

Educated Foresight for the 1990s

To plan curriculums for tomorrow's students, we must cultivate the ability to understand—and project the consequences of—changes occurring now.

In view of the well-nigh incredible proliferation of change in global society and in our technologies, the inhabitants of this planet must supplement and extend our understandings of the new environments that surround us. We must develop "educated foresight,"¹ the ability to understand the variety and the nature of the rapidly germinating technological climates of the 20th century.

The following samples of global and national developments illustrate the kinds of changes we must become knowledgeable about and derive well-reasoned implications from:

- problems related to nuclear power and weaponry;
- the increasing inhabitability of our planet;
- rapid population growth—a UN estimate of 8 billion humans by 2025—that increases the chances that our planet will not be able to provide a suitable standard of living for all;
- the AIDS epidemic, with a 72 percent annual increase in the U.S. in 1988 reported by the World Health Organization;
- the foreign-financed "invasion" of the U.S., with \$165.5 billion of property purchased as of 1987 by Japan, Britain, and other countries;

- increasing debt—the U.S. government, corporations, and consumers owe approximately \$7 trillion;

- pension and Medicare costs for our aging population—over \$1 billion was spent weekly in 1988 for Medicare, a third of which is for the terminally ill;

- an increase in the number of American women who work outside the home from 31 percent in 1950, as reported by the Bureau of Labor Statistics, to 68 percent during 1988–89, according to Marvin Cetron, president of Forecasting International Ltd.;

- a crisis in child care, due in part to the fact that one-third of U.S. working women have children 5 years old or younger;

- an increase in single parent families, in which nearly 25 percent of our children were living in 1988;

- shifting patterns in the composition of minority groups;

- increases in child abuse, drug abuse, handgun killings, and gang-related crimes.

Once we comprehend the scope and significance of these developments, we can project their influence in the coming decade, then conceive the responses our society will be obliged to make. In other words, we

will be learning to exercise educated foresight, with all its implications for curriculum planning and academic content.

What does educated foresight suggest for education's policies and practices? Let us briefly examine the challenges.

Structural Organization and Staff Deployment

The realms of administration and supervision will be mediated in several important ways. First, the physical settings and educational resources of schools will need to be changed to accommodate a student body encompassing an age range from early childhood through adulthood. Second, we will need curricular structures and administrative policies to match these new and enlarged school settings. Teachers will have to adapt to information age expectations, and insightful advisory supervisors will be needed for increased technical and human support. In addition, we can expect teacher evaluation to be broadened to include items pertaining to human development that range well beyond the 3-R's content of yesteryear.

The structural organization of schools in the '90s will almost certainly

extend downward to provide significant learning programs for 4- and 5-year-olds rather than mere custodial care funded by corporations. Less extensive, but nonetheless a nascent trend in our schools, is education for 2- and 3-year-olds, a development dictated by increases in the number of working mothers and one-parent families. School structure will also extend upward, as programs for mature (30+ years) and senior (60+) learners multiply to re-educate adults whose jobs often become obsolete in an increasingly computerized and robotized world. These changes will almost certainly call for the staff in tomorrow's schools to be more diversified than at present; for example, schools will need specialists in the use of computer hardware and persons to work with children under 5 and adults over 30.

As schools encompass both younger and older learners and increase their investments in technology and in new services, administrators and supervisors—as well as boards of education—will become more concerned with the costs of schooling and with sources of funds.

A Seamless Sequence of Learning

For those of us engaged in curriculum planning, the future holds many opportunities and numerous quandaries or dilemmas as well. In the more

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innovative districts, a seamless sequence of learning experiences is likely to surface. This may well mean a longer school year, perhaps 220 to 250 days for pupils, with parents negotiating the number of days their children are not in the classroom. Also likely are teaching partnerships, consisting of, say, a head teacher plus five colleagues and several paraprofessionals, working with 180 to 220 learners who would be in school simultaneously. Members of such partnerships, including paraprofessionals, would negotiate their vacation weeks at intervals during the entire year. In such a setup, provision could also be made for student teaching by young persons assigned to the teaching partnership as junior resident staff members. During their negotiated segment of free time during the year, they could complete course work for their college degrees.

Pupil progress in a year-round curriculum structure would not be characterized by annual promotions but by the rate of each child's individual progress. This option would permit students to move at any time into more advanced groups in which they were qualified to function. The age range would be greater, but there would be a decrease in the academic and social "maturity gap."

Old Traditions and New Concepts

Trends in content during the next decade will vary appreciably because of ethnic differences in students and a growing adult learner population. The long-respected skills of speaking, reading, and writing will be increasingly important; mathematics and the sciences, in particular the research and experimentation they involve, will also be emphasized. Foreign language instruction will increase in quantity and variety as America's international involvements grow. As the spread of electronic global communications and the speed of travel cause the planet, in effect, to dwindle in size, the introduction of more precise geographical information and greater attention to the nature of other cultures are likely.

In addition to the linguistic and logical-mathematical skills that society

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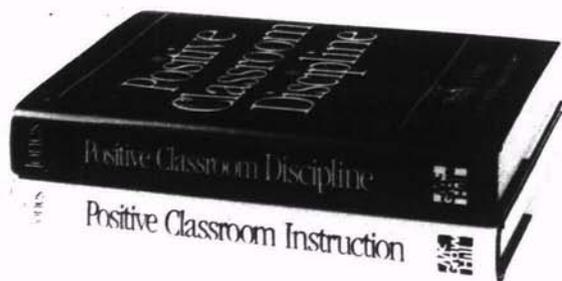
has long valued, Harvard psychologist Howard Gardner has identified five additional intelligences: spatial, body-kinesthetic, musical, *interpersonal* (understanding of others), and *intra-personal* (understanding of self).² In the years immediately ahead all seven forms of intelligence will need to be stressed in classrooms and in all-school and co-curricular activities. They are especially important in helping children from minority groups to adjust to diverse environments, in reducing the dropout rate, and in improving the performance of those currently deemed deficient in reading, writing, or counting.

The Challenge of Change

Only a few years ago in *The Third Wave*, Alvin Toffler pointed out that humans have experienced in sequence an agricultural wave, an industrial wave, and the contemporary information society wave.³ Forecasting even further, I believe we are destined to encounter two more waves within the lifetimes of our students: a micro-electronic wave during which we learn how to process and prudently apply the present flood of data, and an informed society wave during which educated foresight and wisdom begin to transcend mere access to informa-



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tion. As educators, it is greatly to our advantage to develop the power of foresight that should be enhanced by wave four and wave five. We need to experience a rebirth of the Renaissance spirit that motivated scholars to study the world in its many complexities. Doing so should help us cope with the dilemmas and grasp the opportunities for educational changes that the 1990s promise to bring. □

¹H.G. Shane, (November 3, 1986), "Educated Foresight," *Computerworld* (Special 100th Issue Publication), p. 52.

²H. Gardner, (March 1984), *Frames of Mind: The Theory of Multiple Intelligences* (New York: Basic Books, 1982). For a succinct commentary on his work, cf. "Human Intelligence Isn't What We Think It Is," (March 19, 1984), *U.S. News and World Report*, pp. 75-76.

³A. Toffler, (1980), *The Third Wave* (New York: William Morrow).

Suggested Readings

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