

# *The Contribution of "A Study of Schooling" to Educational Research*

*John Goodlad and his associates have enlarged our understanding  
of schools in America.*

RALPH W. TYLER

The impressive "A Study of Schooling" is a noteworthy research project, both in its findings and in its methodology of investigation. Most educational research in the past has been micro-psychological or macro-sociological. In the latter part of the 19th century, psychologists studied memorization as a typical example of school learning. In the first quarter of the 20th century, there were numerous investigations of how children and youth learn to read, to compute, to spell, and to acquire skill in handwriting. These micro-psychological studies produced principles to guide the learning of particular subject matter under controlled conditions, such as high motivation, extensive practice, rewards for successful learning, attention to transfer, but they did not throw much light on learning under typical school conditions where children are influenced by distracting or conflicting motives, where time for practice is limited, where the reward system has differential effects on different students, and where the opportunities for transfer are widely varied.

The earlier studies also were restricted to short-time experiments in which the learning conditions could be more easily maintained than is possible with an educational program of several years' duration, and they were focused on a single hierarchy of objectives rather than the learning expected in a school. In a school, children are expected to attain multiple objectives, including the cognitive, the affective, and the psychomotor.

At the macro-sociological level, earlier studies had shown that certain particular characteristics of learners, of their

homes, of their local communities, and of the resources used in their instruction were correlated with the pupils' scores on achievement tests. However, the correlation coefficients were generally low. The largest were between the achievement test scores and aptitude test scores, and they were generally in the range of .35 to .55. Furthermore, the test scores were not direct measures of what students had learned in school. The correlations simply indicated that the students had roughly the same relative position in the distribution of scores after a period of instruction that they had prior to the instruction. These studies furnished only a little verifiable understanding of student learning within the school.

Some earlier investigations sought to identify characteristics of teachers related to student learning, but these studies reported little or no direct relationship between student achievement test scores and commonly recorded teacher characteristics, such as age, sex, years experience in teaching, degrees awarded, college grade-point-average, grade-point-average in the subject taught, number of college credit hours in the subject taught. Even supervisors' ratings of teaching effectiveness showed a disappointingly low correlation with either mean achievement test scores of the class or the mean difference between pretest and post-test scores. Apparently, characteristics of teachers as such did not explain the variations among classes in their average achievement. Obviously, teachers make a difference, but how?

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## **Qualities of Schools**

During the last 30 years, empirical research has identified what had long been recognized by experienced educators—that a school has a quality that strongly influences the learning of its students and the attitudes of teachers and parents. The investigations of sociologists, psychologists, and social psychologists indicated that in terms of achievement test scores and the self-perceptions of the morale of teachers and students, the averages of the individual schools within a school district were more varied than the averages of the school districts within the region. This larger within-districts variation is to be expected if the transactions within the local school influence learning more than the transactions common to the schools in the same city or district. These findings have led to a number of investigations of the school as a dynamic area for learning.

Typical of these have been the recent studies contrasting effective schools, those where student learning is relatively greater, with less effective ones. Researchers found that in the more effective schools the teachers were perceived by the students as "caring," and as confident that the children could learn what was being taught. Also, the observers noted that in the effective schools, teachers set high, but clearly attainable goals. They encouraged their students to try and try again if the student had difficulty with the learning tasks. In the effective schools the morale was clearly higher than in the less effective ones. These studies suggested that within a school, teachers and students and often parents were interacting in such a fashion as to create a common attitude

toward students and the learning process. They also indicated that what teachers did was important in stimulating and facilitating learning. They showed, too, that the perceptions of students regarding a teacher's feelings and actions were influential variables not easily measured by discrete, observable actions.

Goodlad and his associates were familiar with this background of research efforts to develop a scientific basis for understanding the complexities of student learning in modern schools. Hence, "A Study of Schooling" was focused on investigations of the interactions within particular schools and their communities. In order to observe the development of the full learning programs from the primary grades through the high school, the unit of study which the report refers to as "triples" included an elementary school, and the junior high and senior high in which the graduates of the elementary school were enrolled.

#### Maximum Variability

In choosing the sample of schools for study, the investigators sought maximum variability. They were not trying to obtain an accurate estimate of the distribution of significant characteristics for the nation at large. A probability sample cannot be efficiently selected until the chief significant characteristics have been identified and their parameters assessed. Initial studies of a phenomenon are descriptive; at a later stage in a research program, it becomes feasible to estimate the quantitative distribution of characteristics in a large population. To obtain maximum variability, four stratification factors were used: small and large student enrollment; low and middle economic status; rural and metropolitan location; and white and nonwhite racial-ethnic mix. The resulting sample included 13 triples in seven states representing major regions of the nation.

Having chosen the schools for study, the most critical part of the research methodology was to devise means for obtaining valid data to describe and analyze the school activities and the environmental factors in ways that help to comprehend their interactions. In order to identify the characteristics of the environment they would observe and the information they would collect, the researchers gathered suggestions from hundreds of former students. They then developed, field tested, and revised their observation checklists and their

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interview questions and schedules. They also defined the items they would cull from school records. Their goal was not to restrict the number of factors they would study and then to devise measures or scales for these factors. Rather, they tried to examine all aspects of the U.S. school and then to interpret the large quantity of descriptive data they obtained.

One of the serious defects of some social science research is its dependence on data reported or collected by those who do not use or understand the precise definition of the data sought, nor the essential precautions involved in obtaining valid data. In a recent discussion of a study of public housing, Murray Gell-Mann, the noted physicist, was shocked to discover that the researchers were using data reported from certain housing projects but had never visited the projects to observe and interview and thus seek to verify the validity of the data. He said, "No reputable physicist would use data that was not obtained in his laboratory unless he had personally checked to see that the data were collected and measured in precisely defined ways."

In my experience with investigations of such educational programs as activity schools, core curriculum, open classrooms, and alternative schools, I found the definitions used by different practitioners and researchers so widely varying and the secondhand data so undependable that the information reported was often meaningless. In "A Study of Schooling," to avoid secondhand information, the investigators themselves

collected all data in local schools and communities. Whereas, in the use of secondhand data, researchers lack knowledge of local variations in the meaning of the data, Goodlad and his staff have a fairly clear idea of both the meaning and the limitations of the data they obtained.

The intensiveness of the investigation within these schools is indicated by the following:

In the 12 senior high schools and one junior-senior high school, 4,212 parents, 664 teachers, and 7,677 students were surveyed. In these high schools 525 complete classroom observations were made and 479 teachers interviewed. In the 12 junior high or middle schools, 2,688 parents, 400 teachers, and 6,042 students were surveyed. In these junior high schools and middle schools, 362 complete observations were made and 337 teachers interviewed. In the 13 elementary schools, 1,724 parents, 286 teachers, and 3,444 students were surveyed. In these elementary schools, 129 complete observations were made and 140 teachers interviewed. Obviously, the volume of data obtained was great and the possible analyses were far more than could be undertaken.

#### Interpreting the Data

To make the difficult task of interpreting the data easier, the researchers engaged in periodic discussions with a multidisciplinary advisory committee that consisted of a sociologist, a political scientist, a historian of education, a state Commissioner of Education, an urban school superintendent, and a specialist in learning and curriculum. Initially, this advisory committee examined and criticized the research plan; at other sessions, members analyzed the data-collecting instruments and suggested revisions. As the data were collected, members of the research staff and committee members proposed possible interpretations, which were then discussed and criticized at some length. Because the participants brought to this task a variety of backgrounds, they perceived the data from differing perspectives; these various perceptions were then tested for their consistency and efficacy in interpreting the mass of data obtained from so many sources. The result is a report that provides a more comprehensive basis for understanding U.S. schools than any previously published. □

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