

ASSESSING THE PROGRESS OF EDUCATION

Ralph W. Tyler, Center for Advanced Study in the Behavioral Sciences

Education today is of great concern to all Americans. Without education our young people cannot get jobs, are unable to participate intelligently and responsibly in civic and social life and fail to achieve individual self-realization. Education is increasingly recognized as the servant of all our purposes.

Because of its primary importance, our people are seeking information to guide their thinking and action in support of education. They are asking many questions, such as, are we making progress in raising educational levels? Are there areas or fields in which progress is lagging, where more support and effort should be focussed? Is progress more pronounced in certain sectors of the population such as urban, rural, central city, suburban, lower socio-economic levels, upper socio-economic levels? As schools increase their efforts to solve particular problems, questions will be raised about the progress thus achieved. As time goes on, school people and laymen alike will be seeking to understand more fully the relation between the various "inputs" into our schools and the progress of education.

The need for information of this sort by teachers, administrators, school boards, legislators, community leaders and the public generally, is a legitimate one. The great educational tasks we now face require many more resources than have thus far been available, and these resources must be wisely used to produce the maximum effect in extending educational opportunity and raising the level of education. To make these decisions, dependable information about the progress of education is essential, otherwise we scatter our efforts too widely and fail to achieve our goals. Yet, we do not now have the necessary comprehensive and dependable data. We have reports on numbers of schools, buildings, teachers and pupils and about the moneys expended. But we do not have sound and adequate information on educational results. Because dependable data are not available, personal views, distorted reports and journalistic impressions are the sources of public opinion and the schools are frequently attacked and less frequently defended without having necessary evidence to support either claim. This situation will be corrected only by a careful, consistent effort to obtain valid data to provide sound evidence about the progress of American education.

The need for data on progress has been recognized in other spheres of American life. During the depression, the lack of dependable information about the progress of the economy was a serious handicap in focussing efforts and in assessing them. Out of this

need grew the index of production, the Gross National Product, which has been of great value in guiding economic development. Correspondingly, the Consumer Price Index was developed as a useful measure of the changes in cost of living and inflation. Mortality and morbidity indices are important bases for indicating needed public health measures. Facing the need for massive efforts to extend and improve education, the demand for valid information to support the requests and to guide the allocation of resources must be met.

In recognition of this need, Carnegie Corporation of New York, a private foundation, in 1964 appointed an Exploratory Committee on Assessing the Progress of Education. I was asked to serve as Chairman. Dr. Jack Merwin of the University of Minnesota is the Staff Director. The Committee's assignment is to confer with teachers, administrators, school board members and others concerned with education to get advice on the way in which such a project may be constructively helpful to the schools and avoid possible injuries. The Committee is also charged with the development and try-out of instruments and procedures for assessing the progress of education. The Committee has been working on these assignments for nearly two years. Recently, the Fund for the Advancement of Education joined in supporting the project.

The discussions with administrators, curriculum specialists, teachers and school board members clearly recommended that the initial assessment include more than the 3 R's and that it ultimately cover the range of important educational tasks of the modern school. In harmony with this suggestion, instruments are now being constructed by four leading test development agencies in the fields of reading and the language arts, science, mathematics, social studies, citizenship, fine arts and vocational education. In subsequent years, other important areas will be included.

Because the purpose of the assessment is to provide helpful information about the progress of education that can be understood and accepted by public-spirited lay citizens, some new procedures are being developed. In each field, scholars, teachers and curriculum specialists have formulated statements of the objectives which they believe faithfully reflect the contributions of that field and which the schools are seriously seeking to attain. For each of these major objectives, prototype exercises have been constructed which, in the opinion of scholars and teachers, give students an opportunity to demonstrate the behavior implied by that objective. These lists of objectives and prototype exercises

which help to define them have been reviewed by a series of panels of public-spirited citizens living in various parts of the country in cities, towns and villages. Each panel spent two days reviewing the material and making a judgment about each objective in terms of the questions: "Is this something important for people to learn today? Is it something I would like to have my children learn?" This process resulted in very few revisions of the original listing of objectives. The procedure was designed to insure that every objective being assessed is: (1) considered important by scholars, (2) accepted as an educational task by the school, and (3) deemed desirable by leading lay citizens. This should help to eliminate the criticism frequently encountered by current tests in which some item is attacked by the scholar as representing shoddy scholarship or criticized by school people as something not in the curriculum or by prominent laymen as being unimportant or technical trivia.

A national assessment to identify kinds of progress being made in education, and problems and difficulties arising, will not be very meaningful unless separate measures are obtained for populations within the total country which vary among themselves and thus present different degrees and kinds of progress and different problems to be solved. The particular populations that need to be treated separately may change over the years ahead, but for some time age, sex, socio-economic status, geographic location and rural-urban-suburban differences will probably be significant. Hence, the present plan is to assess a probability sample for each of 192 populations defined by the following subdivisions: boys and girls, four geographic regions, four age groups (nine, thirteen, seventeen, and adult), three divisions by urban, suburban, rural classifications, and two socio-economic levels.

The fact that populations are to be assessed and not individuals makes it possible to extend the sampling of exercises far beyond that of an individual test in which each person takes all of it. It may be that a comprehensive assessment would require so many exercises that if it were to be taken by one person he would need ten hours or more to complete them. With a population sample, 20 persons, each spending 30 minutes, would together take all the exercises. In this case, a population of 10,000 persons would furnish a sample of 500 for each of the assessment exercises and no one would have given more than 30 minutes of his time. Assuming that an assessment would be made every 3 to 5 years, in order to ascertain the kinds of progress taking place, it is very unlikely that many of those individuals who participated in the earlier assessments would be involved in any of the subsequent ones. Hence, from the point of view of the child or adult, no serious demand would be made on his time. Furthermore, it is unlikely that the children

taking the exercises in later years would be drawn from the same classrooms as the earlier ones. Therefore, the demands made upon a teacher in releasing a child for half-an-hour will be minimal. The assessment, though costly, should be feasible and involve little or no inconvenience to individuals or to schools.

Since the assessment does not require that all participants be in classes, the exercises to be used are not limited to the usual test items. Interviews and observational procedures are also to be employed to furnish information about interests, habits, and practices that have been learned. Because school objectives commonly include these areas, it is necessary to see that some assessment is made of the levels of attainment.

The assessment exercises will differ from current achievement tests in another important respect. An achievement test seeks to measure individual differences among pupils taking the test. Hence, the items of the test are concentrated on those which differentiate among the children. Exercises which all or nearly all can do, as well as those which only a very few can do, are eliminated because these do not give much discrimination. But, for the purposes of assessing the progress of education, we need to know what all or almost all of the children are learning and what the most advanced are learning, as well as what is being learned by the middle or "average" children. To construct exercises of this sort is a new venture for test constructors. Under the contract they are to develop exercises at each age level in which approximately one-third represent achievements characteristic of most of those at that age level, one-third represent achievements characteristic of about half of those at that age level, and one-third which represent the achievements characteristic of the most advanced, that is, the top ten percent, of that age level.

To summarize the educational attainments of these several populations it is not necessary to compute test scores. Instead, the following sorts of things would be reported:

For the sample of seventeen-year-old boys of higher socio-economic status from rural and small town areas of the Midwest region, it was found that:

93% could read a typical newspaper paragraph like the following.

76% could write an acceptable letter ordering several items from a store like the following.

52% took a responsible part in working with other youth in the playground and community activities like the following.

24% had occupational skills required for initial employment.

It is anticipated that the assessment would be the responsibility of a commission of highly respected citizens. They and the commission staff would prepare reports of the findings of the assessment, much as we now obtain reports of the findings of the decennial census. These reports would be available to all people interested in education, providing them in this way with significant and helpful information on what has been learned by each of the 129 populations. In subsequent years, the progress made by each of these populations since the preceding assessment would also be reported.

The contractors expect to have the assessment exercises completed by the end of the summer or early fall. The official try-outs will then be held during the Fall and Winter so that the exercises can be revised and the completed assessment instruments presented to the Carnegie Corporation by late spring, 1967. This should make it possible for a commission to institute the first official assessment during the school year, 1967-68.

The technical advisory committee for the program has been of very great help in establishing guiding principles and in proposing solutions to the problems arising during the progress of the study. Its membership is Robert Abelson, Lee Cronbach, Lyle Jones and John Tukey, Chairman. The Committee is also responsible for the design of the official try-outs to assure adequate range in difficulty of the exercises and comparability among the various sections.

Since many of those whose educational achievements will be assessed are not available in schools, the Committee is seeking the

help of leading survey research centers in conducting assessment interviews with adults, seventeen-year-olds who are out of school, and younger children who may not be available for testing in the schools. This should also prove to be an interesting pioneering task.

There has been a good deal of misunderstanding of this project because it has been confused with a national achievement testing program in which a pupil takes a complete test, his score is reported and the mean scores for classrooms, schools and school systems are made public. Many of the critics of the assessment project assume that it would be handled similarly and thus put undue pressure on pupils and teachers who wish to show up well on the tests.

Other critics view any national assessment with alarm because they have visions of a giant Federal government using national programs of any sort as a means for getting control of the local schools. These seem to be fears that have no direct relation to this project for the Committee's plans have been shaped by the advice and criticism given us by teachers, administrators, school board members, and public-spirited laymen. Through the various conferences and many meetings, the Committee has been able to identify concerns and problems that such an assessment must deal with. With the help of the counsel we have received, the plans are being drawn so as to carry the project through in a way that will not injure our schools but will provide greatly needed information. We believe that the assessment of the progress of education will make a modest but constructive contribution to the improvement of American education by providing data useful in guiding the efficient allocation of resources.