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NEEDED RESEARCH IN TEACHER SELECTION.

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NEEDED RESEARCH IN TEACHER SELECTION IS DISCUSSED UNDER FOUR CATEGORIES. (1) TO IDENTIFY THE BEHAVIORS THAT DEFINE EFFECTIVENESS IN THE MANY ASPECTS OF THE TEACHING TASK, MANY SETS OF REQUIREMENTS ARE NEEDED, NOT A SINGLE SET. TASK ANALYSIS PROCEDURES AND CRITICAL INCIDENT TECHNIQUES ARE PROPOSED, AND DIFFERENCES AMONG STUDENTS (E.G., IN MOTIVATIONAL VARIABLES) HAVE TO BE CONSIDERED. (2) EVALUATION MUST ALSO FOCUS ON THE EFFECTIVENESS OF THE TEACHER IN EACH OF A WIDE VARIETY OF ACTIVITIES WITH EACH OF A NUMBER OF TYPES OF STUDENTS, USING EITHER PROCESS OR PRODUCT MEASURES. CONTINUED RESEARCH ON PROCESS VARIABLES, USING SYSTEMATICALLY DEVELOPED OBSERVATIONAL RECORD FORMS, RELATING TO THE PARTICULAR ACTIVITY AND TYPE OF STUDENT, IS RECOMMENDED. (3) IN PREDICTING TEACHER EFFECTIVENESS, LONG-RANGE STUDIES (E.G., PROJECT TALENT) GIVE PROMISE OF PROVIDING DATA ON THOSE WHO CHOOSE TO TEACH AND WHO ARE EFFECTIVE TEACHERS. (4) RESEARCH ON TEACHER TURNOVER SHOULD LOOK INTO THE EFFECTS OF FAMILY DUTIES ON YOUNG WOMEN TEACHERS AND CONSIDER PART-TIME ASSIGNMENTS AND CLERICAL AIDES FOR SUCH TEACHERS. THE PRACTICE OF PLACING NEW TEACHERS IN DIFFICULT SCHOOLS AND WITH THE LESS DESIRABLE EXTRACURRICULAR ASSIGNMENTS SHOULD BE EXAMINED AS A CAUSAL FACTOR IN HIGH ATTRITION RATES AMONG BEGINNERS. A PRECONDITION FOR RESEARCH ON TEACHER SELECTION IS DEFINITION OF THE PRODUCT OF GOOD TEACHING--VALID MEASURES OF EFFECTIVENESS. THIS DOCUMENT APPEARED IN GILBERT, H.B. AND LANG, G. "TEACHER SELECTION METHODS" NEW YORK, 1967. (RP)

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## TEACHER SELECTION METHODS

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## Needed Research in Teacher Selection

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This discussion of needed research in teacher selection will discuss research needs under four main headings. These are (1) the determination of the pattern of teacher behaviors which defines effective teaching, (2) the evaluation of the effectiveness of teaching performance, (3) the prediction of teacher effectiveness, and (4) factors which cause good teachers to leave teaching.

It is proposed that research on determining the behaviors which constitute effective teaching be given a new orientation. The principal characteristic of this new orientation is that instead of a single set of specifications for the requirements of an effective teacher, there should be a very large number of sets of requirements defining the behaviors which make for effective performance of each of the various aspects of the teaching task. Although such an analytical approach has advantages under any circumstances it becomes of great importance in the situation where the activities of the teacher are likely to change markedly with the advent of new teaching methods, new objectives, new technology and the provision of clerical assistance by computers and teaching aides.

Effective teaching in the past has involved many activities, such as lecturing, maintaining discipline, leading discussions, checking on students' learning, correcting students' errors, stimulating students' thinking, and arousing students' interests. Although many of these activities are likely to be important for effective teaching in the schools of the future, it seems probable that there will be considerable change in emphasis. More importance will be given such activities as individual tutoring; assisting students to plan their educational program; developing a sense of responsibility in the student for his own educational development; helping him to discover his interests and special abilities; helping him discover the satisfactions that can be obtained from creative activities; and assisting him generally in his personal and social development.

Since it is unlikely that most of us will be able to predict the precise nature of the teacher's role and activities in the schools of the future, it is of considerable importance that we carry out research to define the requirements for effective teaching of many kinds. It is also important that in gathering this information the characteristics of the individual student involved in the

teaching activity be clearly specified. It seems likely that the requirements for motivating one type of student are likely to be different from those for motivating another, for example.

In carrying out research in this field, it is proposed that task analysis procedures and the critical incident technique be used. These can be supplemented by other observational and analysis procedures. A device which has already shown its value in this type of research is the video-camera which can capture the teaching situation and play it back for observation and analysis as many times as is required. The procedures of task analysis are likely to be of special value in developing requirements for new types of teacher activities. Of course in using this procedure, the characteristics of the student, his previous knowledge and many other factors can be specified and varied at will. The critical incident technique also makes possible the detailed description of the specific student involved and the definition of the particular aim of the teacher's activities. It should be of great value to collect many thousand incidents each of which is classified according to the type of student and the specific teacher activity involved.

The second area of needed research is in the evaluation of the effectiveness of a teacher. Of course in this case also, the focus should be on the effectiveness of the teacher in each of a wide variety of activities with each of a number of types of students. Teacher effectiveness may be evaluated in terms of either the process or the product. As assessment procedures are developed which measure all of the desired changes in student behavior, and computers provide efficient storage and analytical procedures for these data, it seems likely that much more detailed records can be collected and analyzed than has been characteristic of past evaluation procedures. It appears that if individualized educational development procedures are used which set specific obtainable tasks for each student, the details of whether a particular teacher's students obtain the goals specified will provide a much more precise record of teacher effectiveness than has been previously available. High priority should be given to research and development work on procedures for a comprehensive evaluation of the teacher's effectiveness in many activities with many types of students based on systematic measurement of the effectiveness of the instruction.

It also seems desirable to continue research on process variables in teaching. It is suggested that the most promising lines of research on process variables involve systematically developed observational record forms on which specific observations by a competent judge are made of effective and ineffective performance on the part of a teacher. These, of course, should be related



to the particular activity and the particular type of student involved.

A factor which could have considerable influence on the quality of teachers is the use of merit increases and the assignment of tenure status only as a result of demonstrated effectiveness. The lock-step promotions characteristic of many school systems and the failure to eliminate the ineffective teachers produce a situation attractive only to the mediocre and marginal teachers. Of course, improvement in these areas must be based on valid procedures for the evaluation of teachers. Research on the evaluation of teacher effectiveness should be given much attention for another reason, which is its essential importance to other types of research on teacher selection.

The third area of research relates to the development of predictors of effective teaching. It appears that long-range follow-up studies are among the most promising approach to this problem. It is anticipated that data from students tested as 12th graders in Project TALENT who have graduated from college and entered teaching will become available this fall. Similarly, in the next three years data from other classes will be collected and analyzed. These data should be of distinct value in defining the type of individual who enters a teaching career. Of even greater value will be the ten year follow-ups planned for Project TALENT which will begin in 1970. These studies will provide data on those who have not only selected careers in teaching but also have been found to be effective teachers over a substantial period of service. As in the case of the other types of research studies mentioned, it seems important that predictors not be focused on the quality of teachers in general but rather the effectiveness of the teacher in performing specific roles or activities. It is also believed that the trend in research with respect to predictors will be in the direction of a very large number of specific predictors rather than a few more general measures.

The last area of needed research relates to the conditions of teaching with special emphasis on those which have negative selective value. It is well known that the turn-over in teaching is very high, and it seems important to determine why teaching loses some of its most effective individuals. One of the problems calling for research in this area is the effects of family duties on remaining in teaching. It would seem worthwhile to study the question of whether part-time employment or somewhat less than full-time employment might retain some of the better women teachers. Other research topics in this area relate to the study of specific teacher activities, particularly with the view to determining whether or not some of the clerical and administrative duties could be performed by teacher aides, clerks, or computers.

Another valuable study might be directed at the question of "why many promising young teachers leave teaching early in their careers." It seems likely that the administrative practice of assigning new teachers to difficult classes, loading them down with the more unpleasant extra-curricular assignments, and similar procedures which give the new teacher a bad initial impression of teaching are responsible for losing effective teachers.

In conclusion it is believed that the new methods of teaching will make it possible to evaluate teaching effectiveness much more precisely than has been the case in recent years. This will make research on the characteristics for effective performance in specific teaching tasks both feasible and important. As proposals for new educational programs are developed they should be accompanied by plans for research on the teacher's role and activities in the new program. Perhaps one of the greatest needs for research in teaching is the application of systems concepts to the teaching and learning system. This application would include comprehensive measures of the input and output of the system as well as studies of the process variables. For such studies to be effective much better measures of the input and output of the system in terms of assessing the students' behavior, concepts, and abilities will be required than are now available. Perhaps the first step in a program of teacher selection should be the definition and development of measures of the products of teaching. Unless we have valid measures of the effectiveness of a teacher's efforts, other types of research must be regarded as tentative, exploratory, and perhaps in many cases, trivial.