If the sociological facts of today are taken seriously, the teaching profession will place a new and vigorous emphasis upon normative content. This content bears most directly upon questions of social direction and individual and social morality. In a time of widespread confusion and uncertainty as to the direction in which to move—a condition rooted in shifting social realities—the school cannot afford to ignore the content upon which the clarification of social directions ultimately depends.

Redefining the Tasks of Education

WILLARD C. OLSON

Adjustment to differences in the rate and level of growth of children is our time’s most pressing challenge to schools. Willard C. Olson is director of research in child development, University of Michigan, Ann Arbor.

HISTORICALLY, education had an important task in bringing to children everywhere some of the opportunities for learning possessed by only a relatively small segment of the population. The emphasis was on mass techniques and a detailed technology of process remained to be developed.

The first emphasis was on the materials of instruction and on the methods that would be effective in assisting the children to learn these materials. In a sense, children were thought of as standardized responding instruments who could be exposed to the same experiences with an expectancy that skill in teaching and diligence on the part of the child would produce the expected attainment.

Teachers have, of course, always been aware of the existence of differences in children. The widespread application of tests during World War I dramatized the problem of individual differences. In the numerous surveys and in the individual uses of tests which followed, there was a hope that some refinement of method or artistry in the supply of experiences would obliterate the individual differences that were found. Many plans for grouping for special drill and for remedial work grew out of this hypothesis concerning the nature of the difficulty. There was much talk of bringing a class or an individual “up to the norm.”

Individual Differences Are Designs for Growing

As we move into the second half of the 20th century, it becomes abundantly clear that individual differences in children are lawful expressions of designs for growing and that there is at present no known possibility of obliterating these designs. In fact, there is a real probability that there are dangers in radical attempts to do so. Teachers everywhere, in varying degrees, depending upon the recency of
their training, are now seeking wiser ways of nurturing children according to their readiness for an experience. Research on what might be called the human biology of growth finds powerful determiners of and limitations on expectancy in the general level and rate of growth of a child. The cultural anthropologist further finds interpersonal, social, and cultural forces that make for important differences in expectancy.

With the regular failure of ability grouping, drill, remedial work, extra stimulation, and improvement of instructional materials, to make radical changes in the designs for growing, the swing of the century is toward the dynamics of maturation, personality, achievement, and productivity.

As one turns to the new stream of materials affecting educational thought, one sees in them an important principle. Instead of attempting to make children alike, the goal is to make all of them productive and happy by providing opportunities for continuous growth. The real failure in education is to have a person achieve less than his optimum by deprivation or by a type of treatment in which interpersonal relationships become internalized so as to cripple the personality. Under such conditions, incomplete growth, aggression, flight, or apathy are possible sequels.

Research on the same children through a period of time makes it clear that the differences people talk about in arguments over the efficacy of vitamin feeding, endocrine therapy, additional nutrition, variations in teaching method, and extra time allotment to subjects are small in amount when judged by the effects on the central tendency of well controlled experimental and control groups. Even if one should argue that these effects might be cumulative, the differences are still small as compared to the individual differences that exist among the children.

Importance of Qualitative Differences in Achievement

It appears to the writer that a disservice, or at least an inappropriate emphasis, is being given to the problem of public interpretation of the work of the schools if educators simply take a defensive role and try to establish the effectiveness of modern procedures in a framework of values and scientific knowledge which has been superseded. "Then and now" studies of average proficiency have a place when adequate controls can be established so the differences can be interpreted, but this operation is distinctly of a defensive order. A more appropriate course would be to demonstrate important differences in achievements which are qualitatively different, and to study the consequences that follow where the adoption of a philosophy of growth for all has produced better conditions for mental hygiene.

It would appear that practically all modern, well-supplied, and well-staffed schools give sufficient instruction, exposure, or experience in skills. The one condition, then, that might produce a large difference, i.e., deprivation, probably fails to hold true in most schools. Since a sufficient amount of experience is commonly available in all schools to fill the children to their maturational potential at a point in time, the way
is open for the acquisition of a wide variety of experiences, qualitatively different, and often not fully nurtured up to the child's potential. Among such experiences would be included the richer offerings made in modern schools in art, music, physical education, common social learnings, and at the growing edge of progress in science and other fields of knowledge.

January, 1952
DIFFERENCES IN GROWTH

Individual differences in growth can be illustrated by repeated measurements of the same children on an achievement such as reading. Figure 1 gives the individual growth curves in ability to read as measured by standard tests for 80 boys who are the subjects of intensive investigation in an unpublished monograph on the child as a whole by Olson and Hughes. The scale for chronological age is given on the base line and corresponding reading ages from periodic tests are plotted on the vertical axis. While it would be difficult to tease out the individual lines on this complex graph, it is obvious at a glance that there is a wide diversity in rate and level of growth. This is apparent at age 6 years and becomes ever greater with time until at age 11, when most of the children are in the sixth grade, the difference is all the way from 7 years to 17 years or a range of achievement from about the second through the eleventh grade. A similar graph for the girls shows a range from 8 years through 17 years with a slightly greater compactness in the variability through the years. Similar graphs have been constructed also for other factors of interest to schools.

The major task of method, as well as of curriculum planning, is to know how to give a happy, satisfying, and successful experience to children who differ so markedly in rate and level of growth. To focus attention on a few months more or less of difference in the average of the distributions of compared groups is to miss the whole import of modern science in its application to the understanding of children. Thinking in terms of averages, as if they were goals of attainment, is rapidly disappearing in most scientific work since it is discovered that variation is lawful and that radical attempts to change the differences usually court failure and sometimes produce highly undesirable side effects.

Qualitative versus Quantitative Achievement

When one portrays the growth of children on a single strand of achievement as in Figure 1, he is concerned primarily with what may be called quantitative differences in attainment. All of the children have had a very comparable opportunity for the experiences that produced the achievement. The task of method is clearly to adjust to these differences through both materials and such concepts as seeking, self-selection, and pacing.

However, the task of curriculum planning is broader since there is a need, not only to adjust to individual differences in the sense of expectancies in areas such as reading, arithmetic, spelling, and writing, but also to introduce experiences that make children qualitatively different in the sense that those who have had the experience will show traces in their behavior which differentiate them from those who have not. We do not have many clear-cut presence and absence studies of curriculum opportunities in the research literature. Experience and observation demonstrate that when opportunities for music, art, and games are introduced into the curriculum, children show corresponding differences in their behavior. Opportunity for swimming for some, denied to
others, will make changes corresponding to the experience. There will still be large individual differences in swimming ability. Similarly, differences in safety information can be demonstrated by the presence and absence of safety instruction.

The illustrations could be multiplied, but it is clearly the task of the curriculum expert and teacher to help provide a wide range of diversified experiences. Children will choose and react to these in terms of their levels, rates, and patterns of growth. A more detailed examination of growth data than is possible here indicates that some children have greater aptitudes than others in particular directions and that there will always be wide individual differences in the extent to which any experience will be incorporated.

Results of Adjustment to Growth Differences

An understanding of the magnitude and persistence of differences in rate of growing under all variations of method can, in and of itself, contribute to the ability of teachers to interpret these differences to parents and other professional workers. The rationale back of an unwillingness to assign one book of a ten-year level of difficulty, when ten-year-olds differ as widely as they do in the Figure, and back of a desire to use the more dynamic techniques of self selection and varied expectancy can be made readily apparent to anyone willing to learn by data gathered anywhere on any abilities represented in school.

Similarly, the unwillingness to assign formal marks to these growth curves has greater reasonableness and validity when proposed simultaneously with the frank admission that education has no content or technique for erasing differences among people in those areas of experience in which they all have equal or optimum opportunity. The implicit assumption of those who defend competitive and comparative marking is that a common assignment and an emphasis on marks will alter curves such as those in Figure 1. There is no evidence for such an assumption—there is much against it.

The heroic things that one would have to do administratively to have classrooms represent really homogeneous groups of children can be perceived by a thoughtful examination of Figure 1. From the studies thus far made it can be shown rather conclusively that retention and repetition of a grade is not a cure although the uninformed regularly advocate retention and berate teachers for passing slowly growing children on to the next grade. The implicit assumption is that the threat of failure will increase achievement. This is false both deductively and by direct experimentation.

It is clear that much research needs to be done, and some of it in new directions, in order to have good answers to all of the questions that can be answered about adjustment to differences in growth. One of the questions would be: "Will complete and effective adjustment to individual differences in growing make a large and substantial change in the average of the group of children so treated?"

While we need more research, the evidence is that there will be a contribution in that direction but the differences in averages will still be over-

January, 1952
shadowed by the much greater differences among children.

Need for Redefinition of Tasks of Education

We should turn the microscope of the research process on new outcomes and long-time goals to appreciate fully the advantages of adjustment to individual differences. Pertinent to such an inquiry would be the dissatisfaction of retarded children, their worries and tensions as expressed in interviews, their lack of interest and zest in school work, their tendency to drop out early, and their tendency to show behavior problems and later delinquent acts. The extreme frustration of the slowly growing child at times results in aggression, withdrawal, and escape. Similarly the rapidly maturing child, without adjustments, may become impatient and fail of realization of his full potential either in altitude or breadth of achievement.

The research of the future on the problem of adjustment to individual differences and on theories of seeking, self-selection, and pacing should go into the question of the distinction between school achievement in the sense of information and skill as measured by tests and production in the sense of units of work turned out analogous to similar concepts in industry. Two children, equally able, one motivated and one frustrated, will probably turn in unequal amounts of work. There is already some evidence from which one might reasonably deduce that there will be more volunteering, initiative, written production, and constructive activity in well motivated children. Surely the school as well as society is interested in productivity at the level of skill or insight possessed by each person. Similarly, the research of the future should be attentive to satisfaction with life and work, to feelings of confidence in ability to cope with the environment, and to skill in human affairs. Such goals are compatible with optimum skill.

Should we be on the defensive on then and now in education on microscopic details not regularly discernible in averages when adjustment to differences permits broad purposes to be achieved? A constructive redefinition of the tasks of education may properly embrace both the breadth of experience needed in our society and an adjustment to the substantial differences in rate of growth by individuals.

New ASCD Pamphlets

Teachers for Today’s Schools
81 pages
Price: $1.25

Instructional Leadership in Small Schools
88 pages
Price: $1.25

Better Than Rating: New Approaches to Appraisal of Teaching Services
81 pages
Price: $1.25

Order from:
Association for Supervision and Curriculum Development, NEA
1201 Sixteenth Street, N.W., Washington 6, D. C.