An Ideaspcape for Education: 
What Futurists Recommend

A glimpse into the future reveals 
actions educators can take now.

Educational futurists offer a wealth of ideas for those who are searching for a substantive philosophy to guide education in the coming years. I recently analyzed the educational and societal futures literature to identify themes (Festinger and Katz 1953, Krippendorff 1980). My research yielded information about trends in society, the family, the demographics of the nation, and the US and international economic structure (Benjamin 1987). Of the many trends discussed in the literature, 10 are of particular importance (see "Societal Trends," "Economic Trends," "Family Structure Trends," and "Demographic Trends").

In brief, the futurists construct an ideaspcape for education that suggests that global and multicultural pressures will alter the way of life in the United States. Because of technological advances, life will be characterized by rapid change; knowledge will become obsolete at a more rapid rate. School-children will be more likely to come from single-parent homes or from homes in which both parents work. Finally, the world of work will require the abilities to manage information and to work with people. Workers will need high-level thinking skills as well as the ability to adapt. Given this scenario, what changes in education do futurists recommend?

My analysis of the literature identified numerous recommendations for educational change. I discuss 14 of them here. The themes appear in order of frequency (that is, "active learning" appears first because references to this theme were most numerous).

Active Learning

The futurists' call for active learning should be understood in two ways. First, students must participate in learning endeavors in which they engage in the process of learning. That is, learning is not seen as students' sitting at a desk listening to a teacher lecture; students are doing things. Second, students must be more active in determining the nature of their own educational programs. They must be given more autonomy and power of choice. Seif (1978) lobbies for more active, experiential, real-world learning. "Experiential education—field trips, demonstrations, investigative projects, and..."
A number of futurists describe a new learning to the learner... "hands-on labs" will grow in importance, according to Cornish (1986, p. 16). In addition, students will need more freedom to decide what they wish to study (Gay 1981, Albrecht 1984). Lewis (1981) suggests that one major shift would be in the relationship of the teacher and the learner. The old paradigm made the teacher responsible for the student's learning, with the student obliged to learn. The new paradigm of a learning society shifts the responsibility for learning to the learner... (original emphasis, pp. 66-67).

A number of futurists describe a new collaborative role for teachers and students in which students accept an active senior partnership role in the learning enterprise (see, for example, Kirschenbaum and Simon 1974, Wees 1975, Glaser 1975, Brown and Saks 1984, Miller 1981, Barnes 1978).

**Higher Cognitive Skills**
Generally, futurists suggest that because of the nature of future society (that is, technological, overloaded with information, interdependent, global, change-driven), students and citizens must be able to think critically, uncover bias and propaganda, reason, question, inquire, use the scientific process, remain intellectually flexible, think about complex systems, think holistically, think abstractly, be creative, and view and read critically (Shane and Tabler 1981, Gay 1981, Laswell 1975, Ravitch 1983, Taylor 1985).

**Service Learning**
Futurists view service learning as a way to involve students in active learning, to allow interaction with community adults and other youth, to introduce students to agencies and institutions within their local communities, and to help youth gain a service ethic that will check tendencies toward unbridled self-interest (Schwartz et al. 1977, Apple 1983). Learning ought to focus on real problems, suggests Toffler (1981) and Shuman (1984), thus enabling students to provide services to the community. Real service commitments should be coupled with in-school analysis and discussion of those experiences, recommends Wees (1975). Boyer (1984) recommends voluntary service in hospitals, museums, community agencies, and schools. Recognizing the importance of real experience in the development of responsible citizens, Ezioni (1982) recommends social agency internships for youth. (For more views on service learning, see also Tyler 1975, Nash 1980, Ornstein 1981, Van Avery 1980.)

**Past-Present-Future Focus**
Education should "move from past-oriented curriculums to past/present/future-oriented curriculums," suggests Barnes (1978, p. 124, see also Small 1981). Other writers support application of a balanced time perspective to educational thinking and activity (Evans and Etium 1982, Singer 1974, Barnes 1978, Seif 1978). Because of the interactivity of the future, present, and past, futurists stress the need for youth to consider their ability to construct alternative futures. Shane (1975) suggests that one of the most important goals of education in the next decade might well be to instill in youth a much greater awareness of alternatives and of their consequences. The curriculum for tomorrow's educational programs must help young learners recognize that the future is literally created by our decisions (p. 112).

Other futurists also urge that education must pass on the belief that we shape the future by present actions (Bjerste-Jr et al. 1982, Seif 1979, Pulliam 1980, Conte and Cavaliere 1982).

**Lifelong Learning**
In a world where knowledge, skills, and values become obsolete more rapidly, education can no longer be reserved for the early years of life. Ornstein (1981) suggests that in line with the growing complexity of modern society and the corresponding need for people to have access to a greater variety of educational resources at differing stages of their lives, education will continue to become more a lifelong enterprise... (p. 52).

Coombs (1982, p. 146) writes that we must be involved in "building a progressively broader and more diversified 'learning network'—combining formal, nonformal, and informal modes of education—to serve the evolving lifelong learning needs of all members of the population." (For

Whole-Person Education
Educational futurists generally criticize traditional education for overemphasizing the cognitive, while failing to recognize the importance of other components of one's personality. Combs (1981) suggests a more balanced perspective, claiming that education should not force a choice between "smart psychotics or well-adjusted dopes" (p. 370). We must concentrate on developing "mental, physical, and emotional health for the total person," stresses Furner (1984, p. 8). Moreover, effective living, suggests Nash (1980), will require an education of the self—not merely those human qualities considered useful by the industrial and commercial interests of society, but the entire range of human capacities so each person becomes "aware of himself entirely—mind, body, feelings, spirit, imagination" (p. 24).

Coping With Diversity
Greater and expanded opportunities for communication and travel have increased contact with people from other countries and other cultures (Seif 1979, Gay 1981). Not only will we live in a globally interdependent world in the coming years, but greater cultural and ethnic diversity will exist in our own nation and communities (for example, see Naisbitt 1982 and Toffler 1980). Thus, educational futurists deduce the need for students to accept change, understand, and cope with change, diversity, and national and international interdependence. Education must help students become flexible, able to deal with ambiguities (Small 1981, Ford 1980). From an image of a complex, change-driven world, Pulliam (1980) infers the need to accept change as inevitable and to be able to use it to advantage.

Because knowledge in the future will have a short half-life, future-oriented educators advocate viewing learning as the active seeking of knowledge by each student.

General Education
In an environment where people will continue to forge complex social and technological systems, general processes and general knowledge are thought not to pass out of vogue quite so quickly as specialized training. Toffler (1980) believes that in the future, we will need to think like generalists, not specialists. Moreover, a general or liberal education allows a broad vision, the ability to see many dimensions of problems and of life (see, for example, Small 1981, Shane 1976a, 1976b, DeBevoise 1982). Tyler (1981, p. 144) writes that occupational competency increasingly demands broad vision, flexibility in outlook, knowledge of alternative conceptions in place of narrow views, rigid conceptions, and unchanging specific skills.

Transdisciplinary Education
In the future, learning will be centered around ideas and problems, not fragmented into discrete subject areas controlled by a seven-period day. The educational futurists call for a curriculum that is activity and idea-based, a transdisciplinary one. Small (1981) urges adoption of a vertical, thematic approach that integrates many disciplines and different levels of complexity around a core idea. Futurists advocate this view because of the interdependent nature of the world and its pesky, system-style problems. That is, the complexity of today's problems requires us to draw solutions from knowledge in a variety of fields. In order to foresee other problems that may be created by shortsighted solutions, for example, the use of chemical pesticides to increase food production causes other problems. Van Avery (1980) notes that knowledge is not segmented but interrelated. Future concerns can be considered only as interdependent wholes, not as segmented parts (p. 442).

McClure (1981) warns that curriculum in its present departmentalized setting is as outdated as medieval medicine. Knowledge is not segmented but interrelated. Future concerns can be considered only as interdependent wholes, not as segmented parts (p. 442).

Family Structure Trends

- **Women in the workplace.** Approximately 50 million American women are in the work force—nearly 53 percent of those over 16 who are capable of working, and nearly 45 percent of total employment—and it appears that in the future women will enter the work force at a faster rate than any other group (Naisbitt 1985, Cetron et al. 1985).

- **Single-parent families.** Many factors contribute to the increase in single-parent families, but divorce is perhaps the most visible, if not the most important; driving force behind this shift. Toffler (1980, p. 214) writes that "a staggering one in seven American children is raised by a single parent and that the number is even higher—one in four—in urban areas." Cetron and his coauthors (1985) document a near doubling in the percent of white families maintained by women between 1970 and 1984, up from 9 percent to 15 percent. Minority families are even more likely to be headed by females (23 percent of Hispanic and 40 percent of African-American families).
Personalized Learning

The futurists' call for personalized learning is predicated on the notion that the many differences that exist among people should be cherished as a major source of creativity and diversity. Combs (1981) notes that for 150 years we have been trying to teach students as though they were alike. We have grouped them, tracked them, graded, leveled them, and tried to homogenize and organize them into one kind of group or another for administrative experience (p. 372).

The futurists advocate personalized education, which emphasizes the acquisition of learning goals according to the abilities of individual students and without adherence to arbitrary time schedules. Barnes (1978) suggests that since all students are unique...they need not begin at the same place and end at the same place in a set amount of time" (p. 124). Glaser (1975) urges future educators to remove arbitrary time units, grade levels, and unduly classificatory activities, and to use flexible environments and curriculums to meet the learning needs of individual students.

Process Approach

Because knowledge in the future will have a short half-life, future-oriented educators advocate the shift from a view of learning as the passive acquisition of discipline-based subject matter to one of process—the active seeking of knowledge by each student (see, for example, Shane 1977). Van Avery (1979) suggests that there will be a need to redefine knowledge...with the emphasis on "learning how to learn, rather than on learning facts. Learning would move from a knowing to a searching emphasis" (p. 10; see also Orsini-Romano and Pascale 1978, Ford 1980, Miller 1981, Walz and Leu 1979, Longin 1984, Fletcher and Wooddel 1976, Bouchouvalas 1983, Shane 1976a and 1977). To force home the point, Kirschenbaum and Simon (1974, p. 266-267, in part) present examples:

Traditionally, subject matter has been regarded as a fixed body of knowledge which all people needed to know. Shakespeare, the parts of speech, quadratic equations, the major products of Argentina, and the parts of the digestive system were treated as the ends of education. More recently, we have realized that, in a world in which the amount of knowledge increases geometrically, in which no one can keep pace with it, we need to change our emphasis from what to learn to how to learn. The shift has been from content to process (original emphasis).

Demographic Trends

- Graying population: The median age of the population of the U.S. is advancing. Cetron and his coauthors (1983, p. 37) project that the median age will rise to 36.3 by the year 2000, up from 30.5 in 1982, and that the proportion of the population over 65 will rise from the current 12 percent to an estimated 17 percent during the same period.

- Growth in minority populations: Minority populations will continue to grow, relative to the overall population, with Hispanics increasing faster than any other group. Hispanics will become our largest ethnic group, soon outnumbering African-Americans, predict Naisbitt (1982), Long (1981), and Shane (1979). Further, minority population growth will be found primarily in the large urban areas (Wegmann 1980) and in the southern and western sections (Furner 1984) of the nation.

In education, large size is a problem, not an economic cost benefit. Schools should be modeled more after the family than big business, with its overattention to economies of scale.

Education for Communication

The futures literature contains many references to the importance of interpersonal communication and "peopling" skills (see, for example, Shive 1980, Rumberger 1984, Forbes 1984, Berman and Roderick 1977). Among the survival skills of a new age are communication skills, including the ability to speak other languages (Shane and Tabler 1981). There is a growing need for workers who can communicate and interact with others in order to make decisions in a democra tic workplace (Abbott 1977). Gay (1981, p. 84) sums up the futurist perspective:

If, indeed, the greatest challenges of the next few decades are going to be people-oriented, then knowing how to communicate with and relate to others is fundamental to the nurturing of human potential as well as to the revalorizing of each individual.

Early Childhood Education

Early education is preventive problem-solving that will provide students a proper base from which to build. Boyer (1984) reminds us that the early years are the most important. Futurists also note that because of the changing family structure (that is, more families in which both parents work or the single parent works), institutions are needed to care for and nurture the very young (Ford 1980, Shane 1979). Cornish (1986) and Etzioni (1982) advocate shifting scarce educational resources from the higher levels (colleges and universities) to meet the needs of young children. If everyone who is now teaching remedial classes in junior and senior high schools were transferred to elementary schools," suggests Ravitch (1979, p. 82), "the pupil-teacher ratio could be smaller in the lower grades and larger in the upper grades," thus concentrating resources where they are needed most.
Small Structure
The futurists believe that schools are too big, even high schools. In education, large size is a problem, not an economic cost benefit. Some authors suggest that schools should be modeled more after the family than after big business, with its overattention to economies of scale (Burdin and Nutter 1984). Ravitch (1983, p. 320) writes that
unlike some present schools, which are as vast and impersonal as factories, the school of the future should be modeled on a family, here, caring, knowledgeable adults would guide and instruct young people—and each person would be special.

Several authors predict that schools will become smaller in order to combat alienation and violence (McDaniel 1974, Suppes 1975, Cornish 1986). (For additional information about the desirability of small- or appropriate-scale education, see also Henson and Balentine 1984, Combs 1981, Small 1981, Shane 1980.)

Curriculum for the New Millennium
LeRoy E. Hay and Arthur Roberts

“Curriculum for the New Millennium: Trends Shaping Our Schools,” a position paper published by Connecticut ASCD, identifies 10 trends that will affect the curriculum and its delivery as we move toward the year 2001.

The report was written by a committee that included classroom teachers (kindergarten through university level), building and district administrators, and representatives of service agencies and boards of education. The committee began by generating a list of trends that will affect schools by the start of the 21st century. They then researched the possible consequences of each trend. For over a year, they discussed the trends and their impact on schools, until the 10 most significant trends emerged:

- The world of work will be characterized by a continued shift from an industrial work force to an information and service work force. Technology will play a major role in almost all segments of the work force. Tomorrow’s workers will need skills and attitudes different from those of today’s workers.
- Technology will become even more powerful, convenient, and complex.
- The population that the educational system will serve will be quite different from today’s population. It will be more ethnic and paradoxically both younger and older.
- The world will continue to become more globally interdependent.
- The American family will continue to be diverse. No single family type will represent the majority of Americans.
- Our society will demand an even more convenient lifestyle, expecting all institutions to deliver their services with ease and speed.
- The locus of control in education will continue to shift from the federal to the state level and from the central office to the building level. Decision making within school districts will be shared more with teachers.
- A shortage of qualified teachers and administrators will necessitate alternative approaches to training, recruiting, and certifying professional educators.
- Alternatives to public education will continue to grow in popularity and to gain public support.
- The number, frequency, and complexity of values questions confronting educators will increase dramatically.

For each trend, the report predicts consequences and lists possible effects on the curriculum and its delivery. For example, the “Age of Convenience” trend projects that teenagers will join the work force at earlier ages and will work longer hours; as a result, educators will rethink school schedules and the role of homework.

The 32-page report is available for $7.00 from Edward H. Bourque, Assistant Superintendent, Fairfield Public Schools, Fairfield, CT 06430; (203) 255-8372.

LeRoy E. Hay is Department Chair, English, Manchester High School, 143 E. Middle Turnpike, Manchester, CT 06040. Arthur Roberts is Professor of Education, University of Connecticut, Dept. of Education, Box U-33, Storrs, CT 06268. They are co-editors of the report.

Awareness and Action
The future will arrive ahead of schedule. By considering the futurists’ recommendations for change, perhaps we can restructure education before it is too late. With proper future-oriented pedagogical, curricular, and organizational changes, we can help students meet the challenges of new ages.

[I reviewed 209 documents published between 1974 and 1987. A total of 2,223 themes (for example, “Future students need advanced reasoning skills”) were recorded in a computerized data base. I then reanalyzed and combined them into 53 categories using the constant comparative method (Glaser and Strauss 1967).

References


Steve Benjamin is Coordinator, Curriculum and Instruction, Metropolitan School District of Decatur Township, 5108 S High School Rd., Indianapolis, IN 46241.