



Taylor & Francis
Taylor & Francis Group

Curriculum Trends Revisited

Author(s): Allan C. Ornstein

Source: *Peabody Journal of Education*, Vol. 69, No. 4, Our Evolving Curriculum, Part 2 (Summer, 1994), pp. 4-20

Published by: Taylor & Francis, Ltd.

Stable URL: <http://www.jstor.org/stable/1492689>

Accessed: 08/03/2010 20:17

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=taylorfrancis>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Taylor & Francis, Ltd. is collaborating with JSTOR to digitize, preserve and extend access to *Peabody Journal of Education*.

<http://www.jstor.org>

Curriculum Trends Revisited

Allan C. Ornstein

Opinions differ on the direction education will take, and library shelves are filled with volumes describing current and anticipated changes in society and education. Despite disagreements, however, it is likely that certain trends in particular will increasingly affect curriculum planning in the near future. Some of the more important of these trends are noted in the following discussion.

The emerging curriculum responds to the urge to break away from traditional disciplines, to develop more interdisciplinary approaches. In the curriculum of the future, subject matter most likely will be less compartmentalized and more integrated and holistic. Although traditional subject boundaries will remain, there will be increased cross-subject material. Knowledge will no longer be considered fragmented or linear, but multidisciplinary and multidimensional; it will also be integrated with more visual and auditory resources and rely less on verbal and reading materials.

Electronic Education

The advent of video technology has made available another valuable tool for instruction. Videotapes, cassettes, and disks can be used for instruction in classrooms, libraries, resource centers, and the student's home. Since the video can be played at any convenient time, the students never have to miss a lesson. Hundreds of catalogs offer videos on a wide range of subjects; in addition, many school systems and teachers have begun to produce their own videos for specific instructional purposes. With the help of a videoprinter, individual images from the screen—photographs, tables, graphs, or any other useful picture—can be printed on paper for further study.

ALLAN C. ORNSTEIN is Professor of Education in the Department of Curriculum and Instruction, School of Education, Loyola University, Chicago.

Many videos interact with the viewer when used in conjunction with a computer. Realistic simulations and action-reaction situations can be presented as part of an instructional program. The program can tell the viewer a response is right or wrong, or the viewer can be offered a choice of options, and the program will then display the outcome of the option chosen. Interactive videos have an enormous teaching potential that educators are just beginning to explore. Such videos can be used either for individual lessons or for instruction in small groups.

Educators need to investigate ways to use the popularity of videogames for teaching purposes. Although videogames have been criticized for their escapism, they are by nature interactive: The machine responds to each move by the player with a move of its own. Math, reading, and writing lessons can be written in a videogame format, and the student will find practice and drill more lively in a game atmosphere.

According to one estimate, by the year 2000 more than 20% of instructional tools will include computers and videos. Teachers must not only keep abreast of this changing video technology, but also plan ways to integrate it into the curriculum. In an era when the number of videos rented from video stores surpasses the total number of books checked out of libraries, teachers should help students become critical video consumers, aware of how visual images affect us as individuals and as a society (Ornstein, 1990, 1991).

Today, schools may select television programs specifically developed for educational purposes and have them beamed into the classroom by satellite. This is particularly useful for small, rural schools with limited local resources. Some home cable systems also carry educational programming, but its quantity and quality will increase only if educators demand this resource and use it.

Widely used in business and industry, teleconferences have begun to appear in school systems, usually as an experiment on the secondary level. In a typical conference, a resource person, teacher, or group of students is viewed through the television screen, talking to or instructing other students or participants. Viewers can watch as if they were across the table, although they may be thousands of miles away. The viewing audience can ask questions and make decisions about what further information should be presented.

The curriculum is going to come alive with interactive videos, satellite and cable networks, and teleconferences for most subject areas. The fact that there are some two million computers already in classrooms—a number increasing at a rate of 100,000 per year—suggests the demise of what some call “pencil technology.” The point will no longer be made by the pencil. Similarly, the textbook as we know it is

doomed to obsolescence; it will become incidental and probably take on different forms: talking to the student, monitoring his or her progress, and modifying content accordingly.

New forms of electronic knowledge will take shape—more personal, immediate, graphic, and rapid. Acquiring new knowledge will not be crucial, because no one will be able to keep pace with it, rather being able to access it and being networked into a call system will be critical. People who lack information, or are unable to call for it and use it, will become impotent on the job and in dealing on a daily basis with other people, service agencies, or institutions that have information.

Technical Literacy

Because of the revolution in technology, the schools must now educate citizens to become familiar with computers, electronics, lasers, and robots. Computer literacy stands beside the three Rs as a fundamental skill. According to government projections to 1995, of the 10 fastest-growing occupations, four require knowledge of computers (technician, systems analyst, programmer, and operator). Other trends suggest high-tech influence in such growth areas as biogenetics, computer/video software, robotics, telecommunications, microelectronics, toxic waste and pollution, space, and the oceans (Klode, 1991; "Occupational Projections," 1990). There will soon exist technical occupations for which we as yet do not even have names.

In a high-tech economy, workers will need to be better educated (compared to the industrial economy) and have better cognitive, communication, and cooperative team skills. People at home and on the job will have calculators, computers, fax machines, and other technical tools to do their symbol crunching for them; however, they will have to decide what buttons to push and what the symbols mean. As the pace of technology accelerates, whole industries may be born, expand, and die in terms of peaks and valleys of the stock market; it will be impossible to predict the precise skills employees will need on the job, but they will need to be retrained periodically in order to compete on a global basis. In such an environment, it is likely that workers will be displaced from one job to another and be required to retool and relearn new skills on the job; education will become a lifelong enterprise.

In cooperation with industry and government, schools must identify the emerging technologies and services and provide a curriculum that prepares students for viable careers. In part, this means educating future scientists who can design, develop, and apply the new technology. Not everyone, however, needs to become a scientific expert. For

many occupations, people simply need to understand the technological basics—what buttons to push under what conditions and how to make machines provide the service or information they were designed to offer. Only a small percentage of the work force will require sophisticated technical or scientific knowledge, but many will need better cognitive and communication skills.

The National Science Teachers Association (NSTA) has endorsed a curricular approach called Science/Technology/Society, which emphasizes the social and technical aspects of science rather than pure science. One of the purposes of such programs is to help students prepare for the impact of technology on daily life. Some traditional vocational/industrial programs are also being enriched with a focus on technology, especially on computers and robotic design. In still other cases, the entire vocational and industrial arts program is being revamped to meet new technological requirements; this demands updated equipment, the integration of computers into courses, and continual interaction among schools, government, and the work force.

As the pace of technology accelerates, there is an increasing need to develop a nationwide plan—involving education, industry, and government—that assesses the future occupational needs of society and establishes corresponding guidelines for schools. Cooperative planning is needed now.

Lifelong Learning

The trend toward lifelong learning is occurring in all modern societies as a result of the knowledge explosion and rapid social, technological, and economic changes that force people to prepare for second or third careers and to keep themselves updated on new developments that affect their personal and social goals. Education will continue to become more of a “lifelong” enterprise and increasingly will take place outside the confines of the traditional school. Taking note of these trends, the Carnegie Commission has developed the concept of a “step-in, step-out” educational system for lifelong learning. This means that people could move in and out of educational programs throughout their lives.

Some observers believe that much of the learning that has been provided by elementary, secondary, and postsecondary schools may be provided by business and industry in the future, especially in order to meet the needs of a skilled work force in high-tech and information-based industries (Hoyt, 1991; Magaziner & Clinton, 1992; Weisman, 1993). By 1989, in fact, employers were spending \$250 billion annually in training; in comparison, colleges and universities spent only \$120 billion (*Condition of*

Education, 1991; *Digest of Educational Statistics*, 1990). Still other scenarios envision educating adolescents and adults through a network of community resources and small learning centers and libraries.

There is also growing concern about the rate of international illiteracy; about 1.1 billion (or 20%) people world-wide (mostly involving Third World countries) are illiterate, including 23 to 25 million in the U.S., which is the highest number in the industrialized world. Methods for eliminating illiteracy in the U.S. are mainly tied to adult education courses in basic education. Spending for adult education at the state and local levels increased 379% between 1980 and 1988, and the number of participants increased from 2 million to 3.1 million ("Adult Literacy," 1990; *Digest of Educational Statistics*, 1990). Adult education is expected to increase in the 1990s, especially in states which are home to large minority and immigrant populations.

International Education

Although historically the United States has taken a relatively isolationist position, the increasing interdependence among nations demands that Americans become knowledgeable about developments in distant lands. Oil prices in Saudi Arabia and Iran affect job opportunities in Houston, Denver, and Tulsa. Auto and steel production in Japan and Korea influence the local economy in Detroit and Pittsburgh. Deforestation in Brazil and Malaysia affects the atmosphere in New York and San Francisco. We truly inhabit a "global village" in which our standard of living and our national economy are vitally connected to events in other parts of the world.

Satellite and aerospace communications, instant television reporting, supercomputer networks, laser technology, and jet travel have made this planet seem smaller, and other peoples' problems (or strengths) are harder to ignore. About 20 million children in Third World countries die of starvation each year, and another 800 million (about 15% of humanity) go to bed hungry or malnourished. Considering the rapid worldwide growth in population and the increasing scarcity of world resources, these figures indicate a planet in transition that may soon be unable to sustain even the industrialized nations.

Another area of international education that U.S. schools may need to address in the future is foreign language instruction. The most common spoken language in the world is Mandarin, followed by English, Hindi, and Spanish. Japanese ranks 10th, and German and French rank much lower. Nearly all foreign language programs in American schools offer Spanish and French; in fact, 58% of secondary students enrolled in a

foreign language study Spanish (Met, 1989). But fewer than .01% of U.S. high school students study Japanese, and about .001% attempt Mandarin (Ornstein & Hunkins, 1993). Failure to train students in these languages may severely limit the future growth of U.S. trade and our understanding of other economic market places.

Education in America must become more widely international in scope. Educators might expand travel exchange programs and perhaps make study in another culture a requirement for graduation. There should be emphasis on international geography, history, political science, and economics. As the world becomes more interconnected and interdependent, such needs will become more evident and more funds may be devoted to the area of global curriculum.

Environmental Education

Mounting concern over such problems as pollution, toxic waste, overpopulation, and depletion of food and natural resources has created demands for more knowledge and new programs in ecology and environmental education. Much of the relevant content has long been included in traditional earth sciences, biology, geography courses, and in conservation programs. The new demand calls for a more meaningful and better coordinated program that raises the theme of crisis.

The parade of grim environmental realities is a long one and is continually expanding. Scientists believe the depletion of the earth's ozone layer (already depleted some 5%), caused chiefly by man-made chemicals used in the manufacture of some plastics and in aerosol sprays and cleaning solvents, will increase the incidence of skin cancer, cataracts, and immune system disorders; it may also damage crops, trees, and marine organisms worldwide. If the ozone layer fades over populated regions (there is evidence that such a hole may already exist over North-east portions of the United States), the results could be devastating. The greenhouse effect, which may warm the atmosphere and increase the sea level, may result in substantial harm to both farmlands and cities.

In addition, fish and wildlife, soil, water, and the air we breathe are often contaminated; the only debatable point is when the cumulative effects of all these poisons and toxic substances begin to affect our health. Many people believe that the entire ecological chain is in jeopardy, and some even predict that the great wars of the 21st century will be fought for clean water and soil.

Rather than terrifying students about ecological disaster, however, schools should prepare students for tomorrow's world by helping them understand how scientific, social, and political issues interact. Because

mere possession of knowledge does not ensure proper action, the curriculum must also deal with the attitudes, values, and moral thinking that lead to responsible environmental behavior. Ecological literacy requires a comprehensive view of the modern world, how fragile it is, and how scientific, social, and political issues combine and lead to problems and/or solutions. It requires that schools in the future take a more active role in requiring students to study the environment—and not expect government agencies and activist groups to manage or protect people from other people.

Nuclear Education

The nuclear standoff between the United States and the Soviet Union has ended, and we are now less vulnerable to world nuclear confrontation than during the last 50 years. Indeed, the threat of computer malfunction and subsequent nuclear disaster has declined dramatically. But the nuclear bomb club, which now includes more than 12 nations, is expanding. Some countries such as China and North Korea, and private corporations in Germany and France, continue to sell their nuclear knowledge to Third World countries. Considering the possibility that terrorists may use nuclear devices for their own purposes, the world may not be that safe from nuclear threat after all.

Even peaceful uses of nuclear energy—power plants, medical facilities, radiation therapy, and nuclear medicines—have come to seem more problematical, especially since the disasters at Three Mile Island and Chernobyl. The entire world is affected by a serious meltdown in terms of air, food, and water quality. Global weather patterns know no national boundaries; concentrated radiation can affect human populations thousands of miles away.

The waste products of nuclear facilities and toxic chemicals also present a continuing problem; where in this world can we bury them? Try to convince the residents of Maine or Michigan that it is to their advantage, or that it is their patriotic duty, to have a nuclear (or toxic) dump site in their backyards. For children to realize that nuclear destruction comes in various forms, and that they cannot always rely on adults to watch out for their future, is very painful and fearsome.

Concern about nuclear energy has reached schools under such rubrics as “nuclear-sane programs,” “peace education,” and “peace-making strategies.” In coming years these will continue to be important elements in a globally oriented curriculum. We must not reduce our concern about nuclear energy because of the demise of the Soviet Union;

nuclear energy will play a great role in the future, and we will need a sane nuclear education program.

Health Education and Physical Fitness

Trends in the health of the U.S. population are producing new pressures to expand or reorient the curriculum. For example, the epidemic of AIDS (acquired immunodeficiency syndrome), with its dire risk to sexually active adolescents, has forced educators to confront the issue of student health in a new way. Predictions are that by the year 2000 some 40 to 50 million people around the world will be affected by the disease; the majority will be from Africa, but some four to five million will be Americans (Altman, 1991; Popham, 1993). Some educators see the AIDS epidemic as literally a life-or-death matter for their students. Schools have been slow, however, to include AIDS education in the curriculum.

One reason for the lack of AIDS education is the continued controversy over the disease and the recommended preventive measures. Many parents and educators have been particularly incensed by programs involving the distribution of condoms in big-city schools. A more basic reason for the lack of AIDS education, however, is that only 27 states require any form of health or sex education, and American students average only 13.9 hours of such education annually. Moreover, nationwide there is only one certified health teacher for every 21,500 students (Manna & Symons, 1990; Miller & Becker-Dunn, 1993). Many educators believe this shortage must and will be addressed in the future. Certainly AIDS education is going to be incorporated into the curriculum, as early as the elementary grade levels.

Dietary habits and exercise comprise another health concern. Citing medical evidence of high blood pressure and elevated blood fats and cholesterol counts among American youngsters, physicians have criticized the high-fat, burgers-and-fries diet common among school-age children. Many young students appear to be eating their way toward heart disease and other maladies later in life. In addition, school children have been increasingly unable to pass basic physical fitness tests; they do poorly on measures of body development, strength, and flexibility. Television and video viewing habits (including salt and sugar-coated snacks) among American children and youth have contributed to this lack of fitness, what we might call the "fat and flabby" generation.

Although the American adult population appears to have a love affair with physical fitness and sports, the schools ironically have cut back physical education and fitness programs because of budget considera-

tions and renewed stress on academic excellence. Educators frequently assert that we will need to rebuild these programs in the curriculum of the future. Some schools are already recognizing the need to provide better guidance for diet and exercise.

Sports, too, should be reoriented to increase the emphasis on aerobic and rhythmic activities (running, jumping, jogging, bicycling). By the end of the 1990s, progressive and far-sighted schools should be deemphasizing traditional competitive sports, which tend to cater to only a few students and involve activities that only the young pursue. Instead, schools increasingly should emphasize lifelong sports such as tennis, golf, biking, and swimming, as well as noncompetitive, intramural activities in which the average athlete and even the nonathlete can participate.

The primary goal for physical and health programs is to have fun and socialize in sporting activities, not to compete and win—to adopt lifelong exercise behavior. Some “Type A” parents and coaches are going to have to be reprogrammed; winning and working out for 3 hours a day is appropriate for only a very small percentage of students.

Immigrant Education

Legal immigration now accounts for up to one-half of the annual growth in the U.S. population. It has already surpassed post-World War II rates and is approaching the peaks reached in the years prior to World War I. Despite its present economic ills, the United States still looks like the promised land to many people who are searching for a better life.

The new immigrant population differs in ethnic origins from that of the past. From 1930 to 1950, 80% of immigrants to the United States came from Western Europe and Canada. From 1970 through 1985, only 10% came from these countries; the leading source countries, with the highest first, were Mexico, the Philippines, South Korea, Taiwan, Vietnam, Jamaica, India, the Dominican Republic, and Guatemala. In 10th place, with 2% of the total, was Great Britain. Today as many as 90 to 95% of immigrants come from non-Western or Third World countries. Moreover, estimates of *illegal* immigration, mainly from Mexico, Central America, and the Caribbean, total about one million people per year, with approximately 500,000 establishing permanent residence (Fallows, 1991; Juffus, 1992). Partly as a result of these immigration trends, by the year 2000 nearly one-third of the U.S. population will be nonwhite and Hispanic, and in Arizona, California, Colorado, Texas, and New Mexico the proportion will approach 50% (Ornstein, 1984, 1988).

For some recent immigrants, life in America has been a remarkable success story. Many, however, face language barriers, ethnic prejudice,

health problems, and a lack of good jobs. One difference is that the newcomers now enter a country that is vastly different from the open, economically booming America that absorbed the European masses with ease in prior decades. Moreover, hostility toward immigrants, especially illegal immigrants, is common, and is born of economic and population pressures. Jobs are scarce in many parts of the country, and wages and unemployment trends in many sectors of the economy are affected by immigrants who are willing to work harder and for less money than Americans.

A significant number of immigrant families are “structurally poor,” meaning that the family conditions are unstable or disorganized and the children have few chances to escape from poverty. Because of cultural differences in learning styles or thinking patterns, the children may be labeled “learning disabled” or “slow.” Even when this is not the case, value hierarchies vary widely across cultures, so that immigrant children have diverse attitudes about school, teacher authority, gender differences, social class, and behavior in general.

To assist these new immigrants, many educators are suggesting an increase in compensatory and bilingual programs in the schools. A multicultural curriculum can also help immigrant children achieve acceptance and respect in their new country. But in the future, if present immigration trends continue, schools will have to go even further in adapting their curricula for students who have been transplanted from another land and another culture. We can expect our school budgets to be strained while we try to resolve the learning and linguistic problems these children bring to school, and we will need to sensitize our teachers to immigrant customs and values, rather than mislabelling many as “learning disabled,” “behavioral disordered,” “handicapped,” and so forth.

The Return of Geography

Most adults over 40 remember geography as a required unit in their elementary school days and as a separate subject in high school that was taken for a half year along with civics or economics for the remaining half year. Those of us with good spatial relations and abstract abilities were able to appreciate the concept of longitude and latitude, topography and climate maps, and great circle routes. For others, geography was a drudgery-filled requirement with far-off names of rivers and mountain ranges and hard-to-pronounce capitals that had little meaning to us.

During World War II and the Cold War period, geography was consid-

ered important for understanding international relations, economic power, military warfare, and U.S. Allied activities in Europe and Asia. The subject was considered useful for explaining current events in the elementary grades and was considered one of the “essential” subjects needed for transmitting the nation’s heritage and guaranteeing international leadership.

However, geography gradually disappeared from the school curriculum; absorbed into social studies, it was often delegated to teachers who preferred to emphasize history. By 1960 only 14% of U.S. students in grades 7 to 12 were enrolled in geography courses, and in the mid-1970s the proportion dropped to 9%—a low point for the entire century (Gardner, 1986; Stoltman, 1990). Not only had geography been consolidated into social studies, but it also was no longer a requirement for college admission.

As a result of this neglect of the subject, American high school and college students became geographically illiterate. A recent NAEP assessment of the nation’s high school students revealed that only 42% could locate Nigeria on a map of Africa, and only 37% could find Southeast Asia on a world map (*Geography Learning*, 1990). In another survey, 39% of young adults living in Boston could not name the six New England states; in Dallas 25% could not identify the country that borders the United States to the South.

The reform movement in education, starting with the publication of *A Nation at Risk* in 1983, has sounded the alarm. For the United States to remain a worldwide power, U.S. students must learn about the world around them, including its basic geography. Renewed emphasis on geography has become part of several different curriculum focuses, such as back-to-basics, cultural literacy, environmental education, and global education. As the drive toward restoring substantive content to the curriculum continues, geography will play an increasingly important role.

Middle-Grade Education

There is a growing recognition today that students between the ages of 10 and 15 are often distracted from their schoolwork because they are going through a time of rapid growth and development. Enormous variability exists among these students, even within the same age group and in the same classroom. The differences in physical, intellectual, and emotional development are so great that averages have little meaning. One eighth-grade student may be 6 feet tall and weigh 200 pounds, and

the student sitting next to him may be nearly 1½ feet smaller and weigh half that amount.

The expanding use of middle schools is an attempt to make education more responsive to these students' social and psychological needs. Middle schools comprising grades 6 to 8 now enroll as many as 40% of U.S. students in this grade span. Schools concentrating on grades 7 and 8—also called middle schools—account for another 25%. Today only 17% of U.S. students in this grade range attend a school comprising grades 7 through 9, the traditional junior high school (Epstein & MacIver, 1988; Ornstein, 1992).

The difference between middle schools and junior highs is often confusing. Many middle schools were originally established for administrative reasons, such as the need to alleviate overcrowded elementary or high schools. Since the 1980s, however, middle schools have tended to represent a distinct way of thinking about the education of preadolescents and early adolescents. Compared to other secondary schools, middle schools put more emphasis on socialization, and less on academics; more emphasis on intramural sports, and less on interscholastic or competitive sports. There is more emphasis on the students' growth and development, not only on cognitive domains of learning. Their curricula are more interdisciplinary, and they offer more exploratory subjects, such as sex education, creative writing, and drama in blocks of 10 to 12 weeks as opposed to traditional academic subjects for the entire term. Cooperative learning, heterogeneous grouping, flexible scheduling, and extended advisory periods are more common in middle schools than in junior high schools and high schools.

As middle schools become even more widespread, new curriculum approaches will continue to develop. Teacher education programs will also reflect the change. Until now, only a tiny percentage of teacher education programs have distinguished middle schools from elementary and secondary schools in their preservice programs. In the new future, however, teacher training institutions will focus increasingly on the skills and knowledge needed to teach in a middle school.

Aging Education

Unless the U.S. birth and death rates both dramatically increase, we are heading for a society in which the young will play a diminished role. Our society is rapidly aging, and all of us are on the same conveyor belt—the only difference being that we got on at different times. By the year 2020, increased longevity and the aging of the post-World War II

baby-boom group will increase the number of elderly Americans (age 65 or older) to an estimated 51.4 million, or 17.3% of the projected U.S. population. By comparison, this age group included only 25.5 million people, or 11.3% of the population, in 1980 (*U.S. Population*, 1992; Van Wishard, 1990).

The costs for medical and custodial care of elderly people will likely create an increasing burden on the younger working population. Moreover, the aging members of society constitute a growing political force, able to shift social spending dollars toward their own needs at the expense of school budgets. According to some projections, the increases in federal spending for Medicaid, Social Security, and old-age benefits will increase 73% between 1990 and 1995, after a 52% hike during the previous 10 years, while spending on education dips 4% (Hadley & Zuckerman, 1990; Kaplan, 1991).

Given this "graying of America" and the issues it raises, some educators believe that schools must teach students to understand the problems and prospects of aging: how to cope with aging personally (even though it may seem distant when we are young) and how to help loved ones (parents and grandparents) successfully confront this stage of life. On another level, schools should attempt to counter many of the existing stereotypes about the elderly. Retirement ages are changing, as people stay in the work force well past age 65. We see more and more people in their 70s playing tennis and actively involved in business and community affairs. Soon the curriculum may treat age stereotypes and age discrimination as another "ism," like racism and sexism, that students should learn to overcome.

Schools themselves should integrate semi-retired and retired people into the school work force, as volunteers, teacher aides, and resource people. The collective wisdom of these people is immense, and their political support for schools will become increasingly important. Most important, schools may be required to deal with shrinking budgets as our nation's priorities change from the youth to aging group.

For-Profit Education

A new form of separate and unequal schooling may increase in the years ahead. Privatization and profitization of education have appeared in the form of nationwide nursery schools, day-care and after-school centers, private coaching and sports centers, franchised tutoring centers, private college counseling services (aimed at selected colleges), private coaching for SAT and professional tests, corporate training

schools, and contracted out-of-school services. All of these trends have one thing in common: They turn education into business by marketing educational services for a fee.

Although we have always had private alternatives to public education, a growing number of affluent families are willing to pay for various types of educational services to enhance their children's education and opportunities. Because of parental emphasis on the importance of education for their children's success, and fueled by the school choice and private school movements, entrepreneurs have rightly judged there is a market for supplementary services, especially among well-to-do, pressure-driven parents.

The largest private learning centers, as of 1991, were the Britannica Learning Centers, with 86 centers in 8 states; Huntington Learning Centers, with 100 centers in 26 states; Kinder Learning Centers, with 1,250 centers in 41 states and two Canadian provinces; and Stanley Kaplan Educational Centers, with 125 permanent centers and nearly 500 temporary centers (Personal Communication, 1991). About 3 to 4% of the U.S. school population participates in this type of proprietary school, twice the percentage that did so in 1987; the percentage is expected to increase further as the learning centers expand.

Some commentators have welcomed these private and profit-making schools as a means for radically changing American education. The present school structure, they contend, hinders school reform; educational services can be delivered more efficiently by the market system than by government. Other observers argue that public education discriminates against taxpayers who do not have children in school. Some proponents of profit-making schools see a worldwide movement in industrialized countries to privatize education. In fact, it would not be surprising if large computer or publishing companies such as Apple, IBM, Macmillan, and World Encyclopedia enter the market, or even begin franchising education for-profit centers.

On the other hand, many educators believe the rise of for-profit education will widen the gap between "have" and "have-not" children. Hourly fees for many learning centers and tutoring courses range from \$15 to \$50, a cost that prices out the great majority of parents. The price will probably increase as the demand for such services rises. To counter the trend, critics argue that public schools should offer more remedial education, supplementary help, and enrichment programs—services that would benefit students and increase parents' confidence in local schools. In this way, the rise of private learning centers may soon stimulate changes in curriculum and instruction in the public schools.

Futuristic Education

According to Toffler (1970), many people are susceptible to “future shock”—that is, they are unable to cope with the rapid change of today’s society. As he puts it, “To survive, [and] to avert . . . future shock, the individual must become infinitely more adaptable and capable than ever before” (p. 35). The principal aim of education “must be to increase the individual’s ‘cope-ability’—the speed and economy with which the person can adapt to continual change” (p. 402).

One way of preparing students for the future is through studying the future itself. New courses or programs, called “futuristic studies,” “futuristics,” or “futurism,” are now being offered at the college level, and they should soon filter down to secondary schools. This field of study considers technological developments and social events not as separate but rather as twin components that will determine our future. To generate accurate conceptions of the future is no small task, but presenting the future as a formal object of study helps students learn the implications of rapid change and how society can adjust to them.

Educators have identified several areas of competence that are important in a future-oriented curriculum. Understanding of technology is critical, of course, particularly communications technology. Other subjects of study include planning procedures, the organization of information, forecasting techniques, decision making, and working in groups and institutions. Students would be taught to think in multidimensional as well as linear ways. Finally, the curriculum would enhance students’ self-concepts so they do not feel powerless in a powerful society and equip them to deal with the complexity of international power shifts and rapid change (Ornstein & Hunkins, 1989, 1993).

The future is always evolving; therefore, the curriculum must also be evolving. Whether in futuristic courses or in more standard ones, educators must begin to confront the 21st century. We must plan it now, but we must keep in mind there are valuable historical lessons to remember and a rich culture that needs to be preserved.

Words of Caution

Although curriculum must evolve to serve a changing society, we caution the reader on several fronts. Change for the sake of change is not good; it must be tempered with wisdom, compassion, and justice. Schools throughout the ages have viewed their programs as being on the cutting edge of progress, and they have often been wrong. We may be

misguided again as we view our schools and society; only the future will tell.

New knowledge, indeed, is not necessarily better than old knowledge. Are we to throw away most of Aristotle, Galileo, Kepler, Darwin, and Newton merely because they are no longer part of this century? If we stress only scientific and technological knowledge, we could languish physically, aesthetically, morally, and spiritually. As we try to maintain curriculum relevancy and plan for the future, there is no guarantee that we will not repeat the mistakes of the past; as educators, we should never lose historical perspective.

What knowledge we select and how we organize the curriculum requires continual attention; we must learn to prune away old and irrelevant knowledge and balance and integrate new knowledge into the curriculum. As we modify and update content, we must not throw away time-tested, enduring subjects such as literature, history, even music or art (or the three Rs at the elementary school level). Teachers, and especially curriculum specialists, must protect the schools and their students against fads and frills, and especially against extremism. They must keep in perspective the type of society we are, the values we cherish, and the educational aims we wish to achieve.

References

- Adult literacy. (1990, October). *Education Digest*, 56, 42.
- Altman, L. K. (1991, June 18). W. H. says 40 million will be infected with AIDS. *New York Times*, p. 38.
- Condition of education*. (1991). Washington, DC: U.S. Dept. of Education.
- Digest of educational statistics*. (1990). Washington, DC: U.S. Dept. of Education.
- Epstein, J. L., & MacIver, D. J. (1988, Winter). The middle school grades: Is grade span the most important issue? *Educational Horizons*, 67, 88-94.
- Fallows, J. (1991, November). The new immigrants. *Atlantic*, pp. 45-68, 85-89.
- Gardner, D. P. (1986). Geography in the school curriculum. *Annals of the Association of American Geographers*. Washington, DC: The Association.
- The geography learning of high school seniors*. (1990). Washington, DC: U.S. Dept. of Education.
- Hadley, J., & Zuckerman, S. (1990, Winter-Spring). Rising hospital costs. *Urban Institute Policy and Research Report*, 20, 9-10.
- Hoyt, K. (1991, February). Education reform and relationships between the private sector and education. *Phi Delta Kappan*, 72, 450-452.

PEABODY JOURNAL OF EDUCATION
Our Evolving Curriculum, Part II

- Juffus, J. (1992). *The impact of the immigration reform and control act on immigration*. Washington, DC: Urban Institute.
- Kaplan, G. (1991, May). Suppose they gave an intergenerational conflict and nobody came. *Phi Delta Kappan*, 72, K1-K12.
- Klode, R. F. (1991, February). Integrated learning for a competitive workforce. *Phi Delta Kappan*, 72, 453-455.
- Magaziner, I., & Clinton, H. R. (1992, March). Will America choose high skills or low wages? *Educational Leadership*, 49, 10-14.
- Manna, A. L., & Symons, C. W. (1990, Fall). Promoting student health through children's literature. *Educational Horizons*, 69, 37-43.
- Met, M. (1989, September). Which foreign languages should students learn? *Educational Leadership*, 47, 54-58.
- Miller, L., & Becker-Dunn, E. (1993, February). HIV at school. *American School Board Journal*, 180, 42-45.
- Occupational projections and training data*. (1990). Washington, DC: U.S. Dept. of Labor.
- Ornstein, A. C. (1984, August). Urban demographics with educational implications. *Education and Urban Society*, 16, 477-496.
- Ornstein, A. C. (1988). Enrollment trends in big-city schools. *Peabody Journal of Education*, 66, 64-71.
- Ornstein, A. C. (1990, April-May). Bring telecommunications and videos into the classroom. *High School Journal*, 73, 252-257.
- Ornstein, A. C. (1991, May). Video technology and the urban curriculum. *Education and Urban Society*, 23, 335-341.
- Ornstein, A. C. (1992, September). Middle school notes: The troubled world of the adolescent. *Principal*, 72, 49-52.
- Ornstein, A. C., & Hunkins, F. P. (1989, Summer). Curriculum futures: Review and outlook. *Kappa Delta Pi Record*, 25, 107-111.
- Ornstein, A. C., & Hunkins, F. P. (1993). *Curriculum: Foundations, principles, and issues*. Needham Heights, MA: Allyn & Bacon.
- Popham, W. J. (1993, March). Wanted: AIDS education that works. *Phi Delta Kappan*, 74, 559-562.
- Stoltman, J. P. (1990, December). Geography in the secondary schools: 1945-1990. *NASSP Bulletin*, 74, 9-13.
- Toffler, A. (1970). *Future shock*. New York: Bantam Books.
- U.S. population: Where we are, where we're going*. (1992). Washington, DC: Population Reference Bureau.
- Van Wishard, W. (1990, March). What in the world is going on? *Vital Speeches of the Day*, 74, 314.
- Weisman, J. (1993, January). Skills in the schools: Now it's business' turn. *Phi Delta Kappan*, 74, 367-369.