

SCHOOL DEVELOPMENTS

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INNOVATION is the order of the day, and rightly so. Much is being hoped for and expected of education in a burgeoning affluent society that has the opportunity to be great. Of the many types of innovation that could be discussed, three will be treated here, with particular reference to the theme of this issue, human variability: (a) administrative arrangements, (b) earlier schooling, and (c) maleness.

Variability may mean simply diversity—of goals and interests, as well as abilities. This diversity we cherish. We are less sure of our feeling about variability within traits or skills. For too long, until we learned of the “psychology of individual differences” during the present century, the goal of education was largely to bring all up to a common standard. I am sure my parents and teachers prior to World War I honestly believed that all could meet that standard. Those who made low grades, failed courses, were “left back,” or dropped out were generally viewed as lacking the will or character to succeed in schoolwork.

Then came the “miracle” of Army Alpha in the classification of recruits in

America's first drafted army. Immediately thereafter, schools found wide and persistent differences in ability to cope with schoolwork from the very beginning of formal instruction in first grade. The much overworked and poorly understood concept of the IQ was a reflection of this variability and of the fact that it increases with age. Note that the IQ is a ratio. As a ratio, any constancy it showed under prevailing conditions simply reflected the fact that as average ability increased, variability around that average increased proportionately.

The story does not stop there, however. In the area of school achievement, it was found that programs to help all children learn better resulted not only in increased average achievement, but in wider variability in achievement. As you might say, raise the average and the slowest is farther behind, while “the sky is the limit” for those freed to move ahead.

Many of today's compensatory education programs are directed by persons who expect this variability to result and recognize it as not only natural, but desirable. Opportunity is af-

forded more and more children to take full advantage of good teaching and good motivation to succeed. Those who are disadvantaged by cultural circumstances are being helped to realize potentialities in themselves that would otherwise remain underdeveloped. But there is much for *all* to do to meet the intellectual demands of these times. We have all done less than we might have done under the most favorable conditions for development. It is fair to say that we are all underachievers, only some are more so. Our best achievers simply underachieve by less than most others. So our goal is improvement for all, with attendant increase in variability.

Administrative Arrangements

Departmentalized instruction, in some measure, is being tried widely in elementary schools. Long practiced in high school, it seems to promise relief for teachers now burdened with the requirements of more specialized competence formerly demanded only at the high school level. Effects are inconclusive. Quite as many studies (1) show poorer as show better pupil achievement under departmentalization. But the alternatives are myriad.

Stoddard (2) has designed a "dual progress plan" for elementary schools, with the "cultural imperatives" of language arts and social studies being taught by "basic" teachers to two different self-contained classes in morning and afternoon. Meanwhile, the "cultural electives" of mathematics, science, art, and music are taught in the opposite half-days on a departmentalized basis, in class sections corresponding to levels of progress achieved in each

subject area, rather than to age or grade.

Elsewhere, children are grouped for instruction by levels of achievement in some or all subjects. Each teacher teaches every subject, but scheduling is achieved by having all pupils study a particular subject at the same hour. In one system "stratified" grouping is used to reduce variability in partial fashion and to permit more leadership experience. To illustrate, three classes of 30 are made from 90 children ranked on composite achievement and assigned by tens so that the first, fourth and seventh tens form one class; the second, fifth and eighth form a second class; while the third, sixth, and ninth tens make the third class. Thus, the second and third tens get their chance to shine, while the first and ninth tens can be given special attention because the twenty from the opposite end of the 90 are not in their classes.

Team teaching arrangements abound. And group sizes are varied to fit types of instruction. In one large elementary school in Atlanta (3) we took 1800 pupils and 40 teachers off double sessions by scheduling TV-paced classes in science and social studies for grades 4-7 in an auditorium, with ten TV sets and two teachers handling 200 pupils in team fashion, while regular teachers had the children in self-contained classes of 30 in other subjects. By also teaching physical education in large playground groups, and teaching music in large choral groups, all 1800 pupils were readily accommodated in the same school at the same time. In the process, we were able to provide seven specialized teachers for (a) art, (b) vocal

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music, (c) instrumental music, (d) library, (e) physical education (male), (f) physical education (female), and (g) counseling and home visiting, or what we are beginning to call a "child development specialist."

As long ago as 1940 and to this day, semi-departmentalized arrangements of these sorts have prevailed in Nyack, New York, supported by a program of individual attention through daily case conferences. This writer is only one of several who have published accounts (4) of how each day the pupils of a different grade are discussed by all their teachers, while alternate weeks are devoted to boys and girls so that the male and female physical education teachers can alternate between conferences and monitoring the playground during the 40 minutes till school opens. In a school with four classes of 30 children to a grade, each child becomes the focus of attention once in each year of a 5-minute thumbnail case study followed by a highly professional 5-minute staff discussion, with recommendations for appropriate action. The nongraded school (5) accepts any combination of the other arrangements along with provision for continuous promotion of individuals to achieve vertical adjustments. Thus, individuals of varying competence take two, three, or four years for the usual three-year spans of schooling.

What does all this prove, especially when findings do not seem to favor one approach over another consistently and conclusively? Perhaps we should recognize "individual differences between faculties" in the distribution of interests and competence in the teaching of

the various subjects, just as we recognize individual differences between children in mastery of skills and knowledge. Must all schools, even within a small school system, be organized the same way?

Faculties willing to study alternatives and make choices are good risks to choose plans of organization best suited to their talents and interests, whether completely self-contained, completely departmentalized, or anything in between. Research studies should gradually make us better aware of the underlying factors making for optimal choice. But we need not wait. Irregularity may be welcomed, rather than feared, so long as it is based on thoughtful pondering of alternative plans and staff capabilities.

Early Schooling

Kindergartens have their origins in the nineteenth century. Nursery schools, under educational leadership, have existed since early in the twentieth century under private auspices. Experimental programs have been conducted by university departments of psychology and home economics as well as by colleges of education in special demonstration schools, often on college campuses. The Iowa Child Welfare Research Station in the 1930s challenged the constancy of the IQ on the basis of studies in its nursery school experiments. Child care centers for children of working mothers during World War II built programs of child development on nursery education findings.

Today we have Operation Head Start as the most dramatic embodiment of a new surge to put educational stimulation into the lives of young children.

Recent publications (6) have stressed such research findings as that 50 percent of intellectual growth occurs in the first four years and 80 percent by age 8. The longitudinal study at Denver (7) of the effects of beginning the teaching of reading at age 5 in kindergarten shows apparently lasting effects of persistent instructional emphasis built on the earlier start, and without harmful side effects. We now hasten to recall all the instances of early learning of those with determined, but emotionally supportive parents who gave them early starts in learning to read, to tell time, to observe objectively in the manner of science, to develop number sense, to reproduce verbal symbols, to draw, to enjoy and produce musical effects.

It has been recognized that many environments, chiefly associated with poverty, limit early intellectual experiences and prepare children poorly to respond to the educational stimulation of the first formal schooling usually made available at age 6. We may well consider a more positive model than merely remedying defects attributable to cultural deficiencies in preparing children to fit a rigid school regimen that seems to fit upper middle class children best, and to fit girls among them better than boys. It is nevertheless true that the skills sought as ultimate objectives are largely the same. An essential feature of any adaptation to provide better for the intellectual development of children now educationally disadvantaged must be early stimulation. But let us not limit our efforts to the fundamentally contradictory goals of early stimulation of the disadvantaged because they need it and of the gifted because they can profit earlier from current arrange-

ments with no adjustment of the arrangements designed for older children. Let us treat all, including the "normals," to any early stimulation that all can use. Let us not duplicate the paradox of medical availability under which the indigent and the wealthy command services that those in the low middle economic brackets find it difficult to "afford." It is a matter of great satisfaction that our Research and Development Center in Educational Stimulation (8) has access to a rigorously statistical cross-section of the 3-5 year old population of Clayton County (Ga.), 60 at each age level, in a public school, with assurances that they can be kept in intact classes through age 12.

Maleness

Evidence continues to accumulate of the sexual bias in elementary education. For years research studies have shown that boys make up the great majority of referrals to clinics for behavior problems, mental retardation, reading disability, and speech impairment. Even allowing for our culture's tolerance of developing independence by rebellious behavior, the sex-differences in referrals are remarkable. I will never forget the reading disability case referred to our counseling center in Atlanta years ago. The boy was not to be promoted to sixth grade because of excessive disability. We found that he identified with a truck-driver father who was scorned by his better-educated wife before the children for his lack of school skills. The boy insisted on being promoted because his father had not learned to read until he was in sixth grade. He won his point. He was promoted and learned to read! One case

proves nothing, of course. It simply dramatizes the statistics.

Head Start visitations in 1965 brought home dramatic illustrations time and again, of this same point. This slightly stooped "middle-aged" visitor can testify to the male influence. On one occasion every boy in the room had to pound the pegs because "the man" did.

There isn't space to tell of the hard-boiled urchin with the telephone who used every strategy to remain on my lap. Then there were the Neighborhood Youth Corps aides, indoors and out, who gave boys (and some girls) a model and (for the boys) an object of physical exertion.

This is not, however, a phenomenon of disadvantaged children entirely. The writer was prepared for this by a research experience (9) three years earlier. Three male athletes had a substantial impact on the cognitive development of boys and girls in grades 5 through 8 of a private school drawing from upper middle and middle class families.

It remains for us to capture this impact for children generally. As we contemplate the prospect that many respected and self-respecting white-collar as well as blue-collar workers may be displaced from their present employment by our rampant technology, we should ponder ways and means of persuading them to retool themselves for early school positions. Before we convince ourselves that this problem is insuperable, let us remind ourselves of the old Seabees' motto "The impossible just takes longer." It's worth it. It could produce fruitful variability along with average improvement among our schoolchildren.

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