

chapter 3

HISTORICAL FOUNDATIONS OF CURRICULUM

Because many scholars in the field of curriculum often lack historical perspective, they rely on the history of American education to analyze the heritage of our curriculum. By analyzing the first 200 years (or more) of curriculum, up to the turn of the twentieth century, we can view curriculum primarily in terms of evolving subject matter or content and the dominant philosophy of perennialism. Not until the rise of progressivism, followed by the early period of behaviorism and scientism in education (the use of empirical methods, analysis of human behavior, and generalizations), did attention in the curriculum field expand to include principles of curriculum development. This shift occurred in the early years of the twentieth century.

We begin our discussion with the colonial period and proceed through the eighteenth, nineteenth, and twentieth centuries. Most of our discussion focuses on the last 100 years. In the interest of brevity, we examine only

the broad sweep of curriculum, and how the curriculum evolved.

THE COLONIAL PERIOD: 1642-1776

The historical foundations of curriculum are largely rooted in the educational experiences of colonial Massachusetts. Massachusetts was settled mainly by Puritans who adhered to strict principles of theology. Unlike contemporary schools, the first schools in New England were closely related to the Puritan church. The major purpose of school, according to educational historians, was to teach children to read the Scriptures and notices of civil affairs.¹

Reading, therefore, was the most important subject, followed by writing and spelling, for purposes of understanding the catechism and common law. Since colonial days, then, reading and related language skills

have been basic to American education and basic to the elementary school curriculum.

Three Colonial Regions.

Colonial schools established in Massachusetts were derived from two sources: Legislation of 1642, which required parents and guardians of children to make certain that their charges could read and understand the principles of religion and the laws of the Commonwealth; and the "Old Deluder Satan" Act of 1647, which required every town of fifty or more families to appoint a reading and writing teacher. Towns of 100 or more families were to employ a teacher of Latin so that students could be prepared for entry to Harvard College.² The other New England colonies, except Rhode Island, followed the Massachusetts example.

These early laws reveal how important education was to the Puritan settlers. Some historians have regarded these laws as the roots of American school law and the public school movement. It is obvious that the Puritans did not want an illiterate class to grow in colonial America. They feared that such a class might comprise a group of dependent poor, an underclass, which would be reminiscent of that in England and other parts of Europe, and which they wanted to avoid. They also wanted to ensure that their children would grow up being committed to the religious doctrines.

In the middle colonies, unlike New England, no common language or religion existed. Writes George Beauchamp, "Competition among political and religious groups retarded willingness to expend the public funds for educational purposes."³ No single system of schools could be established. What evolved instead were parochial and independent schools, related to different ethnic and religious groups, and the idea of community or local control of schools (as opposed to New England's concept of central or district-wide schools). The current notion of cultural pluralism thus took shape and form some 200 years ago. Just as the schools and the curriculum were uniform and cen-

tralized in the New England colonies, they were divergent and localized in the middle Atlantic colonies.

Until the end of the eighteenth century educational decisions in the Southern colonies were generally left to the family. Legislative action was taken, however, in behalf of poor children, orphans and illegitimate children—to ensure that their guardians provided private educational or vocational skills. Nevertheless, the plantation system of landholding, slavery, and gentry created a small privileged class of white children (children of plantation owners) who had the benefit of private tutors. For most poor whites who tilled the soil, formal education was nonexistent. Unable to read and write, many of them grew up to be subsistence farmers like their parents before them. Black slaves' children were forbidden to learn to read or write and were relegated as the underclass of the plantation system. In short, the economic and political system of the early South "tended to retard the development of a large-scale system of schools. This education [handicap] was felt long after the Civil War period."⁴

Despite the regional variations between the schools of New England, the middle Atlantic colonies, and the South, all three areas were influenced by English political ideas. And, despite differences in language, religion, and economic systems, religious commitment had a high priority throughout all schools and society; the family, too, played a major role in the socialization and education of all children. What was later to become the three Rs evolved from these schools as well.

"The curriculum of the colonial schools consisted of reading, writing, and [some] arithmetic along with the rudiments of religious faith and lessons designed to develop manners and morals."⁵ It was a traditional curriculum, stressing basic-skill acquisition, timeless and absolute values, social and religious conformity, faith in authority, knowledge for the sake of knowledge, rote learning, and memorization. It was based on the notion of child depravity (children were born in sin, play was idleness, and child's

talk gibberish), and thus the teacher needed to apply constant discipline. This approach to the curriculum dominated American education until the rise of progressivism.

Colonial Schools.

The colonial schools were important institutions for colonial society, as they are for today's. One difference is that a smaller percentage of the school-aged children attended elementary school on a regular basis compared to today, and a much smaller percentage of youth attended secondary school, much less graduated.

The Town School. In the New England colonies, the town school was a locally controlled and popular elementary school. Often it was a crude, one-room structure, dominated by the teacher's pulpit at the front of the room, and attended by both boys and girls of the community. Students sat on benches and studied their assignments until called on to recite by the schoolmaster. The children ranged in age from 5 or 6 to 13 and 14. Attendance was not always regular; it depended on weather conditions and on individual families' needs for their children to work on their farms.⁶

✓ **Parochial and Private Schools.** In the middle colonies, parochial schools and private schools predominated; the elementary schools were established by missionary societies and various religious and ethnic groups to educate their own children. Like the New England town schools, these schools focused on reading and writing and religious sermons. In the South, upper-class children attended private schools oriented to reading, writing, arithmetic, and studying the primer and Bible; less fortunate children attended charity schools (if they were lucky) to be trained in the three Rs, to recite religious hymns (which was less demanding than reading the Bible), and to learn vocational skills.

Latin Grammar Schools. At the secondary level, the sons of the upper class attended Latin grammar schools, first estab-

lished in Boston in 1635, to be prepared for entry into college. These schools catered to those who planned to enter the professions (medicine, law, teaching, and the ministry) or to spend their lives as business owners or merchants.⁷

A boy would enter a Latin grammar school at the age of 8 or 9 and remain for eight years. His curriculum consisted of studying the classics. "There were some courses in Greek, rhetoric . . . and logic, but Latin was apparently three-quarters of the curriculum in most of the grammar schools, or more . . ." Little or no attention was given to the other arts and sciences. "The religious atmosphere was quite as evident . . . as it was in the elementary school" with the "master praying regularly with his pupils" and quizzing them "thoroughly on the sermons. . . ." The regimen of study was exhausting and unexciting, and the school's role that of handmaiden of the church. As Samuel Morrison reminds us, the Latin grammar school was one of colonial America's closest links to European schools, and its curriculum resembled the classical humanist curriculum of the Renaissance (when schools were primarily intended for children of the upper classes and their role was to support the religious and social institution of that era).¹⁰

The Academy. The academy, established in 1751, was the second American institution to provide education at the secondary level. Based on the ideas of Benjamin Franklin, and intended to offer a practical curriculum for those not going to college, it had a diversified curriculum of English grammar, classics, composition, rhetoric, and public speaking.¹¹ Latin was no longer considered a crucial subject. Students could choose a foreign language based on their vocational needs—for example, a prospective clergyman could study Latin or Greek, and a future businessman could learn French, German, or Spanish. Mathematics was to be taught for its practical application to a job rather than as an abstract intellectual exercise. History was the chief ethical

study, not religion. The academy also introduced many practical and manual skills into the formal curriculum; these formed the basis of vocational curriculum in the twentieth century: Carpentry, engraving, printing, painting, cabinet making, farming, book-keeping, and so on.

College. Most students went to Harvard or Yale after they graduated from Latin grammar schools. College was based on the Puritan conception that those called to the ministry needed to be soundly educated in the classics and scriptures. The students had to demonstrate their competency in Latin and Greek and the classics.

Latin grammar schools prepared students for Harvard or Yale college—much like high school academic programs prepare students for college today. The current relationship between the course offerings of secondary school and college admission requirements was, in fact, set in motion more than 200 years ago. Writes Ellwood Cubberley, “The student would be admitted into college ‘upon Examination’ whereby he could show competency ‘to Read, Construe, Parce Tully, Vergil and the Greek Testament; and to write Latin in Prose and to understand the Rules of Prosodia and Common Arithmetic’ as well as to bring ‘testimony of his blameless and inoffensive life.’”¹²

The Harvard/Yale curriculum consisted of courses in Latin, grammar, logic, rhetoric, arithmetic, astronomy, ethics, metaphysics, and natural sciences. The curriculum for the ministry or other professions also included Greek, Hebrew, and ancient history.

Old Textbooks, Old Readers.

Because the hornbook, primer, Psalter, Testament, and Bible were considered textbooks, they were widely read (depending on the reading ability of the students). By and large, most elementary textbooks, until the time of the American Revolution, were of English origin or were direct imitations of English texts.¹³ Children learned the alphabet, Lord's Prayer, some syllables, words,

and sentences by memorizing the *hornbook*—a paddle-shaped board to which was attached a single sheet of parchment covered by a transparent sheath made by flattening cattle horns.

When the *New England Primer* was published in the last decade of the seventeenth century, it replaced the English primer. It was not only the first American basal reader, it was also the most widely used textbook in the colonies for over 100 years; more than 3 million copies were sold. The *New England Primer* was permeated with religious and moral doctrines. The somber caste of the Puritan religion and morals was evident as students memorized sermons and learned their ABCs:

A—In Adam's Fall
We sinned all
B—Thy Life to mend
This book attend
C—The Cat doth play
And 'after slay . . .
Z—Zacheus he
Did climb the tree
His Lord to see.¹⁴

In 1740 Thomas Dilworth published a *New Guide to the English Tongue*, which contained a mixture of grammar, spelling, and religious material. It was followed a few years later by the *School Master's Assistant*, a widely used mathematics text.

The narrowness of the elementary school curriculum, and the limited use of textbooks, were illustrated by Noah Webster, an ardent cultural nationalist, years later in a letter to Henry Barnard, then Commissioner of Education of Connecticut:

... before the Revolution . . . the books used were chiefly or wholly Dilworth's Spelling Books, the Psalter, Testament, and Bible. No geography was studied before the publication of Dr. Morse's small books on that subject, about the year 1786 or 1787. No history was read, as far as my knowledge extends, for there was no abridged history of the United States. Except the books above mentioned, no book for reading was used before the publication of the Third Part of my Institute, in 1785. . . . The Introduction of, my Spelling

Book, first published in 1783, produced a great change in the department of spelling. . . . No English grammar was generally taught in common schools when I was young, except that in Dilworth, and that to no good purpose.¹⁵

THE NATIONAL PERIOD: 1776–1850

A new mission for education, which began to emerge during the Revolutionary period, continued through the early national period. Many leaders began to link free public schooling with the ideas of popular government and political freedom. Wrote President Madison, "A popular government without popular information, or the means of acquiring it, is but a prologue to a farce or a tragedy or perhaps both." Jefferson expressed a similar belief when he asserted: "If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be."

The emphasis on life, liberty, and equality was highlighted in the great documents of the era: The Declaration of Independence, the Bill of Rights, and the Northwest Ordinances. In 1785 these ordinances divided the Northwest Territory into townships and reserved the sixteenth section of "every township for the maintenance of public schools." In 1787, they reaffirmed that "schools and the means of education shall forever be encouraged" by the states. The federal government thus recognized its commitment to education and exhibited its willingness to advance its cause, while assuring the autonomy of state and local schools, guaranteed by the U.S. Constitution. As a result of these Ordinances, thirty-nine states received over 154 million acres of land for schools from the federal government.¹⁶

By the turn of the nineteenth century, secular forces had developed sufficiently to challenge and ultimately cause the decline of religious influence over elementary and secondary schools. Among these secular forces were the development of democracy,

the development of a strong federal government, the idea of religious freedom, and new discoveries in natural sciences.

Even though some leaders of the country mistrusted the mass of the people and continued to favor the classical curriculum, the popular movement in government mobilized against the money class and the old curriculum based on English traditions. Accompanying this growing political liberalism was an emerging cultural nationalism—demand for an American language, an American culture, and an American educational system free of English ideas from the past. As a new nation, America sought its own political system and culture—and the thinking spilled over into the schools.

Rush: Science, Progress, and Free Education.

Dr. Benjamin Rush (1745–1813) represented this new era. In 1791, he wrote that the emphasis on the classics led to the prejudice the masses felt for institutions of learning. As long as Latin and Greek dominated the curriculum, universal education beyond the rudiments was wishful thinking. In the new country, in which the chief task was explore and develop natural resources, well as to promote democracy, education should be functional to these concerns. "Under these circumstances, to spend four or five years in learning two dead languages to turn our backs upon a gold mine, in order to amuse ourselves catching butterflies. If the time spent on Latin and Greek were devoted to science, continued this champion pragmatist, "the human condition would be much improved."¹⁷ For Rush, science was the chief instrument of social progress.

Rush went on to outline a plan of education for Pennsylvania and the new Republic. Free elementary schools in every township consisting of 100 families or more, a free academy at the county level, and free colleges and universities at the state level for the future leaders of society. The public would pay for the expenses, but, in the end, Rush argued, the educational system would

reduce our taxes because a productive and well-managed workforce and entrepreneur force would result. Rush's curriculum emphasized reading, writing, and arithmetic at the elementary school level; English, German, the arts, and especially the sciences at the secondary and college level; and good manners and moral principles from the beginning to the end of the educational sequence.

Jefferson: Education for Citizenship.

Faith in the agrarian society and distrust toward the proletariat of the cities were basic in Thomas Jefferson's (1743–1826) idea of democracy. A man of wide-ranging interests that embraced politics, agriculture, science, and education, Jefferson assumed the state had the responsibility to cultivate an educated and liberated citizenry to ensure a democratic society. In "A Bill for the More General Diffusion of Knowledge," introduced in the Virginia legislature in 1779, Jefferson advocated a plan that provided educational opportunities for both common people and landed gentry "at the expense of all."¹⁸ To Jefferson, formal education was largely a state or civic concern, rather than a matter reserved to religious or upper-class groups. Schools should be financed through public taxes.

Jefferson's plan subdivided the counties of Virginia into wards, each of which would have a free elementary school to teach reading, writing, arithmetic, and history. His proposal also provided for the establishment of twenty grammar schools at the secondary level, for which gifted students who could not afford to pay tuition would be provided scholarships. There, the students would study Latin, Greek, English, geography, and higher mathematics. Upon completing grammar school, half the scholarship students would be assigned positions as elementary or ward school teachers. The ten scholarship students of highest achievement would attend William and Mary College. Jefferson's plan promoted the idea of school as a selective agency to identify bright

students for continuing education, as well as the traditional idea of equality of opportunity for economically less fortunate students.

Neither Jefferson's proposal for Virginia nor Rush's proposal for Pennsylvania were enacted. Nonetheless, the bills indicate the type of educational theorizing characteristic of the young nation. Coupled with Franklin's academy, and its practical curriculum based on business and commercial principles of education rather than classical and religious principles, these bills demonstrated the purpose of education to be to promote good citizenship, social progress, and utilitarianism. The classical curriculum and religious influence were, in effect, beginning to decline. Rush and Jefferson (and to a lesser extent Franklin) were all concerned with equality of educational opportunity—that is, they proposed universal education for the masses of children and youth, and methods for identifying students of superior ability, who were to receive free secondary and college educations at public expense.

Webster: Schoolmaster and Cultural Nationalism.

The United States differed from most new countries struggling for identity in that it lacked a shared cultural identity and national literature. In its struggle against the "older" cultures and "older" ideas, the new nation went to great lengths to differentiate itself from England.¹⁹ Noah Webster (1758–1843) called passionately upon his fellow Americans to "unshackle [their] minds and act like independent beings. You have been children long enough, subject to the control and subservient to the interests of a haughty parent. . . . You have an empire to raise . . . and a national character to establish and extend by your wisdom and judgment."²⁰

In 1789, when the Constitution went into effect as the law of the land, Webster argued that the United States should have its own system of "language as well as government."

The language of Great Britain, he reasoned, "should no longer be our standard; for the taste of her writers is already completed, and her language on the decline."²¹ By the act of revolution, the American people had declared their political independence from England, and now they needed to declare their cultural independence as well.

Realizing that a sense of national identity was conveyed through a distinctive national language and literature, Webster set out to reshape the English language used in the United States. He believed that a uniquely American language would: (1) eliminate the remains of European usage; (2) create a uniform American speech that would be free of localism and provincialism; and (3) promote self-conscious American cultural nationalism.²² The creation of an American language would become the linguistic mortar or national union; it would, however, have to be phonetically simple to render it more suitable to the common people.

Webster directly related the learning of language to organized education. As they learned the American language, children also would learn to think and act as Americans. The American language that Webster proposed would have to be taught deliberately and systematically to the young in the nation's schools. Because the curriculum of these Americanized schools would be shaped by the books that the students read, Webster spent much of his life writing spelling and reading books. His *Grammatical Institute of the English Language* was published in 1783. The first part of the *Institute* was later printed as *The American Spelling Book*, which was widely used throughout the United States in the first half of the nineteenth century.²³ Webster's *Spelling Book* went through many editions; it is estimated that 15 million copies had been sold by 1837. Webster's great work was *The American Dictionary*, which was completed in 1825 after twenty-five years of laborious research.²⁴ Often termed the "schoolmaster of the Republic," Noah Webster was an educational statesman of the early national period whose work helped to create a sense of

American language, identity, and nationality.

McGuffey: The Reader and American Virtues.

William Holmes McGuffey (1800–1873), who taught most of his life in Ohio colleges, also entered the debate on American cultural nationalism. The author of America's most popular textbooks of the period, called the *Readers*, McGuffey acknowledged with respect and gratitude America's "obligations to Europe and the descendants of the English stock" in science, art, law, literature, and manners. America had made its own contributions to humankind, however; they "were not literary or cultural, but moral and political." The seeds of popular liberty "first germinated from our English ancestors, but it shot up to its fullest heights in our land."²⁵ America had furnished to Europe proof that "popular institutions, founded on equality and the principle of representation, are capable of maintaining governments," that it was practical to elevate the masses, what Europe called the laboring and lower class, "to the great right and great duty of self-government."²⁶ Thus, McGuffey balanced the cultural indebtedness of the country with its political and social promise, the full realization of liberalism and traditions of the American common folk.

It is estimated that over 120 million copies of McGuffey's five *Readers* were sold between 1836 and 1920.²⁷ What McGuffey did was to combine the virtues of the Protestant faith with those of rural America—patriotism, heroism, hard work, diligence, and virtuous living. The tone was moral, religious, capitalistic, and pro-American; the selections of American literature included orations by George Washington, Patrick Henry, Benjamin Franklin, and Daniel Webster. Through his *Readers*, McGuffey taught several generations of Americans. He also provided the first graded *Readers* for our schools and paved the way for a graded system, which had its beginnings in 1840. So popular were his *Readers*, and so vivid and

timeless his patriotism and faith in American institutions—home, work, church, and nationhood—that many of his *Readers* (also his *Pictorial Primer*) have been reintroduced today in some rural, conservative, and/or fundamentalist schools.

NINETEENTH-CENTURY EUROPEAN EDUCATORS

Even though much criticism was leveled against European thought, American education was greatly influenced by it. At the college level, German educators influenced the fields of natural science, psychology, and sociology; many of our research-oriented universities were based on the German model. At the public school level, K-12, German (and Swiss) thought introduced romantic and progressive ideas—and a curriculum and instructional method that were psychologically oriented and considered the needs and interests of the students. The English also impacted on American education by providing models of schooling that ranged from efficient to romantic.

However strongly American patriots may have desired a distinctive cultural life, they could not, as men and women of common sense and learning, turn their backs on the wealth and wisdom of European ideas. Moreover, the rising current of educational thought in the Old World was not all steeped in old-fashioned and classical ideas, because progressive and scientific principles were beginning to evolve.

The theme of reform characterized much of the educational discussions of the time. The limitations of the “traditional curriculum and typical school of this era were recognized by educational leaders in Europe and America, and many of the features that were now firmly established in [curriculum] theory and practice can be traced to the ideas of the men and women who were ahead of their time.”²⁸ The traditional curriculum, which emphasized Latin, Greek, and the classics, was deemphasized. New pedagogical practices were developed that

ran contrary to the methods of rote learning, memorization, and corporal punishment.

Pestalozzi: General and Special Methods.

During the early American period of education, educational reformers were influenced by Johann Heinrich Pestalozzi (1746–1827), a Swiss educator. According to one educational historian, “Pestalozzi, probably more than any other educational reformer, laid the basis for the modern elementary school and helped to reform elementary-school practice.”²⁹ Pestalozzi maintained that the educational process should be based on the natural development of the child and his or her sensory influences—similar thinking to that of current progressives and environmentalists. Pestalozzi’s basic pedagogical innovation was his insistence that children learn through the senses rather than with words. He labeled rote learning as mindless, and he emphasized instead linking the curriculum to children’s experiences in their home and family lives.

Education, according to Pestalozzi, was to develop by considering the “general” method and “special” method. The general method called for educators, who were loving persons, to provide emotional security, trust, and affection toward the children. The special method considered the auditory and visual senses of the children in the teaching process. To this end, Pestalozzi devised the “object” lesson, in which children studied common objects that they saw and experienced in their daily environments—plants, rocks, artifacts, and so on. The object lesson enhanced three types of learning—form, number, and sound. Children would first determine the form of the object, then draw it, then name it. From the lessons in form, number, and sound came more formal instruction in the three Rs.

Pestalozzi’s ideas had great impact on early nineteenth-century American education. William McClure and Joseph Neef, and later Horace Mann and Henry

Barnard, when he was U.S. Commissioner of Education, all worked to introduce his ideas into American schools.³⁰ His basic concepts of education became part of progressive schooling, and later appeared in the move for curriculum relevancy and humanistic curriculum. When educators discovered the "disadvantaged" in the 1960s and later promoted the ideas of Project Head Start and compensatory education, Pestalozzi's theories had special imprint.

Froebel: The Kindergarten Movement.

Friedrich Froebel (1782–1852), a German educator, is known for his development of the kindergarten, what he called the "child's garden." Froebel proposed that the educational process should start when children are 3 or 4 years old, and that it should be based on organized play. This obviously suggested a far less formal, rigid, or authoritarian school environment.

Froebel's kindergarten was a prepared environment in which learning was based on the children's self-activities, and self-development, and on the children's trust and affection along the lines of Pestalozzi. Songs, stories, colorful materials, and games—what classical curriculum advocates would criticize as wasteful—were part of the formal curriculum. The children could manipulate objects (spheres, cubes, and circles), shape and construct materials (clay, sand, cardboard), and engage in playful activities (build castles and mountains, run and exercise).³¹ Together these activities were to comprise the learning environment and provide a secure and pleasant place where children could grow naturally.

The kindergarten concept was brought to America by German immigrants, and the first American kindergarten was established in Watertown, Wisconsin, in 1855 by Margaret Schurz. William Harris, Superintendent of Schools in St. Louis, Missouri, and later U.S. Commissioner of Education, was instrumental in implementing the idea on a broader scale. The kindergarten is now

an established part of American education, and many of Froebel's ideas of childhood experiences and methods of play are incorporated into current theories of early childhood education and progressive schooling.

Herbart: Moral and Intellectual Development.

A famous German philosopher, Johann Freidrich Herbart (1776–1841) maintained that the main purpose of education was to develop moral character. This purpose could not be developed from the three Rs or the traditional curriculum because of their mechanical nature. Herbart specified two major bodies of subject matter: Knowledge interests and ethical interests. Knowledge interests involved empirical data, factual data, and theoretical ideas; ethical interests involved personal convictions, benevolence, and regard for the social welfare of others, justice, and equity. Herbart urged that history, literature, mathematics, and science find a place in the curriculum at all levels of education. He also introduced the idea of "correlation" of all subjects to unify the curriculum, an idea that influenced curriculum specialists who favored a core curriculum in the 1940s and 1950s.

Herbart was instrumental in formalizing methods of instruction. Instruction, to be based on the teacher's building on the children's previous learning and on their interests and needs, was a psychological process that included the following steps:

1. *Préparation:* The teacher considers previous learning experiences and stimulates the readiness of the learner.
2. *Presentation:* The new lesson is summarized.
3. *Association:* The new lesson is related to ideas or materials previously studied.
4. *Generalization:* Rules, principles, or generalizations of the new ideas are mastered by the learning.
5. *Application:* The new lesson is given meaning by testing and applying the new ideas to specific instances.³²

Speaking of Herbart's contribution to the instruction of teaching, John Dewey said: "Few attempts have been made to formulate a method, resting on general principles, of conducting a recitation. One of these is of great importance, and has probably had more influence upon the learning of lessons than all others put together; namely, the analysis by Herbart of a recitation into five successive steps."³³

Herbart's formal steps of instruction were not only adopted by classroom teachers, they were applied to teacher training as well. In theory, teachers were asked to prepare their lessons by thinking of five steps, and asking: What do my students know? What questions should I ask? What events should I relate? What conclusions should be reached? How can students apply what they have learned? To a large extent, these instructional principles influenced the teaching-learning principles Dewey expressed in *How We Think*; they still serve as guidelines for teachers who use the developmental lesson approach.

Spencer: Utilitarian and Scientific Education.

Herbert Spencer (1820–1903) was an English social scientist who based his ideas of education on Charles Darwin's theories of biological evolution and survival of the fittest. Spencer maintained that social development takes place according to the evolutionary process by which simple societies had evolved to more complex social systems, characterized by an increased variety of specialized professions and occupations.³⁴ Because of the laws of nature, only intelligent and productive populations would adapt to environmental changes. Less intelligent, weak, or lazy people would slowly disappear. The doctrine had immense implications for education based on excellence, the notion of social-economic progress, and the idea of intellectual development based on heredity.

Spencer also criticized religious doctrines

and classical subject matter in education as nonscientific and unrelated to contemporary society. Rather, he advocated a curriculum fit for industrialized society—one that was scientific and practical (utilitarian). He believed that traditional schools were impractical and ornamental; a luxury for the upper class that failed to meet the needs of the people living in modern society.

For Spencer, the major purpose of education was to "prepare for complete living." Curriculum needed to be arranged according to this purpose. Spencer constructed a curriculum by prioritizing human Activities so as to advance human survival and progress. His curriculum included the following activities, in order of importance: Activities that (1) sustain life; (2) enhance life; (3) aid in rearing children; (4) maintain one's social and political relations; and (5) enhance leisure, tasks, and feelings.³⁵

In his famous essay, "What Knowledge Is Most Worth?," Spencer answered his own question. He maintained that science was the most important knowledge for self-preservation and for securing the necessities of life—even though it received scant attention in the curriculum. Spencer also believed that students should not be told what to think but should rather be encouraged to discover as much as possible.³⁶

Although many of Spencer's ideas about religion, evolution, and social progress created a furor—and they still do among religious and political observers today—the ideas fitted well with those of thinkers in the second half of the nineteenth century, which was characterized by industrial growth, colonial expansion, and manifest destiny among European countries and the United States. Spencer's notion of discovery learning also influenced twentieth-century curricularists, both Deweyite progressive educators and later academic disciplinary educators. His demand for a curriculum steeped in science and linked with political survival and economic competition had special meaning during the Cold War-Sputnik era and still does—in light of present-day

competition with Japan, Korea, and Germany.

THE RISE OF UNIVERSAL EDUCATION: 1820–1920

During the early nineteenth century America expanded westward. Life on the new frontier deepened America's faith in the common or average person, who built the new nation. Equality and rugged individualism were important concepts, expressed in the Declaration of Independence and reaffirmed by Westerners, who believed that all people were important and that in order to survive each had a job to do—despite different backgrounds. The common person, whether educated or not, was elected to various political offices; faith abounded in the capacity of humans to improve their lives. This kind of faith in the common people and in American civilization underscored to the frontier people the necessity of school.³⁷

In the cities of the East, especially among the immigrant populations, there was also faith in the common person, in social mobility, and in the American dream of life, liberty, and equality. The upper class may not have had the same faith; nonetheless, the traditional argument (since Franklin, Rush, and Jefferson)—that mass education was necessary for intelligent participation in political democracy and that it must extend beyond the common school to high schools and colleges—helped convert the American populace to supporting free schooling.

Monitorial Schools.

The monitorial school was a European invention, based on Joseph Lancaster's model of education. It spread quickly to the large American urban centers, where the immigrant population was increasing, and to the frontier, where there was need for a system of schools. Its major appeal, in the 1820s and the following decades, was that it was cheap: Bright student monitors were used as instructors. Each was usually as-

signed to assist instruction to a row of about ten pupils. The teacher first taught the lesson to the student monitors, who then took their "stations" and taught their fellow classmates what they had just learned.³⁸ The instruction was highly structured, and it was based on rote learning and drilling the three Rs.

Advocates of the monitorial method were quick to point out that besides being low cost, it kept students busy who would otherwise have had little to do while the teacher was listening to other groups. With the monitorial system, the students were engaged in constant recitation, and groups of students moved at their own pace, rather than spending their time being idle or mischievous. As the teachers were relieved of some of their drill and recitation chores, their new roles were more as inspectors and supervisors. The monitorial system was thus also considered "efficient" education.

The monitorial system deemphasized classical education for the three Rs, and religious theory for moral doctrines and citizenship; demonstrated the need for the possibility of systematic instruction; acquainted many people with formal education; and made educational opportunities more widely available. Most important, it promoted mass education and tax-supported elementary schools.³⁹ At the peak of its popularity, in the 1840s, it was organized in some high schools and suggested for colleges.

But the monitorial system was considered too mechanical, and it was criticized for using students who knew little to teach those who knew even less. By the middle of the nineteenth century, its popularity waned. One hundred years later, however, the virtues of mechanical education resurfaced with the notion of programmed instruction. Instruction through self-pacing and could be measured.

Common Schools.

The common school was established in 1826 in Massachusetts, when the state

sed a law requiring every town to choose a school board to be responsible for all the schools in the local area. Eleven years later, the Massachusetts legislature created the first state board of education, and Massachusetts organized the public common schools under a single authority. Connecticut quickly followed the example of its neighbor.⁴⁰ These common schools were devoted to elementary education with emphasis on the three Rs. The movement was spearheaded by Horace Mann and rooted in the ideas of progressive thought.

As a member of the Massachusetts legislature, and later as the first Massachusetts Commissioner of Education, Horace Mann skillfully rallied public support for the common school by appealing to various segments of the population. To enlist the business community, Mann sought to demonstrate that "education has a market value" with a yield similar to "common bullion." The "aim of industry . . . and wealth of the country" would be augmented "in proportion to the diffusion of knowledge."⁴¹ Workers would be more diligent and more productive. Mann also established a stewardship theory, aimed at the upper class, that the public good would be enhanced by public education. Schools for all children would create a stable society in which people would obey the laws and add to the nation's political and economic well-being. To the workers and farmers, Mann asserted that the common school would be a great equalizer, a means of social mobility for their children. To the Protestant community, he argued that the common school would assimilate ethnic and religious groups, promote a common culture, and help immigrant children learn English and the customs and laws of the land.⁴² He was convinced that the common school was crucial for the American system of equality and opportunity, for a sense of community to be shared by all Americans, and for the promotion of a national identity.

Although the pattern for establishing common schools varied among the states, and the quality of education varied as well, the foundation of the American public

school was being forged through this system. The schools were common in the sense that they housed youngsters of all socioeconomic and religious backgrounds, from age 6 to 14 or 15, and were jointly owned, cared for, and used by the local community. Because a variety of subjects was taught to children of all ages, teachers had to plan as many as thirty or forty different lessons a day.⁴³ Teachers also had to try to keep their schoolrooms warm in the winter—a responsibility shared by the older boys, who cut and fetched wood—and cool in the summer. Schoolhouses were often in need of considerable repair, and teachers were paid miserably low salaries.

In New England, the state legislatures encouraged the establishment of school districts and elected school boards, and state laws to govern the schools. But it was on the frontier where the common school flourished, where there was faith in the common person and a common destiny. The common one-room schoolhouse "eventually led to one of America's most lasting, sentimentalized pictures—the 'Little Red Schoolhouse' . . . in almost every community." It had problems and critics, but it symbolized the pioneers' spirit and desire to provide free education for their children. "It was a manifestation of the belief held by most of the frontier leaders that a school was necessary to raise the level of American civilization."⁴⁴

This small school, meager in outlook and thwarted by inadequate funding and insufficient teachers, nevertheless fit with the conditions of the American frontier—of expansion and equality. It was a "blab school," according to Abe Lincoln, but it was the kind of school in which the common person's children—even those born in log cabins—could begin their "readin," "writin," and "cipherin,"⁴⁵ and could advance to limitless achievements. It was a school local citizens could use as a polling place, a center for Grange activities, a site for dances, and a location for community activities; it was a school controlled and supported by the local community.

The traditions built around the common school—the idea of neighborhood schools, local control of schools, and government support of schools—took a firm hold on the hearts and minds of Americans. America's confidence in the common school helped fashion the public schools later in the nineteenth century; it also influenced our present system of universal education.

The Elementary School Curriculum Evolves. There was no agreement on an appropriate or common curriculum for the elementary school. The trend, throughout the nineteenth century, was to add courses to the essential or basic subjects of reading, spelling, grammar, and arithmetic. Religious doctrine changed to “manners” and “moral” instruction by 1825; the subject matter of textbooks was heavily moralistic (one reason for the popularity of McGuffey), and teachers provided extensive training in character building. By 1875 les-

sons in morality were replaced by courses in “conduct,” which remained part of the twentieth-century curriculum. The traditional emphasis on curriculum was slowly altered, as more and more subjects were added—including geography and history by 1850; science, art (or drawing) and physical education by 1875; and nature study (or biology and zoology), music, and home and manual training by 1900. Table 3-1 shows this evolution of the elementary school curriculum.

Secondary Schools.

The common school created the basis for a tax-supported and locally controlled elementary school education. The American high school was established upon this base. By 1900 the majority of children aged 6 to 13 were enrolled in public elementary school, but only 11.5 percent of those aged 14 to 17 were enrolled in public secondary

TABLE 3-1 Evolution of the Elementary School Curriculum, 1800–1900

1800	1825	1850	1875	1900
<i>Reading</i>	<i>Reading</i>	<i>Reading</i>	<i>Reading</i>	<i>Reading</i>
	Declamation	Declamation	Literary selections	Literature
<i>Spelling</i>	<i>Spelling</i>	<i>Spelling</i>	<i>Spelling</i>	Spelling
<i>Writing</i>	<i>Writing</i>	<i>Writing</i>	<i>Penmanship</i>	Writing
Catechism	Good behavior	Conduct	Conduct	Conduct
<i>Bible</i>	Manners and morals	Manners		
Arithmetic	<i>Arithmetic</i>	<i>Mental arithmetic</i>	<i>Primary arithmetic</i>	<i>Arithmetic</i>
	Bookkeeping	<i>Ciphering</i>	<i>Advanced arithmetic</i>	
	<i>Grammar</i>	Bookkeeping	<i>Grammar</i>	<i>Grammar</i>
	Geography	<i>Grammar</i>	Oral language	<i>Oral language</i>
		Elementary language	Home geography	Home geography
		Geography	<i>Text geography</i>	<i>Text geography</i>
		U.S. history	U.S. history	History studies
		Object lessons	Constitution	Nature study
			Object lessons	Elementary science
			Elementary science	Drawing
			Drawing	Music
			Physical exercises	Physical training
				Play
				Sewing
	Sewing			Cooking
				Manual training

Source: From E. P. Cubberley, *The History of Education* (Boston: Houghton Mifflin, 1920), p. 756.

Note: Italics indicate the most important subjects.

TABLE 3-2 Percentage of Students Enrolled in Secondary School and College, 1900-1980

	14-17 Year Olds Enrolled in Secondary Schools	17 Year Olds Graduating High School	18-21 Year Olds Enrolled in College
1900	11.5	6.5	3.9
1910	15.4	8.8	5.0
1920	32.3	16.8	7.9
1930	51.4	29.0	11.9
1940	73.3	50.8	14.5
1950	76.8	59.0	26.9
1960	86.1	65.1	31.3
1970	93.4	76.5	45.2
1980	93.7	74.4	46.3

Source: From *Digest of Educational Statistics, 1982, 1985-86* (Washington, D.C.: U.S. Government Printing Office, 1982, 1986), Table 35, p. 44; Table 9, p. 11. See also Allan C. Ornstein, *Education and Social Inquiry* (Itasca, Ill.: Peacock, 1978), Table 5.10, p. 177.

schools (and only 6.5 percent of the 17-year olds graduated). As shown in Table 3-2, not until 1930 did the secondary school enrollment figure exceed 50 percent. By 1980, the percentage of elementary aged children attending school was 99 percent, and the percentage of secondary aged children was 94 percent (and 75 percent were graduating). The great enrollment revolution for elementary schools took place between 1850 and 1900; for high schools it evolved between 1900 and 1980.

The Academy.

In the early nineteenth century, the academy began to replace the Latin grammar school; by the middle of the century, it was dominant. It offered a wide range of curricula, and it was designed to provide a practical program (for terminal students) as well as a college preparatory course of study. By 1855 more than 6000 academies had an enrollment totalling 263,000 students⁴⁶ (more than two-thirds of the total secondary school enrollment of that period).

"One of the main purposes" of the academy, according to Ellwood Cubberley, "was the establishment of . . . subjects having value aside from mere preparation for college, particularly subjects of modern nature, useful in preparing youth for the changed conditions of society. . . . The study of real things rather than words about

things, and useful things rather than subjects merely preparatory to college became prominent features of the new course of study."⁴⁷

By 1828 as many as fifty different subjects were offered by the academies of the state of New York. The top fifteen, in rank order, were: (1) Latin, (2) Greek, (3) English grammar, (4) geography, (5) arithmetic, (6) algebra, (7) composition and declamation, (8) natural philosophy, (9) rhetoric, (10) philosophy, (11) U.S. history, (12) French, (13) chemistry, (14) logic, and (15) astronomy. By 1837, the state Board of Regents reported seventy-two different subjects.⁴⁸

Although no typical academy existed, with so many different course offerings, the academy inadvertently served the major function of preparing students for college. The traditional curriculum, or the classical side of the academy, continued in the new setting. Writes Elmer Brown, "The college preparatory course was the backbone of the whole system of instruction" in the better academies. Although practical courses were offered, "it was the admission requirements of the colleges, more than anything else, that determined their standards of scholarship."⁴⁹ And, writes Paul Monroe, "The core of academy education yet remained the old classical curriculum . . . just as the core of the student body in the more flourishing academies remained the group preparing for college."⁵⁰

The era of the academies extended to the 1870s, when academies were replaced by public high schools. The academies, nevertheless, served as finishing schools for young ladies—with courses in classical and modern language, science, mathematics, art, music, and homemaking. Also, they offered the “normal” program for prospective common school teachers by combining courses in the classics with principles of pedagogy. A few private military and elite academic academies still exist today.

The High School.

Although a few high schools existed in the early half of the nineteenth century (the first one was founded in 1821 in Boston), the high school did not become a major American institution until after 1874, when the Michigan court ruled, in the Kalamazoo decision, that the people could establish and support high schools with tax funds if they consented. There was some initial resistance—the fear that the taxes for the high schools would only benefit a small portion of the youth population—but after the court decision, the high school spread rapidly and compulsory attendance laws were established on a state-by-state basis. The idea of high school attendance for all youth, based on the notion of equality of educational opportunity, was a major educational reform.

Students were permitted to attend private schools, but the states had the right to establish minimum standards for all. By 1890, the 2525 public high schools in the United States enrolled more than 200,000 students, compared to 1600 private secondary schools, which had fewer than 95,000 students. By 1900 the number of high schools had soared to 6000, while the number of academies had declined to 1200.⁵¹ The public high school system, contiguous with common schools, had evolved. Although as late as 1900 the high schools were still attended by only a small percentage of the total youth population, the inclusion of terminal and college preparatory students, as well as rich and poor students under one

roof, was evidence that the American people had rejected the European dual system of secondary education.

The high schools stressed the college preparatory program, but they also served to complete the formal educations of terminal students. They offered, in addition, a more diversified curriculum than the academies. At the turn of the century, high schools began to offer vocational and industrial courses as well as commercial and clerical training courses. Despite all their problems and criticisms, the public high schools evolved into democratic and comprehensive institutions for social and political reform. They produced a skilled workforce in an expanding industrial economy, and they assimilated and Americanized millions of immigrant children in our cities. They emphasized that our society, unlike most others, could afford to educate the masses of 14 to 18 year olds. When the high school became a dominant institution, a student could attend a publicly supported and supervised institution from age 5 to 18. The high school, moreover, was a bridge to college and the university.

The Secondary School Curriculum Evolves. The curriculum of the Latin grammar school was virtually the same at the beginning and end of the colonial period. Table 3-3 lists the most popular courses. As indicated, Latin, Greek, arithmetic, and the classics were stressed. The academy introduced greater variation—courses for practical studies, for example—in the curriculum. By 1800, the academy offered about twenty-five different subjects (the table lists the seventeen most popular courses). Between 1850 and 1875, the peak period of the academy, estimates are that some 150 courses were offered.⁵² The twenty most popular ones in rank order were as follows: (1) algebra; (2) higher arithmetic; (3) English grammar; (4) Latin; (5) geometry; (6) U.S. history; (7) physiology; (8) natural philosophy; (9) physical geography; (10) German; (11) general history; (12) rhetoric; (13) bookkeeping; (14)

TABLE 3-3 Evolution of Secondary School Curriculum, 1800–1900

1800–1825	1825–1850	1850–1875	1875–1900
Latin Grammar School			
Latin Greek Arithmetic Classical literature	Latin Greek Arithmetic Classical literature Ancient history		
Academy and High School			
Latin Greek Classical literature Writing* Arithmetic*	Latin Greek Classical literature Writing* Arithmetic*	Latin Greek English literature Composition* Arithmetic* Higher arithmetic Geometry Trigonometry Algebra Bookkeeping* English grammar Rhetoric	Latin Greek† English literature Composition* Arithmetic* Geometry Trigonometry Algebra Bookkeeping*† English Rhetoric*
Geometry Trigonometry Bookkeeping* English grammar Rhetoric Oratory	Geometry Trigonometry Algebra Bookkeeping* English grammar Rhetoric Oratory† Debating	Debating† Astronomy Physical geography Natural philosophy† Meteorology Chemistry Physiology Botany Zoology	Astronomy* Physical geography† Meteorology† Chemistry Physiology† Health education Botany† Zoology† Biology Physics Foreign language (French, Spanish, German, Italian)
Surveying* Astronomy* Navigation* Geography	Surveying* Astronomy* Navigation*† Geography Natural philosophy	Foreign language (French, Spanish, German) Mental philosophy Moral philosophy† General history Greek history† U.S. history	Foreign language (French, Spanish, German, Italian) World history Ancient history U.S. history Civil government Political economy Manual training* Home economics* Agriculture* Music Art Physical education
Foreign language* (French, Spanish, German) Philosophy	Foreign language* (French, Spanish, German) Philosophy History Greek history U.S. history		

Source: Adapted from Calvin Davis, *Our Evolving High School Curriculum* (New York: World Book, 1927), p. 38; Committee of Ten, *Report of the Committee on Secondary Studies* (Washington, D.C.: National Education Association, 1893), p. 4; Newton Edwards and Herman G. Richey, *The School in the American Social Order*, 2nd ed. (Boston: Houghton Mifflin, 1963), p. 250; and Gerald R. Firth and Richard D. Kimpston, *The Curricular Continuum in Perspective* (Itasca, Ill.: Peacock, 1973), pp. 102–104.

*Considered as part of Practical studies.

†All but disappeared; limited enrollments.

French; (15) zoology; (16) chemistry; (17) English literature; (18) geology; (19) botany; and (20) astronomy.⁵³

There was no real philosophy or aim to these courses, except that most were college preparatory in nature, even though the original aim of the academy was to offer a practical program. It was believed then that a broad program with several course offerings was the hallmark of a better academy. The curriculum just expanded.⁵⁴

After 1875, the high school rapidly grew and the academy rapidly declined. The secondary courses listed in Table 3-3 between 1875 and 1900 were high school courses. The curriculum continued to expand. The great variety in course offerings would allegedly allow the students to find where their interests and capabilities might be.⁵⁵

THE TRANSITIONAL PERIOD: 1893-1918

From the colonial period until the turn of the twentieth century, the traditional curriculum—which emphasized classical studies for college-bound students—dominated at the elementary and secondary levels. The rationale for this emphasis was that the classics were difficult, and were thus the best source for intellectualizing and for developing mental abilities (a view later supported by the mental discipline approach to learning). The more difficult the subject, and the more the students had to exercise their minds, the greater the subject's value. Such ideas of knowledge and subject matter, as well as mental rigor, were rooted in the philosophy of perennialism.

Along with the classics, more and more subjects were added to the curriculum. As a result the need was growing to bring some unity or a pattern for curriculum organization out of the chaotic and confused situation, especially at the secondary level, where subject matter was expanding the most. According to two educators, "subjects taught varied from school to school. There was no uniformity as to time allotments, and grade

placements of topics or subjects pursued" differed from school to school.⁵⁶

A companion problem existed. Most children, even as late as the turn of the century, completed their formal education at the elementary school level, and those students who did go to secondary schools usually ended their formal education upon graduation. As late as 1890, only 14.5 percent of the students enrolled in high school were preparing for college, and less than 3 percent went on to college.⁵⁷ Hence, the needs of more than 85 percent of these students were still being overlooked for only the top 15 percent; the discrepancy was more lopsided if college entry was considered. Reformers began to question the need for two curriculum tracks at the elementary level—one for high school-bound and the other for nonhigh school-bound children—the dominance of college over the high school, and the emphasis on mental discipline and the classics.

Reaffirming the Traditional Curriculum: Three Committees.

With these unsettled questions as background, the National Education Association (NEA) organized three major committees between 1893 and 1895: The Committee of Fifteen on Elementary Education, the Committee of Ten on Secondary School Studies, and the Committee on College Entrance Requirements. These Committees were to determine the specifics of the curricula for these schools. Their reports "standardized" the curriculum for much of this century. In the words of Ellwood Cubberley, "The committees were dominated by subject-matter specialists, possessed of a profound faith in mental discipline." No concern for student "abilities, social needs, interest, or capabilities . . . found a place in their . . . deliberations."⁵⁸

The Committee of Fifteen. The Committee of Fifteen was heavily influenced by Charles Eliot, president of Harvard University, who had initiated vigorous discussion on the need for school reform in the years

preceding, and by William Harris; then the U.S. Commissioner of Education, a staunch perennialist, who believed in strict teacher authority and discipline. Both Eliot and Harris wanted the traditional curriculum to remain intact. Eliot's plan, which was adapted by the Committee, was to reduce the elementary grades from ten to eight. The Committee stressed the three Rs, as well as English grammar, literature, geography, and history. Hygiene, culture, vocal music, and drawing were given sixty minutes, or one lesson, per week. Manual training, sewing, and/or cooking, as well as algebra and Latin, were introduced in the seventh and eighth grades.

In general, the Committee resisted the idea of newer subjects, and the principles of pedagogy or teaching that had characterized the reform movement of the European pioneers since the early 1800s. The Committee also rejected the idea of kindergarten and the idea that the children's needs or interests should be considered when planning the curriculum.⁵⁹ Any idea of interdisciplinary subjects or curriculum synthesis was rejected. Isolation of each branch of knowledge, or what John Dewey, in *Democracy and Education*; and Ralph Tyler, in *Basic Principles of Curriculum and Instruction*, later referred to as "compartmentalization" of subject matter, was considered the norm; it still is today, in most schools.

The Committee of Ten. The Committee of Ten was the most influential of the three committees. Its recommendations best illustrate the tough-minded, mental discipline approach supported by Eliot, who was the chair. The Committee selected nine academic subjects around which to organize the high school curriculum. As indicated in Table 3-4, they were: (1) Latin; (2) Greek; (3) English; (4) other modern languages; (5) mathematics (algebra, geometry, trigonometry, and higher or advanced algebra); (6) physical sciences (physics, astronomy, and chemistry); (7) natural history or biological sciences (biology, botany, zoology, and physiology); (8) social sciences (history, civil gov-

ernment, and political economy); and (9) geography, geology, and meteorology.

The Committee recommended four different programs or tracks: (1) classical; (2) Latin scientific; (3) modern languages; and (4) English. The first two required four years of Latin; the first program emphasized English (mostly classical) literature and math, and the second program, math and science. The modern language program required four years of French or German (Spanish was considered not only too easy, but also not as important a culture or language as French or German). The English program permitted four years of either Latin, German, or French. Both of these programs also included literature, composition, and history.

The Committee of Ten took a position and claimed that the latter two programs, which did not require Latin or emphasize literature, science, or mathematics, were "in practice distinctly inferior to the other two."⁶⁰ In taking this position, the Committee indirectly tracked college-bound students into the first two or superior programs and noncollege-bound students into the latter two or inferior programs. To some extent, this bias reflected the Committee's composition—eight of the ten members represented college and private preparatory school interests.

The Committee's unwillingness to recognize the value of art, music, physical education, and vocational education was based on the theory that these subjects had little mental or disciplinary value. In analyzing the effects of the Committee's action, Daniel and Laurel Tanner wrote: "The choice of these subjects and the omission of others from consideration was enough to set the course for secondary education" for many years and to indirectly set the tone at the elementary level, too. As "might be expected," the Committee suggested that "the nine subjects be taught sooner" and that all subjects except Latin and Greek be taught at the elementary school level.⁶¹

Even though very few students at that time went to college, this college prepara-

TABLE 3-4 Secondary School Programs and Subjects Proposed by Committee of Ten, 1893

1st Year		2nd Year		3rd Year		4th Year	
Latin	5 p.*	Latin	4 p.	Latin	4 p.	Latin	4 p.
English Literature	2 p. }	Greek	5 p.	Greek	4 p.	Greek	4 p.
" Composition,	2 p. }	English Literature	2 p. }	English Literature,	2 p. }	English Literature,	2 p. }
German [or French]	5 p.	" Composition,	2 p. }	" Composition,	1 p. }	" Composition	1 p. }
Algebra	4 p.	German continued	4 p.	Rhetoric,	1 p. }	Grammar,	1 p. }
History of Italy, Spain, and France	3 p.	French, begun		German	4 p.	German	4 p.
Applied Geography		Algebra,*	2 p. }	French	4 p.	French	4 p.
(European political-		Geometry	2 p. }	Algebra,*	2 p. }	Trigonometry, }	2 p.
continental and oceanic		Botany or Zoology	4 p.	Geometry,	2 p. }	Higher Algebra, }	4 p.
flora and fauna)	4 p.	English History		Physics	4 p.	Chemistry	4 p.
	25 p.	to 1688	3 p.	History, English and		History (intensive) and	
			33 p.	U.S.	3 p.	Civil Government	3 p.
				Astronomy, 3 p. }		Geology or Physiology,	
				1st ½ yr. }	3 p.	4 p. 1st ½ yr. }	4 p.
				Meteorology, 3 p. }		Anatomy, Physiology, and	
				2nd ½ yr. }		Hygiene, 4 p. 2nd ½ yr. }	
					34 p.		33 p.

*p. = periods.

Source: From Committee of Ten, *Report of the Committee of Ten on Secondary School Studies* (Washington, D.C.: National Educational Association, 1893), p. 4.

tory program established a curriculum hierarchy, from elementary school to college, that promoted academics and ignored the majority of students, who were noncollege bound. Today, even though we offer vocational, industrial, and/or technical programs, the academic program is still considered superior to, and of more status than, the other programs.

The Committee on College Entrance Requirements. When this Committee met in 1895, it reaffirmed college dominance over the high school, in terms of admission requirements and classical subjects for mental training at the high school and college levels. Consisting mainly of college and university presidents, including Eliot, the Committee recommended to strengthen the college preparatory aspect of the high school curriculum, believing that it best served all students. It also made recommendations regarding the number of credits required in different subjects for college admission; it served as a model for the Carnegie Unit, a means for evaluating credits for college admission, imposed on the high schools in 1909 and still in existence today in most high schools.

Pressure for a Modern Curriculum.

Gradually, demands were made for various changes to be made in the schools to meet the needs of a changing society. The pace of immigration and industrial development led a growing number of educators to question the classical curriculum and the constant emphasis on mental discipline and incessant drill. This shift in curriculum was influenced by the scientific movement in psychology and education in the late nineteenth century, particularly faculty psychology (that is, enhancing the "faculties" of the child through activities and stimulation of the senses); the social theories of Darwin, Herbart, and Spencer; and the impact of Pestalozzi, Froebel, and others on pedagogy.

Increased pressure against the traditional curriculum was evident at the turn of the

century—with the educational ideas of John Dewey and Francis Parker, the Gestalt psychology and child psychology movements (which focused on the whole child), the learning theories of behaviorism and transfer learning (which involved connections between stimuli and responses), and the progressive movement in schools and society.

The argument eventually appeared that the classics had no greater disciplinary or mental value than other subjects, and that mental discipline (which emphasized rote, drill, and memorization) was not conducive to the inductive method of science or compatible with contemporary educational theory. Wrote Edward Thorndike, the most influential learning psychologist of the era:

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. . . . Now that good thinkers study Physics and Trigonometry, these seem to make good thinkers. If abler pupils should all study Physical Education and Dramatic Art, these subjects would seem to make good thinkers.⁶²

Even Latin came under attack, by none other than old-time perennialists. In 1917, for example, Charles Eliot, a former advocate of Latin, was saying Latin should no longer be compulsory for high school or college students.⁶³ Abraham Flexner, a former teacher of the classics who had become a celebrity with his exposé of the American medical schools, claimed that Latin had "no purpose" in the curriculum, and that the classics were out of step with scientific developments.⁶⁴ Flexner, who had become a strong advocate of utilitarianism, argued that tradition was an inadequate criterion for justifying subject matter. In short, society was changing and people could alter the conditions around them; the stress on psychology and science and the concern for social and educational reform made evident the need for a new curriculum.

Flexner: A Modern Curriculum. In a famous paper, "A Modern School," published in 1916, Abraham Flexner (1866–1959) rejected the traditional curriculum of the secondary school and proposed a "modern" curriculum for contemporary society. Flexner's curriculum consisted of four basic areas: (1) science (the major emphasis of the curriculum); (2) industry (occupations and trades of the industrial world); (3) civics (history, economics, and government); and (4) aesthetics (literature, languages, art, and music).⁶⁵ Modern languages would replace Latin and Greek. Flexner concluded, again, that unless a utilitarian argument could be made for a subject, it had little value in the curriculum—regardless of traditional value.

Flexner's concepts of utility and modern subject matter tend to resemble Spencer's views on science and subject matter. The difference is that Flexner's timing was on the mark, and Spencer was ahead of his time. Flexner was tuned to the changing social and political times during which many educators were willing to listen to his proposals. In 1917, for example, Flexner's "Modern School" was established at the Lincoln School of Teachers College, Columbia University. The school combined the four core areas of study, with emphasis on scientific inquiry; it represented Dewey's type of progressivism and science of education, and it also reflected the fact that Dewey was now teaching at Columbia University.

Dewey: Pragmatic and Scientific Principles of Education. The same year Flexner published his modern school report, John Dewey (1859–1952) published *Democracy and Education*, in which can be found all elements of his philosophy as well as their implications for the educational process.⁶⁶ The book represented Dewey's attempt to link democracy to education and to present democracy as a social process that can be enhanced through the school. For Dewey, schooling was a "social process" that could fit into either a totalitarian state or a democracy. Thus, the aims of education went hand

in hand with the particular type of society involved; conversely, the society that evolved influenced the aims of education.

Dewey argued that subjects could not be placed in a value hierarchy and that attempts to do so were misguided. Any study or body of knowledge was capable of expanding the child's experience, and "experiencing"—that is, being stimulated to develop and internalize intellectual capabilities—was the process of educating the child. Traditional subjects such as Latin or Greek were no more valuable than music or art.

One subject that may be more important to Dewey is science. Science, for Dewey, was another name for knowledge, and it represented "the perfected outcome of learning—its consummation. . . . What is known, certain, settled" and what "we think with rather than that which we think about" is science or rationalized knowledge. Dewey considered scientific inquiry to be the best form of knowledge for a society, because it consisted of the "special . . . methods which the race has slowly worked out in order to conduct reflection under conditions whereby its procedures and results are tested."⁶⁷ He thus elevated the place of science in education.

What is relevant to educating an individual to function well as a free person in a free society remained constant for Dewey. His emphasis on the "method of inquiry," which is really synonymous with "intelligent behavior," is as valued today as it was seventy years ago. Indeed, the connection between an enlightened citizenry, social change, and scientific principles advanced in Dewey's book played a major role in the theories of education that were evolving during this period.

Commission on the Reorganization of Secondary Education. In 1918 the NEA Commission on the Reorganization of Secondary Education published the famous *Cardinal Principles of Secondary Education*,⁶⁸ a highly progressive document. Influenced by Flexner's "A Modern School" and Dewey's *Democracy and Education*, the Commission stressed the whole child (not just the cogni-

tive area of study), education for all youth (not just college-bound youth), diversified areas of study (not classical or traditional studies), common culture, ideas, and ideals for a democratic society (not religious, elitist, or mental discipline learning).

The Commission noted the following:

1. Seven major aims or "Cardinal Principles" should comprise education: health, command of the fundamentals, worthy home membership, vocation, citizenship, leisure, and ethical character. These aims could be best met in a comprehensive and unified curriculum—a new kind of curriculum with no counterpart in the history of American schools.
2. High school should be a comprehensive institution based on the various social and economic groups that populate the nation.
3. The high school curriculum should offer various programs to meet various student needs—agricultural, business and commercial, vocational, and college preparatory.
4. The current ideas of psychology of education, principles of pedagogy, measurement, and evaluation should be applied to the curriculum and instruction of the high school.
5. American education comprises a set of defined institutions that should function in conjunction with, rather than in isolation from, each other.

Indeed, the high school was assuming its modern curricular patterns—combining academic programs with several nonacademic programs. The choice of subject matter was being fine tuned to emphasize five basic or essential subjects such as English, math, science, social science, and modern language. Classical languages and classical literature took a back seat to modern languages and English literature. Far from isolation, the aims and subjects were to be interrelated—not separated or compartmentalized. The idea of mental discipline was replaced by utilitarian modes of thought and scientific inquiry. There was a growing recognition that curriculum, too, should not be compartmentalized but interdisciplinary, and that it should not be static, but change as so-

ciety changed. The needs and interests of the students were now considered. Most important, there was recognition of the responsibility of schools (including the high school) to serve all children and youth, not just college-bound youth. The era of progressive education was about to begin impacting on the schools—and traditional education (which had dominated American education for so long) was vanishing.

CURRICULUM AS A FIELD IS BORN: 1918–1949

The early twentieth century was a period of educational ferment. Scientific methods of research, the influence of psychology, the child study movement, the idea of efficiency in industry, and the muckracker-progressive movement in society all influenced education. Many of the resulting ideas were applied to curriculum: From them evolved the process and how-to-do aspects of curriculum. Curriculum was now viewed as a science, with principles and methodology, not just as content or subject matter. The ideas of planning and designing a curriculum—as opposed to describing curriculum in terms of subjects and the amount of time needed to study each subject—appeared in the literature.

Bobbitt and Charters: Behaviorism and Scientific Principles.

Franklin Bobbitt (1876–1956) and Werrett Charters (1875–1952) were influenced by the idea of efficiency, promoted by business and industry, and the scientific management theories of Frederick Taylor, who analyzed factory efficiency in terms of time and motion studies and concluded that each worker should be paid on the basis of his or her individual output (as measured by the number of units produced in a specified period of time).⁶⁹ Efficient operation of the schools, sometimes called "machine" theory by sociologists and economists, became a major goal in the 1920s. Often ensuring

efficiency meant eliminating small classes, increasing the student-teacher ratio, cutting costs in teacher salaries, and so on, and then preparing charts and graphs to show the resultant lower costs. Raymond Callahan later branded this idea the "cult of efficiency."⁷⁰ The effects were to make curriculum making more scientific, and to reduce teaching and learning to precise behaviors with corresponding activities and learning experiences that could be measured. These ideas were cultivated by Taylor's faithful followers: Bobbitt and Charters.

Bobbitt's book, *The Curriculum*, published in 1918, is considered by some observers as the first book devoted solely to curriculum as a science and to curriculum in all its phases.⁷¹ Bobbitt outlined the principles of curriculum-planning-by-focusing-on-an-activities approach, which he defined as "a series of things which children and youth must do and experience by way of developing abilities to do things well and make up the affairs of adult life."⁷² To Bobbitt the purpose of curriculum was to outline what knowledge was important for each subject, and then to develop various activities to train the learner and enhance his or her performance.

Bobbitt understood the importance of analyzing the process of curriculum making. Adherence to the traditional curriculum, which emphasized subject matter, did not provide educators with methods for developing curricula. Bobbitt described the problems as he set out to organize a course of studies for the elementary grades:

We need principles of curriculum making. We did not know that we should first determine objectives from a study of social needs. We supposed education consisted only of teaching the familiar subjects. We had not come to see that it is essentially a process of unfolding the potential abilities of [students]. . . . We had not learned that studies are means, not ends.⁷³

Bobbitt further developed his objectives and activities approach in the early 1920s in *How To Make a Curriculum*. Here he outlined

more than 800 objectives and related activities to coincide with student needs. These activities ranged from the "ability to care for [one's] teeth, . . . eyes, . . . nose, and throat; . . . ability to keep the heart and blood vessels in normal working condition, . . . to keep home appliances in good working condition . . . to spelling and grammar."⁷⁴

Bobbitt's methods were quite sophisticated for the period. Moreover, his guidelines for selecting objectives can be applied today: (1) *eliminate* objectives that are impractical or cannot be accomplished through normal living; (2) *emphasize* objectives that are important for success and adult living; (3) *avoid* objectives opposed by the community; (4) *involve* the community in selecting objectives; (5) *differentiate* between objectives that are for all students and those that are for only a portion of the student population; and (6) *sequence* the objectives in such a way as to establish how far students should go each year in attaining them—that is, establish criteria for achievement.

Taken out of context, however, Bobbitt's list of hundreds of objectives and activities, along with the machine or factory analogy that he advocated, were easy to criticize.⁷⁵ Nevertheless, Bobbitt's insistence that curriculum making was a specialty based on scientific methods and procedures was important for elevating curriculum to a field of study, or what he called a "new specialization." His offer was that educators try his method with the intention of improving it or suggesting a better one. He was one of the first to propose the idea of a curriculum specialist, with special training.

Charters advocated the same behaviorist, precise approach, which he termed a "scientific" approach. He viewed the curriculum as a series of objectives that students must attain by way of a series of learning experiences. In his book on *Curriculum Construction*, Charters, who was influenced by the machine theory of business, envisioned curriculum as the analysis of definite operations—a process he termed *job analysis*—such as those involved in running a machine.⁷⁶

Charters's statement about the weakness of curriculum is still relevant today—namely, that even though curriculum writers often begin “with the statement of aim, none has been able to derive a curriculum logically from his statement of aim.” In almost every case, a “mental leap [is made] from the aim to the subject matter, without providing adequate principles such as would bridge the gap . . . and lead us from aim to selection of materials.”⁷⁷ Charters attempted to bridge the gap by proposing a curriculum derived from specific objectives and precise activities. He considered objectives to be observable and measurable, an outlook that is similar to today's notion that behavioral objectives can be sound and definable. He felt the state of knowledge at that time did not permit scientific measurement that would specifically identify the outcomes of the objectives, but he set out to develop a method for selecting objectives, based on social consensus, and for applying subject matter and student activities to analysis and verification. Although Charters did not use the term *evaluation* during this period, he was laying the groundwork for curriculum evaluation, which surfaced twenty years later.

As prime initiators of the behavioral and scientific movements in curriculum, Bobbitt and Charters had a profound impact on curriculum. They (1) developed principles for curriculum making, involving aims, objectives, needs, and learning experiences (which they called activities); (2) highlighted the use of behavioral objectives, which has a legacy in various contemporary educational ideas, such as the use of instructional objectives and curriculum evaluation; (3) introduced the ideas that objectives are derived from the study of needs (later called needs assessment) and that objectives and activities are subject to analysis and verification (later called evaluation); and (4) emphasized that curriculum making cuts across subject matter, and that a curriculum specialist need not necessarily be a specialist in any *subject*, rather a professional in *method or process*.

Finally, Bobbitt and Charters taught at

the University of Chicago when Tyler was a graduate student in the department of education (in fact, Tyler was Charters's graduate assistant). Tyler was highly influenced by their behaviorist ideas, particularly that: (1) objectives derive from student needs and society; (2) learning experiences relate to objectives; (3) activities organized by the teacher should be integrated into the subject matter; and (4) instructional outcomes should be evaluated. Tyler's stress on evaluation as a component of curriculum is rooted in the research background of Charters, who helped his graduate student get appointed to his first teaching and evaluation position in 1929 as Head of Testing and Evaluation for the Ohio State Bureau of Educational Research (Charters had assumed the Directorship of the Bureau the previous year). Tyler's principles of curriculum and instruction, especially his four major components (objectives, learning experiences, methods of organization, and evaluation), are rooted in Bobbitt's and especially Charters's ideas.

The Twenty-Sixth Yearbook.

In 1927, the National Society for the Study of Education (NSSE), an honor society with headquarters at the University of Chicago, published its twenty-sixth yearbook in two parts, *Curriculum-Making: Past and Present* and *The Foundations of Curriculum Making*.⁷⁸

The Committee that developed the two volumes consisted of twelve members, including Harold Rugg (the chairperson) and William Bagley, Franklin Bobbitt, Werrett Charters, George Counts, Charles Judd, and William Kilpatrick, among others. Leaders of curriculum development during that period were scientific-oriented and progressive (including Bobbitt and Charters), and many were affiliated with the University of Chicago, which emphasized this science of education.

The Yearbook comprised two parts. The first part began as a harsh criticism of traditional education and its emphasis on subject

matter, rote learning, drill, and mental discipline. It then became a synthesis of progressive practices and programs—the best and most innovative since the turn of the century—in public and private schools across the country. Part II has become a landmark text. It described the state of the art in curriculum making up to that period of time, and it included a consensual statement by the group on the nature of curriculum making. It is still relevant today.

The Committee recognized the need for curriculum reform and the need for “those who are constructing our school curriculum” to determine “an overview . . . [and] orientation . . . to curriculum making.”⁷⁹ With this idea in mind, the Yearbook outlined characteristics of the ideal curriculum—a curriculum that:

1. Focuses on the affairs of human life.
2. Deals with the facts and problems of the local, national, and international community.
3. Enables students to think critically about various forms of government.
4. Informs and develops an attitude of open-mindedness.
5. Considers student interests and needs as well as opportunities for debate, discussion, and exchange of ideas.
6. Deals with the issues of modern life and the cultural and historical aspects of society.
7. Considers problem-solving activities and practice in choosing alternatives.
8. Consists of carefully graded organization of problems and exercises.
9. Deals with humanitarian themes, and purposeful and constructive attitudes and insights.⁸⁰

This description of the ideal curriculum is basically one that might be developed today. The problems and issues identified by the Committee are chiefly those that another curriculum committee could recognize as important for the 1990s.

In the same vein, Harold Rugg maintained that the people should formulate the aims and purposes of education through committees or legislative groups; the appro-

prate materials and methods of instruction “through which to achieve those aims and purposes [were] . . . technical . . . demanding special professional preparation.” The role of trained curriculum specialists was to plan the curriculum in advance and to include four tasks (which were later to become the basis of Tyler’s four principles): (1) “a statement of objectives, (2) a sequence of experiences [to achieve] the objectives, (3) subject matter found to be . . . the best means of engaging in the experiences, and (4) statements of immediate outcomes of achievements to be derived from the experiences.” Rugg concluded that curriculum was adapting scientific methods and that there was need “for specialization and for professional . . . training.”⁸¹ Experienced teachers and specialists in curriculum making should work together to organize the content and materials within the various fields of subject matter—what the schools do today.

The Yearbook represented a tremendous advancement in clarifying problems curriculum workers were encountering and in proposing procedures for the future in curriculum making. It had major influence in many school districts (both large and small, as well as city, suburban, and rural), as illustrated by the plan that was later called “The Eight-Year Study,” and by the ideas that Ralph Tyler and Hilda Taba expressed in their classic texts twenty and thirty years later.

Rugg and Caswell: The Development Period.

During the late 1920s, the 1930s, and the early 1940s a number of important books were published on curriculum principles and processes, and on techniques for helping the teacher in curriculum making. Harold Rugg (1886–1960), the chairperson of the NSSE Yearbook, shared the faith of Bobbitt and Charters in a “science of curriculum.” By training Rugg was an engineer, but, like Dewey, he had a broad view of curriculum that focused on the whole child and the way the child would grapple with the

changing society. In this respect, Rugg was a progressive thinker as well as a forerunner of reconstructionism.

In 1928, Rugg coauthored his classic text, *The Child-Centered School*, with Ann Shumaker. In an era which stressed student input in planning the curriculum, the authors stressed the need for curriculum specialists to construct the curriculum.⁸² He, also, wrote about the necessity of teachers' having at hand an outline of the knowledge, concepts, and generalizations that were to come from classroom instruction. Put in different terms, Rugg proposed that the curriculum should be planned by the teacher in advance.⁸³ The important point here is that Rugg (who was also progressive) rejected the idea of a curriculum based on the spontaneous needs or interests of the child. Such a curriculum, he believed, would have no sequence or predetermined outcomes. Even a play school had to have objectives and related organized activities; otherwise, education was wasteful. Finally, he advocated cooperation among educational professionals from different areas, including teachers, administrators, test experts, and curriculum specialists from various fields.

Rugg's attention in the 1930s and the 1940s shifted almost entirely to the integration of history, geography, civics, and economics—commonly called social studies. Some of his ideas about labor history and collectivism, and his criticisms of American life, compounded by his activities with the teachers' union, resulted in a great deal of criticism from Establishment groups. Like Counts and Dewey, Rugg, too, had the distinction of having an FBI file.⁸⁴

During the mid-1920s and 1930s, most school districts and state education departments were developing curriculum guides. However, the selection of methods and activities was left to the teachers. Hollis Caswell (1901–), was concerned that this practice was limited; he wanted to shift emphasis from formulating a course of study to improving instruction. He envisioned curriculum making as a means of helping teachers coordinate their instructional activities with

subject matter and students' needs and interests. He considered courses of study as guides or sources that teachers could use to plan their daily work, but not as plans they should follow in detail. He sought to combine three major curriculum components: Content, teacher's instruction, and student's learning.

Caswell attempted to assist teachers by providing a step-by-step procedure for curriculum making. He and his colleagues outlined seven points, in question form, that still have relevancy today:

1. What is a curriculum?
2. Why is there need for curriculum revision?
3. What is the function of subject matter?
4. How do we determine educational objectives?
5. How do we organize curriculum?
6. How do we select subject matter?
7. How do we measure the outcomes of instruction?⁸⁵

Influenced by Bobbitt's definition of curriculum as "that series of things which children and youth must do and experience," Caswell and Campbell, in their classic text on *Curriculum Development*, maintained that the curriculum must consider "all elements in the experience of the learner."⁸⁶ They thought curriculum should synthesize the fields of philosophy, psychology, and sociology—what other curricularists would later refer to as the foundations of curriculum. To a large extent, Caswell envisioned curriculum as a field with few limitations on content; rather, he thought curriculum represented a procedure or process that incorporated scientific steps of development, organization, instruction, and evaluation.

Caswell and Campbell believed that the curriculum must address three basic elements: Children's interests, social functions, and organized knowledge. The curriculum was to provide the proper scope and sequence of subject matter at every grade level. The *scope* was to represent broad themes based on social functions (similar to educational aims), such as conservation of

natural resources, worthy home membership, democratic living, and so on. The *sequence* was based on experiences according to the children's interests. *Subject matter* was suggested to match the social functions and the learner's interests; the knowledge that was taught was to be measured as outcomes of instruction.

Caswell and Campbell's book "became heavily prominent during the next two decades, almost becoming synonymous with curriculum study at large."⁸⁷ Their three elements of curriculum, as well as scope and sequence, heavily influenced Taba's book on *Curriculum Development: Theory and Practice*. Their three foundations and elements of curriculum also influenced the classic textbook written by B. Othanel Smith and his colleagues, *Fundamentals of Curriculum Development*. Both textbooks served as bridges between Caswell and Campbell and many present curriculum textbooks (which stress foundations and principles of curriculum).

Tyler: Basic Principles.

An account of curriculum as a field is not complete without discussion of Ralph Tyler, (1902–). Although Tyler published more than 700 articles and sixteen books (eleven of which are coauthored) on the subjects of curriculum, instruction, and evaluation, he is best known for his small book, *Basic Principles of Curriculum and Instruction*.⁸⁸ Originally written as a course syllabus for his students at the University of Chicago, the book was published in 1949; it has already gone through over thirty-five printings. It is, in fact, considered by some as a "mini-Bible" of curriculum.

In 128 pages, Tyler outlines the basic questions that he believes should be answered by anyone involved in planning or writing a curriculum for any subject or grade level:

1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?

3. How can these educational experiences be effectively organized?
4. How can we determine whether these purposes are being attained?⁸⁹

△ Tyler was highly influenced by the progressive social theories of Judd and Dewey, as well as the learning theories of Thorndike and Piaget. He drew from the behaviorists, too, including Bobbitt and Charters. His philosophy and principles of curriculum were influenced by older contemporaries, such as George Counts (while Tyler was at the University of Chicago) and Boyd Bode (while he was at Ohio State University).

Not much in Tyler's model is new; we might consider it an elaboration of Rugg's four major tasks in curriculum and a condensed version of the NSSE's Twenty-Sixth Yearbook. One critic claims that "it clearly paraphrased, restated, and elaborated the position taken by the NSSE committee."⁹⁰ Others claim that the four questions and related discussions closely resemble the companion curriculum report, *Exploring the Curriculum*, submitted with "The Eight-Year Study."⁹¹ The model was not fully developed at that time, however; Tyler fully developed it later.

To some extent, also, Tyler's model can be considered an elaboration of an earlier work he did with Douglas Waples, when Tyler was at Ohio State University. In their publication, Tyler and Waples outlined the major elements in curriculum and instruction: (1) defining objectives, organizing content, and adopting materials; (2) selecting learning experiences and diagnosing learners; (3) managing students; and (4) outlining techniques of instruction and evaluation.⁹² Although Tyler does not mention the Waples publication in his book, in a recent interview he did give some credit to Judd, Dewey, and Thorndike, and minimal credit to Charters and Bode.⁹³

Tyler, also, was highly influenced by Hilda Taba, his colleague for over twenty years at Ohio State and the University of Chicago. Tyler had a very close personal

and professional relationship with Taba, and together they served on numerous research projects involving curriculum and evaluation. Because Taba's classic book on *Curriculum Development* was published several years after Tyler's book, most people think that Tyler influenced Taba. Actually, they influenced each other, but Tyler was the first to lay out four linear steps, which Taba further developed into seven linear steps.

The Tyler model depicts a rational, logical, and systematic approach to curriculum making. Although it embraces no philosophical or political bias in the sense that any subject can be organized around the model, its ideas are rooted in progressivism (it emphasizes the needs of the learner), scientific procedures (its principles are applicable in varying situations), and behaviorism (its objectives are the most important consideration, in Tyler's own words).

As the NSSE Yearbook put little emphasis on the teachers' role in curriculum making, Tyler said very little about the students' or the principals' roles. Although Tyler claims the book deals with principles and processes, the work is a "cookbook" approach to curriculum making. Nevertheless, the book is highly influential, because of its rational, no-nonsense, and sequential approach. In just over 100 pages, Tyler laid out a basic procedure-to-follow-with-easy-to-understand examples—different from the complex and cumbersome writings of other texts. Tyler gives students a manageable description, a series of concise steps, through which to plan curriculum.

Although critics have judged Tyler's model to be inadequate, naive, overly lock-step, and technocratic, and have censured it for its oversimplifying view of curriculum making as the collection of small bits of behavior,⁹⁴ it still works for many. Because it is simple to grasp, it serves as a starting point for curriculum students (which was its original intention). Remember that Tyler did not attempt anything more than to provide a basic guideline for students; his contemporaries inflated the significance of the book.

When a treatise in social science becomes popular, as this one did, it becomes fair game for analysis and criticism by others in the field—as this one did as well.

Perhaps the most important reason Tyler is so influential is that he worked closely with a number of influential colleagues, besides Taba, such as Paul Diederich, Harold Dunkel, Maurice Hartung, Virgil Herrick, and Joseph Schwab, who accepted many of his ideas and who also influenced curriculum. In addition, many of Tyler's students at Ohio State University—such as Edgar Dale, Louis Heil, Louis Raths, and Harold Shane—and at the University of Chicago—such as Elliot Eisner, Ned Flanders, David Krathwohl, Louise Tyler, and Thomas Hastings—were influenced by Tyler and also became prominent in the field. Most important, a number of Tyler's other students—including Ben Bloom, Lee Cronbach, John Goodlad, Ken Rehage, Ole Sand, and Herbert Thelen—were also his colleagues for many years.⁹⁵ With the exception of Eisner, these colleagues continuously praised Tyler's work in the professional literature. Like Tyler, these men and women were (or are) known for their scientific assumptions, systematic procedures, and traditional views on education.

CURRENT FOCUS

The Tyler model, despite its criticism, summed up the best principles of curriculum making during the first half of the twentieth century. The model has been utilized and adapted by many curricularists, including some of Tyler's students, like Taba and Goodlad.⁹⁶ Although Tyler and his predecessors did a great deal toward outlining a science of curriculum, the major concepts and principles of the field remain ill-defined and open to dispute. According to Bruce Joyce, there are "no agreed upon concepts or modes which are known and used. . . . The curriculum field has no overarching 'metasystem,' known to most of its practitioners, which enables comparisons

of and choices between all alternative approaches which are taken." In general, curriculum people still "do their own thing."⁹⁷

On the other hand, Elliot Eisner points out that the "kind of science that has dominated educational research, . . . including curriculum development . . . uses knowledge provided by the social scientist as the primary bases for . . . management and control."⁹⁸ This has led to prescriptive models of curriculum and instruction, uniform methods of teaching and testing, and outcomes of learning that can be standardized and measured. This tendency toward scientific principles of curriculum making, and educational research in general, has resulted in nonexpressive and nonemotional forms of education, according to Eisner, and what he labels as "value-neutral," "technical," "cool," and "dispassionate objective."⁹⁹ The inference is that the Bobbitt-Tyler era, and its science of curriculum, has taken the joy, humor, and fun out of teaching and learning.

Although this analysis may be construed as an overstatement, especially by those who believe in behavioral or managerial approaches to curriculum, several curricularists today—like Mike Apple, Dwayne Huebner, Herb Kliebard, James Macdonald, Gail McCutcheon, and Vincent Rogers—have lost faith in the ability of scientific principles and technical models to solve curriculum problems. Like Eisner, they have turned to various personal, aesthetic, and linguistic concepts to formulate—or better yet, to reformulate—curriculum.¹⁰⁰

Even though we cannot agree on the concepts and principles of curriculum, much less on a science of curriculum making, the field of curriculum is expanding, and certain trends are taking shape. During the 1980s, the notion of international competition has resurfaced, along with the cry for tougher standards and educational productivity. The academic curriculum is also being expanded and upgraded, and the idea of academic excellence is once more being debated in educational circles. The notion of a fourth R—computer literacy for stu-

dents—is also being seriously considered (the authors would introduce a fifth R, as well—namely, Spanish because of our country's ethnic population trends), along with a renewed emphasis on science, mathematics, and foreign languages—similar to the Sputnik period.

The field of curriculum is also maturing. It is moving beyond schools and including programs in business, industry, military, government, and health fields. It is also incorporating many disciplines, such as philosophy, psychology, sociology, and politics. Finally, the field is developing an international character, and curriculum specialists are adapting the tools of research methodology, computers, instructional technology, and systems analysis. In short, curriculum as a field of study is becoming more interdisciplinary, scientific, and qualitative.

CONCLUSION

From the colonial period to around World War I, curriculum was a matter of evolving subject matter. Some reform ideas concerned pedagogical principles, mainly as a result of European influence and the emerging progressive reform movement of the mid and late nineteenth century. But these ideas were limited to theoretical discussions and a few isolated and innovative schools. The perennialist curriculum, which emphasized the classics and timeless and absolute values based around religious and then moral doctrines, remained dominant for the first 150 years of our nation's history.

The idea of principles and processes of curriculum began to take shape after the turn of the twentieth century, along with emphasis on scientific principles and progressive philosophy. Curriculum as a field of study, with its own methods and theories and ways of solving problems, has made real advances ever since the 1920s. Most of the advances have actually taken place since Tyler wrote his basic text on curriculum.

Many of these advances are discussed elsewhere in this text.

Notes

1. John S. Brubacher, *A History of the Problems of Education* (New York: McGraw-Hill, 1947); R. Freeman Butts and Lawrence A. Cremin, *A History of Education in American Culture* (New York: Holt, Rinehart, 1953).
2. Warren H. Button and Eugene Provenzo, *History of Education and Culture in America* (Englewood Cliffs, N.J.: Prentice-Hall, 1983); Butts and Cremin, *A History of Education in American Culture*.
3. George A. Beauchamp, *The Curriculum of the Elementary School* (Boston: Allyn and Bacon, 1964), p. 34.
4. Allan C. Ornstein and Daniel U. Levine, *An Introduction to the Foundations of Education*, 3rd ed. (Boston: Houghton Mifflin, 1985), p. 151. See also Gerald Gutek, *Education in the United States: An Historical Perspective* (Englewood Cliffs, N.J.: Prentice-Hall, 1986).
5. Beauchamp, *The Curriculum of the Elementary School*, p. 36.
6. Paul Monroe, *Founding of the American Public School System* (New York: Macmillan, 1940); Samuel E. Morrison, *The Intellectual Life of Colonial New England* (New York: New York University Press, 1956).
7. Robert Middlekauff, *Ancients and Axioms: Secondary Education in the Eighteenth-Century New England* (New Haven: Yale University Press, 1963).
8. Elmer E. Brown, *The Making of Our Middle School* (New York: Longman, 1926), p. 133.
9. Newton Edwards and Herman G. Richey, *The School in the American Social Order*, 2nd ed. (Boston: Houghton Mifflin, 1963), p. 102.
10. Morrison, *The Intellectual Life of Colonial New England*.
11. John H. Best, *Benjamin Franklin on Education* (New York: Teachers College Press, Columbia University, 1962).
12. Ellwood P. Cubberley, *Public Education in the United States*, rev. ed. (Boston: Houghton Mifflin, 1947), p. 30.
13. R. Freeman Butts, *The American Tradition in Religion and Education* (Boston: Beacon Press, 1950); Gerald R. Firth and Richard D. Kimpston, *The Curricular Continuum in Perspective* (Itasca, Ill.: Peacock, 1973).
14. Paul L. Ford, *The New England Primer: A History of its Origins and Development*, rev. ed. (New York: Dodd, Mead, 1897), pp. 329-330.
15. Henry Barnard, *Educational Developments in the United States* (Hartford, Conn: Connecticut Department of Education, 1867), p. 367.
16. Cubberley, *Public Education in the United States*; Merle Curti, *The Social Ideas of American Educators* (New York: Littlefield, Adams, 1959).
17. Benjamin Rush, *A Plan for the Establishment of Public Schools* (Philadelphia: Thomas Dobson, 1786), pp. 29-30.
18. Thomas Jefferson, "A Bill for the More General Diffusion of Knowledge," in P. L. Ford, ed., *The Writings of Thomas Jefferson* (New York: Putnam, 1893), p. 221.
19. Merle Curti, *The Growth of American Thought*, rev. ed. (New York: Harper & Row, 1951).
20. Hans Kohn, *American Nationalism: An Interpretative Essay* (New York: Macmillan, 1957), p. 47.
21. Noah Webster, *Dissertations on the English Language* (Boston: Isaiah Thomas, 1789), p. 27.
22. Harvey R. Warfel, *Noah Webster: Schoolmaster to America* (New York: Macmillan, 1936).
23. Henry Steele Commager, ed., *Noah Webster's American Spelling Book* (New York: Teachers College Press, Columbia University, 1962).
24. Robert K. Leavitt, *Noah's Ark, New England Yankees and the Endless Quest* (Springfield, Mass.: Merriam, 1947); Richard M. Rollins, "Words as Social Control: Noah Webster and the Creation of the American Dictionary," *American Quarterly* (Fall 1976), pp. 415-430.
25. William H. McGuffey, *New Fifth Eclectic Reader* (Cincinnati: Winthrop Smith, 1857), p. 271.
26. William H. McGuffey, *Newly Revised Eclectic Fourth Reader* (Cincinnati: Winthrop Smith, 1853), p. 313.
27. John H. Westerhoff, *McGuffey and His Readers: Piety, Morality, and Education in Nineteenth Century America* (Nashville: Abingdon, 1978).
28. William B. Ragan and Gene D. Shepherd, *Modern Elementary Curriculum*, 4th ed. (New York: Holt, Rinehart, 1971), p. 20.
29. Edgar W. Knight, *Education in the United States*, 3rd ed. (Boston: Ginn, 1951), p. 512.
30. See Henry Barnard, *Pestalozzi and Pestalozzianism* (New York: Brownell, 1862).
31. Friedrich Froebel, *The Education of Man*, trans. W. Hailman (New York: Appleton, 1889).
32. Johann F. Herbart, *Textbook of Psychology* (New York: Appleton, 1894).
33. John Dewey, *How We Think*, (Boston: D. C. Heath, 1910), p. 202.
34. Andreas Kazamias, *Herbert Spencer on Education* (New York: Teachers College Press, Columbia University, 1966).
35. Herbert Spencer, *Education: Intellectual, Moral and Physical* (New York: Appleton, 1860).
36. *Ibid.*
37. See Everett Dick, *Vanguards of the Frontier* (New York: Appleton-Century, 1940); William W. Folwell, *The Autobiography and Letters of a Pioneer Culture* (Minneapolis: University of Minnesota Press, 1923).
38. Daniel Tanner and Laurel N. Tanner, *Curriculum*

- Development: Theory into Practice*, 2nd ed. (New York: Macmillan, 1980).
39. Button and Provenzo, *History of Education and Culture in America*; Monroe, *Founding of the American Public School System*.
 40. Frederick M. Binder, *The Age of the Common School: 1830-1865* (New York: Wiley, 1974).
 41. V. T. Thayer and Martin Levit, *The Role of the School in American Society*, 2nd ed. (New York: Dodd, Mead, 1966), p. 6.
 42. Lawrence A. Cremin, *The Republic and the School: Horace Mann on the Education of Free Man* (New York: Teachers College Press, Columbia University Press, 1957); Jonathan Messerlie, *Horace Mann: A Biography* (New York: Knopf, 1972).
 43. Andrew Gulliford, *America's Country Schools* (Washington, D.C.: National Trust for Historic Preservation, 1985).
 44. James H. Hughes, *Education in America*, 3rd ed. (New York: Harper & Row, 1970), p. 233.
 45. Carl Sandburg, *Abraham Lincoln: The Prairie Years* (New York: Harcourt, Brace, 1926), p. 19.
 46. Theodore R.Sizer, *The Age of Academies* (New York: Teachers College Press, Columbia University, 1964).
 47. E. P. Cubberley, *The History of Education* (Boston: Houghton Mifflin, 1920), p. 697.
 48. Edwards and Richey, *The School in the American Social Order*; Firth and Kimpston, *The Curricular Continuum in Perspective*.
 49. Brown, *The Making of Our Middle Schools*, p. 230.
 50. Monroe, *Founding of the American Public School System*, p. 404.
 51. Edward A. Krug, *The Shaping of the American High School: 1880-1920* (New York: Harper & Row, 1964); Daniel Tanner, *Secondary Education: Perspectives and Prospects* (New York: Macmillan, 1972).
 52. Cubberley, *Public Education in the United States*; Edwards and Richey, *The School in the American Social Order*; and Monroe, *Founding of the American Public School System*.
 53. Davis, *Our Evolving High School Curriculum*.
 54. Krug, *The Shaping of the American High School*.
 55. Issac L. Kandel, *History of Secondary Education* (Boston: Houghton Mifflin, 1930).
 56. Thayer and Levit, *The Role of the School in American Society*, p. 382.
 57. *Report of the Year 1889-90* (Washington, D.C.: U.S. Bureau of Education, 1893), pp. 1388-1389. See also Table 3-2.
 58. Cubberley, *Public Education in the United States*, p. 543.
 59. Daniel Tanner, "Curriculum History," in H. E. Mitzel, ed., *Encyclopedia of Educational Research*, 5th ed. (New York: Macmillan, 1982), pp. 412-420; Tanner and Tanner, *Curriculum Development: Theory into Practice*.
 60. *Report of the Committee of Ten on Secondary School Studies*, book ed. (New York: American Book, 1894), p. 48.
 61. Tanner and Tanner, *Curriculum Development: Theory into Practice*, p. 233. See also Edward A. Krug, *Charles W. Eliot and Popular Education* (New York: Teachers College Press, Columbia University Press, 1961).
 62. Edward L. Thorndike, "Mental Discipline in High School Studies," *Journal of Educational Psychology* (February 1924), p. 98.
 63. Charles W. Eliot, "The Case against Compulsory Latin," *Atlantic* (March 1917), pp. 356-359.
 64. Abraham Flexner, "Parents and School," *Atlantic* (July 1916), p. 30.
 65. Abraham Flexner, "A Modern School," *Occasional Papers*, No. 3 (New York: General Education Board, 1916); Flexner, *A Modern College and A Modern School* (New York: Doubleday, 1923).
 66. John Dewey, *Democracy and Education* (New York: Macmillan, 1916).
 67. *Ibid.*, p. 190.
 68. Commission on the Reorganization of Secondary Education, *Cardinal Principles of Secondary Education*, Bulletin No. 35 (Washington, D.C.: U.S. Government Printing Office, 1918).
 69. Frederick W. Taylor, *The Principles of Scientific Management* (New York: Harper & Row, 1911).
 70. Raymond E. Callahan, *Education and the Cult of Efficiency* (Chicago: University of Chicago Press, 1962).
 71. See John D. McNeil, *Curriculum: A Comprehensive Introduction*, 3rd ed. (Boston: Little, Brown, 1985); John P. Miller and Wayne Seller, *Curriculum: Perspectives and Practice* (New York: Longman, 1985).
 72. Franklin Bobbitt, *The Curriculum* (Boston: Houghton Mifflin, 1918), p. 42.
 73. *Ibid.*, p. 283.
 74. Franklin Bobbitt, *How To Make a Curriculum* (Boston: Houghton Mifflin, 1924), pp. 14, 28.
 75. Michael W. Apple, *Ideology and Curriculum* (Boston: Routledge & Kegan Paul, 1979); Callahan, *Education and the Cult of Efficiency*; and Elliot W. Eisner, *The Educational Imagination*, 2nd ed. (New York: Macmillan, 1985).
 76. W. W. Charters, *Curriculum Construction* (New York: Macmillan, 1923).
 77. *Ibid.*, pp. 6-7. See also W. W. Charters, "Idea Men and Engineers in Education," *Educational Forum* (Spring 1986), pp. 263-272. Originally published in *Educational Forum* (May 1948), pp. 399-406.
 78. Guy M. Whipple, ed., *Curriculum-Making: Past and Present*, Twenty-Sixth Yearbook of the National Society for the Study of Education, Part I (Bloomington, Ill.: Public School Publishing Co., 1927); Whipple, ed., *The Foundations of Curriculum Making*, Twenty-Sixth Yearbook of the National Society for the Study of Education, Part II (Bloomington, Ill.: Public School Publishing Co., 1930).
 79. Harold Rugg, "Forward," in Whipple, ed., *Curriculum-Making: Past and Present*, p. x.

80. Harold Rugg, "The School Curriculum and the Drama of American Life," in Whipple, ed., *Curriculum-Making: Past and Present*, pp. 3-16.
81. Harold Rugg, "Three Decades of Mental Discipline: Curriculum-Making via National Committees," in Whipple, ed., *Curriculum-Making: Past and Present*, pp. 52-53.
82. Harold Rugg and Ann Shumaker, *The Child-Centered School* (New York: World Book, 1928), p. 118.
83. Ralph W. Tyler, "Curriculum Development in the Twenties and Thirties," in R. M. McClure, ed., *The Curriculum: Retrospect and Prospect*, Seventieth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1971), pp. 26-44.
84. David Pratt, *Curriculum: Design and Development* (New York: Harcourt, Brace, 1980).
85. Sidney B. Hall, D. W. Peters, and Hollis L. Caswell, *Study Course for Virginia State Curriculum* (Richmond: Virginia State Board of Education, 1932), p. 363.
86. Hollis L. Caswell and Doak S. Campbell, *Curriculum Development* (New York: American Book, 1935), p. 69.
87. William H. Schubert, *Curriculum Books: The First Eighty Years* (Lanham, Md.: University Press, 1980), p. 77. See also Schubert, *Curriculum: Perspective, Paradigm, and Possibility* (New York: Macmillan, 1986).
88. Ralph W. Tyler, *Basic Principles of Curriculum and Instruction* (Chicago: University of Chicago Press, 1949).
89. *Ibid.*, p. 1.
90. Pratt, *Curriculum: Design and Development*, p. 34.
91. Tanner and Tanner, *Curriculum Development: Theory into Practice*, p. 83. See also Chapter 7, p. 166.
92. Douglas Waples and Ralph W. Tyler, *Research Methods and Teachers' Problems: A Manual for Systematic Studies of Classroom Procedure* (New York: Macmillan, 1930).
93. For a detailed discussion of who influenced Tyler and who he influenced, see Marie K. Stone, *Principles of Curriculum, Instruction, and Evaluation: Past Influence and Present Effects*. Ph.D. dissertation, Loyola University of Chicago, January 1985.
94. Elliot W. Eisner, *The Educational Imagination*, 2nd ed. (New York: Macmillan, 1985); Henry Giroux and David Purpel, eds., *The Hidden and Moral Curriculum* (Berkeley, Calif.: McCutchan, 1983); Herbert M. Kliebard, "Curricular Objectives and Evaluation: A Reassessment," *High School Journal* (March 1968), pp. 241-247; and Kliebard, "Reappraisal: The Tyler Rationale," in A. A. Bellack and H. M. Kliebard, eds., *Curriculum and Evaluation* (Berkeley, Calif.: McCutchan, 1977), pp. 34-69.
95. Stone, *Ralph W. Tyler's Principles of Curriculum, Instruction, and Evaluation*. Also from conversations by one of the authors with John Beck, April 2, 1985; Ken Rehage, March 21, 1985.
96. Hilda Taba, *Curriculum Development: Theory and Practice* (New York: Harcourt, Brace, 1962); John I. Goodlad et al., *Curriculum Inquiry: The Study of Curriculum Practice* (New York: McGraw-Hill, 1979).
97. Bruce R. Joyce, "The Curriculum Worker of the Future," in R. M. McClure, ed., *The Curriculum: Retrospect and Prospect*, Seventieth Yearbook of the National Society for the Study of Education, Part I (Chicago: University of Chicago Press, 1971), pp. 312-313.
98. Eisner, *The Educational Imagination*, pp. 17-18.
99. *Ibid.*, p. 20.
100. See McNeil, *Curriculum: A Comprehensive Introduction*, Alex Molnar, ed., *Current Thought on Curriculum* (Alexandria, Va.: Association for Supervision and Curriculum Development, 1985).