Curriculum Development through Action Research

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In this article Stephen M. Corey, Executive Officer of the Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University, discusses the need for action research carried on in local school situations and illustrates his conception of this type of curriculum research in a memorandum prepared by a group of secondary school principals, coordinators, and consultants who are cooperating in a number of action research studies designed to improve instructional leadership.

THE SCIENTIFIC MOVEMENT in education is now about fifty years old. Basic to this movement has been the belief that school practices and curriculums can best be improved as a result of research. Rather than establishing the worth of various teaching methods and learning experiences by deductions from "self-evident" principles, there has been an increasing disposition to try out promising practices and then to determine the consequences as objectively as possible. This objectivity means little more than that different competent people who examine the evidence will tend to agree on its meaning.

The Need for Action Research

Despite this increased demand for evidence, it is still true that in our day-by-day teaching and administration and supervision we make most of our action decisions on the basis of subjective impressions as to what the consequences will be. We do this or that because, at the time, our perceptions derived from intimate personal experiences tell us that we should. In a sense, of course, there is often no alternative. School goes on. Were we to defer decisions and actions until we were certain we were right because of massive evidence, little would get done. Consequently, we do our best, considering as many factors as we can think of at the time. We attack few of our problems scientifically.

A New Way of Learning about Human Relations

One reason for this is that the scientific or experimental approach to problems is a relatively new cultural phenomenon, especially as a way of learning about human relations. There is widespread public acceptance of the scientific method as a way of dealing with material things or their inter-relationships. When it comes to learning more about the nature and relationships of people, however, we govern our own behavior and judge the behavior of others without demanding or feeling much need for evidence other than subjective impressions.

Any successful program of education depends to a great degree upon effective human relations—teachers with

pupils, teachers with teachers, administrators with teachers and parents, and teachers with parents. It is in learning about such relationships that the scientific method has made little headway. The situations are exceedingly complex. What little is known, in the sense of having been reported in the literature, has relatively little effect upon our behavior. Very frequently, what has been published has little effect upon the behavior of the very people responsible for the publication. We talk a great deal about research in education, but most of the references we cite are to "scientific studies" that happen to support our own beliefs.

Commonly Accepted Concept of Research

Another reason why few of us conduct research to test the consequences of our practices is the very concept of research that has been taught us. Teachers, supervisors, and administrators feel that educational experimentation or educational research is the business of professionals or experts. And the professional educational researchers have not been loath to have it this way. They have written and spoken convincingly about the extreme difficulty of conducting research studies; they have developed a somewhat esoteric vocabulary; they have banded themselves together in "in-groups" somewhat removed from actual school practices; they have consistently thought of themselves as students of education rather than participants in education; and finally they have concentrated upon "fundamental" studies designed to establish broad generalizations. A large number of these professional researchers have shown little interest in working cooperatively with teachers and administrators and supervisors in order to help these people get evidence that the changes in practice which seem promising in local school situations actually do result in a better education for boys and girls.

Action Research and Fundamental Research

The type of research that is conducted in local school situations and is designed to help the people working there know whether or not what they are doing is right is often called "action research." The reason for this name is that the investigations are undertaken to determine the consequences of specific educational practices in actual school situations.

Action research and fundamental research have much in common. Persons engaged in both types of inquiry go about their work in somewhat the same general fashion. Each tries to be scientific—to use the method of intelligence. Each is interested in generalizing from his findings. Each hopes that his investigations will eventually improve education.

Despite these and other similarities, action and fundamental research represent interesting differences in point of view and procedure. In the first place, action research, as has been said, is conducted to improve practices. Fundamental research is usually conducted to establish broad generalizations or educational "truths." A second difference is that most of the fundamental research is done by someone who is not, himself, a party to the actual activities that are

being investigated. Action research, on the other hand, is engaged in by people who, themselves, want to know whether or not their methods or courses of study or human relations procedures are achieving purposes they should achieve. A third difference is that the fundamental researchers believe that reporting to teachers or to other school people the results of some other person's research is an effective way of bringing about improvement in educational practices. The advocates of action research believe that school people are more apt to be influenced in what they do by their own attempts to get evidence as to the value of their activities. One reason for this conviction is that the fundamental research findings do not, other than by chance, relate specifically to problems in the unique local situations in which teachers and administrators and supervisors find themselves working.

The remainder of this article is an attempt to make somewhat clearer this action research concept. Anyone who tries to get better evidence of the success or failure of his teaching or administrative or supervisory activities, and modifies what he does in the light of this evidence, is conducting a type of action research. It is, of course, difficult to get highly reliable and valid evidence, which means that excellent action research requires much thought, skill, and practice. But the best way to learn is to start. Some evidence is better than no evidence.

The next few pages are excerpts from a memorandum prepared by Gordon N. Mackenzie, the present author, and a group of secondary school principals and curriculum coordinators who are cooperating with the Horace Mann-Lincoln Institute of School Experimentation in a number of action research studies designed to improve instructional leadership. Hence the illustrations have to do with supervisory rather than with classroom instructional practices. This statement, having been prepared and criticized by a number of people now working on action research projects, will probably clarify the concept more satisfactorily than would a more theoretical and possibly more penetrating analytical argument.

Memorandum on Action Research for Instructional Leaders

1. Administrators and supervisors are constantly making decisions and acting on the basis of what they believe the results of their practices will be. A principal, for example, may believe that appointing teachers to the chairmanship of committees (action) results in better committee work (goal). Frequently we discover, often accidentally and at long last, that the consequences we had always thought would follow from an action do not. To conduct action research is probably the best way yet devised of trying consciously to find out whether or not certain activities actually do lead to anticipated results.

2. One of the important characteristics of action research is that evidence is systematically sought, recorded, and interpreted in order to find out more accurately just what does happen when certain procedures or practices are engaged in. Every kind of research involves accumulating evidence, but action research focuses on evidence which helps answer the question, "Did

a particular action result in the consequences that were anticipated?"

3. In setting up an action research study it is common to "hypothesize" or predict that specific desirable consequences will result from certain practices. Here are three examples of such hypotheses:

a. Curriculum committees which include only volunteer members will be more productive than curriculum committees with assigned members
b. Study and practice of "group process" will result in increased committee productivity
c. Accompanying teacher ratings with interviews will improve morale.

4. Each of these three action research hypotheses has two aspects. There is implied first: a desirable goal, increased productivity for "a" and "b" and better morale for "c," and second: a procedure or technique for achieving the goal, arranging for volunteer committees for "a," study and practice of group process for "b," and conducting interviews for "c."

5. It is evident that the "goals" made explicit in these three hypotheses are only partial goals. One of the difficulties with a great deal of research is that the goals are limited and whatever might be done to achieve them might actually interfere with the achievement of more comprehensive goals. For example, certain procedures that might make for increased committee productivity, narrowly defined, might actually make members of the committee so anxious or make them devote so much time to committee work that they would neglect other important professional activities.

6. When an hypothesis has been stated so as to indicate a goal and a method or methods of achieving it, the first step has been taken in designing an action research study. It sometimes helps to clarify thinking about these "action research hypotheses" if questions such as the following are restated so as to make explicit a procedure, or action, and a goal:

What leadership techniques are best in working with teachers?
How can grade planning meetings be made more successful?
How can a principal work most effectively with teachers?
What are the factors that make for job satisfaction?

7. The above questions are really requests for answers rather than action research studies. They imply the need for action research, but they do not, in their present form, give much help in designing a study. Take the first question, for example—"What leadership techniques are best in working with teachers?" Before any action research could be undertaken in this broad area it is necessary to describe one or more leadership procedures in rather specific terms and then to predict the consequences of using this or these techniques. Data could then be gathered to find out if the predictions are true or false, and in what degree.

8. The following hypothesis, one of many that might be tested to answer the large question, "What leadership techniques are best in working with teachers?" is so phrased as to make it possible to gather evidence: "Curriculum committees made up of volunteers (action) are more productive (goal)

than curriculum committees constituted by appointment (alternative action)." The research implied by this hypothesis would involve determining the productivity of voluntary membership and assigned membership curriculum committees.

9. In order to conduct an action research investigation that will test this hypothesis, we must:

- Define what we mean by "volunteering," which is not difficult
- Define what we mean by "assigning," which is also easy
- Describe clearly how we are going to measure productivity, which is hard
- Make plans to measure productivity of volunteer committees and assigned membership committees
- Carry out these plans, accumulate the evaluation data, and interpret them to see what generalizations they support.

10. As has been said, measuring productivity is not easy. Despite this fact, most of us are quick to generalize about the work of this or that group. In the particular case at hand we might start by defining what we mean by productivity in general terms, as follows:

a. The number of action decisions reached per unit of time. The way these action decisions are made is also important. Are they all from the status leader? Do they represent "consensus"? Is responsibility for the "action" delegated by the group? etc.
b. The percent of action decisions carried out
c. The percent of decisions and/or actions subsequently judged to have been successful in achieving the desired goal
d. The judgment of committee members as to their own productivity
e. The judgment of "outsiders" as to the committee's productivity.

11. The first and second items in this definition of "committee productivity" imply observations that are "objective" and can be counted. An "outsider" could look over the records of the meetings of the committees and their subsequent actions and tabulate the number of "action decisions" and the percentage that were carried out. Items "c", "d", and "e" are judgments and are subject to all of the limitations of such subjective estimates. We often are forced, however, to rely on "evidence" of this type. If we try to control the judgments so as to give reasonable assurance that they are thoughtful, and not biased by other considerations such as the state of the judge's health on the day he renders his judgment, they will provide more dependable evidence.

12. If we have measures of the productivity of two committees, one of which is a volunteer committee and the other an assigned committee, we have some of the basic data required for making a comparison of the effectiveness of these two ways of acting to get committees established so far as productivity, as defined, is concerned. Many other questions have to be raised, of course, such as: Were the jobs worked on by the two committees, as well as other circumstances, of such a nature as to make the productivity influenced primarily by the voluntary or assigned factor? Was the increased productivity of the committee accompanied by other undesirable consequences?

13. Again, it must be remembered that "committee productivity" is not the *summum bonum*, necessarily. Teachers have other things to do, and the mere fact that a certain practice results in increased committee productivity does not necessarily mean that the practice

should be engaged in. A researcher must keep in mind the total responsibilities of teachers and specific practices must be appraised as they relate to some over-all statement of teaching purposes.

14. It is difficult to conduct clear-cut, definitive research of any type—and action research is no exception. Consequently, some of us reject this method of dealing with our leadership problems. We seem to prefer to act on the basis of casual evidence which usually does not compare in dependability with the evidence from action research, even though the latter may be limited and fallible.

15. Speaking generally, and by way of summary, the minimum essentials of design for action research involve:

—The statement of an hypothesis or prediction which implies a goal and a procedure for reaching the goal
—A determination of the relation of the specific goal to a larger total situation
—A description of the goal so that some sort of evidence as to the degree to which it has been achieved can be procured
—A description of the procedure to be employed so that another person will know what action was taken
—Provision for collecting evidence describing the goal situation before and after the designated procedure has been applied
—The formulation of generalizations regarding the relationship between the practice or action and the desired goal.

16. Here, for example, is a description of the initial steps in an action research project:

Hypothesis: The status leader (coordinator) of a curriculum committee who limits his comments during the first thirty minutes to those which 1) clarify the problem, 2) clarify the meaning of statements of others, and 3) reflect the feelings of other members, will elicit more general group participation than the status leader who makes many suggestions regarding "what to do" during the first thirty minutes.

This statement of an hypothesis indicates a goal that is assumed to be desirable (widespread participation), describes two procedures the status leaders might employ to achieve this goal, and makes a prediction that one of these procedures is the better. Again "widespread participation" is a limited goal. Conceivably, procedures resulting in increased participation might result, too, in other, undesirable, consequences such as too much talk and no action.

The various terms in this hypothesis are not difficult to define. The major problem would be to get a record of the committee meetings which would enable the status leader or anyone else to know what he had done (the action) and would also make it possible to measure the distribution of participation (the goal).

One method of measuring participation would be simple and could be controlled by the status leader. Certain code numbers might be used to represent each person in the group and a tally made after the code number whenever that person participated.

The design might involve two committee groups, in one of which the status leader follows the first method and in the other the second. The design might, on the other hand, involve a single committee with the coordinator following method "1" in some meetings and method "2" in others.

17. The research designs and the kinds of evidence described in this memorandum are illustrative only. The point stressed is that almost any systematic method of getting data which describes the success or failure of a practice results in better evidence than most of us

can cite to justify what we habitually do.

Improving Instruction Through Research

A few pages back I said that the best way to learn how to do action research is to try it. Reading about what others have done provides only limited help. One of the excellent incidental effects of conducting action research is that the people involved come to some disturbing conclusions regarding their tendencies to generalize in the absence of evidence. A particular action research study might be criticized because it results in limited evidence lacking in reliability and validity, but the very insistence upon trying to get some sort of evidence is a sign of maturity.

I have the strong personal conviction that improvement in educational practices and curriculums will continue to be exceedingly slow and involve discouraging regressions until the time comes when a large number of individuals and groups are engaged in numerous action research studies of the type discussed above. This seems to me to be the alternative to improving curriculums by telling people what to do. Curriculums and educational practices in general can best be improved by doing whatever can be done to make it easy, rewarding, and exciting for teachers and administrators and supervisors to accumulate their own evidence, individually and in cooperation with others, as to the success or failure of their actions.

A Human Relations Approach to Instruction

ROBERT N. BUSH

Human relationships in the classroom was the subject of this research study carried on as a part of the Stanford Social Education Investigation. Robert N. Bush, associate professor of education at Stanford University, California, describes the procedures and findings of this study, together with those phases of the project that relate most directly to in-service education.

THIS REPORT OF RESEARCH based on classroom studies in human relationships originated as a part of the Stanford Social Education Investigation, an in-service education project carried on from 1939-1943 in ten school centers in the Western part of the United States.[1] The Investigation was conducted by the School of Education of Stanford University with the finan-

[1] For a detailed report of this Investigation, see Quillen, I. James, and Hanna, Lavone A., *Education for Social Competence*. New York: Scott, Foresman & Co., 1948.