobacco, alcohol, and drugs.[83] Although we can cite countless cases of discrimination against girls, the rash of schoolhouse shootings from the late 1990s to the present carried out by boys, boys' higher dropout rate, the fact that boys are subjected to torment and bullying more often than girls, and the percentage of boys who commit suicide all suggest that boys may now be the neglected gender. Addressing the education of boys, psychologists Dan Kindlon and Michael Thompson viewed the traditional gender stereotypes about masculinity held by parents, teachers, and others as destructive of boys' emotional lives.[84]

As mentioned earlier in this text, as long ago as 1972, Robert J. Havighurst perceived the achievement of a masculine or feminine social role as one of the developmental tasks of adolescence.[85] The accomplishment of these roles is no longer simple, if it ever was. Though traditional attitudes toward the roles of men and women are still held by sizable segments of the public—especially among certain ethnic groups and nationalities, in certain areas of the country, and by certain religious groups—the distinctions in roles have been changing rapidly. Cultural and family attitudes may well shape perceptions of sex roles and contribute to gender discrimi-nation to a much greater extent than schools. What once appeared to be male occupations, such as truck driving, construction work, firefighting, police work, and fighter pilot, are no longer the exclusive province of the male. With females now assigned to naval vessels, we may expect the term *seaman* to go into oblivion along with *mankind, mailman*, and *Dear Sirs.* Conversely, a "house husband" is no longer unheard of, and the female can be the family "breadwinner." Men can pursue careers and avocations that were formerly considered only for women, such as nursing, elementary school teaching, and secretarial work. Schools today are counseling girls to take science, mathematics, and industrial arts, courses formerly viewed as more appropriate for boys. On the other hand, boys are advised to elect the fine arts, language, and home economics,

subjects often considered particularly suitable for girls. The unisex philosophy has shaken, if not toppled, some of the stereotypes of men and women.

In response to changing attitudes about gender-based stereotypes, authors have had to "de-sex" their textbooks. They may no longer use the single generic pronoun "he" to refer to both sexes. Just as authors may no longer portray all persons in their textbooks as Caucasian, so also they may no longer depict males and females as performing only socially or culturally predetermined occupations.

There is an awareness that women have been discriminated against in the workplace. Such discrimination includes fewer opportunities for women to gain executive positions in some occupations and the fact that women continue to earn lower salaries than men do in comparable positions.

Efforts are being made to eradicate vestiges of gender discrimination and to equalize opportunity between males and females. Senate Bill 1463, for example, introduced by Senator Barbara Mikulski in 1993 as amendments to the Elementary and Secondary Education Act of 1965 (comprising two titles: Gender Equity in Mathematics and Science and Elimination of Sexual Harassment and Abuse), became the Gender Equity in Education Act in 1994. Looking back at the need for Title IX, sexist stereotypes and discriminatory practices when found are being eradicated. Curriculum workers are proceeding to design curricula that will help to eliminate bias, based not only on race, creed, and national origin, but, if it exists, also on gender.

School systems have sought to answer criticisms of gender discrimination through careful attention to curriculum and instruction, counseling, and staff development. Borrowing a leaf from private schools and the concept of all-male black schools, some school systems have attempted classes and schools segregated by gender on the assumption that student achievement and behavior are improved when the sexes are separated and cannot distract each other. Single-sex classes and single-sex schools have been cropping up all around the country. Noting only about a dozen public schools with single-gender classrooms in the United States in 2002, the National Association for Single Sex Public Education (NASSPE) reported more than 500 in 2011, most as coeducational schools with some single-sex classrooms.[86] Several public school districts, including Chattanooga, Cleveland, and Phoenix, have established all-girl leadership academies, while Atlanta, Cleveland, and Dallas were offering all-boy leadership academies. The federal government gave its blessing to single-sex education in late 2006 when it amended antidiscrimination regulations of Title IX, permitting single-sex classes and single-sex schools as long as they are voluntary and the school district provides equal coeducational classes in the same subject. Since "separate but equal" did not hold in the case of race, some people wonder if "separate but equal" will endure in the case of gender.

The research is not clear on whether segregating classes or schools by gender results in the positive aspects attributed to it. Patricia B. Campbell and Jo Sanders commented in 2002, "There is no national comprehensive controlled study of academic performance for U.S. students in public and private K–12 single-sex and coed schooling."[87] That same year, speaking of private, single-sex schools (as opposed to single-sex classes within otherwise coed schools), Cornelius Riordan argued, "the research is 'exceedingly persuasive' in demonstrating that single-sex schools are effective in terms of providing both greater equality and greater achievement, especially for low-income and working-class students, most particularly for African-American and Hispanic-American boys *and* girls."[88] Addressing what has been referred to as the "boy crisis," Caryl Rivers and Rosalind Chait Barnett, writing for the *Washington Post* in 2006, maintained that only rural and inner-city boys were experiencing problems and they saw no need for single-sex education.[89]

Debate continues on the effectiveness of single-sex education. Proponents maintain that distractions are reduced and instruction can be tailored to the differing manner in which girls and boys behave, respond mentally and physically to instruction, and process information. Critics, on the other hand, view single-sex classes and schools as unnecessary segregation since differences in achievement are not all that great.

Among those supporting single-sex education is the National Association for Single-Sex Public Education, while in opposition is the National Organization for Women.

Ambivalence toward single-sex schooling was demonstrated in results obtained by the 2009 survey of public opinion conducted by Education Next–PEPG (Program on Education Policy and Governance at Harvard University).[90]

We cannot leave the issue of gender as it affects schooling without mention of the impact of sexual diversity on the curriculum. The public's views on such topics as understanding sexual orientation and the historical contributions of gays, lesbians, bisexuals, and transsexuals range from demands for silence to support of discussion. Controversy also swirls around students holding meetings of gay and gay–straight organizations on the school campus, raising First Amendment issues and sometimes evoking litigation.[91]

6. Health Education

No better example of the convergence of needs of students and needs of society can be found than the health-related problems experienced by today's young people. In addition to offering long-standing programs of physical fitness, hygiene, and nutrition education, many of which are now being revised, the schools are confronted with a number of health problems that demand the close attention of curriculum planners. Specifically, the schools are seeking ways to respond to the use and abuse of alcohol, drugs, and tobacco; to the high incidence of teen pregnancies; and to the prevalence of sexually transmitted diseases, including acquired immune deficiency syndrome (AIDS).

Let's briefly look at the dimensions of these problems and schools' responses to them.

DRUGS, ALCOHOL, AND TOBACCO.   Several annual national surveys shed light on children's and adolescents' use of illicit drugs, alcohol, and tobacco. Among these are studies conducted by the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services, the Institute for Social Research at the University of Michigan, PRIDE Surveys, and the American Legacy Foundation.

SAMHSA's *National Survey on Drug Use and Health* (NSDUH), formerly the National Household Survey on Drug Abuse (NHSDA), is a primary source of information on the use of illicit drugs, alcohol, and tobacco among the general noninstitutionalized population twelve years of age and older. NSDUH annually interviews some 67,500 Americans ages twelve and older every year. Data for 2009 indicated rather widespread use of illicit drugs, alcohol, and tobacco. Surveying six categories of illicit drug use, NSDUH estimated that 8.7 percent of the population aged twelve and older (21.8 million) used illicit drugs at some time during the month preceding the survey. Marijuana topped the list of the most commonly used illicit drugs. Males exceed females in the use of illicit drugs. They had similar rates for nonmedical use of tranquilizers and methamphetamine while females exceed males in nonmedical use of psychotherapeutic drugs and pain relievers.[92]

The *National Survey* recorded 51.9 percent of the population twelve or older as current drinkers (at least one drink in the past thirty days), 23.7 percent of the same population as binge

drinkers (five or more drinks at the same time or within a couple of hours of each other), and 6.8 percent of this population as heavy users (five or more drinks at the same occasion on each of five or more days in the past thirty days). Alcohol use was highest among the population aged twenty-one to twenty-five. Although alcohol consumption was heaviest among males in the twelve years or older group, in the twelve to seventeen group rates of alcohol consumption by males and females were close.[93]

The tragic use of alcohol by young people is underscored by the 2006 report of the National Institute on Alcohol Abuse and Addiction revealing the fact that about 1,900 young people under the age of twenty-one die each year from motor vehicle crashes.[94]

Surveying tobacco use in 2009, the *National Survey* confirmed rates for males twelve years or older exceeding females in current use of tobacco. However, differences in rates were statistically insignificant in the twelve- to seventeen-year group.[95]

Since 1975, the Institute for Social Research at the University of Michigan, with funds from the National Institute on Drug Abuse, has annually surveyed the use of tobacco, alcohol, and illicit drugs by high school seniors, college students, and young adults. In 1991 the Institute began collecting data from eighth- and tenth-graders. The Institute for Social Research reports its annual findings in *Monitoring the Future* (MTF). Drawing from findings of the 2009 survey of more than 46,000 eighth-, tenth-, and twelfth-grade students in close to 400 secondary schools nationwide, the Institute for Social Research reported:

- The use of most illicit drugs continued at the same level as the previous year or showed a decline, with the exception of thirty-day use of smokeless tobacco.
- Marijuana use at all three grade levels has seen a 2 percent increase between 2007 and 2009.
- Methamphetamine use is down considerably since 1999.
- Cigarette smoking as determined by MTF studies over the years was at its lowest level.
- Although a majority of teenagers has consumed alcohol, the levels of drinking and drunkenness have shown a decline between 2002 and 2009, at which time rates leveled off among students in the upper grades.[96]

Encouraging are the negative attitudes teenagers are manifesting today about the use of drugs, alcohol, and tobacco. The concerted effort of parents, schools, media, and government to combat drug use may account for the turnaround.

The University of Michigan studies show that although a clear majority of teenagers disapprove of the use of drugs and abuse of alcohol, too many students still do not perceive the risks involved in use of drugs, alcohol, and tobacco. Obviously, the struggle against use of illicit drugs, consumption of alcohol, and addiction to tobacco is far from over.

The public is obviously concerned about the drug problem in the schools but ranks other problems higher. Annual Phi Delta Kappa/Gallup polls ranking the public's perceptions of the biggest problems facing the schools of their communities reveal that the use of drugs, which had ranked first in the late 1980s and early 1990s, dropped to third among the three top problems from 1995 to 2010. Lack of discipline, which headed the poll lists from 1970 to 1985, held second place from 2000 to 2010. Lack of financial support, which had been in third place from 1980 to almost 1995, rose to the top of the list in 2000 to 2010.[97]

TEENAGE PREGNANCIES AND ABORTIONS.   Along with the decline in the use of illicit drugs, alcohol, and tobacco, the frequency with which teenagers engage in sexual activity and the number of teenage pregnancies, births, and abortions have steadily dropped. The Guttmacher Institute

noted that sexual activity is common among older teenagers. However, the level of sexual activity has not changed significantly since 2002.[98] Significantly, among the more than 34 percent of high school students who were currently sexually active in 2009, close to 39 percent had not used a condom during their last sexual intercourse.[99]

Centers for Disease Control and Prevention (CDC) figures show pregnancy rates of teenagers aged fifteen through nineteen dropping 40 percent between 1990 and 2005, with abortions among teenagers aged fifteen through seventeen dropping steadily from the late 1980s to 2005.[100]

Sexual intercourse is not always the "in-thing." Programs calling for abstinence; fear of AIDS and other sexually transmitted diseases; distribution of sexuality information and condoms; provision of organized after-school recreation; willingness of more and more parents to discuss sexual topics with their children and to support sexuality education programs in the schools; and efforts by teachers, churches, social agencies, government, and foundations have all combined to reverse attitudes of the permissive so-called sexual revolution of the 1960s through the 1980s.

SEXUALLY TRANSMITTED DISEASES.   How to reduce the lower, but continuing high, incidence of sexually transmitted diseases (STDs) is of paramount concern not only to public health workers but also to curriculum planners. How serious the problem is can be seen from the figures for notifiable diseases. Of the more than twenty-five sexually transmitted infections, the State of Rhode Island's Department of Health identified five as most common in the United States: genital herpes, chlamydia, gonorrhea, HIV, and genital warts.[101] The CDC estimated that about half of the 19 million new sexually transmitted infections that occur each year can be found among young people ages fifteen to twenty-four.[102] A more recent CDC study estimated that one in four teenage girls between the ages of fourteen and nineteen was infected with at least one of the most common sexually transmitted diseases.[103]

Still of concern to health workers, educators, and the public is acquired immunodeficiency syndrome (AIDS), although the incidence and number of deaths from AIDS has dropped dramatically since the late 1990s. Historically, the pace of HIV/AIDS spread has been startling. The 2010 United Nations' report on the global AIDS epidemic for the year 2009 estimated that there were 33.3 million people worldwide living with HIV, 2.5 million of whom were children. During that same year the United Nations study estimated 1.2 million adults and children living with HIV in the United States, with an estimate of 54,000 newly infected.[104] First diagnosed in the United States in 1981, cases of new HIV infections rose rapidly, peaked in the mid-1980s, and declined thereafter.[105] USAID reports an estimated 2.6 million new HIV infections worldwide in 2009, and deaths from HIV-related causes at 25 million people since the epidemic began.[106] The CDC noted that from the beginning of this epidemic through 2007, deaths of people from AIDS in the United States exceeded 576,000.[107]

Schools, churches, social agencies, and parents all have roles to play in combatting teenage pregnancies, births, abortions, and sexually transmitted diseases. Sexuality education is one response to these problems that affect the well-being not only of children and youth but also of society.

SEXUALITY EDUCATION AND SCHOOL CLINICS.   Health-related problems pose the classic questions to curriculum planners: To what extent must the schools respond to problems of society? What can the schools do about these overwhelming problems? If educators agree that the schools can make some response, how will that response be made?

The public appears to be in rather general agreement about the schools' efforts to educate young people about the hazards of using alcohol, drugs (both prescription and nonprescription),

and tobacco. State legislatures, reflecting public opinion, have in some cases mandated instruction on the use and abuse of these substances. In spite of the schools' concerted attack on the use of alcohol, drugs, and tobacco, however, usage among young people continues to cause concern.

In the area of sexuality or sex education, however, parents and other citizens of the community are in sharp disagreement. Attitudes range from support for strong sexuality education programs in the schools to avoidance of the topic. Attitudes of the various religious and ethnic groups differ considerably on responses schools should take toward sexual problems. Because sexuality education is value-laden, some people believe the schools' program should be confined to the academics, leaving moral education to the home and church.

Unlike Sweden, where sexuality education has for years been compulsory in elementary through high school and has presented a frank treatment of the multiple aspects of the topic, American schools differ widely in their approaches.[108] Although all states have some form of sexuality education, their programs range from "abstinence only" (abstinence only until marriage) to "abstinence plus," a comprehensive sexuality curriculum teaching not only abstinence but also some of the most controversial aspects of human sexual behavior, including discussion of anatomy, birth control, masturbation, use of condoms, risky behaviors, and homosexuality. An NPR/Kaiser Family Foundation/Harvard Kennedy School of Government study revealed that as early as 2003, only 7 percent of Americans were found to object to sexuality education in schools.[109] Over the years Americans have shown preference for abstinence-only programs of sexuality education. Responding to that position, the federal government funded abstinence-outside-of-marriage education under Title V, Section 510 of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. That a change of attitude has occurred in recent years toward the abstinence-only approach is seen in the fact that several states in 2007 elected to opt out of the U.S. Department of Health and Human Services' State Abstinence Education Grant. Deeming abstinence-only education as ineffective, the U.S. House of Representatives at the end of June 2007 allowed funding of Title V grants to the states to expire.[110]

That sexuality education can be a sensitive issue is demonstrated in the experiences of two U.S. surgeons general. Responding in 1986 to the AIDS crisis, C. Everett Koop, former surgeon general of the United States, strongly endorsed sex education, recommending that it begin in the third grade. Koop was severely criticized for his positions on sex education, AIDS education, use of condoms, and abortion. In July 1989, after eight years as surgeon general, Koop resigned. Attitudes toward sexual issues brought down a second surgeon general, Joycelyn Elders, who was appointed by President Clinton in 1992. Elders, a pediatrician from Arkansas, was asked to resign in December 1994, just two years after her appointment, reportedly as a result of announced positions she had taken publicly on sexuality topics such as distribution of condoms, abortion, and masturbation. Individuals and groups such as the American Coalition for Traditional Values called for her resignation after she responded to a question at the United Nations World AIDS Day to the effect that masturbation is a part of human sexuality and perhaps should be a topic of study.

Critics of sexuality education believe that exposure of young people to sex education leads to promiscuity and threatens traditional family values. They are also concerned about the lack of well-trained instructors. Opponents are worried that the current curricula stress the physical aspects rather than the moral issues of sexuality education. They claim that sexuality education has not been able to solve the problem of teenage pregnancies and sexually transmitted diseases. They argue instead for no sexuality education in school or a sexuality education curriculum that promotes abstinence.

Part of the controversy over sexuality education lies in the fact that people define it in different ways. Reflecting the range of positions held about sexuality education from the most

conservative to the most liberal are those who opt for abstinence-only-until-marriage programs to those who opt for abstinence-plus/comprehensive programs. The new rubric of "marriage education" has entered our pedagogical vocabulary to take its place alongside other specialized educations. Those who advocate abstinence-only allow for no sexuality topics beyond abstinence. They decry so-called "safe sex" approaches. Organizations included in the abstinence-only column are Choosing the Best, the Family Research Council, and the Medical Institute for Sexual Health.

Included in an abstinence-plus/comprehensive approach is the basic position of abstinence combined with study of other factors that encourage safe sex and reduction of risky behaviors. Proponents of abstinence plus/comprehensive programs include the American Alliance for Health, Physical Education, Recreation and Dance; the American Public Health Association; the American School Health Association; the National Coalition to Support Sexuality Education; and the Sexuality Information and Education Council of the United States.

Although some critics argue that education about sex should be the parents' responsibility, repeated polls confirm that a sizable majority of the public look to the schools for imparting both sexuality information and values to American children and young adults.

Curriculum planners are likely to encounter controversy whatever position they take with regard to sexuality education. If they put sexuality education in the schools, some community residents will object to its presence in the curriculum. If they ignore sexuality education, critics say the schools are neglecting their responsibilities and not meeting the needs of learners or society. If they establish a purely biological approach to sexuality education or try to teach sexual content in a value-free context, criticism arises because the school has omitted the moral aspects of the subject, and many people contend that the moral dimension is more important than the biological. If they introduce moral education—that is, values—which values will be taught? For example, shall the school condemn, condone, or ignore artificial birth control measures?

Schools have been challenged for including discussion of homosexual behavior in their curricula and conversely for omitting or poorly treating the topic of homosexuality. Some schools have tried to find a middle ground by allowing teachers to discuss controversial topics if they are raised by the students but not permitting introduction and teaching of the topic.

School-Based Health Centers/Clinics.   Examples of controversies over school health services exist in the presence of school-based health clinics and distribution of condoms, measures designed to cope with the problems of teenage pregnancies, births, abortions, and sexually transmitted diseases. Viewing school-based primary health centers as "one of the building blocks of full-service schools," Joy G. Dryfoos defined in 1993 a full-service school as a school that "integrates education, medical, social, and/or human services that are beneficial to meeting the needs of children and youth."[111] Dryfoos saw the full-service school as a "seamless institution" providing quality education and services through school and community collaboration.[112] School-based clinics or health centers are a fundamental manifestation of the full-service school. Whereas Dryfoos made note of only ten school-based clinics in 1983,[113] the U.S. Department of Health and Human Services noted that grants to school-based health centers under the Affordable Care Act of 2010 were adding some 440,000 patients to some 790,000 patients already being served by school-based health centers throughout the country.[114]

Part-time and full-time physicians and other health personnel provide physical examinations and much-needed information and counseling about health problems and family planning. Clinics have been established at elementary, middle, and secondary school levels. The dispensing of contraceptives or prescriptions for contraceptives and pertinent counseling to

middle and high school students are particular points of conflict between the school and community. Some religious, political, and ethnic groups have strongly protested contraceptive services. The National Conference of Catholic Bishops, for example, has repeatedly protested the distribution of contraceptives in the public schools and is against abortion. As a result of opposition from parents and religious and political organizations, distribution of condoms has not been universal in U.S. schools.

School systems in Canada have provided both contraceptives and counseling through their school clinics. In the winter of 1999, the French government authorized school nurses to distribute morning-after pills to teenage girls. In the fall of 1990, Baltimore became one of the first cities in the United States to distribute both birth control pills and condoms in its middle and high schools. In the spring of 1991, the New York City Board of Education, in spite of objections from religious groups, approved a plan to distribute condoms in its high schools beginning in the fall of 1991. The Philadelphia school board took a similar action in the summer of 1991. Among urban school systems that make condoms available to youth are Chicago, Los Angeles, Miami, and Washington.

The New York Supreme Court may have set a precedent for other areas in its decision that students did not have to obtain parental consent to receive condoms.[115] In spite of the controversial nature of condom distribution, as long ago as 1993 41 percent of the public surveyed by the 25th Annual Phi Delta Kappa/Gallup Poll supported distribution of condoms to all students who want them, while another 19 percent approved distribution with parental consent.[116] The American Academy of Pediatrics concluded in 2001, and reaffirmed its conclusion in 2005, that there is no evidence that programs of condom use and availability lead to increased adolescent sexual activity.[117]

Educators and the public, by and large, agree that the school has some responsibility for helping young people develop the knowledge and attitudes necessary to preserve and improve their own and the nation's health. Thus, exemplifying the principle of adaptation of the curriculum to the needs of the learners, society, the times, and the subject matter, schools have modified their curricula of health education, science, and the social studies to incorporate study of critical health and social problems.

Curriculum planners can make a convincing argument that the preservation of the health and well-being of the American people (and, therefore, the nation) is the most basic survival skill of all. In urgency, it surpasses thinking skills, reading, writing, and arithmetic. In spite of challenges, sexuality education has become a staple of today's curriculum. One strategy in handling complaints by parents about the sexuality curriculum is to allow students to opt out of the course or the part of the course that deals with sexual topics. Schools face a continuing struggle in imparting sexuality education given the pervasive sexual imagery throughout society and the sexual content of movies, television, and music. For reasons basic to their cultures, Western European nations demonstrate more acceptance of teen sex, distribution of contraceptives, and sexuality education.

Deborah P. Britzman posed a thoughtful question about sexuality education: "Shall we admit that nothing about sex education is easy and that, if the direction is to make a curriculum that both forgets the difficulty of knowledge and does not incite curiosity, sex education will continue to signify 'our passion for ignorance'?"[118]

While we examine the highly contentious issue of sexuality education, we must not ignore other issues in health and physical education. To combat the modern malady of obesity, schools are paying closer attention to food and drinks served in the school cafeteria, offered as classroom treats, and available in vending machines. Team Nutrition Training Grants offered to the states through the U.S. Department of Agriculture provide training and assistance to school

foodservice professionals in order for them to provide healthy and appetizing meals, nutrition education, and promotion of support for healthy meals and physical activity.[119]

Of concern, too, is the reduction or absence of physical education in the schools, including the limitation or outright elimination of the time-honored practice of recess in elementary school. Not only is time for play and recess giving way to current efforts to improve student academic achievement, but also traditional childhood games like tag are being abandoned for fear of injuries. Hence, although public sentiment generally supports incorporating efforts into health education to safeguard and improve the physical and mental well-being of students, controversy in this area of the curriculum seems never to be completely dispelled.

7. Multiculturalism/Diversity

Among the more polarizing issues in education—ranking right along with religion—is the issue most commonly referred to as *multiculturalism* or *diversity*. The 2010 U.S. Census data cited previously reveal the rapid growth of minority populations. More than one-third of the total U.S. population are minority populations. At 16 percent, Hispanics or Latinos make up the largest minority. Blacks or African Americans, at close to 13 percent of the total population, constitute the next largest racial minority. Asians, the fastest growing minority group between 2000 and 2010, account for almost 5 percent, placing them as the third largest.[120]

RACIAL/ETHNIC INTEGRATION.   Ever since the decision more than fifty years ago in the case of *Brown v. Board of Education of Topeka, Kansas*,[121] in which the U.S. Supreme Court invalidated the "separate-but-equal" practices permitted by the 1896 *Plessy v. Ferguson* decision[122] and ruled segregation of the races unconstitutional, efforts have been under way to racially integrate the schools. Problem areas have included curriculum materials that were slanted toward white, middle-class culture to teaching methods, testing, and administrative practices such as busing, desegregation of faculties, and methods of discipline.

More than four decades ago, sociologist James S. Coleman surveyed some 4,000 elementary and secondary schools, 60,000 teachers, and 600,000 students to determine the extent and sources of inequality of educational opportunity among ethnic groups.[123] Authorized by the 1964 Civil Rights Act, the Coleman Report, which was issued in 1966, supported the desegregation of schools. Coleman concluded that achievement of students is influenced first by their social environment (families and peers); second, by their teachers; and third, by nonpersonal resources such as per pupil expenditures on education. A dozen years later, after observing the operation of schools that had been integrated, Coleman concluded that integration per se does not necessarily increase the achievement of black students. He remained committed to integration but maintained that parents should choose whether black students attend integrated schools.

That not all black parents have been satisfied with progress made by their children in the public schools is evidenced by the suit brought in 1986 by eight families, including Linda Brown Smith (of the 1954 *Brown v. Board of Education* decision), once again against the board of education of Topeka, Kansas. At issue was the contention by the black families that Topeka had not done enough to desegregate its schools. U.S. District Court Judge Richard D. Rogers ruled in the spring of 1987 against the plaintiffs, a decision that was reversed by a three-judge panel of the Tenth U.S. Circuit Court of Appeals in December 1989, in effect holding that segregation still existed in the Topeka schools.

Busing, primarily of black children to predominantly white schools, has been a frequent court-ordered remedy since the U.S. Supreme Court's 1971 decision in the North Carolina case

of *Swann v. Charlotte-Mecklenburg Board of Education*, which required desegregation "with all deliberate speed."[124] The trend, however, is clearly away from court-ordered busing for purposes of integrating the schools. Busing plans to desegregate have been or are being ended in communities across the country from Seattle to Boston, a center of angry protest over the desegregation plan mandated by the U.S. District Court in 1974. In the pivotal case of the Charlotte-Mecklenburg schools, after thirty years of court-ordered busing to achieve racial balance, the Fourth Circuit Court of Appeal in 2001 ordered the school system to discontinue busing. The following year, the U.S. Supreme Court refused to hear the appeal from the circuit court, in effect allowing the circuit court decision to stand.

Ruling on the Little Rock, Arkansas, desegregation plan, a federal judge of the U.S. District Court of Eastern Arkansas in February 2007 released from federal supervision the Little Rock, Arkansas, school district, scene of President Dwight Eisenhower's 1957 order for troops to escort nine black students into Central High School. Although federal oversight to ensure that school districts become "unitary" (i.e., without traces of segregation) has diminished, school systems are still grappling with the problem of integrating schools. In 2006, the U.S. Supreme Court had before it two cases—one from Seattle and one from Louisville, Kentucky—contesting the constitutionality of their use of race as a factor in assigning or denying students the school of their choice.

Examining national data for the year 2000–2001, researchers for Harvard's Civil Rights Project concluded that as the courts ended desegregation plans, the public schools were becoming resegregated. The researchers discovered at that time that nearly 40 percent of public school enrollments were minority students; the white students were most segregated; Latinos were the most segregated minority; and Asians the most integrated minority.[125]

In spite of efforts to integrate the schools racially, segregation continues especially in urban areas where whites are opting to send their children to high-performing public, charter, private, or parochial schools or to school their children at home. Adding a subtitle to his book, *The Shame of the Nation*, Jonathan Kozol labeled the existence of segregated and resegregated schools in inner-city neighborhoods as *The Restoration of Apartheid Schooling in America.*[126] On the horizon are efforts of some schools to narrow the achievement gap among ethnic groups through socioeconomic rather than racial integration.[127] Using sociometric rather than racial criteria has gained currency in the light of the U.S. Supreme Court decision of June 2007, which prevented school districts no longer under court order to desegregate from using race as a factor in assigning students in order to achieve diversity in their schools.

The magnet school has provided a partial solution to the problem of multicultural student bodies in urban settings. The laudable concept of the magnet school, however, has itself been attacked for splitting the community. To reduce racial conflict and prevent racial problems from arising, many school systems have established multiracial committees whose task it is to recommend solutions to tensions and incidents of conflict among racial groups. Multiracial committees and entire faculties find that, in order to eliminate negative attitudes and conflicts, they must analyze all aspects of the school, including the "hidden curriculum"—the school climate, social relationships among individuals and groups, values and attitudes held by both students and faculty, rules on student conduct, unspoken expectations, and unwritten codes of conduct.

NEW CURRICULUM RESPONSES.   The thrust of desegregation efforts is shifting away from the physical movement of pupils to secure racial balance in the schools toward reconstruction of the curriculum. Demands are increasing for the institution of "Afrocentric" curricula that would feature contributions made by early African civilizations before colonial powers expanded into the continent. Proponents of Afrocentric programs feel that the schools have placed too much emphasis

on European achievements and culture. They point to Africa as the birthplace of humankind; cite African achievements in the fine arts, mathematics, and science; and take the position that the school curriculum ignores or minimizes the contributions of African civilizations. An ostensible purpose of Afrocentric curricula is to enhance black students' pride in their ethnic origins.

Like bilingual education, *other-centric curricula*—which some people call a "curriculum of inclusion"—are an issue that goes to the heart of the debate over cultural pluralism versus the melting pot of acculturation. Should the curriculum reflect and equate all cultures, maintaining their separate identities and creating a mosaic or "fruit salad," as some people term it, or should schools seek to develop citizens who manifest values of a common, national American culture? For example, the Portland, Oregon, school system has promoted multicultural/multiethnic education through its *Baseline Essay Project*, which presents contributions attributed to various ethnic groups.[128] Educators are found on both the supporting and the opposing sides of the debate over ethnocentric curricula in the schools.

Among recent plans to address the needs of black students and to develop nonblack students' understanding of black culture and history is Philadelphia's course in African American history required of all high school students. A more extensive overhaul of both the curriculum and school organization was Nebraska's plan in 2006 to divide the Omaha school district into three districts along ethnic lines—black, Hispanic, and white.

Questions have been raised, however, about the historical interpretation of some of the content presented in some of the Afrocentric curricula. In addition, some educators are concerned about the extent to which ethnocentric curricula will further fragment the curriculum. Will there need to be ethnocentric curricula to reflect every culture represented in the public schools?

Cultural Diversity.   Like so many concepts in education, multiculturalism can be and is interpreted in a variety of ways, ranging from students' learning to work together and appreciate each other's culture or, as Kenneth T. Henson defined it,

> *Multiculturalism* refers to establishing and maintaining a classroom climate where students
> with many differences in background, potential, and challenges learn to work with all of their
> classmates and learn to appreciate their uniqueness.[129]

to the title of Christine E. Sleeter's book *Multicultural Education as Social Activism*[130] or, as James A. Banks expressed the goal of multicultural education, "to reform schools, colleges, and universities so that students from diverse racial, ethnic, and social-class groups will experience educational equality."[131]

The core issue in multiculturalism or cultural diversity is the struggle for predominance between the melting-pot and salad-bowl concepts. Those who champion a melting-pot concept point to the eventual assimilation of early immigrant groups—the Irish, the Italians, the Poles, the Germans, the Scandinavians, Asians, and others—into the American culture. Lilian and Oscar Handlin viewed the social reforms of the Great Society of the 1960s as resulting in supplanting equality of opportunity with equality of results, a breakdown in traditional family and social values, a splintering of homogeneity in America into numerous subgroups, the rejection of responsibility for one's actions and the portrayal of self as victim, the identification of success in terms of group affiliation instead of individual achievement, and the reinterpretation of American history.[132] Speaking of multiculturalism, the Handlins said:

> By denigrating the very core of traditional American middle-class education, in favor of the
> mores of the social margins, multiculturists effectively robbed students of the few tools useful
> for their future that schools could impart.[133]

Less accepting of the melting-pot concept are Hispanics and blacks. Typical of challenges to the melting-pot concept is the comment by Hugh B. Price:

> The trouble is that the melting pot works only at the margins and only in some aspects of life. It seldom works socially and has succeeded in education and the labor market only under duress. It took decades of political, judicial, and legislative pressure to include some, and only some, minorities and women in the melting pot.[134]

Jeannie Oakes saw melting as "almost entirely in one direction"—Americanization of immigrants "in the sense of conformity to white Anglo-Saxon mores."[135]

Advocates of cultural diversity feel that multicultural education should permeate the curriculum, but not just in English and social studies, the more common fields for study of diverse cultures. Most educators concede that the public schools have done a poor job of teaching about the contributions of ethnic groups. Educators generally endorse and promote inclusion of information about the contributions of males and females of all races, creeds, ethnic groups, and national origins. Responding to the belief that our curriculum is too European-centered, the Miami-Dade school system provided in 2002 a K–12 African American Values curriculum, and the state of Massachusetts mandated the study of non-Western civilizations in its history curriculum. However, some educators state that just adding ethnocentric and multicultural content to achieve this purpose is not sufficient because it simply superimposes this content on a traditional, white, male, Anglo, middle-class curriculum structure.

Addressing selection of content in the schools, Britzman concluded:

> The liberal arts canon, or the body of knowledge deemed "sacred and great," valorizes the worldviews of white male writers to the extent of significantly excluding all other views. The presentation of European and North American white male authors as the faithful transmitters of universal experience obscures their cultural specificity, socio-historical context, and political interests served and perpetuated by the canon's selective biases.[136]

Skirmishes over content of the English literature courses at the college level pit the traditionalists who favor the classic authors ("dead white men," to their critics) against the postmodernists who prefer contemporary authors who reflect cultural diversity and changes in modern society. Geneva Gay, in an earlier writing, advocated *curriculum desegregation* as a means of achieving educational equality.[137] Gay classified efforts to construct curricula for culturally diverse populations as first-, second-, and third-generation curriculum desegregation. According to Gay's classification, the first generation introduced the study of the contributions of ethnic personalities; revision of textbooks to eliminate bias against and stereotypes of minorities and women; and programs such as compensatory education, Head Start, Upward Bound, and cultural enrichment. The second generation incorporated bilingual education, multicultural education, provisions for the handicapped, and efforts to eliminate sex discrimination. Gay noted that neither the first- nor the second-generation curriculum desegregation efforts changed the basic structure of the curriculum. The third and current generation of curriculum desegregation must, according to Gay, subscribe to the principle that "a pluralistic ideology must replace an assimilationist orientation" and work toward the goal of "ultimately making American society more genuinely egalitarian."[138] Gay set forth a difficult task for the schools:

> [A]nything short of total instructional reform is likely to be ineffective. . . . [E]ducational equality for diverse learners cannot be achieved within the existing curriculum structures and

with present assumptions about what are valuable educational outcomes. At their very core these structures and assumptions are ethnocentric and discriminatory. . . . [T]he foundations of curriculum . . . must become culturally pluralistic. . . . Multiculturalism should be the driving force of subsequent efforts to desegregate school curricul.[139]

The implementation of multicultural curricula has not always come easily, as evidenced by New York City's experience with the initial draft of its *Children of the Rainbow* curriculum guides, the first of which appeared in 1990. Opponents charged that multicultural curricula conflicted with parental rights, featured unacceptable lifestyles, inappropriately dealt with social issues, and departed from the basic skills.[140] In a much different vein, the Oakland, California, school board created a furor at the tail end of the 1990s with its decision to declare Black English, otherwise known as Ebonics, a second language. This move was widely condemned by both prominent blacks and whites as an impediment to black students' learning Standard English. Language specialists have held Black English to be a dialect of American English and not a foreign language. The Oakland board clarified the intent of its decision as creation of a path toward learning Standard English, not incorporation of Black English into the curriculum as a foreign language to be taught and learned. Hawaii, too, faces its own linguistic difficulties as it wrestles with the use of Pidgin English, which some hold as detrimental to learning Standard English.

ALL-MALE, PRIMARILY BLACK SCHOOLS.   Alternative education took on a new aspect in 1990 with Milwaukee's plans to create within the public school system two African American Immersion Schools (one elementary and one middle school). New York City drew up plans for the Ujamaa Institute, which would also focus on programs for black male students. To counter objections to the planned schools, proponents argued that the schools, located in the inner city, already have an entirely African American student body. Opponents point out that the schools may still violate Title IX of the Educational Amendments of 1972, which outlawed discrimination based on gender. In fact, in the fall of 1991, Detroit had planned to open three schools, open to males of all races, with an African American curricular emphasis. The American Civil Liberties Union (ACLU) and the National Organization for Women (NOW) brought suit, objecting to the exclusion of girls. In August 1991 U.S. District Court Judge George Woods ruled that the schools could not open unless females were also admitted. So that the schools might open, the Detroit school board agreed to admit girls. Currently, as noted earlier in this chapter, school systems still have at varying levels of creation both single-sex classrooms and schools and schools or curricula exclusively or predominantly black oriented. We still find segregation in the schools—if not still *de jure*, by law, then *de fact*o, by choice, plan, or location within a school district.

DEALING WITH CULTURAL DIVERSITY.   Determining what responses the schools should make to the cultural diversity of our population is one of the greatest challenges for curriculum workers. The issue of multiculturalism and plural values versus cultural mainstreaming and common values has grown in intensity on both public school and college campuses. The issue is entangled in a myriad of social, political, economic, educational, philosophical, secular, and religious values. Banks advocated the teaching of social justice issues in addition to the basic skills.[141]

On the positive side, all the recent efforts to empower ethnic minorities and women prove that educators are searching for ways to educate all children and raise the achievement level of

those individuals and groups who are not now succeeding in the schools. Banks commented, however, that "the United States is still a long way from realizing the ideals expressed in the Declaration of Independence in 1776."[142]

Citing George Washington's concept of *e pluribus unum*, that is, the creation of a unified people through assimilation of immigrants in American customs, Arthur M. Schlesinger, Jr. observed:

> Our task is to combine due appreciation of the splendid diversity of the nation with due emphasis on the great unifying Western ideas of individual freedom, political democracy, and human rights.[143]

Commented Schlesinger in 1992, "If the republic now turns away from Washington's old goal of 'one people,' what is its future?—disintegration of the national community, apartheid, Balkanization, tribalization?"[144] In widely quoted remarks made before the Knights of Columbus in New York City in 1915, Theodore Roosevelt asserted in strong terms his belief that "there is no room in this country for hyphenated Americanism . . . The one absolutely certain way of bringing this nation to ruin . . . would be to permit it to become a tangle of squabbling nationalities."[145] In a similar vein, Patrick J. Buchanan in 2006 held that our nation was risking Balkanization.[146]

Promoting cultural diversity by increasing minority participation in education, business, and government has been the controversial practice of affirmative action. The issue of cultural diversity on university campuses loomed large in three landmark affirmative-action cases brought to the U.S. Supreme Court by white plaintiffs. In the case of the *Regents of the University of California v. Bakke*,[147] the Supreme Court in 1978 ruled that race could be considered in admitting students, in this case to the medical school at Davis, in order to achieve campus diversity, but quotas could not be used. In two cases before it in 2003 from the University of Michigan (*Grutter v. Bollinger et al.* and *Gratz et al. v. Bollinger et al.*),[148] the Supreme Court reaffirmed the *Bakke* decision allowing race to be considered for admission, in these cases to the law and undergraduate schools, respectively, but without allocating points or quotas to minorities.

Speaking to the question of affirmative action, a proposed amendment to the State of Michigan constitution before the voters in November 2006 banned affirmative action.[149] In 2011, however, the U.S. Court of Appeals of the Sixth Circuit ruled unconstitutional Michigan's ban on affirmative action.[150]

A partial solution to minority entrance into colleges and universities is a guarantee by some states to admit students who rank in the top percentage of their high school class. The College Board has weighed in on the problem of cultural factors that some minorities experience when taking tests by creating SAT II, which tests in particular subjects and in the test-takers' languages.

Yet to be resolved, however, is the question of whether affirmative action should be abandoned entirely or continue to apply primarily to African Americans for reasons of historic discrimination, or whether it should apply across the board to all minorities that are experiencing discrimination.

As the minority populations increase through domestic births and immigration, we may expect to see increased attention to multicultural education. Paul R. Burden and David M. Byrd offered precautionary advice when they wrote, "As you consider individual differences produced by cultural diversity, you should examine your own values and beliefs for evidences of bias and stereotyping."[151]

Banks would have the school teach about both American ideals and American realities, saying, "In a democratic curriculum, students need to be taught about and have opportunities

to acquire American democratic values at the same time learning about American realities that challenge these ideals, such as discrimination based on race, gender, and social class."[152]

Perhaps we need to think about multiculturalism today as not only a domestic but also a global issue—especially when, as mentioned earlier in this chapter, Americans are outsourcing education for their children by turning to online tutors across the globe. We can certainly find both support for and antagonism to the globalization and outsourcing of our American industries. Some people feel that we need to learn to live with this development; others would curtail the movement of our industries abroad, protecting American labor. According to some opponents of the contemporary world culture, even the label of "international," as in "International Baccalaureate," smacks of anti-Americanism. Nevertheless, many educators realize that schools must equip students with skills needed to compete and survive in the developing global economy. Foreign-language instruction is generally agreed on as one manifestation of twenty-first-century needs to help students compete in the global marketplace. However, maintenance of enrollments in foreign languages in the public schools currently faces struggles in the light of tightening state education budgets. Although Spanish by necessity remains a high priority, we find Chinese and Arabic among preferred language instruction. In 2006 President George W. Bush took note of the shortage of speakers of nontraditional foreign languages such as Arabic, Chinese, Japanese, and Korean by launching the National Security Language Initiative, designed to educate students, teachers, and government workers in critically needed foreign languages.[153]

Opinions differ not only on definitions of multiculturalism but also on what the schools' responses to this issue should be. Turner County (Georgia) High School seniors, for example, in April 2007 made national news with their response to multiculturalism: holding for the first time an integrated school-sponsored prom.

Schools debate how best to provide for the education of school populations in which some 44.2 percent in 2008–2009 were eligible for free and reduced-price lunches[154] and which are composed of many ethnic groups, including immigrants from all over the world.

8. Privatization

Privatization as applied to education in its essence is the shift from public to private control of schools. To some the ideal form of education is a free-market system that allows parents to choose the schools their children will attend. Gerald W. Bracey, however, viewed privatization as the commercializing of education, a "war against America's public schools."[155]

Privatization presumes that education management organizations (EMOs), following free-market business principles and released from restrictions imposed by state and locality, can be more successful in terms of student achievement than the present governmental system of school administration and supervision. Further, EMOs are a response to the public's desire for school choice. Dissatisfaction with public schools, disenchantment with government generally, calls for educational reform, and adherence to a business philosophy have fostered the movement toward privatization. Privatization of heretofore governmental responsibilities now goes beyond the realm of schools into the expansion of private management of prisons as well as in the form of proposals to privatize Social Security and Medicare.

CONTRACTING.   Reminiscent of performance contracting in the late 1960s as exemplified by the Texarkana, Texas, schools,[156] public schools in the 1990s began turning noticeably to private organizations to manage their schools.

TesseracT Group. Dade County (Florida) and Baltimore, among other communities in the early 1990s, experimented with private education management by contracting with Educational Alternatives, Inc. (later known as the TesseracT Group), which viewed its arrangement with schools as a "public-private partnership" rather than privatization.[157] Educational Alternatives offered an instructional program called "TesseracT," encompassing a number of practices, including a constructivist approach to learning, whole language, use of technology, and in-service training of teachers.[158] Begun in 1986 with headquarters in Phoenix, Arizona, the TesseracT Group filed for reorganization in 2000 under bankruptcy law.[159]

EdisonLearning, Inc. Among the larger private managers of public schools, Edison Project, founded by Chris Whittle in 1992, began operation with four schools in 1995. Although statistics vary depending on contracts gained and lost in any year and sources of data, EdisonLearning, Inc., formerly the Edison Schools, a for-profit EMO, reported in 2011 serving through school partnerships more than 450,000 students in 25 states, the United Kingdom, and the Middle East. Among Edison Schools' responsibilities are management of charter schools and a variety of K–12 programs, including online education.[160] Characteristic of not only EdisonLearning's schools but also of other EMO schools are longer school days and longer school years.

Knowledge is Power Program (KIPP). Started in 1994 by Mike Feinberg and Dave Levin in a fifth-grade inner-city program in Houston and followed a year later with a middle school in South Bronx, the Knowledge Is Power Program (KIPP), a nonprofit EMO, offers a tuition-free, open-enrollment, college-prep public schools program in low-income settings. The KIPP schools feature long days, required Saturday classes, required summer school, and homework. The KIPP Foundation reported support to ninety-nine, almost all public, charter schools in twenty states and the District of Columbia.[161]

Contractual plans normally call for management of existing schools with existing faculty, with ultimate control retained by the school board. Contractual schools, unlike many charter schools, remain public schools albeit with private management, whereas independent for-profit charter schools of the EMOs hire their own faculty and provide their own curricula. In its annual report of nonprofit EMOs for the year 2009–2010, the National Education Policy Center (NEPC) reported 137 nonprofit EMOs in 26 states serving more than 237,000 students in more than 800 schools.[162] That same year, NEPC numbered 98 for-profit EMOs serving more than 350,000 students in 729 mostly charter primary schools in 31 states.[163]

Private entrepreneurs maintain that they can offer more efficient administration and improve student achievement at less cost than under public school management. Private operation of public schools has reaped both praise and criticism. Teachers have praised those schools where student achievement has risen and where teachers have experienced advantages of training in new techniques and help in the form of materials, equipment, and aides. Criticism has emanated from teachers, including their unions, who fault use of tax moneys in for-profit operations and differentials in funding. Controversy centers around results of student achievement, costs of operation, quality of facilities and teaching staff, and quality and quantity of materials and supplies.

Accountability will play a fundamental role in the cases of both the contractual and charter schools. Whether student achievement is enhanced under private management, and to what extent, and whether contracting is cost-effective must be clearly demonstrated over a period of time if this relationship with private enterprise is to continue. Private management must translate its goals into reality if it is to obtain and retain contracts or charters. In passing we should note that many school systems have already privatized food, custodial, and transportation services.

9. Provision for Exceptionalities

One of the earmarks of restructured schools is the effort to include as many pupils as possible who evidence special needs within the framework of the regular class. In this category are students with learning difficulties, emotional disorders, educational deficiencies, and physical and mental impairment. Although *special education* often takes on the connotation of programs for students with disabilities of one type or another, the broader concept of special needs today encompasses the gifted.

Early one-room schools functioned on a multiage, multigrade principle. As schools grew larger and graded, they cared for the needs of pupils in heterogeneous groups, retaining age of students as the primary form of grouping.

Through the mid-twentieth century, ability or homogeneous grouping became popular. Schools grouped students by intelligence and, in isolated cases, by achievement. Proponents of ability grouping, also known as tracking, claimed advantages for the teacher in handling groups where the range of abilities was narrowed. They felt that brighter students would not be held back by slower students and each group could move at its own pace. Critics maintained that ability grouping denies students the opportunity to associate with all kinds of students and leads to lowering of self-esteem of those placed in the slower sections. Whether we call the lower groups Section A or "The Bluebirds," students know that they have been placed in those groups because they are less able academically than pupils in the higher groups. Nor were the academic achievement results of ability grouping so superior to heterogeneous grouping as to merit this form of curriculum organization.

Ability grouping has been debated for many years. Today tracking of students is generally frowned on for both philosophical and pedagogical reasons. Many schools that had been tracking students have derailed those tracks in favor of heterogeneous models. This movement had often applied to gifted students who formerly were placed in separate classes for all or part of a day or even in separate schools. However, dual high school/college classes, enrollments in Advanced Placement and the International Baccalaureate, and even a separate school for gifted students now offer separate paths for the gifted. In one respect magnet schools continue a form of homogeneous grouping, not based on ability, of course, but on academic and vocational interests.

Key concepts in the handling of students with special needs are *mainstreaming* and *inclusion.* What curriculum worker has not yet encountered Public Law 94-192? This enactment of the U.S. Congress, the Education for All Handicapped Children Act of 1975, supplementing Section 504 of the Rehabilitation Act of 1973, was structured to eliminate discrimination against the physically or mentally challenged, including those with behavior disorders. Celebrating the thirtieth anniversary of the 1975 enactment of the Education for All Handicapped Children Act—which was retitled in 1990 as the Individuals with Disabilities Education Act (IDEA) and reauthorized again in 2004—the House of Representatives in November 2005 reaffirmed the success of the act in aiding children with disabilities. IDEA in the school year 2005–2006 served 6.7 million children and youth ages three to twenty-one. However, by 2008–2009 the number of children and youth served declined to 6.5 million.[164]

Conforming to P.L. 94-192, schools must make special provisions to ensure that all handicapped children receive a "free and appropriate" education. To accomplish this goal, schools must develop an individualized education plan (IEP) for every handicapped child. IEPs, which contain annual performance objectives for each child and must be reviewed each year, require a considerable amount of the faculty's time. Determining the appropriate educational program and the best placement for each child requires difficult judgments by teachers and administrators.

Until *Education for All Handicapped*, the common plan for treating students with special needs was pulling them out of classes or segregating them in their own classes. *Education for All Handicapped* called for placement of handicapped students in "the least restrictive environment." One manifestation of that principle is "mainstreaming"—that is, placement of students in regular classrooms with nonhandicapped children—unless their handicaps require special treatment or equipment or are so severe that they cannot be taught effectively in the regular classroom.

Educators still disagree, however, as to whether handicapped youngsters are best taught by placement in regular or special classes, in regular or special schools. At the present time the popular means of organizing the curriculum for students with special needs is *inclusion* or *full inclusion*, which broadens the concept of *mainstreaming.*

Ann T. Halvorsen and Thomas Neary defined *inclusion* in terms of *inclusive education* and distinguished it from *mainstreaming:*

> Inclusive education, according to its most basic definition, means that students with disabilities are supported and receive the specialized instruction delineated by their individualized education programs (IEPs) within the context of the core curriculum and general class activities. Mainstreaming, in contrast, confers a sort of "dual citizenship" on students who move between general and special education settings. . . .[165]

Although the literature on inclusion often refers to "students with disabilities," Suzanne E. Wade and Judy Zone made clear that, "When focusing on individuals with disabilities, advocates of inclusion seek to change the philosophy and structure of schools so that *all* students, despite differences in language, culture, ethnicity, economic status, gender, and ability, can be educated with their peers in the regular classroom in their neighborhood schools."[166] "Inclusion means," wrote Carol A. Kochhar, Lynda L. West, and Juliana M. Taymans, "children learning side by side although they may have different educational goals."[167]

Students in inclusive classrooms may be working on different materials and at a different rate, teachers may make use of resource specialists to help them, and pulling students out of class is still an option if a student is unmanageable or needs special treatment that cannot be provided in the regular class setting. Where we find agreement on the desirability for creating inclusive classes we can also often find disagreement on methods of implementation. Inclusive programs vary from placement of all students with disabilities in regular classes full time, to including students with special needs in regular classes part time, to admitting to regular classes those exceptional students whom the school deems able to profit from being included. In the last case the school system may retain special classes or even special schools for those who are not included. James McLeskey and Nancy L. Waldron saw "add-on programs" called "inclusion," as "superficial change," explaining, "This approach amounts to simply replicating special education services in the general education classroom, while keeping students with disabilities and their teacher substantially segregated from the learning community of the general education classroom. . . . This approach to 'inclusion' is reminiscent of the mainstreaming movement."[168] Some advocates of inclusion accept as their goal nothing less than full inclusion, embracing diversity of all types.

Accompanying inclusion are the concomitant concepts and practices of differentiated curriculum and differentiated instruction. Carol Ann Tomlinson and Jay McTighe speak of "Understanding by Design," which "focuses on what we teach and what assessment evidence we need to collect" and "Differentiated Instruction," which focuses on "whom we teach, where we teach, and how we teach."[169] In an earlier work Tomlinson contrasted the differences in approaches between traditional and differentiated classrooms, presenting the differentiated classroom column a

pedagogy designed to meet the needs of varying types and levels of learners. Speaking of teachers "who are most effective with differentiation," Tomlinson and Marcia B. Imbeau commented that "differentiation is not a set of strategies but rather a demographically necessary, ethically focused, pedagogically informed, and empirically tested way of thinking about the work they do."[170]

Some educators are concerned that parents of students who are not handicapped might charge that their children are being discriminated against by not having individualized education programs designed for them. Perhaps, at some distant time when all class sizes are more manageable and student achievement in reading, mathematics, and science meets state and national standards, schools might reach the admirable goal of individualizing education plans for all students.

Mainstreaming and inclusion have met with mixed reviews from educators. Teachers accept the premise that students with special needs can learn from each other—a premise of another restructuring program, cooperative learning. On the other hand, teachers point out the difficulties in differentiating instruction in the light of class loads, lack of help, and lack of time. The move to inclusive practices, as with most major changes, is not without objections from those responsible for implementing the change.

McLesky and Waldron attributed teachers' and principals' resistance to the substantive nature of the changes required. They pointed out that sometimes those teachers who are regarded as most effective and successful in terms of student achievement resist efforts at inclusion for fear that their classes' level of achievement would be lowered by admitting students with disabilities.[171]

It is apparent that shifting to an inclusive model of instruction necessitates fundamental modifications in school philosophy and practices. Legislation may well speed the move toward inclusive education. Laws providing for special needs of students furnish a clear illustration of the impact that federal legislation can have on the curriculum planner.

10. Religion in Public Education

In colonial America religion and education were symbiotic. The Latin grammar school prepared young men to teach and to preach. Protestants of various creeds settled in most of the colonies, and Roman Catholics settled in Maryland; clashes over Christian religious beliefs among the early colonists were inevitable. Conflicts were exacerbated over the years as immigrants of all faiths came to the New World, adding beliefs such as Judaism, Islam, Confucianism, Buddhism, Bahaism, and Shinto to those of the Native Americans and the early-arriving Christians.

There are so many varieties of Christians in the United States that it is difficult to count them. They include Baptists, Christian Scientists, Episcopalians, Greek Orthodox, Jehovah's Witnesses, Lutherans, Methodists, Mormons, Presbyterians, Roman Catholics, and Seventh-Day Adventists. Other religions also contain divisions: Judaism has Orthodox, Reform, Hasidic, and Sephardic groups. Sunni Moslem doctrine conflicts with Shiite doctrine. The Christian denominations have divided even further. For example, Lutherans of the Missouri Synod hold differing beliefs from the Evangelical Lutherans. The Free Will, Missionary, and Southern Baptists are but three segments of that large denomination. America also is home to agnostics, deists, humanists, Unitarians, and atheists.

Forty-five simple words, written in 1791, have generated hundreds of disputes over their meaning. Disagreements over these words continue to this day and may very well continue as long as the republic of the United States lasts. The words referred to are as follows:

> Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise theeof, or abridging the freedom of speech, or of the press, or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

These powerful words, known as the First Amendment to the U.S. Constitution, are the center of conflicts over freedom of religion, speech, press, and assembly. Almost daily there is news of a lawsuit that claims infringement of one or more of these freedoms.

The question of whether religion should be included in the public schools has evoked fiery debates over the years. Time and again the U.S. Supreme Court has reaffirmed the doctrine of separation of church and state. This doctrine has been attributed to Thomas Jefferson and James Madison in particular; it was Thomas Jefferson who wrote of the "wall of separation between church and state." The question of how high and how impregnable that wall should be has yet to be completely resolved. Decisions of the U.S. Supreme Court, the ultimate arbiter of constitutional issues, have kept that wall relatively high—much to the chagrin of those Americans who would like to see it fall and those who would fortify it even more. Those practices with religious connotations in the school that have most often necessitated court adjudication are prayer or reading of Bible passages in the classroom and at school-sponsored events, Bible study, use of public moneys to aid sectarian schools, released time for religious instruction off school grounds, celebration of religious holidays, teaching of evolution, values education, pledging allegiance to the American flag, permitting religious groups to meet in the school, posting of the Ten Commandments, and extracurricular activities that require a religious test for participation.

Decisions on the constitutionality of religious practices in the schools have frequently invoked the Fourteenth Amendment (due process), which has made the First Amendment binding on the states and had figured so prominently in early racial discrimination cases. From the wealth of U.S. Supreme Court decisions, in addition to those previously mentioned earlier in this text, the following appear to have special relevance for the public school curriculum. (The state of origin of each case is indicated in parentheses.)

- *West Virginia Board of Education v. Barnette*, 319 U.S. 624 (1943) (West Virginia). Ruled that Jehovah's Witnesses would not be required to salute the American flag.
- *People of the State of Illinois ex rel. McCollum v. Board of Education of School District No. 71, Champaign, Ill.*, 333 U.S. 203 (1948) (Illinois). Ruled that released time for religious instruction in the school was unconstitutional.
- *Zorach v. Clauson*, 343 U.S. 306 (1952) (New York). Ruled that released time for religious instruction off school grounds was permissible.
- *Engle v. Vitale*, 370 U.S. 421 (1962) (New York). Ruled that the prayer that originated with the New York State Board of Regents for use in the schools violated the principle of separation of church and state.
- *School District of Abington Township v. Schempp* (Pennsylvania) and *Murray v. Curlett* (Maryland), 374 U.S. 203 (1963). Ruled that readings from the Bible and recitation of the Lord's Prayer in the school were unconstitutional.
- *Wallace v. Jaffree*, 472 U.S. 38 (1985) (Alabama). The U.S. Supreme Court affirmed the decision of the U.S. Court of Appeals, which had reversed an earlier ruling by the U.S. District Court that had allowed Alabama schools to hold a period of silence for meditation or voluntary prayer.
- *Bender v. Williamsport Area School District*, 475 U.S. 534 (1986) (Pennsylvania). The U.S. Supreme Court let stand the federal district court's decision that under P.L. 98-377, the Equal Access Act of 1984, religious groups made up of students in the high school could meet at that school if other student groups also had access to the school's facilities. The Supreme Court in June 1993 ruled, in *Lamb's Chapel v. Center Moriches Union Free School District*, 124 L. Ed. 2d 352 (1993) (New York), that religious groups could meet after school hours if the schools were open to other groups from the community.

Prayer, Bible reading, and Bible study, held unconstitutional practices, remained volatile issues in the mid- and late 1990s. In June 1992 the U.S. Supreme Court in *Lee v. Weisman*, 505 U.S. 577 (1992) (Rhode Island), upheld an appellate court ban on school-sponsored, clergy-delivered prayer at graduation, even though the prayer was nonsectarian and attendance was voluntary. Hailing the decision were the American Civil Liberties Union and Americans United for Separation of Church and State. Critical of the decision were the Christian Coalition and Liberty Counsel. A flurry of court cases followed *Lee v. Weisman.* In early June 1993 the Supreme Court refused to hear the Texas case *Jones v. Clear Creek Independent School District*, 977 F.2d 963 (5th Cir. 1992), in which the appellate court had ruled in favor of student-led school prayer. Later that same month a federal district judge in New Jersey allowed student-led prayer. The ACLU immediately appealed to the Third Circuit Court in Philadelphia, which blocked student-led prayer at two high schools in Camden County, New Jersey.

In one form or another, the issue of prayer in the school has been raised repeatedly in the courts. In *Santa Fe Independent School District v. Doe*, (99-62) 530 U.S. 290 (2000) 168F. 3rd 806, affirmed (Texas), the U.S. Supreme Court ruled against student-led prayer at football games. On the other hand, after the Eleventh Circuit Court of Appeals had ruled in the case of *Adler v. Duval County School Board*, 206 F.3d 1070 (11th Cir. 2000) (Florida), that a student chosen by his or her peers could include prayer in a talk at graduation, the U.S. Supreme Court in December 2002 sent the case back to the Circuit Court of Appeals for reconsideration in light of *Santa Fe Independent School District v. Doe.*

Members of the U.S. Congress, mainly Republicans, in 1995 and again in 1999 considered launching an amendment to the U.S. Constitution that would sanction prayer in the public schools, a move opposed by the American Bar Association, among others. Efforts by states and localities to find substitutes for organized, school-sanctioned prayer are a moment of silence for reflection or silent prayer; voluntary, student-planned, student-led prayer at nonmandatory events; prayer and Bible reading before or after school in the school building or around the flagpole; and permission for religious clubs to meet on campus. Released time for religious instruction off campus remains a viable option in some states.

Carl D. Glickman contrasted the protagonists in the battles over religion in the schools:

> One group, identified as the secular humanists, says that public education and religion should never be mixed. . . . The other group, identified as religious fundamentalists, argue that America is a Christian nation and that Christian values are essential for a moral, ethical, and responsible society.[172]

Warmly contested in the early years of the twenty-first century are inclusion of the phrase "under God" during the recitation of the Pledge of Allegiance and the posting of the Ten Commandments and "In God We Trust" plaques throughout the school. The Ninth U.S. Circuit Court of Appeals in 2002 ruled that "under God," two words inserted in the Pledge of Allegiance in 1954, violated the principle of separation of church and state and ordered discontinuance of the pledge in schools. The Circuit Court, however, held implementation of the decision in abeyance pending appeals.

Although the U.S. Supreme Court ruled in *Stone et al. v. Graham*, 449 U.S. 39 (1980), that the Kentucky statute to post copies of the Ten Commandments in public school classrooms was unconstitutional, the U.S. House of Representatives in 1999 passed legislation (later rejected by the Senate) permitting display of the Ten Commandments in public schools

and public buildings. In a similar vein, two years later Maryland legislators rejected a proposal to post "In God We Trust" signs in school classrooms, yet Mississippi mandated their posting and Virginia permitted schools to do so. Proponents of prayer and Bible reading in the public schools find it difficult to understand why a government founded on religious principles would declare religious practices in the schools unconstitutional. They maintain that the founding fathers had no antagonism toward religion, but rather sought to prevent the federal government from establishing a national religion. They point out that state and national legislatures make references to God, the Declaration of Independence addresses "Divine Providence," and our currency contains the phrase "In God We Trust." Those who argue for religious practices in the schools, however, often assume a largely Protestant ethic. They downplay the pluralistic nature of our society and the fact that many beliefs—including non-Christian religions—are now represented in the public schools. Jewish parents and children find the New Testament unacceptable. Catholics read from Catholic versions of the Bible, such as the Vulgate or Douay-Rheims, rather than the Protestant King James Version or one of the many other revised versions. Moslems' holy book is the Koran.

Advocates of the separation of church and state note that *Pierce v. Society of Sisters* gave believers the right to send their children to private parochial schools where a religiously homogeneous student population can be instructed in the beliefs of that particular sect. Furthermore, they maintain that the wall of separation between church and state protects not only the freedom of religion but also the freedom from religion.

Conflicts over the separation of church and state abound. Argument swirls around the use of taxpayer moneys to provide vouchers for use in religious schools. For example, whereas the Wisconsin Supreme Court in 1998 sanctioned the use of taxpayer money to allow Milwaukee children (through its Parent Choice Program) to attend religious schools, overturning a ruling of the Fourth District Court of Appeals, the Maine Supreme Judicial Court in the spring of 2006 held that Maine's law against use of public moneys to fund tuition to religious private schools was constitutional. The following fall the U.S. Supreme Court declined to hear an appeal of the Maine case, thereby letting stand the decision of the Maine court.

We can cite additional examples of continuing controversies over religion in education in the first two decades of the twenty-first century:

- The Virginia Senate approved a bill in February 2000 requiring a minute of silent meditation daily in its schools in place of reading a prayer.
- Virginia's House of Delegates proposed a constitutional amendment in 2005 that would permit prayer on all public property, including schools.
- A Brevard County, Florida, school faced suit in 2005 when it scheduled graduation ceremonies at a Christian church that refused to cover its cross. Although the judge permitted the ceremonies because of the short timing, he indicated that a church location was not appropriate and should not be used in the future.
- The Ohio legislature passed a law in 2006 requiring public schools to post donated copies of the national motto "In God We Trust" and the state motto "With God All Things Are Possible."
- A high school in Nevada made news and incurred a lawsuit in 2006 when the commencement address of the school valedictorian was cut off up on her insertion of religious content into her speech.

- The Southern Baptist Convention in summer 2006 rejected a resolution urging parents to withdraw their children from public schools and send them to private schools or school them at home.
- A federal district judge in 2007 ruled that a fourth-grader's constitutional rights in a New York State elementary school had been violated when the school denied her permission to distribute a religious message during noninstructional time.
- The U.S. Supreme Court in 2011 upheld Arizona's plan which grants taxpayers tax credits toward student attendance at private and religious schools.

The use of the Bible in the curriculum can create dissension. The objectives in offering a course in the Bible or readings therefrom for purposes other than prayer range from studying the Bible as the word of God, as an important historical document, or as a great work of literature. Some of those who would ban the use of the Bible in the curriculum perceive its study as proselytizing.

Whenever religious instruction arises in public education it faces protests unless it (1) takes into consideration the fact that today's classes are multicultural with students holding a wide range of beliefs about religion and (2) is taught objectively—not from a sectarian point of view nor from a claim to historical accuracy—but rather with the Bible as a piece of literature that has affected the lives of people, both Christians and non-Christians. Even the distribution of Bibles in school, as by Gideons International, has been held unconstitutional.

Increasingly, educators and others are expressing concern over the schools' failure to include instruction about the contributions and effects of religion throughout the history of the United States and the world. Some teachers and authors of textbooks, fearful that they may offend people's sensitivities, veer away from religion entirely. Many students, therefore, are to a large extent ignorant of the importance of religion in the development of this country. Glickman expressed the concern that "we haven't acknowledged that there is a common core of virtue for American education, rooted in religious, spiritual, and private conscience."[173] Noting the deplorable lack of knowledge about fundamentals of religion and its importance in our society, Stephen Prothero stressed the need for classes in religious literacy.[174]

A relevant curriculum would incorporate the study of both Bible literacy and comparative religions as a part of the general education of every student. Such a curriculum would focus on teaching about religion, not the teaching of religion. A person cannot fully appreciate the arts, literature, history, psychology, philosophy, or sociology—or even science, with which religion is often at odds—without studying the influence of religion on these areas of human endeavor. Certainly, students should gain familiarity with the world's great masterpieces of religious literature. A knowledge about religion is one attribute of the culturally literate person. Christians who promote the use of the Bible in the curriculum for sectarian purposes are not enamored with comparative religion or world religion courses that place the Bible on an equal footing with other sectarian texts.

A 2005 survey by the Bible Literacy Project found that English teachers believed knowledge of the Bible was important to students, while an accompanying Gallup poll revealed that young people lacked biblical knowledge.[175] Mindful of the contribution of the Bible to civilization and literature, high schools are offering elective courses in biblical literacy and history. The Georgia Board of Education made news in 2007 when it enabled Georgia to become the first state to both approve and fund elective courses in the Literature and History of the Old and New Testaments,[176] authorizing local school districts to offer nondevotional Bible electives. Controversy can arise, however, over Bible courses even if they are elective.[177]

Curriculum planners must be mindful, however, that many people claim that the schools advocate "secular humanism" and would not be satisfied with nonsectarian teaching about religion. Secular humanism implies faith in humankind and subscription to social and moral values that are not necessarily derived from belief in a divine being. Though the public schools do not, in reality, promote a doctrine of secular humanism, the absence of sectarian practices in itself provokes some people to accuse the schools of promoting secular humanism.

At this point in time it appears as if the movement to elective courses in religious literacy has grown. It is difficult to know exactly how many schools offer classes on the Bible. The National Council on Bible Curriculum in Public Schools numbered 572 school districts in 38 states using its high-school Bible curriculum.[178] The aforementioned Bible Literacy Project reported 480 schools in 43 states using its book, *The Bible and Its Influence*, in 2011.[179]

The controversy over religion in education brings us once again to the issues of curriculum content and censorship. Since the *Scopes* trial in 1927, controversy has centered on the issue of teaching the Darwinian theory of evolution versus the biblical interpretation of the origin of the human species that proponents label "scientific creationism," "creation science," or, simply, "creationism." The more recent terminology in place of "creationism" is "intelligent design," which holds that the universe is so complex that there must be an intelligent power behind it. Organizations are aligned on either side of the issue. The Discovery Institute's Center for Science and Culture seeks to promote the teaching of intelligent design,[180] while the National Center for Science Education defends the teaching of evolution.[181]

Proposals to incorporate study of intelligent design as a counterbalance to study of the theory of evolution have surfaced in many states. Proponents of intelligent design maintain that evolution is but an unproved theory, whereas opponents of intelligent design hold that scientific evidence supports evolution. A bill in the Utah legislature in 2005 would require informing students that not all scientists accept the theory of evolution. Ohio's Board of Education mandated critical analysis of the theory of evolution in biology classes, but then in 2006, attempting to counter the teaching of the theory of evolution, dropped its mandate. Also in 2006, South Carolina's Education Oversight Committee took the opposite position, proposing discussion and analysis of scientific data related to the theory of evolution.

Cobb County, Georgia, and Dover, Pennsylvania, both ran into troubles over the evolution/intelligent design issue. Responding to stickers that had been placed in biology textbooks stating that evolution is a theory, not a fact, parents in Cobb County in 2004 brought suit to remove the stickers. The district court judge ruled in their favor, holding that the stickers were an endorsement of religion. Although the Eleventh Circuit Court of Appeals ordered the district court to conduct a new trial or hold more hearings, the Cobb County school board at the end of 2006 ceased the practice.

Dover schools in 2004 went a step further than applying stickers to textbooks. They mandated teaching intelligent design. Ruling on the subsequent lawsuit brought by Dover parents opposed to the school board's action, the district court judge in December 2005 held for the parents, declaring intelligent design a violation of the First Amendment. Just prior to the decision, school board members who had endorsed the intelligent design mandate were voted out of office.

Demonstrating the seemingly endless struggle in the religious war over evolution versus intelligent design is the experience in Kansas. The Kansas State Board of Education delivered a blow against the theory of evolution, not by banning its teaching from Kansas schools, but by disallowing questions on the theory of evolution on the state's science assessment examinations. The Kansas action met with such protest, both within and outside of Kansas, that in 2000

Kansas citizens voted out of the state board office two of the three state board members who had sanctioned removal of evolution questions. The state board in 2001 reversed its 1999 action and voted to incorporate evolution questions on the state science tests. However, Kansas revisited the issue in 2004 when proponents of intelligent design gained positions on the state school board. Following their election, new standards in science questioned the theory of evolution. Changing again, the Kansas state board issued its 2007 science standards with a more balanced treatment of evolution. In 2009 the Texas Board of Education narrowly defeated a requirement for high school biology standards to question aspects of evolution.

Like so many political, social, and educational issues, positions on creationism versus evolution range broadly from rejection of evolution outright to complete rejection of creationism or intelligent design. A frequent approach of those who advocate teaching intelligent design is their call for teaching intelligent design along with the theory of evolution. Within the circle of supporters of the theory of evolution are religious believers who hold that the ages-long process of evolution is credible within the context of religious doctrine. Refraining from endorsing either creationism or intelligent design, Pope Benedict XVI saw the place of evolution alongside religious belief.[182]

What, we may ask, are the positions and practices of high school biology teachers vis-à-vis the presentation of the topic of evolution? Citing data from the 2007 National Survey of High School Biology Teachers, Michael B. Berkman and Eric Plutzer reported only a minority of high school biology teachers actually following National Research Council recommendations on the presentation of evidence of evolution.[183]

What does the American public think about the evolution/intelligent design issue? The Pew Research Center for the People & the Press, in a 2005 survey project, and the Pew Forum on Religion & Public Life confirmed that Americans are divided on the topic of evolution.[184] And what does the American public think about the place of character and values education and religion in the public school? Although some people fear that values that run counter to their own may be imposed on young people, as long ago as the early 1990s Nel Noddings argued for critical examination of values and discovery of shared values and individual commitments, concluding that "teaching in the domain of values need not be dogmatic."[185]

President Clinton, responding to the public's generally religious orientation, in a move to derail efforts to amend the Constitution to permit prayer in the schools, in the summer of 1995 ordered the Department of Education to compile and transmit to the nation's schools a list of religious practices that are already legally permitted by the Constitution and judicial decisions. Guidelines recommended to the local schools by the Department of Education would allow students to (1) pray individually or in informal groups if they do not cause disruption, (2) carry and read the Bible or other religious literature, (3) distribute religious literature, and (4) wear religious clothing. The recommendations would not allow prayer in classes or assemblies conducted by students or school personnel.

A more detailed set of governing principles was promulgated by Secretary Rod Paige, U.S. Department of Education, in February 2003. Among the guidelines were the following:

- Students may pray when not engaged in school activities or instruction . . . may read their Bibles or other scriptures, say grace before meals, and pray or study religious materials during recess, the lunch hour, or other noninstructional time. . . .
- Students may organize prayer groups, religious clubs, and "see you at the pole" gatherings before school. . . . [S]uch groups must be given the same access to school facilities for assembling as is given to other non-curricular groups. . . .

- When acting in their official capacities as representatives of the state, teachers, school administrators, and other school employees are prohibited by the Establishment Clause from encouraging or discouraging prayer, and from actively participating in such activity with students. . . .
- Schools have the discretion to dismiss students to off-premises religious instruction. . . .
- Students may express their beliefs about religion in homework, artwork, and other written and oral assignments free from discrimination based on the religious content of their submissions. . . .
- Student speakers at student assemblies and extracurricular activities such as sporting events may not be selected on a basis that either favors or disfavors religious speech. . . . [W]here school officials determine or substantially control the content of what is expressed, such speech is attributable to the school and may not include prayer or other specifically religious (or anti-religious) content. . . .
- School officials may not mandate or organize prayer at graduation. . . . [W]here students or other private graduation speakers are selected on the basis of genuinely neutral, even-handed criteria and retain primary control over the content of their expression; however, that expression is not attributable to the school and therefore may not be restricted because of its religious (or anti-religious) content. . . .
- School officials may not mandate or organize religious ceremonies. However, if a school makes its facilities and related services available to other private groups, it must make its facilities and services available on the same terms to organizers of privately sponsored religious baccalaureate ceremonies.[186]

The guidelines are not law, are not binding on the schools, nor, if implemented, are they free of legal challenge.

Charles C. Haynes observed that avoidance of religion in the curriculum is far from neutral. Editing a thoughtful guide from the Freedom Forum First Amendment Center at Vanderbilt University with legal editor Oliver Thomas, Haynes commented, "Students need to learn that religious and philosophical beliefs and practices are central to the lives of many people."[187] In a more recent guide on incorporating First Amendment principles in the public schools, Haynes and others spoke of the Association for Supervision and Curriculum Development–First Amendment Center initiative, which has among its goals the understanding, adherence to, and teaching of First Amendment principles.[188]

Both guides, addressed to school leaders and parents, contain useful material for dealing with the thorny issue of religion in the schools. Addressing both religious and existential issues in both the curriculum and the preparation of teachers, and advocating teaching *about* religion and discussion of the beliefs of the various religions,[189] Nel Noddings commented, "The best teachers will be prepared to present not only the full spectrum of belief but also the variety of plausible ways in which people have tried to reconcile their religious and scientific beliefs."[190]

That other countries cope with the issue of religion in the schools can be seen by the diametrically opposed actions taken by France and Spain in late 2003. While France was adhering to a strictly secular society, forbidding students from wearing religious symbols in school, Spain was mandating Catholic religious instruction every year for Catholic children, taught by nuns in religious dress whose salaries are paid by the government.

The debate over secular versus sectarian curricula for the public schools will be difficult to resolve because strong emotions, values, and fundamental beliefs about life and death underscore the controversy. Addressing the issue in our country, Haynes wrote that the Freedom Forum guide was based on the conviction that finding common ground on many of the issues that divide

us is possible within the civic framework provided by the Religious Liberty clauses of the First Amendment to the U.S. Constitution. The key is for all sides to step back from the debate and to give fresh consideration to the democratic first principles that bind us together as a people.[191*]

11. Scheduling Arrangements

Can you remember when the school year started in late August or right after Labor Day and ended in early or late June? Can you remember when children had two weeks off in the winter and spring and almost three months of summer, what the French call *les grandes vacances*? During vacation periods the schools sat like silent sentinels. Was it only yesterday that children attended school 180 days a year, about six hours a day, five days a week, following the same class schedule every day? Do you remember when, if you encountered school-age children out of school on a school day, they were either sick or truant? Not so any more. They may be on the blue track while those in school are on the green track.

Remember when gleeful children greeted the long summer holiday with the doggerel, "no more pencils, no more books, no more teachers' sassy looks"? Remember when the nuclear WASP family (Mom, Dad, brother, sister, and Rover) piled into the station wagon (few SUVs then) and took off for an experience in family togetherness at the seashore or in the mountains or just motoring (gasoline being cheaper then)? No longer. Reforms of the mid-1990s to the present have wrought a restructuring of many schools' instructional time schedules. No dimensions of time have been left untouched, not the hour, not the day, not the week, and not the year.

SCHOOL HOURS, DAY, AND WEEK.   Changes in the daily hourly schedule have affected primarily the secondary school. Look at the bell schedule of many high schools today and you'll fast discover that periods have been lengthened and courses no longer meet five days a week for equal amounts of time according to the time-honored Carnegie unit.

ALTERNATIVE DAILY SCHEDULES.   Where secondary school classes formerly met for a customary 50 to 55 minutes daily, they now may meet in alternative time frames from some 85 to 120 minutes per day for only one semester. Throughout the country you can find creative variations in high schools' allocation of time. Joppatowne High School and other comprehensive high schools of Harford County, Maryland, operate on a modified class schedule of four lengthened periods.[192] While some schools are implementing longer periods, longer days, and longer school years, others are operating longer days but shorter school weeks.

In 1983 Joseph M. Carroll proposed what he called the Copernican Plan, a system-wide approach to school reform. The plan was named after the famed astronomer of the late fifteenth and early sixteenth centuries who, contrary to church teachings, held that the earth revolved around the sun rather than vice versa, fomenting a revolution in how the heavens were perceived. The Copernican Plan comprised a number of reform features, among which is "block scheduling." Carroll stated, "no research supports continuing with the Carnegie unit; it actually impairs effective instruction."[193] Reminiscent of scheduling innovations of the 1950s, extended periods meeting less than five days per week became increasingly common. Longer periods meeting fewer times a week permitted teachers to work with fewer students in a day and allowed more time for confronting content in greater depth.

Floyd Boschee and Mark A. Baron described the Copernican Plan as a major restructuring of high school organization in which students are given the option of either enrolling in one

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*Suggested additional reading: *Phi Delta Kappan,* "Religion and the Public Schools," vol. 93, no. 4 (December 2011/January 2012): 8–45.

four-hour class each day for a period of thirty days or enrolling in two two-hour classes each day for sixty days. Under the first option, each student would enroll in six of these four-hour classes each year, while the second option requires students to enroll in three two-course trimesters each year (totalling 180 instructional days per year for both options). In both options, the remainder of the day is composed of a seminar, an elective class, and a lunch period.[194]

Carroll observed that the Copernican Plan can have different formats structured to the needs of the school. A common plan, however, is the 4 × 4 schedule consisting of blocks of four 90- or 120-minute classes each day, either alternating from day to day or alternating from semester to semester. That block scheduling offers a viable plan is seen in the manner in which time is scheduled at Waunakee (Wisconsin) High School (Table 15.1). At Waunakee High, four 90-minute classes meet each day. The A and B schedules alternate throughout the week. One week, classes on the A schedule meet three times and the B schedule classes meet twice. The following week, classes on the B schedule meet three times and A, twice. Some classes meet one semester; other classes, two semesters.

Karen Irmsher, in a 1996 article in ERIC Digest, discussed the advantages of block scheduling.[195] The popularity of block scheduling, however, waxes and wanes. Whereas the Utah public schools in the fall of 2003 were following block schedules, the Dallas public schools were reverting from a class schedule of ninety minutes every other day to traditional seven- or eight-period days. The National Education Commission on Time and Learning recommended that those schools that stay on the existing traditional schedule devote that time exclusively to core academic subjects and to lengthen the school day if they wish to maintain clubs, athletics, and other activities. The Commission on Time and Learning saw value in flexible and block scheduling.[196]

Among the perceived advantages of block scheduling are the devotion of more time to instruction and the capability of exploring subjects in depth. Difficulty in maintaining student interest in lengthy periods and trading breadth for depth are regarded as problems by some critics of block scheduling. Hard data on the benefits of shifting from traditional to block schedules are scarce. The advantages of block scheduling over traditional scheduling are unclear.[197]

TABLE 15.1	Block Schedule, Waunakee High School, Waunakee, Wisconsin, 2010–2011
8:05 a.m.	1st Warning Bell
8:12 a.m.	2nd Warning Bell
8:15 a.m.–9:45 a.m.	1A/1B Classes
9:55 a.m.–11:30 a.m.	2A/2B Classes
11:30 a.m.–12:10 p.m.	Early Lunch
11:40 a.m.–1:10 p.m.	3A/3B Early Classes
12:10 p.m.–1:40 p.m.	3A/3B Late Classes
1:10 p.m.–1:50 p.m.	Late Lunch
1:50 p.m.–3:25 p.m.	4A/4B Classes

Source: Waunakee High School, Waunakee Community School District, *WHS Clock Schedules*, website: waunakee.k12.wi.us/high/clock_schedules.cfm, accessed December 7, 2011. Reprinted by permission.

SCHOOL YEAR.   Dissatisfaction with student achievement has resulted in calls for alterations in schools' schedules through extending the school year and/or year-round education. Behind the rationale for the lengthened school year was the perception that student achievement would rise given additional exposure to the subject matter.

Lengthening the School Year.   Children in the United States average six hours per day in school whereas children in some other countries average as many as eight hours. In the United States, 180 days per year is the norm for students (although we find some minor variations in several states), whereas the school year exceeds 200 days in many other countries.[198] American pupils meet for an average of five and one-half hours for instruction, including physical education and electives. It is little wonder that the National Commission on Excellence in Education, in its 1983 publication *A Nation at Risk*, recommended that schools schedule a seven-hour day 200 to 220 days per year[199] and that President Barack Obama advocated in 2009 a longer day or a longer year for our schools.

Don Glines noted that as early as 1840 urban schools were open 240 to 250 days, although few students attended that length of time.[200] To the present time, schools have not moved in a wholesale fashion into imitating longer school years as found in some European or Asiatic schools. Among school systems that tried block scheduling, some school systems that adopted and tested a longer school year for a variety of financial, instructional, and administrative reasons shifted back to the traditional mode. Charter schools and those under educational management organizations have found it easier to extend instruction beyond the traditional 180 days. KIPP schools, for example, although operating 180 days, extend the school year with sessions on Saturdays and during the summer.[201] In some cases school districts have extended the school year in conjunction with year-round schooling. Regarding a lengthened school year, Sizer's fictitious Franklin Middle and High Schools would extend the school year from thirty-six to forty-two weeks, divide the year into four terms with each term preceded by one week for varied activities, and would lengthen the school day from 8:00 AM to 4:00 PM.[202] Complementary to the school year is the lengthening of the school day, as in the case of Edison schools, to eight hours[203] and the KIPP schools' 7:30 AM to 5 PM schedule.[204]

Year-Round Education (YRE).   More subject to debate than lengthening the school period, day, or year is the movement toward year-round education, a further reaction to the traditional schedule. Most proponents of YRE point out that the traditional calendar is a product of an agrarian society that required young people to work on farms in the summers. Consequently, advocates claim new responses must be made in an industrial, technological age. Charles Ballinger made clear his opinion of the traditional nine-month schedule: "The traditional school calendar is not educational now, has never been, and never will be."[205]

Vicki T. Howell noted that the concept of year-round education is not brand new. Bluffton, Indiana, is credited with operating a year-round school as early as 1904. Several other school systems conducted year-round programs in the early 1900s, among them Aliquippa, Pennsylvania; Minot, North Dakota; Nashville, Tennessee; Newark, New Jersey; and Omaha, Nebraska. The Christa McAuliffe Elementary School at Oxnard, California, opened in 1987, is named as the first school built specifically with year-round education.[206]

Howell pointed out that year-round education died out before World War II but was reborn in the late 1960s and early 1970s.[207] Revealing the growth of year-round schools, the National Association for Year-Round Education reported more than 2 million pupils in 3,000 schools in 46 states enrolled in year-round schools in the year 2006–2007.[208] Year-round education remains an attractive option for many school systems. California, for example, in 2006–2007 accounted for

more than 1,300 year-round schools, the largest number of schools on year-round schedules in the nation.[209] When speakers discuss year-round schooling, they should be questioned as to whether they refer to single-track or multitrack plans. The difference is significant. Single-track plans divide the number of attendance days into learning periods with vacation periods spread throughout the year or with optional intervals called *intersessions* (often three weeks, of which one is vacation time) between the learning periods. Programs during the intersession may be either for enrichment or remediation, most commonly the latter. Teachers may opt to be off during the intersessions or work and receive extra pay.

Multitrack systems were a response to overcrowded schools. Francis Howell School District in St. Charles, Missouri, is credited with creating the first multitrack program in the United States in 1969.[210] Students are divided into tracks (A, B, C, D; or red, green, blue, yellow). By staggering the school year for each group and having one group out at all times, schools can increase the capacity accommodated in the same school by 20 to 25 percent. Multitracking year-round education has proved a suitable alternative for financially strapped communities that do not wish to enter into constructing new schools.

Single-track schools constitute the majority of year-round plans. Some schools have experimented with year-round plans and abandoned them. A significant number of school systems that experimented with year-round schedules have reverted to traditional schedules, including Albuquerque, Los Angeles, San Diego, and several districts in central Florida. Advocates maintain, however, that schools coming on line will replace the ones that have dropped out.

It is difficult to generalize on YRE until we know what type of plan is in operation. There are almost as many permutations and combinations as creative minds can conceive. We will not tax the reader with a description of the many existing plans which include 45–15 (four 9-week periods, 45 days each, 180 days total plus four 3-week optional intersessions, 15 days each), 60–20, 60–15, 90–30, quarter system, quinmesters, Concept 6, and others.[211]

What are the purported advantages and disadvantages of year-round schooling? Among the many reported advantages are improved retention of learning, since breaks are shorter with improved attendance of both students and teachers; fewer dropouts; chances for remediation (single track); increased capacity (multitrack); financial savings (multitrack); reduced vandalism; accommodation to parental jobs that provide short vacation periods; and diminished teacher burnout. Those who object to year-round education cite disruption of family vacation schedules, especially if parents have children in schools on different tracks; ineffective intersessions (single track); increased teacher stress; and problems of organizing and administering.

The jury is out on teacher burnout and stress with tracking plans. Burnout may diminish because of more frequent breaks, but if teachers contract year-round, stress and burnout may increase. Whether year-round education enhances learning is problematic. In reviewing a number of studies of year-round education in the 1990s, Blaine R. Worthen supported some of the claims of proponents of YRE such as better attitudes of students, fewer dropouts, better teacher attitudes, decreased vandalism, and better student attendance.[212] Regarding the effect of YRE on academic learning, Worthen commented, "Overall, there appears to be a slight but not overwhelming advantage for YRE students in learning basic content. What is clear is that well-implemented YRE programs do not result in any lessening of learning."[213] In a similar vein, Elizabeth A. Palmer and Amy E. Bemis commented, "It is reasonable to conclude that students attending YRS are likely to perform as well as if not better than their peers in traditional nine-month programs, especially at the upper elementary school level."[214] Howell cautioned, however, "In actuality there are no long-range studies to prove the superiority of traditional or YRE calendars in relation to knowledge retention or achievement."[215]

While educators are making their beliefs known, what is the public's attitude toward an extended school year and YRE? An earlier survey provides some clues about public sentiment. The 24th Annual Phi Delta Kappa/Gallup Poll found 55 percent of the public favoring an increase of thirty days, making a school year of ten months or 210 days, a majority favoring four or five segments with three-week vacation breaks.[216] Most experts reaffirm the necessity in the case of year-round education—as with any innovation—to build consensus among the constituencies of the school in advance of implementation. Budgets permitting, we may expect to see the school year encompassing summer classes or optional summer classes. For some students, perhaps eventually for all, long summer vacations may disappear. On the other hand, we cannot ignore the part played by the economy. In the second decade of the twenty-first century we are going through a period of local, state, and federal budget deficits, causing retrenchment not only in education but in other areas as well. We take note of reductions in staff, programs, and operating expenses for the schools. The National Conference of State Legislatures reported at present twenty-one states with schools following a four-day school week. Most of these schools are small and in rural settings.[217]

THREE-YEAR HIGH SCHOOL PROGRAMS.   Differing from older three-year senior high school plans that assigned ninth grade to middle school and grades ten through twelve to high school, Florida lawmakers provided in June 2003 the opportunity for high school students to complete their high school education a year early with eighteen credits instead of twenty-four. The legislation created two tracks for the three-year high school program, college preparatory and career, the sole difference between the two programs being the lack of a requirement for mathematics higher than Algebra 1 for those on the career track. Students on the three-year program would forgo physical education requirements and electives beyond the three required in the eighteen credits. Students in the three-year program would still have to pass the state assessment tests.[218]

DUAL ENROLLMENT/EARLY-COLLEGE SCHOOLS.   Perhaps in place of three-year high school programs we may expect to see more linkings between high schools and colleges in the form of dual high school/college or community college enrollment and in the creation of early-college schools, such as Bard High School Early College with three campuses in Manhattan, Newark, and Queens, or Baruch College Campus High School, New York City.

CLASS AND SCHOOL SIZE.   Both class size and school size are subjects of considerable disagreement. Some educators take the position that what goes on in the classroom is more important than class size. Many express the belief that classes can become too large in a time when teachers are charged with meeting the individual interests and needs of a diverse student population. The Hoover Institution would remove the blanket restrictions on class size,[219] while People for the American Way support limitation on class size.[220]

The people of Florida have made it clear that they believe class size does make a difference. Florida voters created a dilemma for the state in November 2002 when—in spite of financial implications and over opposition from many in the state power structure, including the governor—they approved by a 52.9 percent majority an amendment to the state constitution mandating reductions in class size in "core" classes to a maximum of eighteen students per grades K–3, twenty-two per grades 4–8, and twenty-five per grades 9–12. Coming at a time of diminished revenues, state legislators wrestled with budgeting problems and means of carrying out the wishes of the electorate. Some take the position that highly qualified teachers can successfully teach large classes, thereby reducing the number of teachers needed, which would allow schools to pay the expert

teachers higher salaries. At the present time the governor and legislature are bound to implement the voters' wishes. However, efforts were being made to repeal or weaken the amendment. It was proposed in spring 2011 (but not put into operation) to cope with the amendment by changing the designation of some core classes to "extracurricular," which would exempt those classes from the caps. In whatever manner the problem is resolved, the class-size amendment is an example of the public taking on the role of curriculum developers—by revising the state constitution, no less—with the hope of improving student achievement. Success of efforts in the nation's schools that have implemented reduction in class size appears mixed and depends on variables that include the makeup of the class and the teacher's skills.

School size presents an additional area of controversy. Some educators as well as parents defend the construction and operation of large schools for the broad curricular and extraclass programs they can offer. On the other hand, the movement to small schools and small learning communities has become decidedly pronounced in the first decade of the twenty-first century, especially in the light of grants provided by the Bill and Melinda Gates Foundation for the establishment of smaller high schools. Instead of constructing new schools, many are organized within the confines of a larger school, each with its own group of students and cadre of teachers and administrators. Atlanta, Chicago, Miami-Dade, and New York City are among locations throughout the country attempting to improve student achievement, attendance rates, and graduation rates by creating smaller high schools. The Institute for Student Achievement partners with school districts in several states to develop small learning communities.[221] Although we might like to have more data on the effects of small learning communities on student academic achievement, several indications suggest a number of positive results.[222]

While we follow the progress or retrogression of changes in scheduling patterns, class and school size, and organizational plans, we'll want to keep track of the success or failure of the return to the old K–8 organizational plan that eliminates the separate middle school, as in New Orleans, New York, and Philadelphia.

12. Standards/Assessment

Perhaps the most pervasive and contentious issue discussed in this chapter is standards-based education. In spite of a backlash in some states against the consequences of standards-based assessment, the movement toward setting standards, making schools and teachers accountable, and assessing student achievement remains strong.

The origin of this wave of reform movement of standards is attributed to the 1983 report *A Nation at Risk*, with the movement beginning in earnest as a result of the promulgation of the America 2000 Act under President George H. W. Bush and continuing through repeated government enactments.

Schools have, of course, followed standards throughout their history. Historically, these standards have been locally developed. What characterizes this tide of standards is their point of origin, the state level, and the detailed specifications in the content areas, literally prescriptions, that all students in the state are expected to achieve. At the present time the country is awash in standards—local, state, and national. In past years, local school districts on their own initiative specified standards they wished their students to achieve, aligned the curriculum with the local standards, and tested to learn whether students had achieved the standards. If students were not successful, schools devised their own remedial procedures.

Where the present standards movement differs from other efforts is in the creation of state and national standards coupled with state-created standardized tests of students' achievement of

the standards, under pressure from the federal level, currently in the form of the No Child Left Behind Act (NCLB). It is on the basis of standardized assessment, referred to as *high-stakes testing*, that students, teachers, and schools are rewarded or punished. Rewards include favorable publicity, students' promotion, and increased funding. Punishments include unfavorable reports to the public, students' retention in grade, withholding the high school diploma, and permitting parental choice of private or parochial school through taxpayer-paid vouchers or tax credits.

What we have at present, in effect, is a *national* system of *state* standards, the intent of which is the improvement of public education. In spite of widespread dissatisfaction with public education that evoked the standards movement, a number of researchers and writers, including Gerald W. Bracey[223] and Deborah Meier,[224] have contested the premise that American schools have failed.

The standards movement evokes strong opinions on both sides of the issue. Dissenters object to the entire direction education has taken toward specifying uniform standards and assessment, whether national or state, whether voluntary or mandated, holding that schools should be more concerned about curricula that foster student self-esteem and bringing about improvements in American society. Critical of the adoption of content standards as a means of reform, Ernest R. House wrote, "Such an approach overestimates the degree to which teachers will adopt standards and miscalculates how teachers will react if their students' test scores are made public. The history of such attempts is rampant with teachers' teaching the test items under conditions of strong accountability and manipulating or distorting the scores."[225] Critical of the repeated call for "tougher standards," Alfie Kohn noted that "the Tougher Standards movement usually consists of *imposing specific requirements and trying to coerce improvement* by specifying exactly what must be taught and learned—that is, by mandating a particular kind of education."[226] Opponents of standards-based education attribute the standards movement to conservative desires to preserve a business-oriented, efficiency model of traditional education, root out "progressive education," and supplant public education with private. Kohn commented, "the Tougher Standards movement tends to favor *Old-School teaching*, the sort of instruction that treats kids as though they were inert objects, that prepares a concoction called 'basic skills' or 'core knowledge' and then tries to pour it down children's throats."[227]

Marion Brady referred to the standards movement as a "juggernaut."[228] Applying Susan Ohanian's term "Standardisto,"[229] meaning an advocate of standards-based education, Brady observed, "From the Standardisto perspective, all that is necessary is to determine what most 'well-educated' people know, organize it, distribute it to the schools, and demand that teachers teach it and students learn it. In the name of reform, the Standardistos are freezing in bureaucratic place the worst aspects of traditional education."[230] Many of those who reject nationwide or statewide standards for all students would champion individualized standards for each student.

Although objections have been leveled at the standards movement, the specification of state and national standards remains popular with the public, the business community, and those whom the public has elected to office. High-stakes exit exams that determine high school graduation have become a common manifestation of the state-standards movement. Schools have rapidly increased the requirements in mathematics and science.

Although opponents of standards-based education would undoubtedly like to see the whole movement just go away, Judy F. Carr and Douglas E. Harris advised, "National, state, and local standards are important resources for teachers, but these standards have little meaning until teachers and administrators take true ownership of them."[231] On the positive side, Carr and Harris viewed standards as reinforcing teacher practices, bringing focus to assessments, and substituting focused strategies based on standards for piecemeal efforts.[232] Those who find they can

work with standards seek to adapt the use of the standards to their instruction and supplement standardized assessment with performance evaluations. In discussing the process of aligning the curriculum, Fenwick W. English and Betty E. Steffy recommended "using national and international standards as qualitative benchmarks for the simple reason that such comparative indicators enable educators to engage in evaluative activities that speak to such matters as curriculum rigor and quality, which are open and public and do not depend on a secretive content domain that is nobody's specific curriculum."[233] Rejecting the use of norm-referenced standardized tests that compare students, English and Steffy proposed aligning the curriculum with "public and specific curriculum benchmarks."[234]

Concomitant with the development of standards-based education was the movement known as *outcome-* or *outcomes-based education* (OBE), which seeks specification of learning "outputs," sometimes referred to as "exit outcomes," accompanied by "authentic" performance assessment of student mastery of the outcomes. William G. Spady defined outcome as "a culminating demonstration of learning."[235]

More acute in the battle over standards is the possibility of the creation of a single set of national standards and a single set of assessments. Among those who espouse state standards, subscribing to the belief of the state's responsibility for education, are those who oppose national standards, a national curriculum, and national assessment. However, in spite of objections to national efforts in this direction, in actuality we already have elements of national standards, curriculum, and assessment.

The current debate over the issues of a national curriculum, national standards, and national assessment is reminiscent of the argument over the creation of the National Assessment of Educational Progress (NAEP) in the 1960s, when educators predicted dire results if NAEP were allowed to conduct nationwide tests. Some forty-plus years have passed and NAEP has taken a valued place in the educational spectrum, not only because of its technical competence, but also because it has zealously guarded results so individuals and schools could not be identified. Its results are reported for regions, age groups, and ethnic groups, which lessens its impact on the curriculum of individual schools.

A national curriculum would mean some uniformity of standards across the country. In effect, we already have earmarks of a rather loose national curriculum at the moment. The same textbooks are adopted in many states, bringing a semblance of uniformity at least to content. Professional associations have produced and disseminated curriculum materials widely, further standardizing the curriculum. Standards spelled out by the states are not all that different from state to state. Rapidly materializing and in the process of adoption are the Common Core State Standards in English and mathematics developed under the direction of the National Governors Association and the Council of Chief State School Officers. As of 2010, some forty-three states had adopted these standards.[236]

Among the arguments against implementing national standards are that they will limit the creativity of local schools, they are likely to be minimal standards, it is impossible to establish a common set of standards in a country so diverse, they will fail without sufficient funding, and they will be limited to core disciplines. Proponents of federal and state standards argue that we need to be competitive educationally with other countries, national standards will encourage school improvement, national standards are necessary in an age of mobility of population, and present standards are too loose. The naysayers contend that national standards will not promote equality of opportunity for all children including minorities, while the yea-sayers claim that the opposite is true. Our two major educational associations have taken different sides of the fence, with the National Education Association opposing national standards and assessment whereas the American

Federation of Teachers endorsed their development and use. Noting that "there are attractive arguments for federal and state control over curricula—to ensure a set of academic outcomes for all students in America," Glickman joined those opposed to federal and state control, saying:

> The underlying assumption is that local schools lack either the inclination or the capacity to develop and hold themselves to rigorous curricular goals and assessments. . . . [F]ederal and state controls over local curricula [are] clearly a statement of skepticism about participatory democracy. . . . Developing curricula and standards "away" from local schools and communities rules out the very flexibility that state and federal policymakers claim to support in their schizophrenic exhortations of "empowerment."[237]

Hirsch, however, faulted the argument for local control, commenting on the "curricular chaos of the American elementary school":

> We assume, quite reasonably, that agreement has been reached locally regarding what shall be taught to children at each grade level—if not within the whole district, then certainly within an individual school. . . . But despite the democratic virtue of that principle, the idea that there exists a coherent plan for teaching content within the local district, or even within the individual school, is a gravely misleading myth.[238]

More than a decade ago Diane Ravitch made a comment still true today when she said, "Discussions of standards tend to turn at once into debates and about testing."[239] Basically, the issue centers around quantitative (i.e., traditional and standardized tests) versus qualitative (i.e., authentic) performance techniques and the use of portfolios. Historically and up to the present moment, schools have employed quantitative techniques to assess student achievement. It is not too much of an exaggeration to say that is the way the American public wants it.

Whether educators favor a national curriculum, national standards, and national assessments, the public clearly supports the idea, as they have demonstrated on repeated Phi Delta Kappa/Gallup Polls. The 26th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools (1994), for example, found that an overwhelming majority of those surveyed believed standardized national examinations based on a national curriculum that students must pass for promotion or graduation (as some people say, "with consequences") were either very important or quite important.[240] Arguments for local determination of standards appear to run counter to opinions of a large segment of the public.

However, the public is uncertain about the testing that goes with standards. For example, the 39th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward the Public Schools revealed in 2007 that the public was divided over whether there was too much achievement testing in the public schools, and well over half felt increased testing either hurt or made no difference.[241]

Addressing the issues of national standards and assessments, Ravitch provided some thoughtful remarks when she theorized that testing at its core helps the community to emphasize knowledge, the primary resource that determines what people are able to become in this world. Ravitch goes on to stress that knowledge be "broadly democratized."

Weighing the use of standards and caveats in their use, Beverly Falk concluded:

> Standards and standards-based assessments *can* ultimately support better learning if they are used to direct teaching toward worthy goals, to promote teaching that is responsive to how students learn, to examine students in multiple ways that can be used to inform instruction, to keep students and parents apprised of progress, to trigger special supports for students who

need them, and to evaluate school practices. If all these aspects of the standards, assessment, and accountability picture are addressed, standards and standards-based assessments have the potential to be of enormous benefit to teaching and learning.[242]

Historically, following the Tenth Amendment to the U.S. Constitution, education was considered the province of the states. Federal aid to education and, therefore, interference with states' prerogatives were limited to exceptions such as vocation education. Today, federal involvement in education is pervasive. Marc R. O'Shea made clear the transition of authority from local to state to federal authority:

> The sudden transfer of power from the local school districts and to state authorities was surprisingly short-lived. Before states could even formulate policies and procedures to use the power of their standards, their influence over the curriculum was trumped by the federal government through the reauthorization of the Elementary and Secondary Education Act, now known as No Child Left Behind.
>
> The new law requires states to use academic content standards to benchmark federally mandated "adequate yearly progress". . . . Despite continuing controversy, state content standards have emerged as the most powerful manifestation of the school reform that began with *A Nation at Risk* more than 20 years ago.[243]

Obviously, as in other cases of federal pronouncements on education, many of the goals have not been met. Since becoming law in 2002, NCLB has been both praised and criticized. It has met with both successes and failures. Its attention to the basic skills of reading and mathematics has received both public approval and disapproval; approval because the basic skills are the essential foundations to further learning and disapproval because excessive attention to reading and math provides less time for the arts and physical education, let alone recess. Providing for school choice and the aim for highly qualified teachers are viewed as positives, whereas the excessive emphasis on standardized teaching forces teachers into teaching to the tests, excluding other content and use of procedures that evaluate other types of learning and behaviors.

Debate continues as to whether student achievement is higher since NCLB was enacted. It is probably an understatement to say that the states have been restive under NCLB. Many oppose NCLB for its inadequate funding and for what many educators perceive as an unconstitutional encroachment of the federal government on the states' responsibilities for education. Utah's action in 2005 rejecting provisions of NCLB that conflict with Utah's educational goals or that require state funding showed the intensity of opposition. The federal government's power, however, rests on its control of the purse strings, as in continuation of federal stimulus to educational programs through competitive Race to the Top grants which started in 2009.

A sampling of the public's attitudes toward NCLB revealed a number of objections, such as including the test scores of special education students with scores of all other students, and judging a school successful or failing by the percentage of students who pass a test as opposed to improvement shown by students.[244]

Noteworthy are the differences between results as determined by state assessment tests and those reported by the National Assessment of Educational Progress (NAEP).

Bracey pointed to the gap between state- and NAEP-determined proficiency. He explained:

> Both state standards and NAEP achievement levels for determining proficiency are wholly arbitrary—both lack any connection to external criteria for validation—and the NAEP levels are far too high.[245]

Drawing on reports on the gap between state-defined and NAEP-defined proficiency, Bracey made note that state levels of proficiency were much higher than NAEP levels and that the gap ranged from 10 percent in Massachusetts to 55 percent in Texas, with the average gap at 38 percent.[246] *U.S. News & World Report'*s chart, *Falling Short*, clearly shows state test scores exceeding NAEP's national test scores, causing some people to wonder about differing definitions of proficiency levels between state and national tests.[247]

Some organizations and leaders view the maintenance of high expectations as a key to enhancing student achievement. Reminiscent of calls of the Effective Schools Research of the 1980s for holding students to high expectations, the Education Trust similarly advocates high expectations of students and presents "Dispelling the Myth" awards to schools that have achieved exceptional success in high-poverty and high-minority locations.[248] Bill Gates, too, addressing a U.S. Senate Committee, projected a high goal for American education: "Every student in America should graduate from high school ready for college, career and life."[249]

Although identifying the problems of testing and accountability requirements for students with disabilities and those learning English, Jack Jennings and Diane Stark Rentner saw NCLB as

> Clearly having a major impact on American education. There is more testing and accountability. Greater attention is being paid to what is being taught and how it is being taught. Low-performing schools are also receiving greater attention. The qualifications of teachers are coming under greater scrutiny. Concurrently, with NCLB, scores on state reading and mathematics tests have risen.[250]

At the time of writing of this textbook (2010–2011), the U.S. Congress had NCLB under study for reauthorization, revision, or revocation.

In the early years of the twenty-first century we see a pronounced movement toward the specification of content standards and the assessment of those standards, including the use of high-stakes tests to determine grade retention and high school graduation.

IMPROVEMENTS NEEDED FOR CURRICULUM REFORM

Consensus Building

Looking at the plethora of proposals for reform and restructuring of the schools, even educators, let alone the public, from time to time must express bewilderment. Shall states, prodded by the federal government, administer standardized high-stakes tests to assess student achievement of state content standards? Shall schools go in the direction of core knowledge or constructivism?

Shall we mainstream the gifted? Shall we create national standards? Shall we change the school calendar? Is the effective teaching research passé? Shall we introduce character, values, and ethics education? Shall we cut the arts, career, and physical education, spending most of the time on reading, mathematics, and science or, currently, on STEM (science, technology, engineering, and mathematics)? Shall we privatize education? Or are charter schools and home-schooling the answers to public school problems?

We find individuals and like-minded groups advocating their own measures to reform and restructure schools. Whom should administrators, teachers, and parents heed? Which educational organization has the "right" solution, or can we buy all solutions? Is the curriculum for the twenty-first century found in a full-service school with a standards-based education and an integrated, interdisciplinary curriculum; its pupils in inclusive classrooms learning cooperatively,

using multicultural materials; without common academic standards; and employing authentic assessment?

With the empowerment of teachers and parents, the building of consensus becomes a paramount concern. Inadequate funding, lack of discipline, and drug use head the list of the public's concerns.[251] Borrowing a leaf from the perceptual psychologists, reformers must deal first with perceptions of the public and gain commitment before they can effect lasting change.

Our informed public is well aware of repeated efforts at reforming the public schools. Curriculum workers cannot express impatience if the public asks why we have had to engage repeatedly in reform efforts. When, they ask, will we come up with solutions that will be both effective and reasonably permanent? Curriculum workers today must demonstrate the interpersonal and technical skills necessary to building consensus among constituencies of the school. They must lay a groundwork, experiment, and demonstrate results to gain acceptance. Assertions to the effect that "research shows"—when, indeed, that research may or may not show—will not satisfy a tradition-oriented public, nor, for that matter, tradition-oriented teachers and administrators. Researchers and pioneers must encourage teachers and administrators to try out new ways without making them feel that everything they have been doing, possibly for many years, is wrong. In fact, innovators have a heavy responsibility for demonstrating that the newer programs they advocate are, indeed, superior to the ones they would replace.

Research

Not only do the results of research have to be disseminated, but also both the quantity and quality of educational research have to be expanded. The school systems need to be close partners with institutions of higher learning in the conduct of research. For instance, the National Council for the Accreditation of Teacher Education (NCATE)—the voluntary accrediting agency to which schools of education may belong—promotes cooperative research between school systems and schools and colleges of education.[252]

The profession is in particular need of more experimental research and more longitudinal studies. We have many status studies and surveys of opinions and practices (favored by doctoral candidates in education) but not enough controlled research studies or, for that matter, action research, which is less controlled. Curriculum planners should encourage teachers to participate in controlled research studies and to engage in their own unsophisticated action research to determine answers to simple problems that may be applicable only in their own classrooms. Diane Ravitch cautioned:

> Massive changes in curricula and pedagogy should be based on solid research and careful field-tested demonstration before they are imposed on entire school districts and states. There has been no shortage of innovation in American education; what is needed before broad implementation of any innovation is clear evidence of its effectiveness.[253]

Dissemination

The curriculum workers' efforts would be greatly enhanced if we had better ways of disseminating results of research and experience with innovative programs. Though we have the Educational Resources Information Center (ERIC), regional educational laboratories, national research and development centers, national centers within the Institute of Education Sciences of the U.S. Department of Education, and many curriculum journals, the

results of research and experimentation do not reach the classroom teacher to the degree they should.[254]

The rapid spread of concepts, programs, and practices such as critical thinking, cooperative learning, community service, curriculum mapping, differentiated instruction, and mastery learning would seem to refute the premise that dissemination of curriculum innovations is slow. However, speed is a relative concept. Forty-five miles per hour may be too slow on a four-lane interstate highway but too fast on a country road. Innovations still take a considerable amount of time to find their way to thousands of public school districts and millions of elementary and secondary school teachers.

Curriculum decisions are still made on the basis of limited information and without all currently available data. Curriculum leaders must take special responsibility to stay informed of current research so that they can channel essential information to the classroom teacher and other curriculum workers.

Since so many agencies and associations now have websites and the computer has become a way of life, we may anticipate more rapid dissemination of research and ideas on every aspect of life, including education.

Preparation

Better programs are needed to prepare curriculum leaders and planners. To gain some perception of the preparation needed by curriculum developers, we might refer to Chapter 1 on the areas of learning from which the field of curriculum is derived, to Chapter 3 on the multiple levels and sectors of curriculum planning, and to Chapter 4 on the roles of various personnel in curriculum development. States might reasonably institute certificates in curriculum development. Such certificates would parallel those now offered in administration, supervision, guidance, and other specialties. Such a certificate would go a long way toward establishing curriculum as a field of specialization in its own right. Furthermore, teacher education institutions should assure that their graduates gain what might be called "curriculum literacy"—that is, knowledge about the curriculum field and basic skills in curriculum development.

Role of Teacher Organizations

We could cite the many contributions to curriculum development, research, and study of such professional organizations as the American Association of School Administrators, the American Educational Research Association, the American Federation of Teachers, the Association for Supervision and Curriculum Development, the Association of Teacher Educators, the National Education Association, the national associations of elementary, middle, and secondary school principals, and associations in the specific disciplines.

The two most powerful organizations that represent the interests of teachers are the National Education Association (NEA) and the American Federation of Teachers (AFT), which is affiliated with the AFL-CIO. Although the NEA is not a union in the sense of being affiliated with organized labor, the missions of the NEA and the AFT often coincide. In fact, the two organizations on more than one occasion have talked seriously of merger.

Teachers' organizations influence the curriculum both directly and indirectly. Some curriculum decisions are made not at the customary curriculum council table but at the bargaining table in negotiations between teachers (labor) and the school district (management). Ordinarily, these negotiations are concerned with working conditions, rights of teachers, salary, benefits, and the like. Some items of negotiation are clearly curricular in nature.

In communities in which school management and a teachers' organization have effected a contract, the process of curriculum planning will likely have to be modified from that of school systems without formal contracts. Regardless of their personal desires, school administrators are bound by the terms of a negotiated contract. Teacher unions are not without their critics, as can be seen in remarks made by the late Steve Jobs, then-CEO of Apple, at an education reform conference in 2007.[255] As this text goes to press with educational programs facing serious budget deficits, we are witnessing efforts of some state governors and their legislatures to curb the power of the teachers' unions.

Ways must be established to integrate efforts of the teachers' organizations into the school district model for curriculum development. As members of the teachers' organizations themselves, curriculum planners can strive to enlist the teachers' organizations in the cause of continuous curriculum improvement.

Curriculum Future—An Afterthought

Among the various issues discussed in this chapter are a number of current curricular practices and programs. Some of these will remain with us for many years. If past is prologue, however, some will become universal practice, some will continue to exist in certain localities and certain schools, some will be modified, some will be abandoned, and some newer developments will take the place of some of the older.

Curriculum development today is a blend of many practices and programs both innovative and time-honored. As we proceed in the twenty-first century, we can anticipate that our schools will be buoyed up by a judicious mixture of the old and the new.

Summary

In this chapter we have examined twelve current controversial issues of direct concern to curriculum planners. These issues, brought about by social and political forces, are academic area initiatives, alternative schooling arrangements, bilingual/bicultural education, censorship, gender, health education, multiculturalism/diversity, privatization, provision for exceptionalities, religion in public education, scheduling arrangements, and standards/assessment. Curriculum workers must be aware of the dimensions of these and other current issues as they attempt to develop curricula.

The chapter concluded with a brief discussion of professional issues that have an impact on the curriculum: the need for improved consensus building, the need for more and better research, the need for better means of disseminating the results of curriculum research and experimentation, the need for improved training programs for curriculum developers, and the need to clarify the role of teacher organizations in curriculum improvement.

Commenting on the "river of ink that was spilled in the education disputes of the twentieth century," Ravitch observed:

> What American education most needs is not more nostrums and enthusiasms but more attention to time-tested truths. It is a fundamental truth that children need well-educated teachers who are eclectic in their methods and willing to use different strategies depending on what works best for which children. It is another fundamental truth that adults must take responsibility for children and help them develop as good persons with worthy ideals.[256]

Questions For Discussion

1. What general guidelines would you recommend for curriculum planners to follow in dealing with controversial curriculum issues?
2. What current curriculum developments do you predict will be universally accepted ten years from now?
3. What are some current controversial curriculum issues not included in this chapter?
4. How do you account for repeated efforts to reform the public schools?
5. What measures would you recommend for reforming and restructuring the public schools?

Exercises

1. Select one of the current curriculum issues, search the literature, review local practices, and document with references the degree to which it appears to be an issue both locally and nationally. Show your position on the issue and suggest ways for solving it.
2. Select any current curriculum program, locate one or more research studies on this program, and draw conclusions on its effectiveness.
3. Document any instances of the following curriculum problems within the past three years in the school district you know best:
   (a) racial conflicts
   (b) religious conflicts
   (c) gender inequity
   (d) textbook or library book protests
4. Prepare a position paper on one of the following topics:
   (a) the movement to establish public charter schools
   (b) the movement to provide taxpayer-paid vouchers for students to attend the school of their choice
   (c) the use of taxpayer-paid vouchers at parochial schools
5. Prepare a report contrasting the advantages and disadvantages of small schools/smaller learning communities as opposed to large high schools. Show your position on which you feel provides a better education.

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APPENDIX

RESOURCES FOR FURTHER RESEARCH

CURRICULUM JOURNALS

Curriculum Inquiry: blackwellpublishing.com/journal.asp?ref=0362-6784
Curriculum Review: curriculumreview.com
EL Educational Leadership: ascd.org/publications/educational-leadership.aspx
Journal of Curriculum Studies: tandf.co.uk/journals/tf/00220272.htm
Journal of Technology Education: scholar.lib.vt.edu/ejournals/JTE

EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

ERIC provides free access to more than 1.2 million bibliographic records of journal articles and other education-related materials. ERIC is sponsored by the U.S. Department of Education, Institute of Education Sciences. The former sixteen ERIC Clearinghouses ceased operating December 31, 2003. ERIC: eric.ed.gov

INSTITUTE OF EDUCATION SCIENCES

ies.ed.gov

The Education Sciences Reform Act of 2002 replaced the U.S. Department of Education's Office of Educational Research and Improvement with the Institute of Education Sciences within which are four national centers.

National Center for Education Evaluation and Regional Assistance (NCEE): ies.ed.gov/ncee
National Center for Education Research (NCER): ies.ed.gov/ncer
National Center for Education Statistics (NCES): nces.ed.gov
National Center for Special Education Research (NCSER): ies.ed.gov/ncser

REGIONAL EDUCATIONAL LABORATORIES

ies.ed.gov/ncee/edlabs/regions

The ten Regional Educational Laboratories are educational research and development organizations supported by contracts with the U.S. Department of Education's Institute of Education Sciences.

REL Appalachia: RELAppalachia.org
REL Central: mcrel.org
REL Mid-Atlantic: ies.ed.gov/ncee/edlabs/regions/midatlantic/index.asp
REL Midwest: learningpt.org
REL Northeast and Islands: relnei.org/home.php
REL Northwest: educationnorthwest.org/rel-northwest
REL Pacific: prel.org
REL Southeast: serve.org
REL Southwest: edvanceresearch.com
REL West: wested.org

RESEARCH AND DEVELOPMENT CENTERS

IES National Center for Education Research, U.S. Department of Education, Institute of Education Sciences: ied.ed.gov/ncer/randd (Click on R&D Centers)

Center for Analysis of Longitudinal Data in Education Research: ies.ed.gov/ncer/RandD/details.asp?ID=123

Center for Data-Driven Reform in Education: ies.ed.gov/ncer/RandD/details.asp?ID=130

Center for Research on the Educational Achievement and Testing of English Language Learners: ies.ed.gov/ncer/RandD/details.asp?ID=129

Center for Research on Evaluation, Standards, and Student Testing: ies.ed.gov/ncer/RandD/details.asp?ID=128

National Center for Performance Incentives: ies.ed.gov/ncer/RandD/details.asp?=126

National Center for Postsecondary Research: ies.ed.gov/ncer/RandD/details.asp?ID=124

National Center for Research on Early Childhood Education: ies.ed.gov/ncer/RandD/details.asp?ID=125

The National Center for Research on Rural Education: ies.ed.gov/ncer/RandD/details.asp?ID=784

National Center for Teacher Effectiveness: Validating Measures of Effective Math Teaching: ies.ed.gov/ncer/RandD/details.asp?ID=783

National Research Center on the Gifted and Talented: ies.ed.gov/ncer/RandD/details.asp?ID=127

National Research Center on Rural Education Support: ies.ed.gov/ncer/RandD/details.asp?ID=131

National Research & Development Center on Cognition and Mathematics Instruction: ies.ed.gov/ncer/RandD/details.asp?ID=1041

National Research & Development Center on Cognition and Science Instruction: ies.ed.gov/ncer/RandD/details.asp?ID=628

National Research & Development Center on Instructional Technology: Center for Advanced Technology in Education: ies.ed.gov/ncer/RandD/details.asp?ID=630

National Research & Development Center on Instructional Technology: Possible Worlds: ies.ed.gov/ncer/RandD/details.asp?ID=629

National Research and Development Center on School Choice: ies.ed.gov/ncer/RandD/details.asp?ID=132

WEBSITES

Academic Benchmarks: academicbenchmarks.com/search
Accelerated Schools Plus: acceleratedschools.net
Advocates for Youth: advocatesforyouth.org
Alliance for School Choice: allianceforschoolchoice.org
American Academy of Pediatrics: aap.org
American Alliance for Health, Physical Education, Recreation, and Dance: aahperd.org
American Association of Colleges for Teacher Education: aacte.org
American Association of University Women: aauw.org
American Booksellers Foundation for Free Expression: abffe.com
American Civil Liberties Union: aclu.org
American Family Association: afa.net

American Federation of Teachers: aft.org
American Legacy Foundation: legacyforhealth.org
American Legislative Exchange Council: alec.org
American Library Association: ala.org
American Library Association Office of Intellectual Freedom: ala.org/template.cfm?Section=gif
American Public Health Association: apha.org
Americans for Religious Liberty: arlinc.org
American School Health Association: ashaweb.org
Americans United for Separation of Church and State: au.org
Association for Supervision and Curriculum Development: ascd.org
Bible Literacy Project: bibleliteracyproject.org
Anne E. Casey Foundation: aecf.org
Cato Institute: cato.org
Center for American Progress: americanprogress.com
Center for Applied Linguistics: cal.org
Center for Education Reform: edreform.com
Center for Equal Opportunity: ceousa.org
The Center for Health and Health Care in Schools: healthinschools.org
Center for Individual Rights: cir-usa.org
Center for Research on Education Outcomes: credo.stanford.edu
Center for Science & Culture: discovery.org/csc
Centers for Disease Control and Prevention: cdc.gov
Children's Scholarship Fund: scholarshipfund.org
Choosing the Best: choosingthebest.org
Christian Coalition of America: cc.org
William J. Clinton Foundation: clintonfoundation.org
Coalition of Essential Schools: essentialschools.org
College Board: collegeboard.com
Core Knowledge Foundation: coreknowledge.org
Corporation for National and Community Service: nationalservice.gov
Council for American Private Education: capenet.org
Discovery Institute: discovery.org
Economic Policy Institute: epi.org
EdisonLearning: edisonlearning.com
Education Commission of the States: ecs.org
Education Next: educationext.org
Education Policy Institute: educationalpolicy.org
Education Sector: educationsector.org
The Education Trust: edtrust.org
Education Resources Information Center (ERIC): eric.ed.gov
Effective Schools: effectiveschools.com
English First: englishfirst.com
FairTest: fairtest.org
Family Research Council: frc.org
First Amendment Center: firstamendmentcenter.org
First Amendment Schools: firstamendmentschools.org
Focus on the Family: focusonthefamily.com

Thomas B. Fordham Institute: edexcellence.net
The Friedman Foundation for Educational Choice: edchoice.org
Free Expression Network: freexpression.org
Freedom Forum: freedomforum.org
Bill and Melinda Gates Foundation: gatesfoundation.org/Pages/home.aspx
GreatSchools: greatschools.net
Gurian Institute: gurianinstitute.com
Alan Guttmacher Institute: guttmacher.org
Home School Legal Defense Association: hslda.org
Hoover Institution: hoover.org
The Inclusion Network: inclusion.com/inclusionnetwork.html
Institute for American Values: americanvalues.org
Institute of Education Sciences: ies.ed.gov
Institute for Social Research: isr.umich.edu
International Association for the Evaluation of Educational Achievement: iea.nl
International Association for K-12 Online Learning: inacol.org
International Reading Association: reading.org/General/Default.aspx
ISA: studentachievement.org
Thomas Jefferson Center for the Protection of Free Expression: tjcenter.org
Robert Wood Johnson Foundation: rwjf.org
The Henry J. Kaiser Family Foundation: kff.org
Knowledge Is Power Program: kipp.org
Leona Group: leonagroup.com/index.html
Learning First Alliance: learningfirst.org
Mayerson Foundation: mayersonfoundation.org
Medical Institute for Sexual Health: medinstitute.org
Mid-Continent Regional Educational Laboratory: mcrel.org/standards
Monitoring the Future, National Institute on Drug Abuse: MonitoringtheFuture.org
National Academy of Education: naeducation.org
National Alliance of Concurrent Enrollment Partnerships: nacep.org
National Alliance for Public Charter Schools: publiccharters.org
National Assembly on School-Based Health Care: nasbhc.org
National Assessment of Educational Progress: nces.ed.gov/nationsreportcard
National Association for Bilingual Education: nabe.org
National Association for Single-Sex Public Education: singlesexschools.org
National Association for Year-Round Education: nayre.org
National Campaign to Prevent Teen and Unplanned Pregnancy: thenationalcampaign.org
National Center on Education and the Economy: ncee.org
National Center for Education Statistics: nces.ed.gov
National Center for Fair and Open Testing: fairtest.org
National Center for Health Statistics: cdc.gov/nchs
National Center for Learning and Citizenship: ecs.org/html/projectsPartners/dc/dc_main.htm
National Center for Learning Disabilities: ncld.org
National Center for Science Education: ncse.com
National Center for the Study of Privatization in Education: ncspe.org
National Coalition Against Censorship: ncac.org
National Coalition to Support Sexuality Education: ncsse.org

National Consortium for Specialized Secondary Schools of Mathematics, Science, and Technology: ncsssmst.org

National Council for the Accreditation of Teacher Education: ncate.org

National Council on Bible Curriculum in Public Schools: bibleinschools.net

National Council on Economic Education: econedlink.org

National Council for Teachers of English: ncte.org

National Education Association: nea.org

National Home Education Research Institute: nheri.org

National Household Education Surveys Program: nces.ed.gov/nhes

National Institute on Drug Abuse: nida.nih.gov/NIDAhome.html

National Organization for Women: now.org

National Reading Panel: nationalreadingpanel.org

National Research Center on the Gifted and Talented: gifted.uconn.edu/nrcgt.html

National Service-Learning Clearinghouse: servicelearning.org

New Schools Venture Fund: newschools.org

Parents Advocating School Accountability: pasaof.org

People for the American Way: pfaw.org

Pew Forum on Religion and Public Life: pewforum.org

Phi Delta Kappa: pdkintl.org

Phi Delta Kappa Members: pdkmembers.org

PRIDE Surveys: pridesurveys.com

The Profoundly Gifted Institute: highlygifted.org

Program on Education Policy and Governance at Harvard University: hks.harvard.edu/pepg

Public Agenda: publicagenda.org

Regional Education Laboratories: ies.ed.gov/ncee/edlabs/regions

Renaissance Group (TRG): csufresno.edu/renaissancegroup

Rethinking Schools: rethinkingschools.org/index.shtml

SABIS: sabis.net

School Choices: schoolchoices.org

Charles and Helen Schwab Foundation: schwabfoundation.org

Sex Information and Education Council of the United States: siecus.org

Substance Abuse and Mental Health Services Administration: samhsa.gov

Texas Freedom Network: tfn.org/site/PageServer?pagename=TFN_homepage

U.S. Charter: uscharterschools.org/pub/uscs_docs/index.htm

U.S. Department of Education: ed.gov

U.S. Department of Health and Human Services: hhs.gov

U.S. English: us-english.org

ONLINE RESOURCES

Association for Supervision and Curriculum Development (ASCD)

ASCD SmartBrief (weekdays) To register: smartbrief.com/ascd

SmartBrief on EdTech (weekdays). To register: edtech@smartbrief.com

Phi Delta Kappa International (PDK)

Classroom Tips (bimonthly, five times)

Edge Magazine (bimonthly)

Phi Delta Kappa/Gallup Poll archives (all polls since 1969)

To register for above PDK items: pdkintl.org

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CHAPTER 10

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