Teaching Is Research

“Research has sometimes been called the way in which a profession learns... Each teacher, as he teaches, is therefore making his unique contribution to the progress of educational knowledge.”

Research is a word which frightens many school people. It is often thought of as somewhat foreign to the concerns and abilities of most members of the educational profession. Many persons have a picture of the research specialist engrossed with his computing machines, in his maze of statistics, and his standardized tests. Such a person is considered to be in some way different, in some way special or even peculiar.

The truth is quite the opposite. For every person who is buried in a mass of technical intricacies, there are countless others whose approach is more nearly one of common sense. For every research specialist, there is a host of field educators who are engaged in continuous examination and re-examination of their practices. In fact, it is possible to say that all members of the educational profession do research. They may not think of their activity as research; indeed, they may actively dispute anyone who does call it research. Research it is, nonetheless, whether they think of it as experimentation, trial and error, or self-improvement.

The foregoing remarks may sound strange to Miss Jones who teaches kindergarten at Southside Elementary School, or Mr. Smith who has been guiding the students of Jefferson High School through the mysteries of second-year algebra for much of his professional life. Such teachers are more interested in boys and girls, and in ways of helping boys and girls, than they are in generalizations and theories. They are impatient with abstractions, when so many problems cry out for immediate decision on their part. They understandably ask, “How is my teaching related to research?”

Diagnosis

Diagnosis is one way in which the characteristics of good research are also those of good teaching. Mrs. Brown tests her first grade students to discover if they are ready to read. Mr. Duclos uses the Foreign Language Prognosis Test to determine if high school students have an aptitude for French. Mr. Green, the boys' counselor at Washington High School, attempts to identify the interests and abilities of students in order to help them with their educational and vocational plans. These educators are engaging in the

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serious and scientific study of the characteristics of boys and girls. They are gathering information in a fashion which is similar to that found in a research study.

The researcher wants to know how the characteristics of students and the conditions of the classroom affect learning. So does the teacher. Both the teacher and the research specialist recognize that they must study people and situations thoroughly in order that the influence of one upon the other may be identified. The case study, the achievement test, and observational techniques are legitimate methods of investigation, as well as important tools of teaching. In fact, when the teacher is engaged in thoughtful diagnosis, he is in effect carrying out an important step in the scientific study of educational problems.

Data Gathering

Teaching and research are both activities in which much data gathering occurs. The cumulative record folder is a well-known fixture in most schools. Test scores, anecdotal records, and reports to parents represent ways in which a teacher adds to the vast body of information collected on each student. This assiduous accumulation of data is a characteristic of public education, and is also an ever-present task confronting those who do research.

Perhaps no distinction should be made between diagnosis and data-gathering, both of which involve the collection of information. The former emphasizes the act of studying students and situations, however, while the latter focuses upon techniques of operation. The techniques of amassing information about the students and their environment are constantly employed by the teacher. Even the act of observing boys and girls in the classroom is a data-gathering procedure. In consequence, over a period of time most educators have accumulated a vast store of data relevant to various aspects of instruction. This achievement is not unlike the activity of Charles Darwin who spent so many years studying variations in animals and plants before he ever permitted himself the luxury of speculating upon the meaning of his evidence. Data gathering represents an important way in which the daily work of the teacher is part of the process of research.

Continuous Change

An essential element of research is the way in which perception and knowledge are constantly growing and widening. This is also an essential element of good teaching. Mary Black may use a recitation method and required readings in her social studies class. She does this because the importance of covering the content of the course is foremost in her mind. Possibly she experiments with other methods, such as cooperatively planned projects, as she considers other objectives—students' attitudes or critical thinking. Such a change constitutes a revision of earlier ideas in the light of a wider viewpoint.

The researcher recognizes that there is no such thing as certainty, and that his understanding of any idea at any given moment is necessarily imperfect. He tests and retests beliefs continually against the evidence he has collected, recognizing the tentative and changing
quality of his ideas. The teacher also knows that continuous examination and re-examination of his practices are imposed upon him by changing circumstances. His acceptance of this challenge marks him as a person who is using the approach of research in his everyday practices.

Problem Solving

Problem solving represents another area which is central to the concerns of both the researcher and the field educator. Sue Johnson helps her first graders recognize their problems in getting along with friends and assists them in solving these. Don Wilson uses a similar approach in teaching industrial arts. When a student, for example, wishes to make a gun rack in the shop, the teacher knows that the boy confronts a problem. Mr. Wilson helps him clarify it, think through various ways of working, make a plan of procedure and arrive at a successful conclusion. This is problem solving on the part of both the teacher and the student. It is also an experience for them in a fundamental activity of research.

The whole area of research is itself one vast problem—how to know a field so completely that decisions and actions can be carried out with complete assurance of success. Within this great problem are many simpler problems, which are attacked by the researcher in piecemeal fashion. He formulates beliefs, and tries them out to see if they are correct. He then builds on them to reach broader and more important concepts. This process also describes what the teacher does when solving his own problems, and what he does to help his students learn the same procedure. The activities of research represent what teachers and indeed all thinking persons do in meeting the difficulties of daily life.

Objectives and Goals

Both teachers and research specialists are educators first and foremost. As such they share a joint concern, either directly or indirectly, with ways and means of helping young people to achieve important goals. Mr. Johnson wants his students to become healthy and happy through physical education. He also would like to see them develop habits and attitudes of good sportsmanship. Miss Williams teaches boys and girls to read, but she also wants them to learn good work habits, good citizenship and good feelings for other people. Every teacher is concerned with a variety of goals and is striving to make as much progress toward as many of them as possible.

The objectives of the teacher are also the business of research. The investigator and the field educator may move in somewhat separate spheres, but they work on joint problems. The goals of public education decide what will be given primary emphasis in both research and the classroom. The researcher examines the relation of various methods and plans to the objectives of the schools. At the same time, the teacher is investigating the same questions. There is a continuous and intimate relationship between research and teaching regarding the problem of how best to help young people reach their goals.

Quest for Knowledge

A quest for knowledge is central to
education, and is a prime motivation of both researchers and field educators. Mr. Roberts decided to become a high school teacher because his intellectual curiosity developed in him a passionate interest in physics. Mrs. Stevens is an outstanding fourth-grade teacher because her constant desire to know more about people leads her to help students understand one another better. This search for more knowledge is continuously present in both the research specialist and the creative teacher.

The way in which a person exhibits a thirst for knowledge will often encourage the same attitude in others. The teacher wishes to generate in young people the same desire to learn and to continue learning the rest of their lives that he feels in himself. The extent to which he succeeds in this goal is the extent to which he practices what he preaches. As a result, the necessity for speaking out through his own practices makes of every teacher a researcher.

**Growth of Professional Knowledge**

Finally, teaching and research share jointly in the problem of the growth of educational knowledge. Education deals with the task of helping young people develop into mature citizens. When Jim Young and Sally White and Martha Field teach they acquire experience in how to do this job. They learn techniques which seem to work—techniques of classroom management, of motivation, of evaluation. They come to recognize situations and conditions which are conducive to learning, as well as those which are not. They acquire a large body of beliefs and concepts, which constitute a kind of professional consensus. Their experience and judgment make up the raw material with which researchers deal.

Research has sometimes been called the way in which a profession learns. Those who are most closely concerned with research in education are greatly dependent upon the opinions and judgments of members of that profession. Witness, for example, the many questionnaire studies which attempt to mine this storehouse of understanding. Each educator, as he gains insight and knowledge, is adding his bit to the sum total of professional learning. Educational research confronts a job of collecting, organizing, and interpreting ideas which have been developed through classroom experience. Each teacher, as he teaches, is therefore making his unique contribution to the progress of educational knowledge.