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Teacher Behavior and In-Service Programs

Can teachers grow through in-service work?

MOST in-service training programs are attempts to improve the quality of classroom instruction. Some programs attempt to accomplish this goal by introducing new curricular content, for example, the new mathematics curricula which are gaining increased acceptance. The assumption here seems to be that if more up-to-date or different material is taught, the quality of instruction is improved.

Other programs are built around some theme or particular aspect of teaching, such as "individualizing instruction," "improving the mental health of the classroom," or "teaching for creativity." The assumption of the "theme programs" may be that looking at old problems in a new light, that is, by developing new concepts for analyzing teaching, we can improve the quality of instruction.

There are two important questions that can be asked of any in-service training program, regardless of its origins, emphasis or point of view. First, will teachers be acting differently while teaching as a direct result of the in-service training? Second, if these changes do occur, has the quality of instruction really improved or is it just different? This article will consider these two questions without regard to the relative merits of one or another kind of in-service training.

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Evaluating In-Service Training

Unfortunately very few in-service training programs are evaluated with enough care to tell whether or not the quality of classroom instruction has been affected. There are many reasons for this. Proper evaluation would more than double the costs of in-service activities. The technical problems are very difficult and the methodological advancements in research techniques necessary for such evaluation are only beginning to appear. Finally, thorough evaluation requires professional relationships between teachers, administrators, researchers and consultants that are free of suspicion, that are open and cooperative to a degree that is not easily achieved.

The steps of evaluation are very simple to state, but difficult to carry out.

First, the objectives of the in-service training must be clearly stated as desired actions which occur in the classroom. Second, techniques for assessing these particular actions must be at hand. Third, sufficient experimental control must be exercised in the collection of the data so that cause and effect between training and outcomes can be inferred. Fourth, the methods of training must be potent enough to produce changes that are considerably larger than the errors of measurement. And fifth, the validity of the entire process will depend on whether or not the changes in behavior produce more effective classroom learning.

When one takes a long, subjective look at current programs of in-service training across the country, it would appear that most programs fall short at each of the five steps outlined here. At its worst, in-service training is a gigantic spectator sport for teachers costing at least 20 million dollars[1] annually. As spectators, teachers gather to hear speeches, usually choosing seats in the rear of the room. They play a passive role in which their own ideas and questions are not adequately considered. They react as one does to any performing art and are more impressed or disappointed by the quality of the performance than with how much they may have learned. One wonders how the speech makers, the program chairmen who make the arrangements, the administrators and school board members who sign the checks, the teachers who are usually compelled to listen, and particularly the professional organizations such as the NEA and the ASCD which seem to perpetuate this pattern at their national conferences, go about determining if classroom instruction is improved thereby.

At its best, in-service training is the opposite of a spectator sport since the teachers leave the grandstand and join the arena of activities. The training becomes a problem solving process which explores new ways of teaching, new materials that can be used, new content that can be covered, and—perhaps most important—new ways of helping the teacher control his own behavior for professional purposes. It is not a single shot taken at the beginning of the year, but becomes a part of the teachers' professional responsibilities, directed by teachers, regularly scheduled during a week.

A Project in Human Relations Training

Two recently completed in-service training projects attempted to measure changes in teacher behavior as part of the program evaluation. They will now be described to illustrate some of the difficulties involved in the five steps listed earlier.

Bowers and Soar (1961) completed a project in human relations training involving 54 elementary school teachers, 25 in an experimental group and 29 in a control group.

Conceptualization of objectives: The purpose of the in-service training was to help teachers achieve their own preferred degree of democratic classroom management by (a) increased sensitivity to their own behavior, (b) increased sensitivity to the factors causing pupil behavior, and (c) greater self-direction by pupils working in study groups.

Techniques for assessing behaviors: The Medley and Mitzel OSCAR instrument was used to observe and classify classroom interaction and activities. The

[1] Estimated by the author: assume an average cost of $500 per year for 40,000 school districts.

Russell Sage Social Relations Test was used as a measure of the pupils' skill in cooperative group planning and action. Two questionnaire instruments provided information about classroom activities, one was reported by the teacher, and the other was a report from the project staff.

Experimental control: The teachers were divided into control and experimental groups, the latter being exposed to in-service training. Further control was established by classifying teachers on the basis of personality and attitude data collected by administering the Minnesota Teacher Attitude Inventory, the Minnesota Multiphasic Personality Inventory and the Bowers Teacher Opinion Inventory. Such classification permitted an investigation of whether different "types" of teachers benefited more or less from the in-service training. A very creative application of the Johnson-Neyman Technique was used in the analysis of data to give additional experimental control. This procedure permitted outcome variables to be compared between teachers in the control and in experimental groups who had similar personality traits, a kind of statistical matching process.

Methods of training: The training took place either right after the spring semester or just before the fall semester; an experimental teacher participated in one program, not both. Each program was three weeks long, one-half day sessions, five days a week. There was a theory session, skill practice session, and training group meeting each day. The emphasis was on active participation, developing new concepts, identifying possible teacher roles, and practicing the skills required by new teacher roles.

The control group was given the option of free tuition summer school courses and participated in a number of activities designed to reduce a possible Hawthorne effect.

Classroom validity measures: The OSCAR observation of classroom interaction and testing pupil performance by the Russell Sage Social Relations Test were direct measures of the in-service objectives, occurring in the classrooms, before and after training. The data collecting required a team of observers and test administrators whose inter-reliability was known. The careful statistical analysis rejected comparisons unless the differences exceeded those that could have occurred by error and chance.

Discussion: Whether or not one approves or disapproves of spending time on human relations training, this project illustrates attention to each of the steps outlined in the fourth paragraph of this article. Because of the careful research design, the results showed that not all teachers can benefit from this kind of training while others can. In general, teachers whose personality measures initially were correlated with more effective classroom practices, in turn, gained most from the training program.

Training Involving Feedback to Teachers

Flanders (1963) conducted a project in which teachers were trained to observe classroom interaction with a set of categories emphasizing different patterns of teacher influence. Fifty-one junior high school teachers participated in two different types of in-service training programs, each lasting nine weeks in the middle of the academic year.

Conceptualization of Objectives: The purpose of the in-service training was to increase the flexibility of teacher in-

fluence and to increase the use of those teacher behaviors which support pupil participation in the classroom learning activities. Emphasis was given to principles of teacher influence which were concerned with *when* a teacher should purposely increase or decrease the freedom of pupil participation.

Techniques for assessing behaviors: Every teacher practiced observation, recording types of verbal statements at three second intervals, tabulating observed events into a matrix, and interpreting matrices in terms of teacher influence patterns. Each teacher was observed by specially trained staff observers before and after in-service training. The specific objectives of training were assessed as pretraining and posttraining measures of spontaneous teaching acts in the teacher's regular classes.

Experimental control: Control was created by testing certain compatibility hypotheses. The two training programs were different because of the role taken by the in-service training instructor. It was hypothesized that a teacher would gain most from in-service training when his own style of teaching before training was compatible with that used by the training instructor. Thus, the question was whether a particular type of teacher would gain more or less from a particular type of in-service training.

Method of training: All teachers spent a minimum of 30 hours in the formal training sessions. Most spent additional time exploring different patterns of influence in their own classrooms. The basic design was to provide opportunities in which teachers could secure feedback information about their own spontaneous behavior while teaching. These opportunities occurred during a three week application period in the middle of the training program. A teacher could obtain objective feedback from a staff observer, from a team formed with several colleagues, or he could make a tape recording of his own teaching and analyze this himself. In each case, the question was whether a teacher was acting in a fashion that was consistent with his intentions.

Classroom validity measures: An effort was made to measure attitudes of the pupils toward their teacher and the schoolwork before, during, and after in-service training. Earlier research had shown that such attitude measures were correlated with patterns of teacher influence and, in turn, with content achievement. The question as to whether changes in teacher behavior actually created more effective classroom learning rested on changes measured in pupil attitudes which, in this instance, were not significant.

Discussion: This study showed that consistency between a teacher's own preferred style of teaching and the methods used will influence the progress made by a teacher in training. It also showed that some teachers, those who were most active in training, did make changes in their classroom behavior in a direction that was consistent with the objectives of the program. One training program was shown to be more effective than the other with most teachers.

Some Assumptions About Changing Teacher Behavior

Many assumptions about in-service training can be inferred from the two projects just described. Three assumptions are discussed here because they are most often ignored in current in-service training activities.

First, ideas about teaching and learning must be organized into concepts which have meaning in terms of overt behavior. Ideas about teaching which cannot be related to overt actions are less likely to maintain a consistent meaning when the talking stops and the teaching starts.

Second, concepts about teaching and learning become useful to the extent that they can be applied personally. Concepts about teaching must ultimately be coordinated with one's own behavior. Concepts about pupil behavior must ultimately be applied to one's own class. Concepts about how to use instructional materials must ultimately be explored in one's own classroom.

Third, insight into principles of effective teaching comes about through personal inquiry. Teaching must be seen as a series of acts which occur with the passage of time. Instantaneous decisions must be made which have immediate consequences. Teachers can learn to recognize decision points, to become aware of more alternatives, to predict consequences accurately a higher proportion of the time, and to develop plans for controlling their own authority.

Some Questions That Need To Be Answered

A central issue, then, is how much of this overall process should be and can be included in an in-service training program? Is actual practice or "acting-out" to be a part of in-service training? Or is this something that teachers will do by themselves, in the privacy of their own classrooms?

Current patterns of in-service training suggest a number of questions that should be answered.

For example, how will introducing a new curriculum in mathematics improve learning? Surely the pupils will learn things that they would otherwise not have learned, but will the new content necessarily stimulate more effective teaching methods? More skill in problem solving?

Second, is it better to spend $200 to provide an inspirational speech for 100 teachers at the beginning of the semester, or spend the money during the year so that one teacher will have the resources to make changes in his teaching methods?

Third, since surveillance of teachers is neither desirable nor practical, is there any justification for compulsory participation in any form of in-service education? In the long run, will a higher proportion of faculty members explore more effective teaching practices through curiosity and contagion?

What little research has been accomplished so far suggests the tests that can be used for selecting teachers who can benefit more from in-service training. This research has also shown that compatibility between preferred patterns of learning and in-service training procedures will affect the progress of the teacher, and that changes, when observed, were the result of a continuing program of training. Opportunities for applying new insights immediately in the classroom and for obtaining feedback about one's behavior were found to be helpful.

References

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2. N. A. Flanders *et al. Helping Teachers Change Their Behavior*. Terminal Contract Report, Title VII, N.D.E.A. Available from author, University of Michigan, Ann Arbor, Michigan, 1963.