Projections into the future of schools which are divided into literary programs, laboratories, and community seminars reflect modern trends in education. Specialized books are being demanded in individual instruction, either through homogeneous grouping or programmed instruction (literacy programs). In greater demand are libraries with independent study programs (laboratories) and with the new idea of a dual curriculum of content and structure. In addition, books which reflect a changing society and build a "sense of community" are needed. Finally, nonprofessional personnel are in greater demand to help use books and share their experiences with the children (community seminars). Books used in language enrichment programs are of the widest variety to provide students with many stimuli. With the increase in personnel, teacher's aides can give children the experience of being read to on an individual basis, and children can enjoy a warm relationship between books and people. Also teacher's aides free the teacher to concentrate on specific problems. References are included. (JS)
Errata:

p. 10, 12th line from bottom: examples
p. 10, 9th line from bottom: at home
p. 12, 10th line from bottom: teachers had failed to accomplish
p. 13, 6th line from bottom: but here, too, there

References: add

Two of my Harvard colleagues, Joseph Grawos and Donald Oliver, have designed an educational system, a "community of inquiry." They call it Velden III or, more literally, "the tri-school." The three parts of this tri-school are literacy programs, laboratories, and community seminars. They differ in the subjects of study and in the relationship between students and teachers. First, the literacy programs:

Students would acquire fundamental concepts, skills, and information. Elements of reading, writing, and arithmetic would be studied. A program might attack fundamental features of coordinate and symbol systems such as are involved in graphs, charts, maps, models, machine and apparatus layouts, building plans, or even musical notation. The materials and procedures of instruction would be designed to take maximum advantage of the opportunities for self-instruction inherent in the objects of study themselves. Teacher intervention would follow a model of diagnosis and treatment ... in a tutorial situation or in carefully graded small groups so that students could progress at their own rate of speed.

Second, the laboratories:

Learning in the laboratory, the shop, or the studio would be squarely oriented to problems... painting a picture, finding the meanings of a poem, determining the nutritional requirements of a white rat, justifying an attitude toward political revolution, building an analogue computer, renovating a house, etc... The teacher is seen as the craftsman whose central concern is the practice and development of his craft... The work of the students would need to be articulated to their progress in the literacy programs... There would be much more latitude in the laboratories for the students to determine what they do. However, once they are involved in a laboratory, the students will be constrained by the requirements of the problem they and their teacher are working on, and here they may be more closely tied to the pace and direction of their colleagues' progress than in the highly individualized literacy programs.
Third, the community dimension

Participants in the tri-schools would necessarily include citizens of all ages from all walks of life in the community. The "curriculum" would be "significant happenings" selected by the group itself. These might be films, television shows, trips, books, personal experiences, interpersonal conflicts, religious issues, problems of foreign policy, and so on... The very sense of "community" has been greatly weakened in many areas of modern life, especially so-called suburban life. However, this is precisely the reason for the school's existence: that the teachers that educan and indeed virtually define the modern community for transcend its local boundaries. The purpose of these schools would not be less than to attempt to interpret the meaning of human experience. (Greenis & Oliver, unpublished memorandum, 1965).

Appealing as I find this model of education, I can not argue that it will exist even in prototypic form in the near future. But I do suggest that the tri-school is a projection into the future of trends which are present today, trends which will influence the role trade books play in education, the kind of books we need, and the personnel available to help use books to serve our educational goals. I'll talk this evening about these three trends in turn.

The Role of Books in Education

Consider first one of the noisiest bandwagons on the educational scene, "individualized instruction." When one examines where this bandwagon is heading, one finds two quite different directions. Usually, individualized instruction means provision for individual differences in the rate at which children work through a lesson or sequence of lessons. Everyone knows that however one groups children, they will still differ in what they are ready to accomplish, and that to ignore such differences makes of the school a veritable Procrustean bed. Not every teacher acts on this knowledge, but
the force of the argument cannot long be ignored.

In the recent past we have been trying to accomplish this kind of individualization by the formation of homogeneous groups. The trouble is that if you group on the basis of reading achievement, the groups don't work for mathematics; and within a group formed on the basis of reading scores, there will be differences in specific weaknesses and needs for help. Team teaching has made greater flexibility in groupings possible, with changing criteria and changing sizes at different parts of the school day. But it only alleviates the problem; it doesn't solve it. As the teacher makes finer and finer discriminations in diagnosing what each child needs, he gets eventually to the unit of the individual child.

A more promising way to accomplishing this kind of individualization is with some kind of programmed instruction. Here one can have a heterogeneous classroom of children, each working independently at his own rate.

The school that has gone farthest toward a programmed curriculum is the Oakleaf School attached to the RED Center of the University of Pittsburgh.

Most of the traditional school elements have been abolished at Oakleaf. There are no grades, textbooks or lectures in the usual sense. Instead, it operates as a school where teachers are available when a child wants help, but otherwise the child works at his own pace with the aid of tape recorders, records, special work sheets and an individual learning 'prescription' which varies from week to week for each child...Formally known as Individually Prescribed Instruction...there are as many 'tracks' as there are pupils. Rather than spending her time deciding at which level to pitch her instruction, the Oakleaf teacher acts as a diagnostician and tutor (article in the Washington Post, May, 1966)

At Oakleaf instruction is individually prescribed for reading, mathematics and science (See Lipson, 1965, for description of science program).
In achieving this kind of individualized instruction, Orchid School is being outdone only by people working on computer-assisted instruction, such as Suppes and his colleagues at Stanford University (Suppes, 1965). So far they have been providing supplementary drill instruction in mathematics for intermediate grade children. But they hope by next fall to assume the main responsibility for instruction in reading and mathematics for a group of first graders. Potentially at least, computers bring closer the goal of this kind of individualized instruction by making it possible to use extensive data on the child's past history in formulating his next prescription, and to do this in a fraction of a second.

But, as Frazier (1963) has reminded us, there is another and entirely different meaning of individualized instruction, namely the provision for children to make choices and assume responsibility for what they will learn as well as how fast. Note that the contrast is not between a passive learner and an active learner. In both forms of individualized instruction the child is active. The contrast is between being active only in making a response, and being active in the selection of which stimuli to respond to.

As computer-assisted instruction can be considered the extreme form of prescription for the learner, so A.S. Neil's Summerhill or Sylvia Ashton-Warner's Maori infant school can be considered extreme forms of selection by the learner. Closer to home, in the Boston area, there are exciting examples of this kind of education in individual public school classrooms where teachers are collaborating with the Elementary Science Study part of E.S.I.

The E.S.S. educational philosophy seems in turn to be a mixture of the ideas of creative scientists and ideas on school and classroom organization adopted from the schools of Leicestershire, England (See Hull, 1964).

By now, I hope the relation to Walden II is apparent. Individualized
instruction as prescription is related to the literacy programs; individualized instruction as self-selection is related to the laboratory programs. I would argue, as do the designers of Walden III, that both should exist as part of the educational experience for all learners. Viewing the alternatives in their presently existing form, I would argue further that a major challenge to educational planning today is to see that neither one expands to the exclusion of the other.

Grannis and Oliver's brief memorandum on the tri-school does not include a discussion of rationale, so I will suggest my own. Rationale for the importance of the individually prescribed literacy programs rests on the importance of competence in the basic skills and knowledge of a technologically advanced society. Active participation in this society demands, for example, a knowledge of symbolic means of representation and communication - both verbal and mathematical. If education is to be a ladder to full participation for all children, we have to teach each child to be literate, regardless of his experiences before he comes to school, and we should provide for each child the most expertly designed curriculum to make this possible.

Rationale for the self-selected laboratory programs seems to rest on an interesting reversal of the long-term trend in the history of education. In one sentence, changes in education from primitive times can be described as a shift from showing-in-context to telling-out-of-context. In simple societies, a girl or boy could learn what there was to be learned while participating alongside the elders of his community; As societies became more complex and there was more to be learned, a special place was set aside for education and the specialized role of teacher was created. As long as knowledge seemed knowable, it was possible to maintain the plan of
learning now and doing later. But once it becomes clear that a drastic selection of knowledge had to be made for the purposes of instruction, scholars in all fields asserted that the most important thing to learn was how to be a scientist or historian. While such learning requires the acquisition of skills and the assimilation of some of the fruits of past inquiries, one cannot in any meaningful sense become a scientist by working on problems selected, defined and structured by someone else. It has also become clear that coping with a world of accelerating change requires a lifetime of learning and that automation will take time for such learning possible. What we have not yet acted on is the idea that the motivation for such life-time learning is best sustained by the sense of power that comes from learning for one's own purposes and the opportunity to put that learning into use.

What we need, in short, is an educational system designed for quality assurance in a few critical features, combined with opportunity for wide individual variation outside that common core. The Winnetka schools have incorporated both features in a single educational program since the days of Carleton Washburne (See Washburne & Marland, 1963, especially 87-88 and 200). Here there was adaptation to individual differences in rate of attaining a common standard in the skill subjects of arithmetic, reading and the mechanics of language arts, while variation in interests and activities was developed and encouraged in social studies, science and other group and creative activities.

The greater challenge is to incorporate both features into each curriculum area. In an intellectual predecessor of the tri-school, Gramm has described a somewhat less futuristic scheme for social studies:
Suppose that we were to establish within social studies a two-track curriculum and that each pupil proceeded simultaneously in both tracks. Track I we might call the "constructs track" and Track II the "contexts track."...the "literacy" and "problems" tracks respectively. The constructs track would systematically develop a repertoire of concepts, skills, and strategies of reasoning and judgment. The contexts track would be concerned with the extensive exploration of historical periods, geographic and cultural areas, political and economic problems, and so forth, all representing various chunks of the existential matrix of human events.

Track I would employ a variety of materials and techniques of programmed instruction, team learning, and highly directive tutorial. It would be quite specific as to learning outcomes. For instance, the pupil would learn how to distinguish the referents of the terms import and export, or institution and constitution, and how to read maps, charts and graphs.

Track II involves the pupils in the exploration of a variety of contexts....Now it will be asked what a pupil is supposed to learn in these contexts....As a rule of thumb, we shall answer "anything." Any question goes. Any line of inquiry that a pupil chooses to follow is the line we want to encourage. Any problem that he defines is worthy of his investigation....The object would be to lead each pupil to examine that which is problematic for him personally.

By no means would such a policy need to result in chaos. On the contrary, it is essential to insure the continuity and purposefulness of the learner's inquiry. For each context we would try to provide a rich array of resources, many more than any single pupil could be expected to exploit. On some occasions the pupils would be studying independently, on others they would be studying in teams of two or three or in larger groups. From time to time the whole class or several classes would convene to share questions or findings or to examine together some resource or problem. Since the teachers would have a record of each pupil's progress in Track I, they could assist the pupils in their use of previously developed relevant constructs...[or] refer the pupil to exercises somewhat in advance of his present position in the constructs track. (Grannis, 1964, pp.138-146).

Grannis also suggests that if we do not keep the literacy track and the problems track separate, we can do justice to neither one. If we do not maintain a carefully designed literacy sequence, but depend on incidental learnings, we may find the child no better able to solve his problems next
year than this year; on the other hand, if we do not keep the problems separate, we will be "continually using (and abusing) the contexts of the pupil's inquiry for didactic purposes" (Grannis p. 145).

What does all this mean for the use of books? Consider the teaching of reading. Here the literacy track refers to the process of learning to read, while the problems track refers to books selected by the child for enjoyment and information. Is it not precisely the case that we have been using and abusing the content of reading for teaching the process? To separate the two kinds of individualized instruction more sharply, we would do away with the basal reader system, which attempts to mix both tracks. Instead we would have very expertly programmed material with the single function of teaching literacy skills - like the Buchanan-Sullivan series of McGraw Hill, plus a library full of books for the child to read. In other areas of the curriculum as well, I hope the two meanings of individualized instruction can be combined into expertly programmed text materials for very specific functions plus a much richer assortment of non-text materials for election in problems of personal inquiry. I believe this is the form education will take, but to be honest with you, I hope that by saying this to you this evening, I can enlist your support in making the prophecy come true.

This would mean a shift from the textbook closet to the library and multi-resource center (See Jaffarian, forthcoming) as the storehouse of intellectual content of elementary education. This physical shift in itself symbolizes the entire trend: from the poverty of one set of books to the richness of many different ones, from a closet off the hall to the center of the school, from a place usually locked so that only teachers can enter
and choose to a place where children and teachers come and go freely to make selections, get expert advice, or stay to work.

Books We Need

So far I have talked only of one general goal of education, that of intellectual competence. But education in a democratic society must develop compassion and a sense of community as well. We need books which can inculcate the "feelings, values and attitudes that add up to a comprehensive and cosmopolitan sensitivity" (Taba, Brady and Robinson, 1952, p. 36). In the words of one Washington, D.C. teacher:

Books alone will not create good attitudes, good relationships, a good society. But books can be the means through which children and teachers examine themselves and their world and face the problems and contradictions in both (Walton, 1964).

As we know, book publishers have been criticized for failing to contribute to this end.

Recently criticism has focused on the special needs of urban children. There is a danger that we will try to meet those needs by special materials. There is a danger that books with interracial characters in an urban setting and books on Negro history will be used in urban schools, while elsewhere the old materials prevail. If this comes to pass, it will be a tragedy. For the demands of the civil rights movement apply beyond the petitioners themselves. What has been exposed is the meaninglessness and antiseptic quality of many of our curriculum materials. All children need "to examine themselves and their world;" All children need "their world" extended beyond the limitations of color, religion or social class to which their immediate neighborhood is probably limited. Through books,
diversity can be integrated in the curriculum even before it is integrated in the classroom. The lily-white curriculum must go, but let's not replace it by curricula which are equal but separate.

There has been progress. However, the number of books which realistically portray the diversity and complexity of our world remains shamefully small. The contents of the library are like the inhabitants of a suburban town: there are some Negro families, the number is growing slowly, but the proportion is so tiny that at any one glance - at a library shelf or a boy scout parade - one is still apt to see an all-white world.

The small number itself produces problems for writers, artists, and publishers who would like to expand the number. One of the results of being a pioneer is that high visibility brings intensive scrutiny and vulnerability to criticism. Not surprisingly, controversies rage about many features of books which are pioneering in intercultural relations. See Nancy Larrick's (1965) article in Saturday Review last fall for example.

To take a particularly difficult question, at what point does representing reality become perpetuating a stereotype? Specifically, if we want children to understand that not all children have fathers home, should a story which includes this aspect of family life be about a Negro family or not?

Because controversies such as these indicate that significant issues are at least being discussed, they are in themselves signs of progress. But I hope publishers are not paralyzed waiting for words of wisdom acceptable to all. It's a bit like the selection process many private schools used to go through to find a Negro child for a formerly all-white school. I can remember faculties worrying over this year after year before finding the child who had sufficient virtue and intellect to withstand the scrutiny.
the role entailed. With books as with children, the only security is in numbers and the variety that numbers will bring. My advice is to use the highest standards of artistic and literary quality, get some guidance on questions of content from members of minority groups themselves, and then go ahead and publish. I realize this advice is more realistic for publishers of trade books than of texts. The built-in conservatism that results from the size of the textbook investments is, to my mind, another reason for limiting the role of texts in the curriculum.

One final comment on the contents of current books for children. The recent New York Times supplement on children's books (May 8, 1966) included a list of the fifty "best juveniles published in the five years from 1961 through 1965" in the opinion of the children's book editor of the Times and his assistant. Fifty books out of five years output is a tiny sample, but I was curious to see what these fifty books were about. Making up my own categories (ABC-nursery rhymes, animals, folk tales, people-realistic, fantasy) I found that for ages "4 and up" and "6 and up", the largest category was stories about animals; for ages "9 and up" which concluded the elementary school period, the largest category was fantasy. Jean Grambs reached similar conclusions in an earlier study (unpublished memorandum to the Lincoln-Filene Center, 1964). Let me state most emphatically that I am not criticizing either animal or fantasy stories per se. Peter Rabbit and Mary Poppins and their successors should continue to bring joy and delight to all children. But to the extent that this list is representative, or at least representative of the best, we should consider whether we are trying to evade the complex problems of creating books for a changing society by creating books which, hopefully, are "culture-free."
Personnel in the Schools

In Walden III both the laboratories and community seminars involved people in teaching roles who are not professional teachers. Whether this school ever exists, such involvement is already here and is certain to grow.

One of the educational reforms of the late 1950's was the introduction of teacher aides to take over routine duties which occupied a shockingly large part of a teacher's day. The educational establishment seems to have adjusted to this innovation, though touchiness is still evident. Just this month I was visiting a school known for its organizational innovations. In a corner by the stairs a woman was working with one child and a tape recorder. As we passed them, the principal quickly explained that this was an aide who was not doing any teaching.

The claim that only professional teachers are capable of real teaching could be maintained without glaring evidence to the contrary until the civil rights revolution led to widespread engagement of volunteers in work which for the most part, certified teachers to accomplish. Usually, these volunteers worked outside the school system, in tutorial centers such as Janowitz, (1965) describes. But in some cities, volunteers - middle-class mothers more than college students - have come into the schools themselves. In still other schools, volunteers are welcome in teaching roles not for remedial help with disadvantaged children, but to provide the kind of extra intellectual stimulation which local university professors, musicians, etc. are glad to give. Evidently non-professional teachers are welcome, as long as they don't get paid. Headstart programs were the exception. Amply financed institutions outside the formal educational system, they did pay.
non-professional people to engage in a variety of teaching and non-teaching roles.

Note that with the exception of the occasional guest star, and Headstart personnel, non-professional people in teaching roles are largely engaged in remedial work, especially in reading and arithmetic. This current emphasis is entirely understandable and desirable, but in the long run this is probably the least effective area for their participation. Literacy programs require, ideally, the most expert diagnostic help and the most expertly designed curriculum. It is in the non-literacy parts of the curriculum where we can gain the greatest benefit from a wide variety of skills, interests and points of view.

To get back to the use of books, consider the language enrichment component of most preschool programs. Some research (e.g. Irwin, 1960) suggests that reading to individual children may be a particularly effective means of providing that enrichment. Given the availability of extra adults (or older children) we should be able to read to a child in school or even at home. An alternative is to put books on film. This is being done in the Bank Street Reading Incentive Films. In one film, for example, Harry Belefonte reads *Gilberto and the Wind*. The film comes in a nifty cartridge which fits so easily into a TV-like projector that a child can handle it himself. But here, there is a mismatch between means and ends. The volunteers in the tutorial programs are engaged in tasks which ideally should be assumed by the most experienced teachers and most expertly programmed materials; films of someone reading books are being used as a poor substitute for what ideally should be a warm human relationship, in which child and adult in close physical contact talk over the content of the book.
to which they both are attending.

There is no shortage of people willing and able to help, and the future will bring more people with more time to give. A problem in school, as outside, is to create organizational forms in which technology and human resources can best be combined. It is interesting that while "neighborhood" and "community" are almost synonymous, once they are combined with "school" they acquire opposite connotations. "Neighborhood school" has become the rallying cry for those who wish to build a wall around people like themselves. "Community school," on the other hand, is used by those who would break down those walls. It refers to schools where children go out, and where parents, other adults and teenagers come in - to participate in the education of young children as well as to become learners themselves. In this kind of school professional educators move up to become the planners and organizers of material and human resources. It is in this context that the widest variety of books can best be used.
REFERENCES


