A Paradigm for Determining High School Teacher Effectiveness

Criteria for measuring teacher effectiveness include the prognostic type, teacher observation, student achievement, and communication variables. A paradigm based on communication variables consists of: (a) Discriminate observable communication climate variables (devise method of observing and measuring communication variables); and (b) Determine educational objectives of the class (devise method for measuring achievement of those objectives). The relationship of communication variables and class objective fulfillment should indicate the effective teacher who is capable of establishing a favorable communication climate that provides the incentive for student fulfillment of the course's educational objectives. One communication variable that is significant is interpersonal trust. According to the paradigm, the teacher's behavior that establishes interpersonal trust, i.e., expertness, character, and dynamism, as seen by the students, plus achievement of course objectives establish the communication variable as a requisite of an effective teacher. "The Giffin Trust Scale," which purports to measure interpersonal trust, is given along with an answer sheet. (DB)
A PARADIGM FOR DETERMINING HIGH SCHOOL 
TEACHER EFFECTIVENESS
Robert Bohlken and Kim Giffin

Probably no aspect of education has been discussed more, with as much interest or by as many people as has that of teacher effectiveness. Everyone agrees that we need effective teachers in our educational systems, but among more than 1400 research studies in teacher effectiveness which have been conducted during the past century, there is very little agreement on the means of evaluating, describing, or even identifying the concept of teacher effectiveness.

Many research attempts, especially the early ones, tried to discriminate the effective teacher through prognostic type criteria. In using these criteria the researchers attempted to establish traits and characteristics of "good" teachers based on "common sense" and opinions of supervisors, teachers, parents and students. A ramification and application of these criteria are the so called teacher achievement and/or aptitude tests. These pencil-and-paper testing instruments are used by some forty states as bases of predicting and certifying "effective" teachers; however, these instruments are closely related to intelligence and personality tests and both their validity and reliability are questionable. The "traits" and "characteristics" evolved from these criteria are abstract and inconsistent in nature, and they appear not to be directly related to student achievement, educational objectives or the actual teaching process. As Mitzel has stated, "In a sense they are pseudo-criteria
for their relationship to the criteria of either process or product."

Another group of criteria and the most frequently used is the observation of the teaching process. Observation by supervisors using graphic charts, itemized check lists, and rank order scales is primary procedure for determining teacher effectiveness in elementary and secondary schools. Originally, observation was unidimensional in nature for it viewed only the teacher's behavior, but currently some observations include also the students' behaviors and the interaction among students. Again with these criteria, there are difficulties in developing consistent, valid and reliable observable behaviors that characterize effective teaching. Some observation procedures attempt to measure teacher-student social contact, some measure pupil initiative and psychological climate, and others measure student attention through a time sampling process. Scale for recording observations and the means of observing are varied in the more than twelve noteworthy observation techniques, developed by educational researchers. The use of forced choice, semantic differential, numerical scale and descriptive check list methods used in the different scales add to the confusion.

The third group of criteria for determining teacher effectiveness is based on student growth, change, or gain. According to these criteria the effective teacher is one whose pupils learn the most. These criteria have been recognized for years, but they are not often used. In NEA Research Division report only 35% of the surveyed school administrators gave any consideration to student achievement in determining teacher effectiveness. And 90% used the observation criteria as the basic criteria.¹ Some

educational researchers argue that the student growth and achievement criteria are not expedient, that they cannot be discriminated or identified in terms of teacher cause to student effect, and that they cannot be validly measured. These arguments are, perhaps, somewhat valid at the lower elementary grades, but at the secondary level to argue that the student growth is not an expedient means of measuring teacher effectiveness is to deny the existence and purpose of the subject material taught in the course. To argue that these criteria are impractical because individual teacher's effects cannot be isolated, also denies the value of the course and student fulfillment of specific educational objectives. And to argue that student growth criteria do not encompass all of the objectives of education such as the student's knowledge, attitude, and adjustment precludes the utilization of instruments which can measure the prescribed educational objectives. Actually, little negative criticism can be raised in regard to student growth criteria if adequate instruments for the measurement of the prescribed educational objectives are available and if causal behavior on the part of the teacher can be determined. As Thorndike indicated more than a half a century ago, the teacher's effectiveness is measured directly by the change in the behavior of her pupils. And as A. S. Barr has stated, "It seems to me that the ultimate criterion of teacher success will have to be found in the change produced in pupils, measured in terms of objectives of education."2

The first step necessary in determining teacher effectiveness is to develop a paradigm which will include identifying "causal variables"

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some researchers have sought them in the teacher's personal characteristics such as sex, age, experience, training, voice and facial grimaces. From this perspective, teacher effectiveness is a unitary, static, and universal quality which is inherent in some individuals no matter what, when or how he teaches. Some researchers have sought to describe teacher effectiveness as teacher behavior patterns such as "dogmatic," "integrative" and "dominative," but these researchers tend to view the teaching process unidimensionally and segments which are unrelated to the grammar and Gestalt of the learning situation. Still other researchers attempt to describe teacher effectiveness in regard to the process, using such terms as "democratic," "laissez faire," "authoritarian," however, the terms are abstract and tend to overlap into teaching methodology.

According to S. S. Stevens, concepts need to be defined and described in terms of the operations that produce them. This implies that the proper perspective from which to view teacher effectiveness is the dynamic operation and process of teaching a particular subject. The effective teacher then is one who can create teacher-student relationship and interaction process which will enable the student to fulfill the educational objectives prescribed for a specific course of study, be it in literature or industrial arts. The characteristics of this relationship and interaction process remain undetermined, but this perspective provides a means to incorporate the elements or operations of teacher-student relations, the teaching process, and the educational objectives involved. As H. Remmers has stated, "Teacher effectiveness is 'multidimensional' and

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must be treated as such when it is being described or measured." Barr reiterated this view of Remmers and several other educational researchers when he made recommendations for further research in teacher effectiveness.

Teaching does not take place in a vacuum; it takes place in a very definite tangible situation. This aspect of teacher effectiveness is so pervasive that it needs more attention than it has yet received. Effectiveness does not reside in the teacher per se but in the interrelationship among a number of vital aspects of a learning-teaching situation and a teacher. It is common practice to characterize the effective teacher in terms of the person; time has seen the emphasis shift from the teacher per se to the teacher in relation to the more important aspects of a situation; needs, purpose, pupils' available means, and the socio-physical environment for learning and teaching. Following along the same lines of thought as Remmers and Barr, Robert Sear suggested:

The more promising approach would seem to be to abandon the attempts to get agreement on effective teaching, and within a conceptual framework to identify and measure dimensions of student-teacher interactions which seem important, and to relate these to aspects of pupil achievement and attitude change—the ultimate criterion of teacher effectiveness. Given consensus on the desired outcomes of a particular course, these empirically established relationships can be used to specify the characteristics of the student-teacher interaction which should be optimal in fostering the valued and anticipated student growth.

Medley and Mitzel recommended a framework for studying teacher effectiveness based on the observation of a large number of teachers, recording all the behaviors of each one, and then measuring the effectiveness

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of each teacher by means of student achievement. The characteristics of the highly effective teachers would be obtained through an item analysis of teacher behaviors.\(^7\)

Expressing another viewpoint, but one which is more precise and inclusive, Robert Bales states, "Obviously what one needs to make the conceptual framework meaningful is a classification of the content of behavior, effect, situation, teacher differences, and student differences."\(^8\) Bales goes on to suggest a perspective from which this framework could be established: "I would think that a good conceptual framework has to formulate a series of different 'levels' of information hopefully to be obtained by content analysis of communication."\(^9\) Bales' approach of describing teacher effectiveness from the perspective of interpersonal communication is unique and certainly worthy of consideration and study. It implies the study of the communication process through which teacher-learning takes place and the context in which it takes place. It calls for the analysis of the structure, Gestalt, and grammar of the process in the teacher-student communication, and their relationship to student learning and appreciation.

This perspective for viewing teacher effectiveness through interpersonal communication is theoretical; it assumes that teacher effectiveness is the ability of the teacher to establish communication relationships which are advantageous to student growth and fulfillment of educational goals.


\(^9\)Ibid.
John Newell has devised what he labels a "communication model" to study classroom interactions, and he categorized three different instructional approaches which can be described and differentiated in terms of their communication patterns. Newell's model contained two basic constructs, "sending-oriented" and "receiving-oriented," which were measured by fourteen observational categories, modifications of both Bales' interaction process analysis and Withall's index of classroom climate. No attempt has been made to relate these constructs to teacher effectiveness; however, it would appear advantageous to establish a relationship of communication variables and teacher effectiveness before this model or a similar model could truly be of value. Therefore, it seems appropriate first to explore and describe the relationships of specific communication variables and teacher effectiveness as it is measured by the students' fulfillment of the educational objectives prescribed for a specific course at a specific academic level. The perspective of viewing teacher effectiveness through communication variables takes advantage of all three criteria and provides an excellent basis for the following paradigm.

| Discriminate observable communication climate variables (Devise method of measuring communication variables) | Determine educational objectives of the class (Devise method for measuring achievement of those objectives) |
| The relationship of communication variables and class objective fulfillment should indicate |
| the effective teacher who is capable of establishing a favorable communication climate that provides the incentive for student fulfillment of course's educational objectives. |

The paradigm above outlines a procedure through which researchers, administrators, and teachers interested in self-evaluation, can determine teacher effectiveness.

One communication variable which can be discriminated and would appear to have a significant relationship with and influence upon the teacher's success in motivating students in the fulfillment of course objectives, is interpersonal trust established among teacher and students. The importance of trust within communication has received theoretical treatment dating back to the time of Aristotle. The concept has recently been studied and expounded upon by Morton Deutsch and Kim Giffin. From his conceptionalization of interpersonal trust, Giffin provides the following working definition.

Interpersonal trust is an attitude acquired through interpersonal communication that an individual, who is risking something in order to obtain an uncertain, desired goal, has toward someone upon whom he thinks he must rely in obtaining the desired goal.\textsuperscript{11}

This definition as it applies to the teacher-student communication situation views the teacher and the students as part of a task oriented communication situation in which both teacher and students risk something and rely on one another's communication behavior in acquiring their own desired goals. The student is risking his prestige of ability and grade while the teacher is risking the prestige of his profession, his success as a teacher. Both need each other to meet their own needs and fulfill the educational objectives of the communication situation.

Interpersonal trust is measured as an expressed attitude or orientation which exists within the minds of the communicating individuals, but its development, exchange, and observation seem inherent in interpersonal communication. Interpersonal trust appears analogous to the semantic concept of abstract word meaning. Both exist only when a need to perceive and conceive them arises, both establish their conceptions through communication, and both are necessary in their own competence for effective communication. The concept of interpersonal trust exists somewhere in multidimensional space and is conceived when a risk is necessary for obtaining a desired goal which can only be achieved through the help of another individual. The dimensions of interpersonal trust as they are viewed by Giffin include perceived expertness, character, and dynamism. Giffin also has recently developed "The Giffin Trust Scale," a semantic differential scale which purports to measure interpersonal trust. The scale and answer sheet are below.

The following nine items are collected to score the factor of expertness and are tallied as indicated:

1. Scholarly-Unscholarly (7,6,5,4,3,2,1).
2. Disrespectful-Respectful (1,2,3,4,5,6,7).
3. Unknowledgeable-Knowledgeable (1,2,3,4,5,6,7).
4. Kind-Cruel (7,6,5,4,3,2,1).
5. Expert-Ignorant (7,6,5,4,3,2,1).
6. Trained-Untrained (7,6,5,4,3,2,1).
7. Inexperienced-Experienced (1,2,3,4,5,6,7).
8. Educated-Uneducated (7,6,5,4,3,2,1).
9. Intelligent-Unintelligent (7,6,5,4,3,2,1).
10. Illogical-Logical (1,2,3,4,5,6,7).

The following nine items are collected to score the factor of character (reliability plus intentions) and are tallied as indicated:

1. Good-Bad (7,6,5,4,3,2,1).
2. Dishonest-Honest (1,2,3,4,5,6,7).
3. Informed-Informed (1,2,3,4,5,6,7).
4. Selfish-Unselfish (1,2,3,4,5,6,7).
5. Sincere-Insincere (7,6,5,4,3,2,1).
6. Immoral-Moral (1,2,3,4,5,6,7).
7. Patient-Impatient (7,6,5,4,3,2,1).
8. Awful-Nice (1,2,3,4,5,6,7).

The following nine items are collected to score the factor of dynamism (activeness and frankness) and are tallied as indicated:

1. Energetic-Tired (7,6,5,4,3,2,1).
2. Passive-Active (1,2,3,4,5,6,7).
3. Fast-Slow (7,6,5,4,3,2,1).
4. Emphatic-Hesitant (7,6,5,4,3,2,1).
5. Resigned-Frank (7,6,5,4,3,2,1).
According to the paradigm, one would observe over the school term the dimensions of the teacher's behavior that establish interpersonal trust: "expertness," "character," and "dynamism" as perceived by the students. He would also use a pretest and post test design in determining the growth of interpersonal trust among teacher and students and its relationship with the achievement of course objectives measured by prescribed achievement and attitude tests. If a significant relationship exists between the trust score gains and achievement, the indications are that this particular communication variable is requisite of an effective teacher.

The values of this criterion for measuring and describing teacher effectiveness are the working definitions involved and its feasibility as a self evaluation tool for the teacher.