T H E EDUCATIONAL IMAGINATION

On the Design and Evaluation of School Programs

SECOND EDITION



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PREFACE



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The nation we are told is at risk. The source of the risk is the quality of our schools. The challenge is to create an educational change that will once again make us competitive in the economic marketplace.

The most widely read policy paper on education has initiated a new national interest in education.¹ And interest is a necessary condition for improving anything. Yet interest alone is seldom enough. What is needed is a vision of what counts as desirable as well as the means appropriate for achieving what counts. Alas, the road to hell, someone said, is paved with good intentions. The basic message of the first edition of *The Educational Imagination* still needs to be heard, at least as I reflect upon the solutions those in high places believe will cure the perceived educational ills that have been discovered.

More homework, harder courses, longer school days, and an extended school year are important recommendations in the national study that has been disseminated so widely to Americans. The justification for concern about the quality of our schools is largely economic, despite the polite needs given to more lofty educational aspirations. I worry about such justifications and I worry even more about the prescriptions provided to remedy what those who write such reports believe need to be remedied. Why, if schools are so generally poor, would it be better for students to spend even more time in them? Such reasoning escapes the logic I am able to employ. Why more homework is better, why harder courses are good (it's not made clear what "harder" means) is not explained. I am reminded of a comment made by an educator at the turn of the century who believed in the "mental discipline rationale" for the curriculum. Believing as he did that the mind consisted of a set of muscles that were strengthened by hard work, he observed that "It really didn't matter much what students studied in school-as long as they didn't like it!" Requests-even demands-for harder subjects reminds me of his comment.

The revised edition of The Educational Imagination develops and reaf-

¹U.S. National Commission on Excellence in Education, A Nation at Risk: The Imperative for Educational Reform: A Report to the Nation and the Secretary of Education, U.S. Department of Education, Washington, D. C. 1983.

process might initiate with a vague image of a new way of teaching biology or art or the study of American political behavior. That image might eventually get transformed into a body of handsome resources, well-written prose, and imaginatively conceived opportunities for learning. But such materials, like a brilliantly composed musical score, need skillful and sensitive interpretation and a group of people who can interact meaningfully with what has been created. If any of these components is missing, the process fails. If the score is poor, it is not worth playing. If the performance is poor, it will be poorly received. If the audience is ill-prepared to deal with it, it will fall on deaf ears. Composers need competent performers and performers need an appreciative audience. In education, similar relationships hold. The teacher might be, in some models of education, his or her own composer, but the need for competent performance, if not an artistic one, still exists. And the fit between the teacher's "score" and the students remains as critical in the classroom as it is in the concert hallprobably even more so.

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Five Basic Orientations to the Curriculum

The subject which involves all other subjects, and therefore the subject in which education should culminate, is the Theory and Practice of Education.

HERBERT SPENCER



The content and aims of school programs have long been the subject of debate. In these debates, differences seldom emerge in the form of abstract issues or bald-face confrontations of competing ideologies. Most often they emerge in the form of differences about specific practical matters: Should children be given letter grades? Should children be assigned to tracks according to their ability in school subjects? Should corporal punishment be used or threatened in school? Should the three R's be emphasized, and should children be kept back if they do not achieve grade-level standards?

Although the arguments that these questions elicit seldom broaden into an examination of principles, it is important for those concerned with designing educational programs to see behind the issues, to go beyond the immediate controversy, to penetrate the current debate in order to locate the values and premises behind the questions.

It is my contention that through such analysis the contending parties will have a clearer and more adequate basis for dealing with what is at issue. Furthermore, an awareness of the various orientations to schooling expands one's options in curriculum planning and thus contributes to

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one's degree of professional freedom. In this chapter, a framework is presented for the description of five important curriculum orientations. In addition, it provides examples to indicate how these orientations manifest themselves in the classroom.

The function of these descriptions is to make vivid the major ways in which individuals think about the aims and content of the curriculum, the role that teachers should play in schools, and the criteria that should be applied to assess the quality of schooling. Each of these five major orientations is described more pointedly than one is likely to find in any school; most schools and most debates about the aims or forms of education are not nearly as clearly defined as these descriptions suggest. I have elected to make them vivid (and in this regard somewhat oversimplified) so that their very important features can be grasped more easily than if their details were either extremely subtle or overly complex. Once one understands the values within each position, appropriate modifications and complexities can be provided for.

Development of Cognitive Processes

One major orientation to schooling emphasizes the belief that the curriculum provided and the teaching strategies used should foster the development of the student's cognitive processes. In this view, the major functions of the school are (1) to help children learn how to learn and (2) to provide them with the opportunities to use and strengthen the variety of intellectual faculties that they possess.

In this view, the mind is conceived of as a collection of relatively independent faculties or aptitudes: the ability to infer, to speculate, to locate and solve problems, to remember, to visualize, to extrapolate, and so on. It is these faculties that must come into play in order to deal adequately with the problems that individuals inevitably have to cope with during the course of a lifetime. For the school to emphasize the mere acquisition of information, the accumulation of fact, or even the dissemination of theory is not in the long run useful, for surely both facts and theories change, and at an alarming rate. If what is already known is emphasized, the student is in a poor position to deal with problems and issues that will inevitably arise? in the future, many of which cannot at present even be envisioned. The most effective way to deal with such problems is not by storing bodies of knowledge in one's memory but rather by strengthening those cognitive processes that can be used later to deal with them. For this to occur, the curriculum used in the school and the forms of teaching employed are crucial. The curriculum is not to emphasize content, but process. Teaching is not to impart, but to help students learn to inquire.

The roots of this orientation to curriculum go back to the work of the

phrenologists and faculty psychologists of the nineteenth century and to the progressive era in American education, particularly during the 1920s. For the phrenologists, the mind consisted of a collection of thirty-seven muscles that were located in different parts of the brain. Each section of the skull showed the location of these intellectual muscles. Following the phrenologists' lead, the faculty psychologists emphasized the importance of strengthening these mental faculties through practice, especially practice that was tough and demanding. Their slogan might be said to have been, "It doesn't matter much what a student studies in school, as long as he doesn't like it." In short, what was important was that the tasks encountered exercise the relevant faculties so that through exercise these faculties became "strong."

Although it was believed that content, per se, was not the crucial issue in building a curriculum, it was believed that some subject matters were particularly useful for the development of specific faculties. Mathematics, for example—subjects such as algebra, geometry, trigonometry, and calculus—was justified not because it imparted content but rather because it fostered mental discipline and strengthened the student's ability to reason. Mathematics was justified because of its contributions to the development of a rigorous mind rather than because students need to know the meaning of Euclid's first theorem.

It should be noted that in this view the criteria for the selection of curriculum content have an elegance and economy. If tasks or subject matters could be identified that strengthen the muscles of the mind, then it would be possible to accomplish a great deal with relatively little effort. For example, if the ability to deduce were a product of processes strengthened through exercise on particular tasks, then one's deductive ability could be strengthened with the expectation that those processes would be useful for tasks unlike those used to strengthen them. This view assumes, in short, general transfer. What transfers is not content, but process: the ability to use the variety of processes that the curriculum strengthened through exercise.

It was this belief that the work of Thorndike and Woodworth in 1901 undermined.¹ Testing for the transferability of learning, Thorndike and Woodworth demonstrated that transfer was not general but specific. What one learned transferred only insofar as the elements constituting the second task were identical with those of the first. Thorndike's theory of "identical elements," and the psychology of learning that he promulgated, had a great impact on beliefs about how the curriculum was to be built.

One such impact was that it could no longer be assumed that the student would automatically learn to perform tasks not taught specifically, or at least taught in a way that encouraged the transfer of training. Thus, in preparing a curriculum in arithmetic, it was not assumed that if a student learned that three times four equaled twelve he or she would also know that four times three equaled twelve, or that two times six equaled twelve. One could not safely assume general transfer or the use of "reason" as a way of coping with new tasks. As a result, arithmetic textbooks placed heavy stress on the catch phrase of connectionist psychology—"practice makes perfect"—and "recency," "frequency," and "intensity" became the guiding principles of effective pedagogy.

The modern-day resurrection of process-oriented psychology emerged in part in the work of J. P. Guilford,² a psychologist whose major efforts have been devoted to the empirical articulation and assessment of a model of the structure of the intellect. The model that Guilford conceptualizeda complex structure that distinguishes over one hundred independent intellectual operations-could, in principle, be used to define the variety of tasks that could constitute a process-oriented curriculum. For example, if ideational fluency and ideational flexibility using figural material were considered important educationally, programs in schools could be designed to give children opportunities to use such processes on tasks that were intentionally designed to elicit them. What is important here is that specific mental operations are thought to be strengthened through activities especially designed to require their use. It is on the ability to use such processes that the individual must eventually depend. The major mission of schooling, in this view, is to increase the probability that maximum realization of those processes occurs.

Related to this conception of mind are the various levels of cognitive operation in the Taxonomy of Educational Objectives: Cognitive Domain.³ The six levels that are identified—possession of information, comprehension, application, analysis, synthesis, and evaluation—represent increasingly complex forms of thinking. The tacit value position embedded in the taxonomy is that educational objectives should be developed so that they traverse the entire range of cognitive processes and not simply remain at the lower level of cognitive functioning. Implicit in this view is the belief that cognitive processes can be cultivated, that educational objectives should be derived from levels of cognitive functioning, and that test items should be designed to assess the levels of cognitive achievement that students have reached.

Within the curriculum field, a variety of programs have been designed that are directly related to the belief in the primacy of cognitive development as an aim of education. One such program, *Science: A Process Approach*,⁴ emphasizes the use of those operations that are central to scientific inquiry but are also justifiable in their own right. *Elementary School Science*⁵ is another program that places heavy emphasis on the cultivation of those intellectual abilities that are consistent with the spirit of scientific modes of thought. Jerome Bruner's seminal work *The Process of Education*⁶ is an example of a hybrid orientation that marries forms of inquiry used in the natural and social sciences with the central concepts and generalizations within specific academic disciplines. What these curriculum orientations have in common is their emphasis on using curriculum tasks as a means of fostering processes that presumably will outlive the problems or concepts they were developed from. The major aim of these programs is the development of intellectual power rather than the simple dissemination of a body of ideas or information.

Given this orientation to the aims of educational programs, what might be expected of a teacher working within this framework? What might we expect to see in the way of teaching, curriculum content, and evaluation procedures? How might the values embedded in a cognitive process orientation to the curriculum manifest themselves in the conduct of schooling?

First, the curriculum used in the school would generally be problemcentered; that is, students would be encouraged to define problems they wish to pursue, and with the teacher's help the appropriate materials and guidance would be provided. Some of these problems would be those defined by individual students, whereas others would be the result of deliberations by the class or of small groups of students. The reason a problemcentered curriculum is attractive to those emphasizing the development of cognitive processes is that the opportunities to define and solve problems are among the most critical intellectual abilities the school can foster. Without the opportunity to conceptualize, to analyze, to deal with ambiguity, to locate relevant resources, to evaluate the results of one's efforts, the child is unlikely to use his or her most sophisticated abilities. What matters most is not the particular content on which these processes are employed-the repair of a carburetor can be treated imaginatively, while the reading of Othello can be done mindlessly but the exercise of the intellectual faculties) And for this to occur, content that is meaningful to the student and problems that are intellectually challenging are critical.

Teaching in this orientation requires not only the ability to generate problematic situations for students, but also the ability to raise the kinds of questions with students that direct their attention to levels of analysis they would not be likely to use without the teacher's aid. The teacher has a positive role to play in cultivating "the higher mental abilities" by virtue of the tasks provided in the curriculum, the materials that are used, and the kinds of questions he or she raises while teaching.

A classification of the kinds of questions teachers and students raise in class ideally reveals a wide range of types and levels. Similarly, the kinds of problems and materials with which students work would include not only the verbal and mathematical but also visual and auditory modes of conception and expression. Students might be asked, for example, to transform ideas held in one conceptual modality, say a visual mode, into their verbal or mathematical "equivalents." The contrary would also occur. Concepts framed in linguistic or mathematical terms would be transformed into visual or auditory "equivalents." The point here is that the focus of curriculum content is derived from a conception of mental operations; the curriculum is essentially an invention to bring those processes into play and to strengthen them.

Academic Rationalism

One of the oldest and most basic orientations to curriculum goals and content may be called academic rationalism. This orientation argues that the major function of the school is to foster the intellectual growth of the student in those subject matters most worthy of study.

Schools that devote their time to subjects that while important are also capable of being taught by agencies other than the school—driver training, home economics, parenting, and so forth—are diverting the schools' most precious resource, namely time, away from the schools' proper aims. Thus, the expansion of the curriculum to include virtually everything that any special-interest group believes important actually weakens rather than strengthens the quality of education. What the school should provide is attention to the major concepts, issues, and problems that humans face in the course of their lifetime. The school's curriculum should help students 'acquire the techniques necessary for reading what able thinkers have said about such concepts, issues, and problems. And the school should develop the students' abilities to discuss critically the meaning of these works. The good school master is known by the important subjects he or she *refuses* to teach.

The most recent expression of this view is to be found in Mortimer Adler's *Paideia Proposal*, a manifesto on education that prescribes a secondary school curriculum that allows no room for electives. For many, the clarity of Adler's manifesto, its certainty and inflexibility, is a desirable remedy to a curriculum that has grown like Topsy, without direction or rationale, and which has resulted in a gross lack of curricular coherence.⁷

But who is to determine which subjects are best? Are there intrinsic differences in the value of various academic disciplines? The answers to these questions for those holding an academic rationalistic position are clear: not all disciplines are created equal. Some disciplines—biology, for example—deal with processes that inform one about the nature of life, a topic so important that the achievements in biological inquiry should be a part of the intellectual repertoire of all educated people. Furthermore, if biology or the sciences more generally are not taught in school, it is not likely that their ideas will be learned. Unlike driver training or home economics, education in the sciences is the special province of the school.

This position is argued in several ways. First, it is argued that biology (I use biology only as an example) as a branch of science not only represents

a particular discipline having its own content, concepts, and patterns of inquiry, but it also represents a special mode of thought—science. Science is a fundamental form of human understanding and as such should be made available to students. In this argument, biology is a special case of a more general and powerful paradigm of human understanding that the school should foster, especially because an understanding of its concepts and procedures requires specialized forms of instruction. If it is not fostered by the curriculum, it is not likely to be learned.

The second ground on which academic rationalists argue is that all children should be introduced to basic fields of study because it is only in this way that they can discover if they have any interest in or aptitude for an area. It is through contact with the various disciplines that interests and aptitudes are stimulated. Part of the task of the school is to enable students to discover these interests and aptitudes.

It is clear that the latter argument is not as strong as the former. The number of subjects within the various modes through which humans come to know are extremely large. If biology should be taught, why not paleontology or meteorology? Interests and aptitudes could be revealed by those areas of study, as well. The school must make certain choices; it cannot teach everything. But if that is true—and it certainly seems true—what is the basis on which choices are to be made? The academic rationalist believes that the basic fields in the arts and sciences are important because they best exemplify and exercise the human's rational abilities. Their study is what education is basically about. Furthermore, within the various fields to be taught, the very best content, and the most intellectually significant ideas, should be what students encounter. The greatest ideas created by the greatest writers, exemplified by the greatest works humans have produced, are the proper objects of educational attention.

An academic rationalist view of the curriculum has been admirably argued by one of its chief proponents, Robert Maynard Hutchins. When he was chancellor of the University of Chicago he established an undergraduate program that emphasized the study of the great books, the use of primary source materials, and the tradition of teaching in the context of small-group discussion. Hutchins was interested in helping students secure what he regarded as a basic liberal education, a form of education that enables students to ask basic questions about life, truth, justice, and knowledge and to read the works of individuals who have provided powerful and lasting answers to such questions. Of this form of education, Hutchins writes:

Liberal education consists of training in the liberal arts and of understanding the leading ideas that have animated mankind. It aims to help the human being learn to think for himself, to develop his highest human powers. As I have said, it has never been denied that this education was the best for the best. It must still be the best for the best unless modern times, industry, science, and democracy have made it irrelevant. The social, political, and economic changes that have occurred have not required that liberal education be abandoned. How could they? It is still necessary to try to be human; in fact it is more necessary, as well as more difficult, than ever.

Liberal education was the education of rulers. It was the education of those who had leisure. Democracy and industry, far from making liberal education irrelevant, make it indispensable and possible for all the people. Democracy makes every man a ruler, for the heart of democracy is universal suffrage. If liberal education is the education that rulers ought to have, and this I say has never been denied, then every ruler, that is every citizen, should have a liberal education. If industry is to give everybody leisure, and if leisure, as history suggests, tends to be degrading and dangerous unless it is intelligently used, then everybody should have the education that fits him to use his leisure intelligently, that is, liberal education. If leisure makes liberal education possible, and if industry is to give everybody leisure, then industry makes, liberal education possible for everybody.⁸

What Hutchins and other academic rationalists argue is that schools should develop man's reason so that life can be critically examined and led intelligently. For reason to be optimized, the most appropriate pedagogical mode is dialectic discussion. Reason develops best when it is used, and if it is to be used, it should be used on the problems that are most fundamental to human existence. Because such problems have been addressed by humans of every generation and because the products of their work vary in quality, only the very best should be studied by students today. For practical purposes, this means that the curriculum should consist of not just the major academic disciplines in the arts and the sciences, but the very best, the most powerful, the most profound, the grandest of man's intellectual works within those disciplines. For the period of the past 150 years, the works of Darwin, Marx, Freud, Einstein, Ghandi, Stravinsky, Picasso, Louis Sullivan, Corbusier, Joseph Conrad, Camus, Paul Tillich, and Max Weber would receive attention. And they would receive attention in a dialectical mode: (through discussion, analysis, and comparisop. The central aim is to develop man's rational abilities by introducing his rationality to ideas and objects that represent reason's highest achievements.

Some might argue that such an education is fit only for a few, perhaps the "top" 10 or 15 per cent of the student population. Academic rationalists—at least those like Hutchins and Mortimer Adler—believe that all men are concerned with essentially the same fundamental questions, questions that deal with what is true, what is good, what is beautiful, how life might be examined, and the like. Although there will certainly be individual differences among students with respect to the rate at which they deal with such material and the depth to which it is penetrated, such an education, once reserved for rulers, is the right of every free person. The substitution of skimmed milk for rich educational cream is not the way to deal with individual differences when it comes to the content and aims of education.

Furthermore, the differentiation of content for students of different intellectual abilities ultimately leads to a kind of social stratification that makes it increasingly difficult for people to communicate with each other. Because no common educational grounding has been provided in the schools, the ideas people can discuss are those provided through the experiences they share. Increasingly, such experiences are provided by the mass media, and the mass media, the academic rationalists argue, have very little intellectual substance. Thus the absence of a common educational program in the long run undermines the very foundations of a social democracy. It undercuts the common intellectual base that a nation needs. But perhaps most importantly, differentiation of programs for individuals of different ability creates a self-fulfilling prophecy that sets limits to aspiration, forecloses one's options in life, and provides only a small portion of the total population with the kind of intellectual repertoire that optimally fosters the development of rationality.

Personal Relevance

A third orientation to curriculum is one that emphasizes the primacy of personal meaning and the school's responsibility to develop programs that make such meaning possible. In operational terms, this requires that teachers develop educational programs in concert with students rather than from a mandate handed down from the staff of a central office who don't know the child. The curriculum is to emerge out of the sympathetic interaction of teachers and students within a process called teacher-pupil planning.

A major argument supporting this orientation to curriculum is that for experience to be educational students must have some investment in it must have some hand in its development—and that without actual participation or the availability of real choices within the curriculum schooling is likely to be little more than a series of meaningless routines, tasks undertaken to please someone else's conception of what is important.

For a meaningful form of educational experience to occur it is critical that teachers regard children as individuals and not as mere members of a class or a group. Furthermore, the teacher must be able to establish rapport with students; he or she must understand how the child actually feels when engaged in activities in school. Without rapport it is not likely that the teacher will be in a position to understand the character of the child's experience, and unless this occurs both student and teacher are likely to deal with each other as role incumbents rather than as living creatures attempting to broaden and deepen the quality of their experience.

Another major argument underlying this view of the curriculum is that human beings from birth on are stimulus-seeking organisms, not stimulusreducing organisms. The task of the school is to provide a resource-rich environment so that the child will, without coercion, find what he or she needs in order to grow. The metaphor is biological: growth is the aim of life.

In developing this view further, it is argued that organisms develop not so much from the outside in as they do from the inside out. Education is regarded as a process of leading forth from the native ability that the child possesses; thus, the image of the teacher is not so much that of a sculptor, someone who gives shape to formless clay, but rather that of a good gardener who cannot change the basic endowment children possess but who can provide the kind of environment that can nurture whatever aptitudes they bring with them into the world. Out of the interaction of aptitudes and environment, interests and intelligence develop. Once having discovered such interests, the teacher is to foster them by the artful construction of educational situations in which those interests can deepen and expand. Another way of identifying interests is to talk to children about their interests and thus to be in a position to provide for their development through the curriculum.

The admonition to build on the child's interest is often made as a corrective for educational programs that neglect them as sources of curriculum aims and content. Traditional educational programs are developed out of principles that identify educational value within particular subject matters or disciplines. Becoming educated means learning how to use the ideas within these disciplines. This approach, it is argued, has two educationally devastating consequences. First, it is often irrelevant to the child. Second, it fails to cultivate the child's idiosyncracy by providing few opportunities that are of particular importance to the individual child.

One of those who has supported a child-centered approach to education is A. S. Neil.⁹ He believed that the child should play a major role in determining what he or she shall study. In the United States, the emergence of "free schools" in the 1960s represented a similar orientation; the child is to be given the "freedom" to choose. The teacher's responsibility is not to coerce but to facilitate. John Holt, a leading and articulate spokesman for this view of curriculum makes the case this way:

As a friend of mine put it, we teachers can see ourselves as travel agents. When we go to a travel agent, he does not tell us where to go. He finds out first what we are looking for. Do we care most about climate or scenery, or about museums and entertainment? Do we want to travel alone or with others? Do we like crowds or want to stay away from them? How much time and money do we want to spend? And so on. Given some idea of what we are looking for, he makes some suggestions. Here is this trip, which will take so long and cost so much; here is this one, here is that. Eventually, we choose, not he. Then, he helps us with our travel and hotel arrangements, gets us what tickets and information we need, and we are ready to start. His job is done. He does not have to take the trip with us. Least of all does he have to give us a little quiz when we get back to make sure we went where we said we would go or got out of the trip what we hoped to get. If anything went wrong he will want to hear about it, to help us and other clients plan better in the future. Otherwise, what we got out of the trip and how much we enjoyed it is our business.¹⁰

What one senses from the metaphor of teacher as travel agent is a conception of the teacher's role and of curriculum that values above all else the child's freedom to choose, and thus the opportunity to learn how to choose as a central aim of educational programs. Holt and others who share this view believe that in the process the child's talents will be cultivated; such a school allows the child to become his or her own person.

Related to the view that the child should play a significant role in choosing what he or she shall study is the more recent view of some reconceptualists, such as Max Von Mannen, Madeline Grumet, and William Pinar, who emphasize the importance of authentic personal experience and who claim that much of schooling remains external or superficial to the deep private life that all humans possess. Education, they claim, occurs when those engaged in events or activities do so out of choice and with a deep personal commitment.

One can, of course, question the premise that the greatest of all educational goals resides in allowing children to choose what they think best. For one, choice is possible only when one has options *and* knows of their existence. Do children have the experience that will enable them to consider alternatives? If experience is limited, won't choice be limited? How can children follow their interests if they haven't had an opportunity to learn about possibilities, ideas, skills, and materials they have never dreamed of? Do children of eight, ten, twelve, or fifteen really know what is in their best interest in the long run?

What is it that children need? And who should decide? It can be and has been argued that "needs" are products of adult judgments of the gap existing between the ideals that adults hold and the state at which children are during their schooling. Schooling as an institutionalized form of education is intended to eliminate or at least reduce that gap. Furthermore, the belief that each child is so different that there can be no common educational program suitable for the vast majority is wrong to begin with. And so the counterarguments proceed. Boyd Bode, an influential American philosopher of education during the 1930s and honorary vice-president of the Progressive Education Association, underscored this point when he chastized his fellow progressive educators for overemphasizing the "needs" of children:

The point is far more than the verbal question of how the term "need" is to be employed. It concerns the question of what education should be primarily concerned to achieve. The failure to emancipate ourselves completely from Rousseauism and the instinct psychology is responsible for most, if not all, the weaknesses of the Progressive movement in education. The attitude of superstitious reverence for childhood is still with us. The insistence that we must stick like a leech at all times to the "needs" of childhood has bred a spirit of anti-intellectualism, which is reflected in the reliance on improvising instead of long-range organization, in the over-emphasis of the here and now, in the indiscriminate tirades against "subjects," in the absurdities of project planning, and in the lack of continuity in the educational program. It has frequently resulted in an unhealthy attitude towards children, an attitude which suggests that there is no such thing as a normal child, and that we must be everlastingly exploring his insides, like a Calvinist taking himself apart day after day to discover evidence of sin.¹¹

Even some of the most ardent progressives began to recognize limits of self-determined "needs" as a basis for the design of educational programs. Alas, we have yet to learn their lessons a generation later, as we search for needs not in the child but in the community through a process called needs assessment, a process often described as though the needs of a community somehow existed independently from someone's judgment. Needs can be regarded as the gap between what is and what ought to be.

It is partly because the students' orientation to schooling is regarded as largely governed by extrinsic souces of motivation that those emphasizing personal relevance believe it to be so important. Schooling, they believe, is not likely to provide intellectual experience that becomes internalized unless students participate in the formulation of their goals. The elective system that most secondary schools offer is largely a hoax. In the first place, much too much of the student's program is determined by the timetable rather than by his or her choices. In the second place, institutions of higher education usually prescribe such a large number of required courses that few real choices are left for students. Students, therefore, too often find themselves waiting for the last half of their senior year when all of the required courses are out of the way to take the courses in which they have genuine interest. Their dues are paid beforehand so that they will have the freedom to pursue their education just before they are about to graduate.

What would we expect to find in a school that emphasized a personal

relevance orientation to curriculum? How would time be used? How would students be evaluated? What modes of teaching would be employed? What kinds of content would be studied?

In the first place, we would probably find schools that are considerably smaller than the ones we have at present, at least smaller than those in urban areas. Size, especially when schools exceed seven or eight hundred students, often becomes an obstacle to flexibility. When one is dealing with hundreds of faculty members and thousands of students, the differentiation of programs for individuals becomes difficult. The machinery of organization takes over, despite the claim that large schools can better provide a wide array of options for students with special needs or interests.

What we would find in schools that were genuinely concerned with personal relevance is a place where interests and the demands of the tasks define the amount of time students spend in a course. We would also find <u>small classes</u>—perhaps with fifteen students—that were organized around a common set of interests and included students of different ages who shared that interest. Thus, for example, students of ages eleven through fourteen interested in astronomy, in weaving, in geology, or in the care and feeding of animals might work together in the same situation. It would not be assumed that all children of the same age would have to study the same content at the same rate, for the same aims, for a uniform period of time.

The role of the teacher would be one of providing sufficient structure and guidance for the child's experience to be educationally productive, but it would not be prescriptive or coercive. The teacher would be expected to stimulate and guide, to introduce the child to new materials and ideas, but the specific tasks and aims would be developed in a shared relationship. It would not be the kind of bureaucratized relationship that often occurs in forms of contract learning. Neither the student nor the student's parents would need to sign pseudolegal documents in order for commitments to be honored. Indeed, the use of such procedures would be anathema, because they exemplify many of the features in our society that those advocating truly personalized forms of education seek to ameliorate.

Evaluation would pay great attention to the processes in which students were engaged. How meaningful was the task to the child? What did he learn from it? How well, given where the child is, has the task been accomplished? What does the student believe she has learned from what she has done? How does he think the work could have been improved? What ideas did she formulate that might be pursued in forthcoming projects?

These are some of the questions that might guide an evaluation process within a personal-relevance orientation to curriculum. The major focus is on the educational development of the individual child, because it is believed that it is his or her development by means of a personal relevant curriculum within a noncoercive environment that really promotes the realization of psychological freedom.

Social Adaptation and Social Reconstruction

A fourth orientation to curriculum is one that derives its aims and content from an analysis of the society the school is designed to serve. In this orientation it is argued that schools are essentially institutions created to serve the interests of the society. As such their mission is to locate social needs, or at least to be sensitive to those needs, and to provide the kinds of programs that are relevant for meeting the needs that have been identified.

Social Adaptation

It is precisely in the identification of social needs that differences among various groups become most acute. One segment of the society regards the manpower needs of society as most salient, another segment the need for conformity to existing values, still another the need for children to take their place in the social order. The conception of needs among all such groups is essentially conservative; the role of the school is to maintain the status quo. If the society needs more engineers, doctors, physicists, skilled blue-collar workers, the school is regarded as the agency through which they will be provided.

Perhaps the classic case of using schools to meet social needs was the response made by Americans to Sputnik I. When on October 4, 1957 the Russians sent an unmanned satellite circling the earth, critics lambasted American schools for being lax, for failing to provide rigorous programs in mathematics and science, and even for being the prime cause of our second place in space technology. The schools were urged to remedy these deficiencies by emphasizing the teaching of mathematics and the sciences in the curriculum. The National Science Foundation, whose attention to education had preceded the rise of Sputnik I, embarked on a major funding program to support curriculum development in these areas. It was clear to many that the Russian success in space was ample evidence of our failure to offer the kind of educational program that the nation needed. From 1958 to 1968 over one hundred million dollars of federal funds was spent to sponsor curriculum development projects and to establish summer institutes for teachers of science and mathematics.

During the past decade, people have become alarmed that many students are leaving school at age eighteen without a clear conception of the kind of vocation they wish to pursue. Children should be helped—some people believe—from the beginning of schooling at age five or six to the point at which they graduate to reflect about the world of work and to develop gradually the skills and attitudes that will increase their employability. Partly as a result of this concern, career education programs were developed. Funded by the National Institute of Education, career education curricula have been promulgated in schools in every state of the nation.

Or consider what has come to be called the computer revolution. It is often argued that to insure our economic position in the world we need individuals who are "computer literate." In California, computer literacy, calculation, and communication have been decreed the new three C's of education. Industry is interested in students who can use the microcomputer, and because the future of high technology is said to require people who understand its use, it follows in the eyes of some that schools should offer, even require, programs of study in the computer.

What we see is a general example of the forces of social adaptation shaping the priorities of the curriculum. Seldom is there discussion of what the time and resources required for effective computer education will mean for the time available for teaching other fields. Rarely is it questioned that it is the schools' responsibility to take on this task. The message seems to be "our economic well-being will depend upon it, and therefore it becomes, de facto, the schools' responsibility."

The point here is not simply to emphasize curriculum development projects in mathematics, the sciences, in career education, or in computer literacy, but rather to illustrate the historical use that society has made of the schools, namely, as mechanisms for meeting what is regarded as critical needs within society.

The conception of these needs often emanates from what are regarded as particularly pressing social ills. Drug abuse, sex education, parenting programs, and ecological studies represent areas of concern for some groups, whereas black studies, sexism studies, and Chicano and Native American programs represent efforts to provide attention to what other groups believe to be important. What we see in these programs are the results of problems or deprivations that influential individuals or groups believe to exist. The curriculum becomes the vehicle for remedying such situations.

For a substantial proportion of those concerned, the needs that are perceived are not radical in nature; that is, they seek no fundamental change in the basic structure of the society. The development of a career education program, for example, seeks largely to raise the consciousness level of students to the world of work as it exists. Career education programs are not intended to encourage children or youth to consider alternatives to work as it is now generally defined or to question seriously the premises and values that give work such a central place in our lives.

Social Reconstructionism

A radical social perspective leads to the social reconstructionist orientation to the curriculum. This orientation is basically aimed at developing levels of critical consciousness among children and youth so that they become aware of the kinds of ills that the society has and become motivated to learn how to alleviate them. Programs having this orientation will frequently focus on controversial issues, what some writers in the social studies have called the closed areas of society: religious values, sexual preferences, political corruption, race prejudice, and the like. The aim of such programs is not primarily to help students adapt to a society that is in need of fundamental change but rather to help them to recognize the real problems and do something about them.) L

During the Vietnam war students in many high schools became politically involved for the first time. They felt strongly about what they believed to be moral inequities within the society—the drafting of high school dropouts while their college-going peers were exempted—and protested what they regarded as an unjustifiable war. Many of those students demanded and received in their school programs attention to the politics of the day. They demanded and received opportunities to design courses of study that they believed to be socially significant and to invite speakers to the campus who had messages that were unpopular in the general society.

At the college level, the revolt against courses that were prescribed and believed to be irrelevant to acute social needs was even stronger. The major theme in both cases—at least for some of the protesting students was that a different view of what the school or the university should be was needed. In particular, such students argued the need to redefine their role and responsibility within the academic community. Their conception of relevance was derived not from the desire to adapt to what many of them regarded as a sick society but rather to build a new, healthier, and more just social order. The program of the school, in principle, was to support the achievement of such an end. Describing the situation during the late 1960s, Stephen Mann writes:

A fundamental difference in world view is reflected here, and it is by virtue of this difference that the various protests blend into one. But this blending ought not to obscure what I believe is a matter of fact: that the center of gravity of student protest is nausea and rage over the way they are treated in school in the name of education. Nor is this fact mitigated by another equally apparent fact: that what passes for education is a consequence of very much the same forces as what passes for foreign policy. Protesting students are engaged in a struggle against many forms of oppression, but they are willing to put a good deal of their considerable energy and talent to work in the struggle against the oppression most immediate to their own experience, and that is the oppression of schooling.¹²

What we see here is an attack on schools and, hence, on curriculum. because of the roles students are forced to occupy. For some, who take their cues from the society, the relationship of the school to the society is essentially one of accommodation. The society orders and the school obeys. For others, educators such as Mann, the school should cultivate those attitudes and skills that will enable the young to build a better nation-indeed a better world-than the one in which they live. This means, at least for some arguing this view, that the school will have to change its structure so that it becomes in form what it hopes its students will learn. Thus, if bureaucratized, hierarchical social structures foster social inequities and if the school is organized on such a model, it must alter its structure in order to be effective. If it cannot change within the existing structure of state-funded schooling, alternative private schools must be established. Indeed, some individuals holding the social reconstructionist view of the curriculum are not at all sanguine about the likelihood that public schools can actually convey to students the kind of social the message changing the school, the school will change the message. The only viable route to the kind of curriculum that they believe significant is the establishment of alternative schools beyond the control of the existing power structure. John Galtung, a leading advocate of peace education, an orientation that is social reconstructionist in its aims, says

First a few general remarks about the form of peace education. It has to be compatible with the idea of peace, i.e., it has in itself to exclude not only direct violence, but also structural violence. Only rarely is education nowadays sold with direct violence; the days of colonialism and corporal punishment are more or less gone. But the structural violence is there, and it takes the usual forms: a highly vertical division of labor which in this case expresses itself in one-way communication; fragmentation of the receivers of that communication so that they cannot develop horizontal interaction and organize and eventually turn the communication flow the other way; absence of true multilaterality in the education endeavor. All this relates to form; and if in addition the content of education is included, the structural violence becomes even more apparent.¹³

Galtung is a Norwegian who writes out of the European tradition. Closer to home we find Americans such as Michael Apple sharing similar concerns. Apple, a curriculum theorist, believes, with Mann and Galtung, that much of schooling exploits students, that the form of the curriculum defines content of what students actually learn. He writes:

An examination of these curricular 'systems' illuminates the extent to which this kind of ideological movement is occurring in increasingly dominant curricular forms. Here, the *rate* at which a student proceeds is individualized; however, the actual product as well as the process to be accomplished are specified by the material itself. Thus, it is not 'just' the teacher who faces the encroachment of technical control and deskilling. The students' responses are largely prespecified as well. Much of this growing arsenal of material attempts as precisely as possible to specify appropriate student language and action as well, often reducing it to the mastery of sets of competencies or skills.¹⁴

The curricular implications of social reconstruction for specific subject fields are profound. Content for the social studies, for example, is to be drawn from pervasive and critical social problems and from the hubs of social controversy. One does not learn how to cope with problems or controversy by systematically avoiding them in school. Content in the science curriculum is not exclusively to be drawn from the problems with which scientists work, but from the individual and social problems for which scientific inquiry has some relevance: the causes and consequences of stress, community mental health, the implications of the right to die, eugenics, environmental pollution, the location of nuclear energy plants. In the arts, curriculum content might focus on the hidden forms of persuasion in advertising, the impact of new technology on the character of art forms, the ideals conveyed to the young by the mass media. What we see here is an emphasis on the questions that citizens have to deal with or that in some significant way affect their lives. One does not avoid dealing with such questions by retreating to the abstractions of the academic disciplines; one uses the knowledge provided by the academic disciplines as a tool for dealing with what is socially significant.

The other side of the social reconstruction-social adaptation orientation is aimed not primarily at preparing students to improve the social order by focusing on its problems, but rather at helping students acquire the skills needed to fit into the society, largely as it is. Thus, social reconstructionism and social relevance are at opposite poles, but what they have in common is that both look to the society to decide what the aims of the school's program should be. The social reconstructionist looks at the society to locate its difficulties. Once they have been found, the program of the school is designed to help children understand these difficulties and to be able to cope with them. The person concerned with social relevance looks to society to find out what students need in order to get ahead and builds a curriculum that aims to achieve that goal.

The analysis of society as a basis for the formulation of curriculum content and goals is not as modern as one might believe. Its first formal use in American education was in the school survey movement initiated in around 1910. The major effort here was to use scientific methods to identify the strengths and weaknesses of school programs. The field of education during that time was in the process of establishing and testing its newfound scientific approach to education. University professors such as Elwood Cubberley and Jesse B. Sears were called on to provide services to schools while refining the methodology used in such work. Sears' book *The* School Survey¹⁵ described the theory and methods of such work and appeared in 1928.

But in the field of curriculum the seminal work was done by Franklin Bobbitt, who argued that education should prepare for the fifty years of adult life the child eventually would lead and not merely be concerned with chilhood, per se. To prepare for this life, "the curriculum discoverer," to use Bobbitt's term, was to identify the various areas of life for which schools should prepare the young. Bobbitt identified ten such areas. The next step, according to Bobbitt, was to identify those people in the community who displayed excellence in each of the ten areas. Their behavior, their understanding, and their attitudes, once analyzed by curriculum specialists, would constitute the goals of curriculum:

The central theory is simple. Human life, however varied, consists in its performance of specific activities. Education that prepares for life is one that prepares definitely and adequately for these specific activities. However numerous and diverse they may be for any social class, they can be discovered. This requires that one go out into the world of affairs and discover the particulars of which these affairs consist. These will show the abilities, habits, appreciations, and forms of knowledge that men need. These will be the objectives of the curriculum. They will be numerous, definite and particularized. The curriculum will then be that series of experiences which childhood and youth must have by way of attaining those objectives.¹⁶

Bobbitt's view was a conservative one. But the point of his work was neither the virtue nor the vice of being conservative; it was his assumption that goals for education reside in the society and that the analysis of that society (in his case, successful adults) would provide the basis for the curriculum. Those who aim at social relevance of an adaptive variety as well as those seeking to reconstruct the social order share with Bobbitt the inclination to look to the world to find out what schools should teach. This aim they share; the images of the world that they see and the aims that they espouse, however, could not be farther apart.

Curriculum as Technology

A fifth orientation to curriculum is normative in a way that the preceding orientations are not. It conceives of curriculum planning as being essentially a technical undertaking, a question of relating means to ends once the ends have been formulated. The central problem of the technological orientation to curriculum is not to question ends but rather to operationalize them through statements that are referenced to observable behavior. Once this task has been performed adequately, the problem is essentially one of designing appropriate means. This means-ends model of curriculum planning has the virtue of systematizing educational planning; it reminds educators to formulate purposes and to use those purposes as criteria for evaluating the efficiency and effectiveness of the plans that were made. It is argued that schools should be purposive; they should have meaningful goals, and it should be possible to determine—indeed measure—the extent to which they have been achieved. The curriculum is the course to be run; the obstacles or hurdles are the learning tasks that have been formulated. If they are well formulated, if they provide appropriate challenges and are neither too difficult nor too easy, the lessons to be learned will be learned and the objectives will be attained.

This orientation to curriculum planning, as I have already indicated, has a long history in education. Benjamin Bloom, Franklin Bobbitt, John Dewey, Virgil Herrick, Hilda Taba, Ralph Tyler, and other important educational planners and theorists have used such a planning model or have advocated its use. In addition, the means-ends orientation to planning is consonant with the Western world's efforts to control human activity. By conceiving of curriculum planning and teaching as technological problems, the power and precision of "applied science" could be employed in the schools, the vagaries of romanticism could be excised, and the uncertainties of art could be replaced by the replicability of the science of curriculum development and instruction.

The offshoots of this way of conceiving of proper curriculum planning are apparent in several of the major educational movements in the United States. One of these is called the accountability movement and is often associated with program-planning-budgeting systems. Although accountability can be conceived of in many ways in educational practice, it is often regarded by school administrators and members of school boards as essentially a problem of demonstrating that educational investments yield educational payoffs. The curriculum of the school is to be so designed and evaluated that teachers will be able to provide evidence of educational effectiveness. Expectations that operate in industry are transferred to the school. Because schools are intended to have a product-learning-there is no reason why the procedures used to increase the efficiency and effectiveness of factories should not also be applied to schools. Furthermore, the application of such criteria and the use of industrial management techniques give school administrators greater control over the system. Within such a rationale for curriculum, quality-control procedures are conceived of not just as a possibility but as an educational necessity.

Other spinoffs of the technological orientation to curriculum include contract teaching, programmed instruction, precision teaching, and laws such as California's Stull Bill, which was designed initially to identify incompetent teachers through mandated evaluation.

What is often neglected or underestimated by those who regard the

tasks of curriculum development as essentially technical ones is the way in which a technical orientation influences the values the curriculum emphasizes. Technique is never value-neutral. And techniques patterned after scientific models are particularly likely to produce specific consequences for the form, content, and aims of schooling. For example, the position that curriculum development is at base a technical undertaking and that curriculum has no value position to offer regarding educational ends deprives the people with whom the specialist works of judgments about the ends to which he or she has a professional commitment. In fact, to take no position regarding ends *is* to take a value position, but it is one of absence rather than of presence, as far as educational goals are concerned.

A second consequence is the impact that a scientific technology has on the form of schooling. Scientifically based technologies place high priority on the specification of objectives, the development of units of performance that can be evaluated after relatively short time intervals, and the standardization of those features that lead to the ends that have been specified. The general tendency is to try to increase efficiency and effectiveness by the creation of routines that are common across the enterprise. In many situations, such efficiencies do emerge.

The cost of such routines, however, is not trivial if one embraces a view of education that regards the cultivation of productive idiosyncrasy a virtue. The personal relevance orientation described earlier, for example, would offer serious objections to the putative virtues of standardization within a technological orientation to curriculum.

What happens when method becomes a salient consideration is that method, or technique, becomes the criterion that defines what is acceptable. It is not all unusual for those in school districts who review the behavioral objectives that teachers formulate to pay no attention to the substance of the objective; the concern is whether it has been stated properly—i.e., in conformance with the criteria for stating behavioral objectives. Those aims that cannot be so stated fall by the wayside. Form sets the boundaries within which the substantive goals of education can be articulated.

What would we expect to see in schools and classrooms in which the orientation to the curriculum were technological? How would teaching occur? How would students be evaluated? How would the aims of the curriculum be expressed?

One thing we could expect to see is that each teacher would have specific measurable goals for each subject area being taught. They would be, as Franklin Bobbitt said, "numerous, definite, and particularized." Furthermore, each objective would have some quantitatively defined test or test item that would be used to determine whether the student had achieved the objective. The students might be given a list of these objec82 • THE EDUCATIONAL IMAGINATION

tives at the outset of each project or curriculum activity in order that they would fully understand what they were expected to accomplish. As far as possible all ambiguity with respect to goals would be eliminated.

At the beginning of the school year or at the beginning of a section of the curriculum, students would be pretested to determine their level of entry behavior. The measurement of these behaviors would be considered important because it would define the educational development the student had attained and would be used to prescribe the content and tasks he or she needed in order to move toward the achievement of curriculum objectives.

After this had been done, units of work would be laid out for each student or for groups of students, and tests would be administered after each unit of work to monitor the achievement of students over time. When a treatment was ineffective, the student would be recycled into another set of tasks, or the tasks would be revised by the teacher so that they were pedagogically more effective.

This approach is specificially employed in the teaching of reading in the city of Chicago. In an effort to increase the reading skills of its students, the Chicago Public Schools use an approach that specifies in detail what teachers are to say to students in the teaching of reading and how students are to respond. This program begins in kindergarten and proceeds through the eighth grade.

A curriculum having these features would be very sequential. Each task would build on what preceded and would prepare for what was to come. The implicit image of the curriculum is that of a staircase with few landings and no hallways feeding into it. The aim of the staircase is to increase the efficiency with which one arrives at the top floor. In a technologically oriented classroom, curriculum activities would often be available in workbooks or in boxes of sequential instructional materials. Students would come to regard it as their responsibility to proceed through the workbook or curriculum materials box on their own, although when they needed the teacher's assistance they could ask for and get it. More often than not, the materials would be color-coded, so the students could know visually where they were in the program. Students would also be able to compare their location in the work to be done by comparing their colors.

Students as well as teachers would record the progress they had made by maintaining charts or records of the scores derived from their tests. In some classrooms these records would be publicly posted, particularly in the elementary grades. At the high school level, each student would record his or her score in a notebook and would be responsible for determining the final grade by calculating the average of the test scores. Specific scores would be assigned a specific meaning so that the students would know what scores they needed to achieve A, B, C, D, or F. Deviation from these standards by the teacher would be regarded as a social inequity by the students. The point in having such standards is to objectify the assessment of performance and the rewards that are provided. The tacit image of such a classroom is the efficient and effective machine.

The Import of the Five Conceptions

Again, what we find is that the dominant framework for viewing curriculum has consequences for the practical operation of schools; each orientation harbors an implicit conception of educational virtue. Furthermore, each orientation serves both to legitimize certain educational practices and to sanction others negatively. It also functions as an ideological center around which political support can be gathered.

It is difficult to overemphasize the importance of the various orientations to curriculum that have been described. Rather than being "mere abstract" philosophies that have little bearing on the conduct of educational practice, these orientations are permeated through and through with values that shape one's conception of major aspects of practice. What the teacher's role is to be is not separable from what one believes the content of the curriculum to be. If one views optimal educational practice as the form that yields predictable and measurable consequences, the teacher's role and the character of the curriculum are partly defined. It's no good talking about nonempirical outcomes to be realized long after a course is completed if results are to be demonstrated in June. If one believes that the problems of the society should be the focus for identifying the contents of the curriculum, the likelihood of classical studies being important is remote. If one believes that the major function of the school is to ensure acquisition of the three R's, it is not likely that inductive or discovery learning will be given high priority as techniques for instruction.

Furthermore, each of the five basic orientations has specific implications for the goals and content of specific subject matter curricula. For example, *Science: A Process Approach*, a science curriculum for elementaryage children, was developed to foster certain cognitive process skills. Each unit of this curriculum is designed to sharpen children's ability to classify, to observe, to measure, and so forth. Cognitive processes play a critical role in determining what counts in scientific learning. The evaluation of the units that are taught is intended to determine whether children can employ these processes.

The significance of each of the five orientations to curriculum also becomes apparent if one considers the importance of content inclusioncontent exclusion as an influence on what students learn in school. Each of the orientations emphasizes a particular conception of educational priorities. Each set of priorities defines the content and influences the climate within which students and teachers work. Thus the formulation of 84 • THE EDUCATIONAL IMAGINATION

these priorities has a direct bearing on the kinds of opportunities for learning that students are provided. If one believes that students should learn to form their own purposes, to seek the resources with which they will work, to speculate on and consider alternative routes to an end-in-view, the ability to perform these functions and to use the modes of thought that they require is enhanced if the curriculum provides students with a climate and content to practice such skills and attitudes. A process-oriented curriculum establishes the boundaries within which such learning opportunities will be made available to students.

If one believes that students need to learn how to cope with the political system used in the community and that the best way to learn how to cope with it is to focus on real social problems, then it becomes important for the curriculum to provide those opportunities to students. A social reconstructionist view of the curriculum influences what shall be made available to students and what shall be regarded as of marginal educational worth.

The same ramifications exist for each of the other orientations to curriculum. Each has a consequential effect on what is included in and what is excluded from school programs as those programs operate both informally and formally. The general environment and educational climate as well as the specific content as such are influenced by the orientation to curriculum that one embraces. Because the provision of learning opportunities is probably the single most important factor influencing the content of learning in school, the importance of an orientation to curriculum can hardly be underestimated. We make a major decision about what shall be taught when we decide what image of education is most appealing.

What stance with respect to these orientations should the student of education take? Is one orientation better than the other? Are some orientations unjustifiable? There are two caveats that must be entered with respect to each of the orientations. One is the fact that they have been described independently of the context in which they are to function. They have been described as models or paradigms of educational virtue. In practice they are seldom encountered in their pure form, although in many forms of educational practice one of the five views dominates. Furthermore, because they have been described without reference to context, it is extremely difficult to determine which view is most appropriate to a particular population of children. Thus, although in general one might find one orientation closer to one's educational values than another, one might be willing to employ another view under particular circumstances.

The second caveat has to do with the problem of justification. It is my position that what distinguishes lay opinion from professional judgment with respect to the values guiding curriculum decisions is the extent to which the assets and liabilities of particular positions are recognized, as well as those of competing positions. Thus, what is reasonable to expect from a student of education are good grounds for the position or orientation embraced. This includes not only knowing what has been accepted for practice, but what has been rejected as well.

To provide such grounds in the course of argument requires a fine conceptual analysis of the problems or decisions that one encounters. It means learning how to look at a problem or decision from different perspectives and being satisfied with partial data and incomplete answers. It means knowing what research has to say, if anything, about different forms of practice. The ability to be content with inadequate data for making educational decisions is a condition of educational life. The data are never adequate to justify completely a practical decision, especially if the proposal for educational change is "innovative." In such cases, there is virtually no possibility that data will already have been provided to justify scientifically the use of a particular technique or program.

I have attempted in the preceding pages to characterize five major orientations for dealing with problems of content, aims, organization, teaching roles, and the like in designing educational programs because I believe that much of the controversy over what schools should be, how they should function, and what teachers should teach arises from conflicting assumptions and images of schooling. What we encounter at the point of controversy and contention are often the symptoms of more deep-seated differences.

I am not taking the position that one of the five orientations is better than another. Indeed, one thesis of this book is that educational decisions always must be made with an eye to the context in which the decisions are to operate. Different contexts may justify emphasis on different orientations. Furthermore, it is unlikely that any school will have only one orientation; one may dominate, but it is far more likely that schools will be somewhat eclectic in what they do. The five orientations I have described are intended to function as tools for the analysis of existing school programs and as foundations for a sharpening of discourse about the planning of new programs.

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The Three Curricula That All Schools Teach

Perhaps the greatest of all pedagogical fallacies is the notion that a person learns only the particular thing he is studying at the time.

JOHN DEWEY



The Explicit and Implicit Curricula

In the preceding chapter five basic ways were described in which the goals, content, and methods of curriculum have been conceived. These five orientations provide a way of rationalizing what schools teach. But schools teach much more—and much less—than they intend to teach. Although much of what is taught is explicit and public, a great deal is not. Indeed, it is my claim that schools provide not one curriculum to students, but three, regardless of which of the five curriculum orientations a school follows. The aim in this chapter is to examine those three curriculums in order to find out how they function.

One of the most important facts about schooling is that children spend a major portion of their childhood in school. By the time the student has graduated from secondary school, he or she has spent approximately 480 weeks, or 12,000 hours, in school. During this time the student has been immersed in a culture that is so natural a part of our way of life that it is almost taken for granted. In that culture called schooling there are certain publicly explicit goals: teaching children to read and write, to figure, and to learn something about the history of the country, among them. There