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We Must Offer Equal Access to Knowledge

We need to reconsider the questionable notion that individual learning differences call for radically differentiated curriculums.

The effects that projected changes in technology and demographics will have on our nation's economic stability, national defense, and international leadership over the next few decades have brought considerable attention to schools, as have comparable crises throughout the century. Warnings that our nation's future economic and security interests hinge on improving the quality of our educational system have become a centerpiece of the Reagan presidential agenda. Now, as candidates for 1988 turn up the volume of campaign rhetoric, we hear a rising chorus of concern. In Seymour Sarason's (1985) words, schools are viewed both as a scapegoat for the problem and as the source of salvation.

At the heart of the issue is the rather sorry record of schools in promoting the achievement and participation of black, Hispanic, and poor children, those sectors of the population that will increasingly populate schools in the future. As highly publicized projections suggest, we can expect smaller numbers of young people in the future; and, partly as a result of differential birth rates and changed immigration patterns, the percentages of poor and minorities in schools will steadily and dramatically increase. The convergence of these two trends—decreasing economic competitiveness and increasing poor and minority populations—has put a special spin on what is expected of schools in the future. The net effect is that the attainment of those students whom schools now educate least well will become increasingly critical.

Perhaps not surprisingly, these concerns have been met with calls for special policies and programs to be directed toward "at risk" children and youth. Increased attention to early childhood education, health and nutrition, community involvement, and after-school care is much needed; but these programs alone will not solve the academic problems of poor and minority children. Moreover, if the American public and policymakers hope to retain the notion of a common school to provide a common literacy, a common awareness of our democracy and responsibility to it, a common understanding of our diversity of heritages, and a common induction into civilized conversation, much about schools themselves must be changed. At a minimum, we must reject powerful misconceptions about learning and individual differences; and we must reconceive the structure of schooling those misconceptions have led us to create.

Photographs by Phil Swartzbaugh

At Desert Sky Junior High in Phoenix, Arizona, a cooperative learning team includes students at varied levels of ability who work toward both individual and team achievement (see p. 20).

Misconceptions and Opportunities

Limited conceptions of what intellectual and character development mean and require by way of nurturing, accompanied by the limited instructional repertoire such conceptions reflect, seriously restrict the quality of how students learn. Deep-seated myths and prejudices regarding the distribution of ability to learn contribute strongly to the differentiation of students' access to the array of knowledge schools provide. The internal organization of schools, partly reflecting these myths and prejudices and partly designed to make the school's job easier, usually serves to create sharp differences in the educational opportunities enjoyed by students. As one's attention moves toward the negative end of these conditions and circumstances of schooling and as one confronts increasing evidence of inequities, one simultaneously encounters a growing proportion of minority and economically deprived white children and youth.

Misconceptions about learning. The "empty vessel" theory of learning is rarely debated. It is almost always rejected at the outset of discussions about the nature of education. Nearly everyone agrees that teachers must not just endeavor to pour knowledge into the heads of students; teaching must assist students to derive meanings from and about phenomena. But this latter conception of learning and teaching is not the one most dominant in the actual conduct of schools.

Even though most teachers reject the image of passive students patiently having their vessels filled up, and though they are familiar with a variety of teaching modes, study after study reveals the dominance of telling, lecturing, questioning the class, and monitoring seatwork. The inquiring, questioning, probing, hypothesizing kind of intellectual endeavor often associated with learning is not usually found in classrooms. When it is found, the "unusual" teacher is exhibited as exemplary. What we say should be common turns out to be quite uncommon.

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Misconceptions about individual differences. In recognizing cultural or individual differences, we commonly accompany our awareness with value judgments. The more noticeable the differences—as in language, color, dress, and the like—the more likely are negative comparisons. Early in this century, the influx of immigrants speaking languages other than English was accompanied by fear on the part of English-speaking settlers that the culture would be watered down. The use of the Binet test by H. H. Goodard (Harvard University) at Ellis Island led him to the bizarre conclusion that large percentages of the immigrants were feebleminded (in Gould 1981). This kind of thinking accompanied the myth that native Indians and blacks were intellectually inferior.

The advent of near-universal schooling and the equating of education with schooling contributed greatly to misunderstanding about individual learning differences and about different kinds of intelligence. To be intelligent frequently was equated with doing well in school. School, in turn, valued and rewarded boys and girls who took readily to the language-oriented abstractions of schooling. Hand-oriented children, including the artistically gifted, not only found little in school to accommodate their learning styles but often experienced outright repression of their gifts and talents.

The school's general failure to provide for, let alone capitalize on, different kinds of intelligence and styles of learning resulted in clearly prejudicial practices. Children most needing the enrichment of early childhood education were denied admission to kindergarten for failing to make the necessary score on standardized tests (Goodlad 1955). Grade failure of boys in the primary grades, with the accompanying labeling of them as failures, exceeded grade retention of girls by two or three times. Children not admitted to kindergarten or retained for another year at grade level were disproportionately from minority and low economic groups. These practices and others like them are common in today's schools.

Organization of opportunity. Nowhere in schooling do the above misconceptions have a more powerful effect than in the grouping and tracking practices commonly found in schools. And perhaps nowhere else in schooling are the negative, prejudicial consequences for access to knowledge so clear and so severe.

The patterns are readily discernible and are, regrettably, more the rule than the exception. For at least two generations, 1st grade children have been organized into subgroups, usually three, for reading and some other subjects; each group is presumed to be differentiated from the others on estimates of "ability." However, since these estimates are made early in the year and since there is much confusion in the field regarding the difference between ability and achievement, the estimates once again reflect home and family circumstances, especially the level of schooling attained by mothers and fathers. Poor and minority children are disproportionately represented in the low groups. Children in the lowest groups rarely are moved to the highest groups; over time the disparity between the attainments of highest and lowest groups becomes even greater.

With considerable dismay, junior and senior high school teachers confront the enormous range of their students in academic achievement. They usually resort, not surprisingly, to tracking: the separation of students into curriculum patterns wherein the courses taken by different students vary widely in expectations, teacher enthusiasm, teaching methods, classroom ambience, and content. Most senior high schools are also characterized by a rather sharp division into a vocationally oriented curriculum and an academically oriented curriculum, with a further division into the tracks just described (Oakes 1985). Students in the lowest tracks and in the vocationally oriented curriculum are disproportionately poor and disproportionately from minorities.

Teachers of the upper tracks like things this way. They derive support from those parents in the community

who see their self-interests best served by a tracked school. Reasons for this system frequently are argued as common sense; contrary research findings are pushed aside. Arguments for mixed groupings are rejected as impractical, as not confronting reality.

By now, a wealth of empirical evidence, court decisions, and reform proposals suggests that tracking and rigid ability grouping are generally ineffective means for addressing individual differences, and for many children, harmful (for a recent review, see Oakes in press). More important, however, is the undisputed consequence that large numbers of children and youth are denied access to knowledge reserved for those who take readily to the customs and regularities of schooling. These customs and regularities, in turn, are advantageous for students whose backgrounds prepare them for and support them in what schools do.

Obviously, not all students benefit equally from lessons. There is nothing particularly unfair about that. But tracking prejudges how much children will benefit and results in the absence of some children from the places where academically and socially valued subjects are taught. For example, nearly all children can learn from quality literature, nearly all can learn a second language, and nearly all can benefit from studying the important concepts of algebra. Some will learn more, some less. But tracking excludes many children from ever being in classes where these "high status" subjects are taught.

Furthermore, when errors in judgment are made, they are more likely to *underestimate* what children can do. Under these circumstances, the kinds of arguments based on research not favorable to tracking fade in relative importance to compelling ethical concerns. As philosopher Gary Fenstermacher (1983) has argued, "It is possible that some students may not benefit equally from unrestricted access to knowledge, but this fact does not entitle us to control access in ways that effectively prohibit all students from encountering what Dewey called, 'the funded capital of civilization.' "

New Conceptions, New Opportunities

Increasingly, policymakers are troubled by the fact that tracking practices actually restrict students' access to knowledge and that the most educationally impoverished programs are offered disproportionately to poor and minority students. Many suspect that when schools react to individual differences by resorting to tracking, they begin an interactive process that diminishes the educational success of children not in the "top" groups. Yet, replacing tracking is no simple matter.

Simply mixing students together will not solve the problems of tracking. Far more revolutionary changes are needed. For example, the curriculum best suited to providing all students with access to knowledge is organized around central concepts of the disciplines and grounded in real-life experiences. The knowledge to be offered to children must be important, challenging, complex, and, most of all, rich with meaning. Indeed, it must stretch the sense-making of *all* children. But providing all children access to such knowledge will require dramatic alterations in instructional practice. Rather than the typical classroom patterns of children of the same age engaged in competitive, whole-group instruction, students need to be clustered in small groups exchanging ideas, sometimes working on separate but interrelated tasks, and generally helping each other learn. Teacher talk must not dominate; neither must whole-class question-and-answer sessions. Teachers must function more like orchestra conductors than like lecturers: getting things started and keeping them moving along, providing information and pointing to resources, coordinating a diverse but harmonious buzz of activity. Classroom rewards need to be based on shared goals and accomplishments; individual awards, on improvement.

Although they are little practiced, the required organizational and pedagogical changes are often described in the literature on schooling: for example, nongraded classrooms, team teaching, concept-based curriculums, cooperative small-group learning, individualized evaluation, and so on. Moreover, empirical evidence suggests that black and Hispanic children, for example, may achieve better under such conditions; for example, in relational learning environments (those that involve other people) and when given field-dependent learning tasks (those that focus on whole concepts or real situations rather than on fragmented skills or abstractions). One of the most striking examples of a fully developed strategy is that of Edward DeAvila and Elizabeth Cohen: a conceptually rich, experience-based, cooperative bilingual science curriculum that has achieved remarkable success with heterogeneous groups of Hispanic and Anglo children. Of course, there is also considerable evidence that these approaches help nonminority students learn as well (Cohen 1987).

More critical, however, than changes in pedagogy are dramatic alterations in schools' working conceptions of learning and individual differences, since the more technical changes won't take place until conceptions that support them make sense to educators. Most important, we must rid ourselves of the dangerous notion that individual differences, such as in interests and rate of learning, call for substantially differentiated curriculums.

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		Test Comparisons (Total)	Test Comparisons Favoring "Mixed" Classes
1984-1985	Remedial	11	11
	Average	11	9
	Accelerated	11	6
1985-1986	Remedial	5	5
	Average	5	4
	Accelerated	5	4
1986-1987	Remedial	6	5
	Average	6	5
	Accelerated	5	3

Fig. 1. Test Comparisons

Eliminating Tracking Successfully

Phil Swartzbaugh

In 1983, Desert Sky Junior High (Phoenix, Arizona) had 38 remedial and accelerated classes. As the 1987–88 school year began, Desert Sky had none. With the exception of certain special education classes and advanced reading and math classes for gifted students, students work in cooperative learning settings.

In the past three years, 21 of 22 test comparisons favored a mixture of remedial students with peers of all abilities. Test scores (combined from the Iowa Test of Basic Skills and our own district-developed test) indicate that these students have the most to gain and that their average and accelerated counterparts also benefit from this mixed experience.

In fall 1984, we initiated three sections of mixed (heterogeneous) grouping in reading, English, and math. Unlike our tracked (homogeneous) classes, these classes contained students of all abilities. Our goal was to measure academic growth by comparing achievement of the mixed groups to that of the traditional tracked groups of remedial, average, and accelerated. The three volunteering teachers received training from Johns Hopkins University in Cooperative Learning, a team learning concept that became the key instructional strategy in our mixed classes. At the same time, orientation meetings were held for the parents of children randomly selected to participate in the program.

At year's end, all academic levels in the mixed-ability classes fared well compared to their counterparts in tracked classes (see fig. 1). Remedial students in the mixed classes experienced the greatest overall gains. Average students in mixed classes also experienced achievement gains. Accelerated students in both mixed- and ability-group settings performed quite well with a slight edge favoring the mixed setting. (This simple three-level comparison served us well because we were not looking for statistical significance; we wanted only to be sure we were maintaining or improving academic achievement while we realized the other benefits of heterogeneous grouping.)

During 1985–86, we expanded our program to seven mixed-ability classes. Our own experienced teachers provided inservice. Once again, we were pleased with the year-end test results (see fig. 1). Two years of test data favoring mixed grouping for all ability levels did much to gain further teacher and community support. We credit this success primarily to the implementation of Cooperative Learning.

During 1986–87, an additional 17 teachers received Cooperative Learning training. For the third year in a row, test comparisons showed that all ability levels benefited from mixed/cooperative grouping (see fig. 1).

To modify a school whose operation has depended upon ability grouping for many years is a tremendous challenge. Change is difficult. However, when the benefit to youngsters in terms of higher achievement and greater success is clear, we must accept the challenge.

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Undoubtedly, to change our minds will be a highly value-laden and controversial process. There are few educators or parents who don't have strong opinions about the matter. Often the most vocal and powerful opinions are voiced by those interested in maintaining the status quo, since they see that as the only way to maintain high-quality schooling for the most advantaged students. In multiracial schools, because of the interaction of race, class, assessed ability, and placements, the issue is complicated by the same fears desegregation raises.

Of course, it is helpful for both the public and the professionals to understand that the general laws of the land imply equal access not only to schools but to the education schools are supposed to provide. Further, state documents on schooling almost always include the concept of equity in some form and admonish school boards and educators to eschew practices that discriminate against students because of their race, ethnicity, or religion. This kind of legal, ethical, and moral framework provides educators with the justification they need for pursuing rigorously every avenue likely to make knowledge equitably available in schools.

But, obviously, there are no easy answers, quick fixes, or staff develop-

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ment programs ready to alter tracking practices and the misconceptions that support them. Conducting needs assessments, developing a one- or two-year-plan, or buying the services of a respected staff development consultant will not be enough. School practitioners themselves must discover how long-standing traditions, school and district guidelines, standards of common practice, and questionable beliefs about learning and individual differences relentlessly translate into day-to-day decisions about what tracks schools should offer, which tracks students should be assigned to, and what students should learn in different tracks. Practitioners must investigate how their perceptions of students' family backgrounds, motivations, peer-group influences, and self-conceptions interact with the opportunities schools provide.

The individual school, then, is the center of attention and change. The principal and the teachers take responsibility for translating the meanings of equal access to knowledge for all into the entire culture of the school. Doing so requires a considerable amount of dialogue about what equity means, what practices deny equal access, and what practices promote it. Then, a plan of action must be devised that deliberately sets out the steps to be taken and the kinds of assessments deemed necessary to the evaluation of progress. (For a descrip-

"Rather than the typical classroom patterns of children of the same age engaged in competitive, whole-group instruction, students need to be clustered in small groups exchanging ideas, sometimes working on separate but interrelated tasks, and generally helping each other learn. . . ."

Desert Sky Junior High in Phoenix, Arizona, where ability grouping was the prevailing method of classifying students for instruction, has now organized to provide equal access to knowledge for all students (see p. 20).

tion of the processes and their use in 18 schools, see Bentzen 1974 and Goodlad 1975.) It is also essential that the principal and the teachers be joined in all phases by students and parents.

These efforts will undoubtedly need to include extensive school- or district-based data collection about tracking practices, critical reflection and extended dialogue about values and assumptions underlying these practices, and liberal experimentation with countervailing organizational and instructional processes. These types of activities are likely to provide a rich and personal store of knowledge, values, and experiences that can enable practitioners to tackle the enormity of the tracking problem (Sirotnik and Oakes 1986). While this may sound like an unrealistic and impractical approach to school change, such a process, we believe, will ultimately prove to be the most "realistic" and "practical" because it enables practitioners and their communities more easily to recognize and alter previously unquestioned practices that conflict with their commitment to educate all students well.

The Center of Change

The concept of the school as the center of change must not be interpreted to mean that the school alone can do what is necessary. The school exists as part of a larger ecosystem that often hampers the school's efforts to become a renewing culture in which the very best educational and social values permeate daily life. It is difficult to disagree with those social reformers who believe that reform of the school without reform of the larger society is futile. However, we argue that the two must proceed simultaneously.

Time and time again in the past, school reformers have been out of sync with a largely content or unsympathetic society. Certainly, they are again today. But growing awareness of malaise in the larger society and of the need to address our ills on all fronts is encouraging. Perhaps the demographic and technological changes that once again have thrust a crisis on the school's doorstep will bring economic self-interest together with equity concerns and lead us to create schools that educate all students for full participation in a democratic society.□

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