

A DESCRIPTIVE STUDY OF THE RELATIONSHIP BETWEEN THE
COMMUNICATION VARIABLE OF INTERPERSONAL TRUST
AND SPEECH TEACHER EFFECTIVENESS AT
THE COLLEGE LEVEL

by

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CHAPTER I

EXPLANATION OF THE PROBLEM

Introduction

Probably no aspect of education has been discussed more, with as much concern 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. Efforts to evaluate teacher effectiveness in the United States date back to the late 1800's, before speech education had become an academic discipline. This early evaluation of teacher effectiveness by inspection teams of laymen, clergy, and school officials who periodically observed the classroom and made their judgments by non-standard, individual criteria prompted educational researchers to attempt to establish standard criteria for the measurement of teacher effectiveness.¹ These measurement criteria can be grouped into three categories: presage, observation, and student growth.

Presage Criteria of Teacher Effectiveness

The first criteria for measuring teacher effectiveness to be employed by educational researchers and to be studied are called "presage"

¹Harold Spears, Improving the Supervision of Instruction (New York: 1953).

because they originate in the prediction of effective teaching. In a sense they are pseudo-criteria for their relevance depends upon an assumed or conjectured relationship to other criteria of either process or product.² Ackerman points out that such concepts as teacher intelligence, personality, adjustment, age, training and character have come to be appropriate criteria for teacher effectiveness on the basis of their "common sense appeal."³ These criteria involve opinion studies about effective teacher traits and characteristics as expressed by education supervisors, teachers, parents, and students. One of the earliest studies of these criteria was published in 1896 by H. L. Kratz who compiled the characteristics of "good" teachers as they were indicated in a survey of 2411 pupils. Kratz found that the factors most frequently indicated by the students as characteristic of "good" teachers were "helpful," "good," "pleasant," "jolly," "patient," and "polite."⁴

From a review of the numerous studies on these presage criteria, most of which have been reviewed by Anderson⁵ and Marsh,⁶ one ascertains

²Harold Mitzel, "Criteria of Teacher Effectiveness," Encyclopedia of Educational Research, ed. Chester Harris (New York, 1960), p.1484.

³Walter Ackerman, "Teacher Competence and Pupil Change," Harvard Educational Review, XXIV (1954), p. 274.

⁴H. L. Kratz, "Characteristics of the Best Teachers as Recognized by Children," Pedagogical Seminar, III (1896), pp. 413-418.

⁵C. J. Anderson, A. S. Barr, and Maybell Bush, Visiting the Teacher at Work (New York, 1925).

⁶Joseph E. Marsh and Eleanor Wilder, "Identifying the Effective Instructor: A Review of the Quantitative Studies, 1900-1953," USAF Personnel Training Research Center Bulletin (1954).

a lack of consistency, concreteness, and value in the descriptive terms derived. It seems rather fruitless to continue to label teachers with abstract characteristics without relating them to the actual process of teaching or the goals of teaching.

A ramification of the presage criteria is the so-called teacher achievement and/or aptitude test. These are pencil-and-paper testing instruments which are constructed on the bases of knowledge and attitude. These tests are closely related to the characteristics measured by a general intelligence test, and they do not appear to be significantly related to the teacher's ability to motivate students' attainment of educational goals. However, ten states still use them as part of the qualification for secondary and elementary teaching certification. The three most popular tests of this nature are "The National Teacher Examination,"⁷ "The Minnesota Multiphasic Personality Inventory,"⁸ and "The Graduate Record Exam."⁹

Education research continues on the presage criteria of teacher effectiveness, but because of the inconsistency and abstraction of terms, the failure to relate to the process or the goal of teaching, and the variety of purposes and levels of study, the research findings are very nebulous.

⁷"National Teachers Examination, Professional Information Section," (Princeton, New Jersey, 1968).

⁸"Minnesota Multiphasic Personality Inventory (revised)," (Minneapolis, Minnesota, 1943).

⁹"Graduate Record Examination," (Princeton, New Jersey, 1968).

Observation or Process Criteria of Teacher Effectiveness

From the beginning of teacher evaluation, the practice of observing the teaching process has been employed; however, it was in about 1910 that formal rating scales came into existence when E. C. Elliot devised and published his teaching rating form entitled, "The Provisional Plan for the Measurement of Merit of Teachers." Since then graphic charts, itemized check lists, and rank order scales have become the accepted procedure for evaluation of teacher effectiveness on the elementary and secondary school levels. Boyce's landmark study of teacher effectiveness evaluation practices in 1915 revealed that over 60 per cent of the 242 public schools which he studied used itemized observation rating-scales as the criteria for measuring teaching effectiveness.¹⁰ In a report to the N.E.A. in 1925, Leroy King indicated that three-fourths of the public school systems in the large cities of the United States were using itemized supervisor rating scales as the means of determining teacher effectiveness.¹¹

In the late 1920's significant criticism was raised concerning the validity and reliability of the observed teacher rating scales, and serious objection was made to its use as the sole determinant in the measurement of teacher effectiveness. Helen Walker, editor of Kappa

¹⁰A. C. Boyce, "Methods of Measuring Teachers' Efficiency," 14th Yearbook, National Society for the Study of Education (Chicago, 1915), Part 2.

¹¹L. A. King, "The Present Status of Teacher Rating," American School Board Journal, LXX (1925), pp. 44-46.

Delta Pi publications, aptly expressed the need for research in the area of measuring teacher effectiveness:

The lack of an adequate, concrete, objective, universal criteria for teaching ability is thus the primary source of trouble for all who would measure teaching. One typical method of attack used in rating scales is to compile a list of broad general traits supposedly desirable for teachers, with respect to which the rater passes judgment on each teacher. This amounts to an arbitrary definition of good teaching which is subjective and usually vague, but it does not necessarily lead to an identification of it. Only if the traits themselves can be reliably identified can their possessor be identified as a "good teacher" according to the definition laid down in the scale. Even when the scale is made quite specific, relating not to general traits but to concrete procedure, the fundamental difficulty remains that there is no external and generally accepted criterion against which the scale can be validated to establish significance of its terms.¹²

However, supervisor observation of the teacher through the use of the rating scale has continued to be the main means of measuring teacher effectiveness despite the research surveys by Barr and Emans,¹³ Schellhammer,¹⁴ Samuelson,¹⁵ Reavis and Cooper,¹⁶ and Dugan¹⁷ which commonly

¹²Helen Walker, ed. The Measurement of Teacher Efficiency (New York, 1935), p. x-xi.

¹³A. S. Barr and L. M. Emans, "What Qualities are Prerequisite to Success in Teaching?" Nation's Schools, VI (1930), pp. 60-64.

¹⁴F. M. Schellhammer, "Rating the Practice Teacher," School Executive, LX (1940), pp. 32-33.

¹⁵E. E. Samuelson, "An Evaluation of Teachers and Teaching," School Executive, LXI (1941), pp. 15-16.

¹⁶W. C. Reavis and D. M. Cooper, "Evaluation of Teacher Merit in City School Systems," Supplementary Education Monograph, LIX (1945).

¹⁷R. R. Dugan, "Personality and the Effective Teacher," Journal of Teacher Education, XII (September 1961), pp. 335-337.

conclude that methods of observing teacher effectiveness are varied and inadequate, and that there is no general agreement as to the observed characteristics of effective teaching.

Besides the customary supervisor observation rating, some studies have attempted to measure teacher effectiveness using observation ratings by students and fellow teachers. However, studies by both Rooks¹⁸ and Dunmire¹⁹ have concluded that there is no significant agreement among teacher effectiveness ratings by supervisors, students and fellow teachers.

After extensive research and review of other existing research, A. S. Barr, a leader and prolific writer on the subject of teacher effectiveness, postulated in 1961:

1. The fact that two or more observers observing the same teacher simultaneously may disagree in the quality of teaching observed was reaffirmed.
2. Good teachers cannot be separated from poor teachers in terms of specific behaviors (there is an appropriateness aspect to teacher behaviors that must be taken into consideration); and
3. The evaluation of teaching can be objectified through the use of teacher and pupil behaviors and operational definitions of the personal and professional prerequisites to teacher effectiveness.²⁰

¹⁸James Rooks, "An Analysis of Four Teacher Rating Devices," Doctoral Dissertation, University of Virginia, Charlottesville, 1965).

¹⁹E. E. Dunmire, "Agreement Among Teachers, Principals, and Chief School Administrators as Supervisors in the Act of Teacher Rating," Dissertation Abstracts, XXVI (September 1965), p. 1447.

²⁰Arvil S. Barr, Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness (Madison, Wisconsin, 1961), p. 11.

Most recently observation studies based on the process criteria measurement of teacher effectiveness have been made in the area of teacher-student behaviors as A. S. Barr has recommended. Anderson and his colleagues studied teacher-student behaviors within the classroom process and developed teacher behavior categories which were purported to measure the influence of the teacher and thus measured his effectiveness. They established twenty-six categories with which they assessed a teacher's influence on pupils' behavior and differentiated teachers on the basis of the relative number of "social integrative" and "dominative" contacts they had with children in lower elementary grades.²¹

Other researchers have developed different methods and instruments for observing and recording teacher-student behavior and interactions. Each study appears to have its own categories, dimensions, or procedures. Cornell, Lindvall, and Saupe's behavioral observation instrument, developed in 1953, contains eight dimensions including social organization, pupil initiative, teacher behavior, and classroom climate.²² Hedlund designed an instrument to identify critical incidents or behaviors which are intended to distinguish effective and ineffective teachers. His scale contains eighteen descriptions of teacher classroom behaviors.²³ In 1958 Medley and Mitzel developed

²¹Harold Anderson, "A Study of Certain Criteria of Teaching Effectiveness," Journal of Experimental Education, XXIII (September 1954), pp. 41-71.

²²Francis Cornell, Carl Lindvall, and Joe Saupe, An Exploratory Measurement of Individualities of Schools and Classrooms. University of Illinois Bulletin, L (June 1953).

²³Paul Hedlund, "Cooperative Study to Predict Effectiveness in Secondary School Teaching," Journal of Teacher Education, IV (September 1953), pp. 230-234.

the "Observation Schedule and Record" by modifying the classroom observational procedures developed by Withall and Cornell. The observers record activity, grouping, and climate signs.²⁴ Ryans and his colleagues developed the "Classroom Observation Record" consisting of 22 bipolarities with which trained observers note specific behaviors by teacher and pupils.²⁵ Wiese recently developed an instrument and technique for observing student attention. The observer records his impressions of student attention behaviors by a systematic time-sampling process.²⁶

These later observational studies appear to better fit the criteria described by Barr, but they appear to lack an operational definition and a consistent, concrete measurement of the concept of teacher effectiveness. Also, studies by Brookover,²⁷ Jayne,²⁸ Lins²⁹ and Anderson³⁰

²⁴Donald Medley and Harold Mitzel, "A Technique for Measuring Classroom Behavior," Journal of Educational Psychology, XX (April 1958), pp. 86-92.

²⁵David Ryans, Characteristics of Teachers (Washington, D.C., 1960).

²⁶Edward Wiese, "A Study of the Correlation Between Teacher Effectiveness and Pupil Attention as Determined by Systematic Time Sampling Technique." (Doctoral Dissertation, Indiana University, 1966).

²⁷Wilbur Brookover, "Person-Person Interaction Between Teachers and Pupils and Teaching Effectiveness." Journal of Educational Research, XXXIV (December 1940), pp. 272-289.

²⁸Clarence Jayne, "A Study of the Relationship Between Teaching Procedures and Educational Outcomes," Journal of Experimental Education, XIV (December 1945), pp. 101-134.

²⁹Leo Lins, "The Prediction of Teaching Efficiency," Journal of Experimental Education, XV (September 1946), pp. 2-60.

³⁰Harold Anderson, "A Study of Certain Criteria of Teaching Effectiveness," Journal of Experimental Education, XXIII (September 1954), pp. 41-71.

indicate questionable validity and reliability of the observation rating scales and check lists.

Student Growth or Gain Criteria for Measuring Teacher Effectiveness

The third group of criteria for measuring teacher effectiveness is based on student growth, change, or gain. These criteria have been recognized for years, but few educational researchers have made use of them. In 1948 Barr's summary of 138 teacher effectiveness research studies listed only nineteen which used measurements of student gains as a criterion,³¹ and in 1956 Mitzel and Gross found only twenty studies using student gains as the criterion in their survey of research studies in teacher effectiveness.³²

The N.E.A. Research Division reported in 1966 that over ninety per cent of the administrators in secondary and elementary schools used the observation rating method for determining teacher effectiveness and that only thirty-four per cent gave any consideration to student achievement.³³

There have been some attempts to establish reliability and validity

³¹Arvil Barr, "The Measurement of Prediction of Teacher Efficiency: A Summary of Investigation," Journal of Experimental Education, XVI (1948), pp. 203-283.

³²Harold Mitzel and Cecily Gross, A Critical Review of the Development of Pupil Growth Criterion in Studies of Teacher Effectiveness (New York, 1956), p. 31.

³³NEA Research Bulletin (Washington, D.C., 1965-66), p. 13.

of the student growth measurement. Taylor,³⁴ LaDuke,³⁵ Rolfe,³⁶ Stephens and Lichtenstein³⁷ have attempted to establish reliability for academic achievement or raw gain measurement of teacher effectiveness. Their studies in the elementary grades provided low reliability coefficients. Attempts to establish validity of student gain as a measurement of teacher effectiveness by relating it to observation and pre-
 sage criteria have also been rather unsuccessful. Studies by Baird and Bates,³⁸ Barr, et al,³⁹ Brookover,⁴⁰ and others have indicated great discrepancies in the relationship of student gain criteria and other teacher effectiveness criteria.

Thus we have surveyed the three groups of criteria used to measure teacher effectiveness, but there needs to be more said about the last

³⁴H.R.Taylor, "Teacher Influence on Class Achievement: A Study of the Relationship of Estimated Teaching Ability to Pupil Achievement in Reading and Arithmetic," Genet. Psychological Monograph (1930), pp.81-175.

³⁵C. V. LaDuke, "The Measurement of Teaching Ability," Journal of Experimental Education, XIV (1945), pp. 75-100.

³⁶J. F. Rolfe, "The Measurement of Teaching Ability," Journal of Experimental Education, XIV (1945), pp. 52-74.

³⁷J. M. Stephens and A. Lichtenstein, "Factors Associated with Success in Teaching Grade Five Arithmetic," Journal of Educational Research, XL (1947), pp. 683-694.

³⁸J. Baird and G. Bates, "The Basis of Teaching Rating," Educational Administration and Supervision, XV (1929), pp. 175-183.

³⁹A. S. Barr, T. L. Torgerson, C. E. Johnson, V. E. Lyon, and A. C. Walvoord, "The Validity of Certain Instruments Employed in the Measurement of Teaching Ability," The Measurement of Teaching Efficacy, ed. Helen Walker (New York, 1935), pp. 73-141.

⁴⁰W. B. Brookover, "The Relation of Social Factors to Teaching Ability," Journal of Experimental Education, XIII (1945), pp.191-205.

group, student growth, or gain criteria. Since most of the research studies of teacher effectiveness here-to-fore have been done at the elementary and secondary school levels, the problems of instrumentation and effects of "incidental learning" have interfered with research design. Arguments have arisen that the student growth and achievement criteria are not expedient, cannot be identified in terms of cause to effect, and cannot be validly measured. This perhaps is true in the lower elementary grade levels, but at the college level to argue that 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 the student growth 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.

It seems apparent that little negative criticism could be raised in regard to the validity of the student growth measurement of teacher effectiveness if adequate instruments are used to measure the fulfillment of the prescribed educational objectives. Thorndike indicated more than a half a century ago that the teacher's "output" is measured directly by the change in the behavior of her pupils. Hartman contended that student behavior change is the essence of teacher effectiveness and defined teacher efficiency as ". . . the ideally important

and socially desirable change in the greatest number of pupils in the shortest possible time, with the least expenditure of energy and with the maximum satisfaction in the learning process and its outcome by all concerned."⁴¹ Ackerman has stated,

It is generally assumed that the ultimate criterion of teacher effectiveness is change in pupil behavior. Even where other criteria are used it is agreed that they are only proximate measures of the ultimate goal of pupil change. Whatever the criterion, the determination of teacher effectiveness seeks to answer this question, "Do pupils behave differently from what they would if the influence of a particular teacher had not been felt?"⁴²

Theoretically, at least, most educational researchers today accept Barr's hypothesis, "It seems to me that the ultimate criterion of teacher success will have to be found in the changes produced in pupils, measured in terms of objectives of education."⁴³

From the above survey of teacher effectiveness research and analysis of criteria used in measuring teacher effectiveness, it may be assumed that of the many ways of measuring teacher effectiveness, the measurement of student growth and changes produced in pupil behavior according to the educational or course objectives stands out as the most valid and reliable means of measurement at the college level.

⁴¹G. W. Hartman, "Measuring Teaching Efficiency Among College Instructors," Archives of Psychology, CLIV (July 1933).

⁴²W. I. Ackerman, "Teacher Competence and Pupil Change," Harvard Educational Review, XXIV (1954), p. 274.

⁴³A. S. Barr, "The Measurement of Teaching Ability," Journal of Educational Research, XXVIII (April 1935), p. 568.

Naturally, the generalizations obtained from the student gain measurement criteria of teacher effectiveness, like other criteria, must be restricted to the educational level and subject matter measured.

Attempts to Identify the Variables That Compose the Concept of Teacher Effectiveness

Now that the criteria for measuring teacher effectiveness have been surveyed, it is necessary to consider the identification, description and definition of the variables in teacher effectiveness. In attempts to identify and describe teacher effectiveness, researchers have sought to relate it with many "causal variables." Some researchers have sought to find the "causal variables" in the teacher's personal characteristics such as sex, age, teaching experience, training, voice, and facial grimaces. These teacher characteristic studies view teacher effectiveness as a unitary, static and universal quality which is inherent in the teacher 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." These teacher behavioral studies tend to view the teaching process unidimensionally and segments which are unrelated to grammar and Gestalt of the learning situation. Still others describe teaching effectiveness as a process by using such terms as "democratic," "laissez faire," "authoritarian." Although these process studies tend to overlap into methods of teaching and are very broad and abstract, they appear to provide the orientation for describing teacher effectiveness.

According to S. S. Stevens, a noted psychology researcher, concepts

need to be defined and described in terms of the operations that produce them.⁴⁴ This implies that the proper perspective from which to view teacher effectiveness is the dynamic operation and process of teaching. 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 the course. 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 must be treated as such when it is being described or measured."⁴⁵ Barr reiterated this view of Remmers and several other educational researchers when he recently 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

⁴⁴S. S. Stevens, "Psychology and the Science of Science," Psychological Bulletin, XXXVI (1939), pp. 221-263.

⁴⁵H. Remmers, et al, "American Educational Research Association Committee on the Criteria of Teacher Effectiveness Report," Review of Educational Research, XXII (1952), pp. 238-263.

emphasis shift from the teacher per se to the teacher in relation to the more important aspects of a situation; needs, purposes, pupils' available means, and the socio-physical environment for learning and teaching.⁴⁶

Following along the same lines of thought as Remmers and Barr, Robert Soar suggests:

The more promising approach would seem to be 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.⁴⁷

Medley and Mitzel recommend 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 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.⁴⁸ This approach considers interaction, process, and course objectives, but only indirectly or slightly, and it appears to be of slight value without a specified perspective or objectives for evaluation.

⁴⁶Arvil Barr, Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness (Madison, Wisconsin, 1961), p. 141.

⁴⁷Robert Soar, "Methodological Problems in Predicting Teacher Effectiveness," The Journal of Experimental Education, XXXII (Spring 1964), p. 289.

⁴⁸Donald Medley and Harold Mitzel, "A Tentative Framework for the Study of Effective Teacher Behavior," Journal of Experimental Education, XXX (June 1962), p. 317.

Communication Variables and Description of Teacher Effectiveness

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."⁴⁹ 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."⁵⁰ 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-student 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. Viewing teacher effectiveness from this perspective is advocated by the theories of David Berlo, noted speech communication authority, when he states, "To talk about communication in a personal context is to talk in part about how people learn."⁵¹ "We have suggested that

⁴⁹Robert Bales, "Conceptual Frameworks for Analysis of Social Interaction," Journal of Experimental Education, XXX (June 1962), p. 323.

⁵⁰Ibid.

⁵¹David Berlo, The Process of Communication (New York, 1960), p. 74.

learning is communication, that what we mean by the learning process is included in our model of the communication process."⁵² Since the natural and general goal of teaching is learning, it appears logical that the effectiveness of teaching can be described and determined by the variables of communication which exist between teacher and students. This perspective for viewing teacher effectiveness through interpersonal communication is theoretical, but it warrants further research. 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.

John Newell 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.⁵³ No attempt has been made relating 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.

⁵²Ibid., p. 103.

⁵³John Newell, W. W. Lewis and John Withall, "Use of A Communication Model to Study Classroom Interactions," (Unpublished mimeographed paper, University of Wisconsin, 1961).

Therefore, it seems appropriate first to explore and describe the relationships of specific communication variables and speech teacher effectiveness as it is measured by the students' fulfillment of the educational objectives prescribed for a specific course at a specific academic level.

Interpersonal Trust and Teacher Effectiveness

One communication variable, which appears to have significant relationship with and influence upon teacher effectiveness as it is defined and measured earlier in this paper, is interpersonal trust. The concept of interpersonal trust, its importance and development within communication, has received theoretical treatment dating back to the time of Aristotle. Aristotle stated in his Rhetoric:

There are three things which inspire confidence in the orator's own character--the three, namely, that induce us to believe a thing apart from any proof of it: good sense, good moral character, and good will. . . . It follows that anyone who is thought to have all three of these good qualities will inspire trust.⁵⁴ [Emphasis added.]

In the late 1940's and early 1950's there was a considerable amount of experimental research in the area of source credibility by Carl Hovland and his associates at Yale, but very little of their research applied to interpersonal trust in the broader sense. In their studies of credibility, Hovland and his associates studied the effects of "expertness" and "trustworthiness" on persuasion. Hovland limited

⁵⁴Aristotle, Rhetorica, trans. W. Rhys Roberts in The Basic Works of Aristotle, ed. Richard McKeon (New York, 1941), p. 1380.

"trustworthiness" to the perceived intention of the speaker and ignored the perceived moral aspects of those involved in the communication and reciprocity of trust. His research was limited by a unidirectional view of trust--the speaker as perceived by an audience.

Morton Deutsch was the first to study the concept of interpersonal trust as it is used in this paper. Deutsch defined trust operationally when he stated:

An individual may be said to have trust in the occurrence of an event if he expects its occurrence and his expectation leads to behavior which he perceives to have greater negative motivational consequence if the expectation is not confirmed than positive motivational consequences if it is confirmed.⁵⁵

Utilizing the two-person non-zero-sum game, Deutsch and his associates studied cooperative behavior and from their studies inferred that interpersonal or mutual trust is dynamic, that it is established through communication of which it is an essential part, and that trust increases when reciprocity exists or appears to exist. From his research Deutsch generalized that there are many social situations that do not permit rational behavior unless the conditions for mutual trust are established or exist. Deutsch viewed trust as both a dependent and independent variable of communication.

Another researcher in the area of interpersonal trust, Jack Gibb,⁵⁶ has noted that the degree of trust mutually held for each

⁵⁵Morton Deutsch, "Trust and Suspicion," Journal of Conflict Resolution, II (1958), pp. 266-279.

⁵⁶Jack Gibb, "Defensive Communication," Journal of Communication, XI (1961), pp. 141-148.

other will determine the climate in which communication will make progress. Gibb's clinical approach to the study of trust indicated that reciprocal exchange of trusting communication behavior creates "supportive climates" and in turn "supportive climates" facilitate the establishment of interpersonal trust and communication.

Giffin has recently conceptualized interpersonal trust as it applies to group interaction.⁵⁷ It is from this conceptualization that the following working definition for this paper was established.

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.

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 goal. 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,

⁵⁷Kim Giffin, "Interpersonal Trust in Small-Group Communication," Quarterly Journal of Speech, LIII (October 1967), pp. 224-234.

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 will measure interpersonal trust.⁵⁸

Purpose of Immediate Research

The primary purpose of this immediate research is to determine the relationship of interpersonal trust established through communication between students and instructor of fundamentals of speech class and the teaching effectiveness of that instructor. Theoretically speaking, interpersonal trust is the pivotal part of student-teacher communication, and thus it should be an essential variable of teacher effectiveness. The degree to which the teacher is capable through communication of establishing a mutual perception of the trust and the

⁵⁸Kim Giffin, "Trust Differential," The University of Kansas Communication Research Center Bulletin (February 1968).

trust requirements, will vary with the level and type of instruction provided. It seems erroneous to believe that what is found to exist in a study of specific courses at specific educational levels will exist in all subject areas at all educational levels. This limitation appears to be an inherent restriction in any type of teacher effectiveness study. Operationally this research shall concern the beginning speech course, Speech and Drama 1A Fundamentals of Speech: Speaker-Audience Communication, at The University of Kansas. This limits the study's generalizations to college freshmen speaker-audience speech classes, but this is the area of interest for the author, and it provides excellent control of extraneous variables: (1) The instructors and students are randomly chosen for class sections, and all class sections seek the same educational objectives, (2) All instructors follow the same specific syllabus, attend the same workshops during the semester on the teaching of beginning speech, and use the same text and course material. These inherent controls make Fundamentals of Speech 1A very feasible for this experimental setting.

The two independent variables to be studied and described are interpersonal trust and teacher effectiveness. Interpersonal trust—an attitude acquired through interpersonal communication that an individual, who is risking something in order to obtain an uncertain, desired goal, has toward someone whom he thinks he must risk something and upon whose communication he must rely in acquiring his desired goal—will be measured by the Giffin Trust Scale. This measurement is appropriate for this study because the teacher-student relationship

appears to be task or goal oriented--the students' learning or growth in speech communications or the fulfillment of class objectives. Although their motives may be different, both teacher and students are risking something in order to obtain an uncertain desired common goal. Both students and teacher are fulfilling personal needs and are being evaluated by others, thus they are being subjected to mutual failure in this particular communication situation.

Teacher effectiveness is a concept used to describe the instructor's part in the communication process for fulfillment or satisfaction of the educational objectives prescribed for a particular course. The four broadly stated objectives of 1A Fundamentals of Speech: Speaker-Audience Communication at The University of Kansas are

- I. Knowledge. As a basic and required course in the college of liberal arts and sciences, considerable time is devoted to teaching cognitive knowledge concerned with four factors:
 1. Awareness of the function of speech communication.
 2. Comprehension of basic principles of speech communication.
 3. Comprehension of the special application of these principles in fulfilling various speech purposes.
 4. Awareness of the vital personal and societal issues and problems of our time: these things about which earnest men speak.
- II. Attitude. To a large extent, the success or failure of man's attempt to communicate orally depends on the attitudes with which the speaker and his listener approach the communicative act. The course is thus concerned with two related attitudinal factors:
 1. The attitude a student holds concerning the nature and importance of effective human communication.
 2. The manner in which a student perceives himself as a communicator and his relationship to those with whom he wishes to communicate.

III. Appreciation. Critical discrimination is of vital essence in meaningful and effective speech communication. The course attempts to get the student to discriminate between different levels of speech communication.

1. Between ideas made clear and meaningful and those that are vague and poorly defined.
2. Between ideas with a logical foundation and the purely emotional flights of the demagogues.
3. Between ideas supported with evidence and those consisting of undocumented assertions.
4. Between eminence in thought and manner in speech communication and the trite and the pedestrian.
5. Between ideas of an ethical nature and sham arguments saturated with sophistry, half truths, and distortions.
6. Between ideas concerned with human dignity, welfare, and happiness and those ideas showing a disregard for these factors.

IV. Ability. As a basic course in speech, it is deemed important that a student not only acquire cognitive knowledge about speech communication, develop proper attitudes, and appreciate the difference between varying levels of speech communication, but also that he gains reasonable proficiency as a communicator himself. This involves the following abilities:

1. The discovery and selection of appropriate speech ideas and supporting materials.
2. The presentation of clear, reasoned, and persuasive discourse.
3. The artistic structuring of speech materials.
4. The use of language which gives meaningful and impelling symbolization to his thoughts.
5. The skillful use of voice and body to achieve understanding and favorable reception of ideas.⁵⁹

⁵⁹Handbook for Teachers of Fundamentals of Speech (Unpublished mimeographed copy, University of Kansas, 1967), pp. 1-2.

The three measurements which have been selected to determine the degree of fulfillment of these educational objectives are the student's grade, pre-test and post-test analysis of the abridged Patton Speech Content Exam, and the pre-test and post-test analysis of the Rossillon Speaker's Self-Concept Scale. Description of these measurements will be developed in Chapter III.

Statement of the Hypotheses

The study's major null hypotheses operationally stated are

- NULL HYPOTHESIS I: There is no statistically significant relationship between a student speaker's self-concept and his knowledge about speech.
- NULL HYPOTHESIS II: There is no statistically significant relationship between a student speaker's self-concept and that student's final grade in the college fundamentals of public speaking course.
- NULL HYPOTHESIS III: There is no statistically significant relationship between a student's knowledge about speech and that student's final grade in the college fundamentals of public speaking course.
- NULL HYPOTHESIS IV: There is no statistically significant difference between the initial student speaker's self-concept and that student speaker's self-concept at the terminal point of the college fundamentals of public speaking course.
- NULL HYPOTHESIS V: There is no statistically significant difference between a student's knowledge about speech at the beginning of the college fundamentals of public speaking course and that student's knowledge about speech at the end of the course.

- NULL HYPOTHESIS VI: There is no statistically significant relationship among the three dimensions of interpersonal trust--"character," "expertness," and "dynamics"--as perceived in the instructor by the students of speech.
- NULL HYPOTHESIS VII: There is no statistically significant difference between the perceived trust of the instructor by the student at the initial class meeting and that student's perceived trust of the instructor at the terminal class meeting of the fundamentals of public speaking course.
- NULL HYPOTHESIS VIII: There is no statistically significant difference between the perceived trust of the students as a group within class sections by the instructor as he perceives them at the initial and terminal meetings of the fundamentals of public speech.
- NULL HYPOTHESIS IX: There is no statistically significant relationship between the degree of trust perceived by an instructor for a class section and the reciprocal degree of trust perceived by that class section for that instructor.
- NULL HYPOTHESIS X: There is no statistically significant relationship between a student speaker's self-concept and his trust of his instructor.
- NULL HYPOTHESIS XI: There is no statistically significant relationship between the change in a student speaker's self-concept and that student's trust of the instructor.
- NULL HYPOTHESIS XII: There is no statistically significant relationship between a student's trust of his speech instructor and that student's knowledge about speech.
- NULL HYPOTHESIS XIII: There is no statistically significant relationship between a student's gain in knowledge during a speech course and that student's trust of his instructor.
- NULL HYPOTHESIS XIV: There is no statistically significant relationship between the student's trust of speech instructor and that student's final grade.

NULL HYPOTHESIS XV: There is no statistically significant relationship between a student's trust for his instructor and that student's withdrawal from class.

Implications and Limitations of the Study

The following study is exploratory and descriptive in nature. It is an attempt to isolate, measure, and show the relationship of variables which appear to be part of effective teaching of public speaking at the college level. It is the first and preliminary study in the development of the concept of the effective teacher of speech. If adequate relationships of teacher effectiveness, measured by mental achievement and attitude change, and the communication variable of interpersonal trust are established, the study will provide a basic paradigm for describing and observing the communication of the effective speech teacher. Naturally, the immediate study is limited by the instruments used to represent the concepts and by the conditions in which the variables were analyzed.

Organization for the Remainder of This Dissertation

Chapter II will present a restricted review of the literature representing studies on teacher effectiveness which are relevant to student gain criteria for measuring teacher effectiveness, to variables similar to trust, to communication variables and to the use of the semantic scale in measuring student attitudes.

Chapter III will present the procedures and methods including population selection, study design, instrument selection, and statistical treatment.

Chapter IV will describe the methods and the analysis of the data, and it will describe the inferred ramifications of the data.

Chapter V will summarize the entire study, draw some conclusions, and provide some recommendations for further study.

Summary

Reviewing the literature, one finds a serious void in speech education research and that void is in the area of teacher effectiveness. Initiative needs to be taken to develop interest and perspective for this vital area of speech education research. Means of evaluating, describing, and identifying the effective teacher of speech need to be established.

There appear to be three basic criteria for measurement of teacher effectiveness: presage—"common sense" opinions about a teacher's personal characteristics that purport to describe and predict effective teachers; observation of teaching process—rating of teacher personality, behavior, and classroom climate; and student growth or change—increase in knowledge, change in attitude, development in appreciation. Of these criteria for the measurement of teacher effectiveness, the first is the oldest, the second is most commonly used, and the last, student growth, appears to be the most valid when appropriate instruments are available to measure students' fulfillment of educational objectives. Course grade, Patton's Speech Content Exam, and Rossillon's Speaker's Self-Concept Scale appear to be appropriate instruments for measuring the fulfillment of the college level fundamentals of public speaking course. Sufficient control of extraneous variables' influence

on the fulfillment of the specific educational objectives of a course at this level appears very possible.

The description of the concept of teacher effectiveness has been attempted from many perspectives such as teacher personal characteristics and behavior, but the most advantageous perspective appears to be the communication process in the teacher-student interaction situation. It seems appropriate to isolate and identify a significant communication variable and proceed to study its relationship to and characteristics of fulfilling educational objectives of the course. One such variable is interpersonal trust which has received theoretical attention dating back to Aristotle and which has recently been conceptualized to apply to group interaction by Giffin.

The purpose of this immediate study is to explore and describe the relationships among students' mental achievement in speech subject matter, students' attitudes toward themselves and speech communication situations, course withdrawals and grades of students, and interpersonal trust of instructor and students. This study's findings are limited to college fundamentals of public speaking courses and are preliminary in describing, measuring, and identifying the effective speech teacher-student communication patterns.

CHAPTER II

RELATED LITERATURE

Since there have been over 1,400 studies reported in the area of teacher effectiveness of which most have already been reviewed by Marsh,¹ Barr,² Mitzel,³ Ackerman,⁴ Gage,⁵ and others; and since an overview of the types of these studies was presented in the introductory chapter, it would be superfluous and unwarranted to review studies here which are not directly related to the present study. Thus, the review here is limited to variables very similar to the concept of interpersonal trust, communication variables, and teacher effectiveness measured by student achievement.

Interaction and Teacher Effectiveness

A variable similar to that of interpersonal trust which has been studied in teacher effectiveness research is the teacher's ability to

¹J. E. Marsh and Eleanor Wilder, "Identifying the Effective Instruction: A Review of the Quantitative Studies, 1900-1952," USAF Personnel Training Research Center Research Bulletin (1954).

²A. S. Barr, Wisconsin Studies of the Measurement and Prediction of Teacher Effectiveness, A Summary of Investigations (Madison, Wisconsin, 1961).

³H. E. Mitzel and Cecily Gross, "The Development of Pupil Growth Criteria in Studies of Teacher Effectiveness," Educational Research Bulletin, XIII (March 1962), p. 91.

⁴Walter Ackerman, "Teacher Competence and Pupil Change," Harvard Educational Review, XXIV (1954), pp. 273-284.

⁵N. L. Gage, "The Handbook of Research on Teaching," Journal of Teacher Education, XIII (March 1962), p. 91.

create "warmth," sometimes referred to as "friendly interaction." The criterion for measuring teacher effectiveness in these studies has been pupil behavior change or achievement. "Warmth" has been measured by expression of attitudes of the students in the form of questionnaires or rating scales.

William Brookover has studied the relationship of teacher "warmth" and student gains in his study of 1275 eleventh graders and 66 teachers.⁶ Using pre-test and post-test techniques involving a seventy-day period of instruction, he measured the pupil's mean gain on historical information, and he compared the scores with the results of a seven-item questionnaire given to the students to determine their impressions of the teachers' abilities to create teacher warmth. The questionnaire contained such questions as: "Do you think this teacher is fair?" "Do you confide in this teacher?" "Does this teacher join in your recreation?" "Is this teacher helpful to you?" These items appear to be slightly related to the current study's dimensions of interpersonal trust: character, expertness, and dynamics. At what time within the seventy-day period of instruction the attitudes toward teacher ability to create a "warm" teacher-pupil relation was measured is not provided, but it is stated that the teachers were absent from the rooms when the students responded to the questionnaires.

The relationship of "warmth" and achievement was measured by the

⁶W. B. Brookover, "Person to Person Interaction Between Teachers and Pupils and Teaching Effectiveness," Journal of Educational Research, XXXIV (1940), pp. 272-287.

chi-square technique. The amount of correlation was low, but still it was significant at the .05 level. The results of this correlation study inferred that those who had the more congenial, friendly relationship, or "warmth" with their students tended to be less effective teachers of information. From his findings of negative correlation of teacher "warmth" and "effectiveness," Brookover concluded, "Apparently students like friendly teachers better, but learn more when taught by teachers who are perceived as less congenial and friendly."⁷ Brookover viewed "warmth" as a static phenomenon which remained constant over the seventy-day period, but he does state that his study's results are far from conclusive.

In a similar study, C. M. Christensen studied the relationships among "permissiveness" and "warmth" of teachers along with the affect-need and achievement of the students at the elementary level.⁸ The study was concerned with pupil achievement as the dependent variable and pupil affect-need, teacher "warmth," and teacher "permissiveness" as independent variables. The following hypotheses were tested:

1. Positive affective response (warmth) of teacher is positively related to achievement gains.
2. Permissiveness of the teacher is negatively related to achievement gains.

⁷Wilbur Brookover, A Sociology of Education (New York, 1968), p. 439.

⁸C. M. Christensen, "Relationship Between Pupil Achievement, Pupil Affect-Need, Teacher Warmth and Teacher Permissiveness," Journal of Educational Psychology, LI (1960), pp. 169-174.

3. Teacher warmth and permissiveness interact significantly; such that warm, directive teachers will produce the greatest achievement gains.
4. Affective needs of pupils interact significantly with teacher warmth and permissiveness.⁹

In this study the "permissiveness" and the "warmth" scales were devised by the author and were pupil-questionnaire type. The "permissiveness" scale attempted to measure the permissive-directive behavior of the teacher in her teaching of subject matter. It included such questions as: "Do the pupils usually help plan what the class is going to do?" "Does your teacher assign the pages to be read in your science book?" and "Does your teacher push some pupils to try a little harder?"—which are answered "yes" or "no." The "warmth" scale attempted to measure the affective response of the teacher to pupils, and it included such items as: "Is it easy to talk to your teacher when you feel bad about something?" "If you made a mistake would you be afraid to tell your teacher about it?" and "Does your teacher ever say mean things to the pupils?"

Affect-need of the pupils was measured by a 36 paired-comparison items scale containing such items as: "Which do you want more in a teacher? (A) Explains so we can understand, (B) Is nice to us even if we do something wrong."¹⁰ This scale was devised by Della Piana and Gage.

⁹Ibid., p. 169.

¹⁰G. M. Della Piana, "The Cognitive-Affective Values of the Pupils and Teacher-Pupil Relationship," (Unpublished master's thesis, University of Illinois, 1953).

Achievement was measured by the Iowa Tests of Basic Skills. This achievement test is a standardized achievement battery including the five subtests in vocabulary, reading comprehension, language skills, work study skills and arithmetic skills.

Using covariance analysis, the author found that vocabulary and arithmetic achievement growth were significantly greater for teachers scoring high on the "warmth" scale. No significant relationships were obtained for "affect-need" or "permissiveness" and none of the interaction terms were significant. Only the first hypothesis was partially substantiated: Teacher "warmth" was significantly related to vocabulary and arithmetic achievement.

Horace Reed also has studied teacher "warmth" and its relationship to teacher effectiveness measured by student achievement. He defines "warmth" as ". . . pupils' perceptions of teacher behaviors which relax interpersonal tension between teacher and pupil."¹¹ Measurement of student achievement was accomplished by Reed's own "Science Interest Inventory," a means of determining amount and quality of voluntary science activities. The hypothesis predicting a positive relationship between "warmth" and pupil interest in science was deduced from the rationale that the teacher's warm relationship is a rewarding experience for the pupils, and classroom learning activities become rewarding as a function of the teacher's "warmth" behaviors. The pupils'

¹¹Horace Reed, "Teacher Variables of Warmth, Demand and Utilization of Intrinsic Motivation Related to Pupils' Science Interest: A Study Illustrating Several Potentials of Variance-Covariance," Journal of Experimental Education, XXIX (March 1961), p. 206.

positive feelings toward the learning activities lead to participation, which in turn, frequently, lead to satisfaction of other needs such as the cognitive. As the learning activities become inherently attractive, interest is learned.

The sample for this study included 1045 ninth-grade boys and girls and their 38 general science teachers from 19 public schools in eastern Massachusetts.

Pupils within a class agreed closely in their rating of "warmth" with reliabilities between .88 and .93 for the stability of within-class responses. The "Science Interest Inventory's" reliability, as determined by the Spearman-Brown formula, was .97.

The hypothesis that the teacher variable of "warmth" is positively related to pupils' interest achievement in science was accepted, with positive correlations of .20 for the boys and .28 for the girls.

Morris Cogan studied teacher effectiveness measured by student productivity and its relationship to classroom interaction created by the teacher. This study was based on the theory that ". . . the teacher may become on the one hand a cue for anxiety or on the other liking or respect. [This appears similar to Gibb's communication climates, but unidirectional in nature.] An appropriate response to anxiety is avoidance of some sort; an appropriate response to liking is approach."¹² Thus the teacher who becomes a cue for strong anxiety or avoidance will

¹²Morris Cogan, "The Behavior of Teachers and the Productive Behavior of Their Pupils," Journal of Experimental Education, XXVII (December 1958), p. 90.

motivate his students to do only the required work, and the student will perform very little self-initiated work. Whereas, the teacher who becomes a cue for "respect" will motivate his students to do self-initiated work. Cogan labels the avoidance situation as "preclusive" with perceived teacher behavior dimensions of "dominative," "agressive," and "rejectant" characteristics. The "respect" situation is labeled "inclusive" and contains perceived teacher behavior dimensions of "integrative," "affiliative," "nurturant" characteristics. Also in his study, Cogan considers another independent variable which he calls "conjunctive." This perceived teacher characteristic is least affect-laden and includes "level of demand," "ability to communicate," and "effective classroom management."

The study seeks to answer the following question: "Given certain teacher behaviors, what are the relationships between the pupil's perception of such cues and the corresponding productivity scores?"¹³

The population sampled consisted of the public school teachers in departmentalized secondary schools in communities located within the metropolitan Boston area. The data was collected from 33 teachers and 987 eighth grade pupils in five public junior high schools in the form of a student questionnaire on teacher behavior cues and a scale for measuring required and self-initiated work.

The finding which directly applies to the present study is that "Strong evidence is adduced to show that in the perception of the pupils,

¹³Ibid., p. 92.

scores on inclusive and conjunctive behavior of teachers are related to scores on the performance of required and self-initiated work of pupils."¹⁴ The perceived conjunctive variable was significantly related to achievement at the .05 level in over half of the cases studied and the perceived inclusive variable was significantly related to achievement at the .01 level in 21 of the 33 cases studied.

Ned Flanders¹⁵ studied the relationships among student attitudes, interaction analysis, and teacher effectiveness measured by student achievement. Student attitudes expressed on a questionnaire inventory in this study were primarily intended to determine student independence and motivation, and they were not intended as expressions of student attitudes toward the teacher's behavior or teacher's ability to establish conducive teacher-student interaction. The interaction analysis was accomplished by observers using a scale containing ten categories. These included seven assigned to various purposes and types of teacher talk, two to student talk, and one to silence and confusion. The occurrence frequencies of these categories were grouped to characterize "direct" and "indirect" classroom interaction patterns.

Studying the eighth grade math classes of sixteen teachers and the seventh grade English-social studies classes of sixteen teachers over a period of two weeks, the researchers found that constructive pupil

¹⁴Ibid., p. 103.

¹⁵Ned Flanders, "Some Relationships Among Teacher Influence, Pupil Attitudes and Achievement," Contemporary Research on Teacher Effectiveness, eds. Bruce Biddle and William Ellna (New York, 1964), pp. 196-231.

attitudes, indirect patterns of teaching, and pupil achievement were significantly related at the critical ratio $P < .01$.

Communication and Teacher Effectiveness

There have been several studies of the relationship between specific communication variables and teacher effectiveness, but only two appear relevant and fairly competent. Leading in this area of educational research is the study by McCoard. McCoard¹⁶ studied the relationship of three general communication factors and teacher effectiveness measured by a composite of certain desirable pupil gains which were developed in earlier research by L. H. Mathews.¹⁷ McCoard's study was comprised of forty teachers who had been previously rated in teacher effectiveness by the criterion described above. Tape recordings of each of the selected teachers' three minute extemporaneous talk on "My Preparation for Teaching" and three minute reading of prose literature were made. Each teacher's recording was played back twice for a panel of twenty-two speech teachers who served as judges of the teachers' communication skills. The general speech factors of "general effectiveness," "communication of ideas," and "communication of emotions" were rated at the conclusion of the first playback. Eleven voice-articulation factors were evaluated during the second playback. All the correlations obtained between the rating scores of the speech

¹⁶William B. McCoard, "Speech Factors as Related to Teaching Efficiency," Speech Monographs, XI (1944), pp. 53-65.

¹⁷L. H. Mathews, "Qualities Associated with Teaching Efficiency," (Doctoral dissertation, University of Wisconsin, 1939).

judges on the prose reading and the teacher effectiveness criterion scores were significant, positive correlations, i.e., they exceeded the 5% level of significance; all but two reading subscores were highly significant, and the total reading score was .46, which is highly significant since it is above the 1% level. All but three of the fourteen correlations obtained between the "speaking" scores and the criterion scores were significantly positive correlations. The correlation with total score was .36, which is significant at the 5% level.

The data obtained in this study clearly indicated that a statistically significant, positive correlation does exist between speech effectiveness and teaching efficiency.

Ernest Henrikson¹⁸ studied the relationship among voice, personality, and teaching ability of college instructors. One hundred and fifty college students were each presented with a sheet of paper divided into columns headed respectively: name of instructor, sex, pitch of voice, and teacher effectiveness. The students rated their college instructors of the concurrent and past quarter on the item indicated above according to a five point forced-choice scale. Here, teaching effectiveness was not measured by student achievement but by student rating of perceived teacher qualities. This method would appear to create a "halo effect" in regard to both the speech factors and teacher effectiveness. As McCoard pointed out in his study, speech ability is

¹⁸Ernest Henrikson, "Some Relations Between Personality, Speech Characteristics and Teaching Effectiveness of College Teachers," Speech Monographs, XVI (September 1949), pp. 221-226.

more than the sum of a number of independent speech characteristics and evaluation of one overlaps the other. As one might expect, there is a positive and significant relationship among the various attributes studied. Using the chi-square technique, Henrikson found greatest relationship exists between perceived teacher effectiveness and personality. From this study Henrikson concluded that there is a positive relationship between personality, voice, and teaching ability, but the degree of relationship is determined in part by the sex of the persons doing the rating and the sex of the teacher being rated.

Attitude Measurement and Teacher Effectiveness

Although there have not been any studies of interpersonal trust by the measurement technique of the semantic differential in the area of teacher effectiveness, there have been attempts to measure general attitudes of students toward teachers using the semantic differential technique and some of the dimensions of trust have been noted. The two studies reviewed here pertain to student evaluation of teachers at the college level.

Husek and Wittrock¹⁹ investigated the dimensionality of attitudes of college students in education toward the single concept: "school teachers." The subjects of the study were 259 students in the introductory course of educational psychology at the University of California. These students evaluated the factors of "school teachers" on a set of

¹⁹T. R. Husek and M. C. Wittrock, "The Dimensions of Attitude Toward Teachers as Measured by the Semantic Differential," Journal of Educational Psychology, LIII (1962), pp. 209-213.

117, seven-step, bipolar scales following the procedure suggested originally by Osgood.²⁰ These 117 scales were selected to represent a diverse set of dimensions which were believed appropriate to teaching. The means and standard deviations for each scale were obtained, but to facilitate factor analysis the number of scales was cut to 80 by subjective elimination of items with extremely low variance or with great similarity to other scales in the study.

The study of Husek and Wittrock resulted in the emergence of an overall "evaluation" factor which seemed to define all that is related to ratings of goodness in school teachers and included not only scales such as good-bad but also scales relating to potency, activity, and sociability. Separate dimensions of potency, activity, and sociability did not develop. Restraint, tenacity, predictability and stability tended to establish themselves as separate dimensions.

Edgar Schein and Douglas Hall²¹ used the semantic differential to establish the students' images of "good" and "poor" college teachers. By asking graduate students of business management to name and describe the instructors from whom they learned the most and those from whom they learned the least, the authors developed a 36 item semantic differential. Three clusters or dimensions evolved: communication, competence, personal potency and commitment to the role of teacher. Having

²⁰C. E. Osgood, C. Suci, and T. Tannenbaum, Measurement of Meaning (Urbana, 1957).

²¹Edgar Schein and Douglas Hall, "The Student Image of the Teacher," The Journal of Applied Behavioral Science, III (1967), pp. 305-337.

derived these dimensions inductively, the authors checked their reliability by factor-analyzing the data and repeating the analysis on two new sets of ratings. The potency factor came out unambiguously in all three analyses; the competence factor was clear in two analyses and present but ambiguous in the third; the committent factor revealed a variety of interpersonal emotional aspects which could be viewed either as a simple factor of supportiveness or as two factors--an overall personality dimension of warmth and sincerity and an interactional dimension of liking to teach and helpfulness. From their analyses, Schein and Hall concluded that three basic dimensions called competence, potency and supportiveness had been adequately demonstrated as characterizing how students perceive teachers.

Summary of Related Literature

From a survey of the related literature, one can ascertain that some attempts have been made to analyze the interaction and communication of teacher-student and their relationship to student achievement, but it is also evident that the findings are varied and inconclusive. The terms chosen to describe the interaction are abstract and without operational definition with which further experimental study can evolve. The questionnaire method of ratings were based consistently on original questions which lack both validity and reliability. The interaction variables were treated as static, uni-directional phenomena. The measurement of teacher effectiveness was based solely on either knowledge achievement or student work production without consideration of complete educational objectives. The studies represent data from several levels

of education ranging from early elementary grades to college. The subject material of courses varies in the studies and as the study by Christensen pointed out, the subject matter being taught is an important factor in measurement of teacher effectiveness. None of the studies attempts to explore importance of mutual behavior cues, but tends to view classroom interaction only from the student perception. Few generalizations can be made from these studies, but they have provided a basis for further research.

McCoard's study indicated that there is a relationship between the communication ability of the teacher and that teacher's effectiveness, but the term "communication ability" is almost as abstract and nebulous as "warmth" and "friendly," especially when the evaluation of communication was based strictly on tape recorded voices. Henrikson's study suggests that college students perceive their most effective teachers as also being the best communicators.

Husek, Wittrock, Schein and Hall have indicated that the semantic differential scale can be an effective means of measuring student attitudes toward teachers. Although the dimensions which evolved in these studies were different (primarily because the concepts were different) the semantic differential scale appears to be a valid and reliable measure of attitudes, especially when it is used in conjunction with other measuring instruments.

The review of related literature indicates a legitimate framework for the present study. The teacher-student communication (the dynamic, mutual expression and interaction of group and teacher) appears to be

significantly related to teacher effectiveness measured by fulfillment of course objectives. The related literature stipulates that the generalization obtained from the present study must be limited to the subject material of the speaker-audience speech communication course at the college level. The related literature also suggests that this study needs to provide an operationally defined communication concept and a standardized means of measurement in order that further observation of this relationship can be made and the observable behavior patterns can be established. It is hoped that from the results, it may be possible to describe in part the concept of teacher effectiveness in the speaker-audience speech course.

CHAPTER III

METHODOLOGY AND PROCEDURES

Selection of Instruments for Measuring Effectiveness

As stated in the introductory chapter, the instruments for measuring teacher effectiveness were selected on the basis of their capabilities of measuring the educational objectives of the Fundamentals of Speech 1A, Speaker-Audience Communication Course at the University of Kansas. The Patton Speech Content Exam was chosen as the instrument for measuring student achievement in knowledge about the subject of speech communication and for an indication of fulfillment of the first and third educational objectives of the course: (1) To provide the student with an awareness of the functions, basic principles, application, and issues involved in speaker audience situations, and (3) To provide the student with an awareness and appreciation of critical discrimination of logical, emotional, and ethical thought. Rossillon's Speaker's Self-Concept Scale was chosen as the instrument for measuring student attitude toward speaker-audience situations and for an indication of fulfillment of the second and fourth educational objectives of the course: (2) To provide the student with a positive attitude concerning the nature of human speech communication and the self-perception of the student as a communicator, (4) To aid the student in acquiring proficiency in selection, structuring, symbolizing and presenting ideas orally.

The Patton Speech Content Exam was developed in 1966 by Bobby

Patton, presently Assistant Chairman of the Speech and Drama Department of The University of Kansas. The purpose of the exam's development was the specific measurement of speech knowledge acquired by the students of Fundamentals of Speech 1A, Speaker-Audience Communication course at The University of Kansas. Dr. Patton solicited two tests that purported to measure student knowledge in speech communication: the Wisconsin Test of Speech Attainment, developed by William Price as his doctoral dissertation, and the Iowa Test of Speech, utilized in the Iowa beginning speech program. From the 150 item Iowa Test, the 64 item Wisconsin Test and test items used by University of Kansas fundamentals of speech instructors, Patton selected on face validity one hundred items for inclusion in his test. The items were systematically divided into two fifty-item forms, Form A and Form B, containing evenly distributed types of course content material. The tests were administered to 305 students: Form A to 123 and Form B to 182. A typical item analysis for difficulty and discrimination was run and highly satisfactory difficulty and discrimination levels were found in 69 items. After external validity for the test items was provided by the instructors of fundamentals of speech at Kansas University, further refinement was accomplished; the result was a sixty-item multiple choice test. The final validity check of this instrument was made in Patton's dissertation when it was reported:

A statistically significant difference at the .01 level of confidence, exists in the cognitive knowledge of the fundamental processes of speech communication between students who have completed

the Fundamentals of Speech Course and those who have not.¹

Since the time of its development, the Patton Speech Content Exam has been used as a part of The University of Kansas Speech I Exemption Exam and by instructors for part of the final test in Fundamentals of Speech IA, Speaker-Audience Communication course.

For the purpose of this research and the time element involved in administering the three pre and posttests within a single class session, the Patton Speech Content Exam was abridged to thirty items. According to educational statisticians this number of items is sufficient enough for the retention of a valid and reliable instrument. The abstraction of the Patton Speech Content Exam was accomplished in a manner similar to that with which the test originally was developed. The original sixty item test was administered to 102 college speech students chosen at random from the student body of Peru State College. Using the Glock² method of item analysis the author determined the difficulty and discrimination levels for each of the items. The thirty selected items were within the difficulty range of .40 to .60, above the discrimination level of +.30, and each item chosen was subjected to a test of face validity by speech instructors. A copy of the test and rationale for each question is found in the appendices.

¹Bobby R. Patton, "An Experimental Study of the Effects of the Beginning Speech Course at the University of Kansas," (Doctoral dissertation, University of Kansas, 1966), p. 122.

²Stanley Ahmann and Marvin Glock, Evaluating Pupil Growth: Principles of Test and Measurement (Boston, 1967).

The Speaker's Self-Concept Scale was developed in 1967 by Joseph Rossillon as his doctoral dissertation at the University of Southern Illinois. The theoretical basis for this study was that attitudes play a major role in speech performance and effectiveness, and that an individual's attitudes are the basis for his self-concept which in turn plays a major role in speaking performances. According to Rossillon a "Speaker's Self-Concept" is the manner in which the speaker perceives himself as effective or ineffective in a speaking situation in regard to the five categories: (a) speech attitude and adjustment, (b) voice and articulation, (c) bodily posture and action, (d) language, and (e) audience interest and adaptation. The Speaker's Self-Concept Scale is based on speech behaviors and speaker characteristics in the form of a forced-choice scale which measures speakers' concepts of their effectiveness as speakers. This forced-choice scale was developed by compiling a series of 1,000 statements from college freshmen students themes about speech effectiveness and ineffectiveness. These statements were then administered to 400 freshmen speech students to determine how desirable each statement was to the students when used to describe effective speakers. The same 400 students were asked to rate each statement as it applied to the ratee. The difference in the average rating between the effective speakers was considered the discrimination index for that statement. On a separate sheet, the students in each section of the freshman speech class who had rated the statements, were asked to rank every student in that section in regard to effectiveness as a speaker. This ranking was used to determine the

effective speakers and the ineffective speakers.

From the 1,000 original statements, 160 which showed similar desirability indices but with different discrimination indices were chosen. The reliability of the technique used to determine the desirability indices demonstrated positive correlations of .96, .90, .90, .91, and .83 among the five sections. Using four split-half correlations, Rossillon found positive correlations of .87, .96, .95, and .85 among the sections in regard to the discrimination indices. These statements were grouped into 40 tetrads with each tetrad containing the following statements: (a) One statement indicated significant discrimination toward effective speakers (b) two statements indicated little or no discrimination between effective and ineffective speakers (c) one statement indicated significant discrimination toward ineffective speakers.

This forced-choice scale of forty tetrads was administered to 100 students in the Southern Illinois University Freshman Speech course. These same students were evaluated by three expert critics on their final speech presentation. A correlation was computed between the test scores and the speaker ratings by the judges for the 100 students. An item analysis was computed and the best 20 tetrads of the forced-choice scale were selected.

The 20 tetrad forced-choice scale, known as the Speaker's Self-Concept Scale, was administered to a group of 50 students who had also taken the Minnesota Multiphasic Inventory during the same week. These 50 students were also judged on a speech performance by three expert

critics. Correlations were then computed between the Speaker's Self-Concept Scale and the Minnesota Multiphasic scores, and between the Speaker's Self-Concept Scale and the expert critics ratings.

The correlation between the results of the forced-scale and the ratings of speaker performance was $+.45$, significant at the $.01$ level. The correlation between the Speaker's Self-Concept Scale and the Minnesota Multiphasic Inventory showed five positive, low correlations. To Rossillon the latter correlation indicated that the Speaker's Self-Concept Scale is a personality measure, but it tests specific areas not directly related to the M.M.P.I.

When administering the Speaker's Self-Concept Scale, the statements of the tetrads are presented in random order. Each statement is given positive or negative values which range from -3.20 to 5.38 in scoring value. The highest possible effectiveness score, a total of the significant plus (+) scores and the non-significant plus (+) scores, is $+65.06$. The highest possible ineffectiveness score, a total of the significant minus (-) scores, and the non-significant minus (-) scores, is -67.18 . A copy of the scale and scoring key is in the appendices.

Selection of the Instrument for Measuring Trust

Interpersonal trust as it is defined in this study is a new concept and the instrument used for measuring it has just recently been developed by Dr. Kim Giffin, Director of the Communication Research Center at The University of Kansas. Interpersonal trust, as it was defined in the introductory chapter, 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. Giffin contends that the amount of trust a person has toward another person upon whom he is reliant in achieving the desired goal cannot be directly observed; it must be measured through an introspective report of the person experiencing the trust. Thus, to measure trust (an attitude or orientation) an attitude scale must be employed. The instrument developed for this purpose by Giffin, is a special type of semantic differential scale, a measurement technique devised by Osgood, Suci and Tannenbaum in 1957.³ Osgood's original instrument included the general factors of "evaluation," "potency," and "activity," but these factors varied in later, more specific and different research studies applying this technique. The semantic differential has been applied to the measurement of audience attitude toward public speaker's credibility or ethos by these researchers: Anderson,⁴ Lambert,⁵ Markham,⁶ and McCroskey.⁷ It was from these studies on credibility that Giffin

³Charles Osgood, George Suci and Percy Tannenbaum, The Measurement of Meaning (Urbana, Illinois, 1957).

⁴Kenneth Anderson, "An Experimental Study of the Interaction of Artistic and Non-Artistic Ethos in Persuasion," (Unpublished dissertation, University of Wisconsin, 1961).

⁵James Lambert, "Dimensions of Source Credibility," (Mimeographed paper, 1963).

⁶David Markham, "Dimensions of Source Credibility of Television Newscasters," (Unpublished doctoral dissertation, University of Oklahoma, 1965).

⁷James McCroskey, "Scales for the Measurement of Ethos," Speech Monographs, XXXIII (1968), pp. 65-72.

collected his original seventy-two bi-polar adjectival scales.

Using the Darnell⁸ method, known as the "best-worst" technique, Giffin subjected these seventy-two scales to two separate but similar evaluation research studies. The results of both studies showed that every one of the seventy-two bi-polar items was found to be discriminatory at the .01 level of confidence with the same polarity of direction. Then Giffin designed a study involving 325 members of on-going small groups in order to collect data on the same bi-polar items in the manner developed by Osgood, Suci, and Tannenbaum,⁹ to perform an item analysis to determine relative strength of each item and to do a factor-analysis to determine clusters of items or factors. Two statistical treatments were employed: (1) t-test to determine discrimination capability of each item as described by Edwards¹⁰ and (2) factor analysis by the principal-axes method of factoring the correlation matrix described by Fruchter¹¹ followed by the Kaiser varimax method of rotation described by Harmon.¹² The t-ratio obtained on the seventy-two items showed that all but one of the items differentiated significantly at the .01 level of confidence. The principal components

⁸Donald Darnell, "A Technique for Determining the Evaluative Discrimination Capacity and Polarity of Semantic Differential Scales for Specific Concepts," (Unpublished doctoral dissertation, Michigan State University, 1964).

⁹Charles Osgood, George Suci, and Percy Tannenbaum, Measurement of Meaning (Urbana, Illinois, 1957).

¹⁰Allen Edwards, Techniques of Attitude Scale Construction (New York, 1957).

¹¹Benjamin Fruchter, Introduction to Factor Analysis (New York, 1954).

¹²Harry Harmon, Modern Factor Analysis (Chicago, 1960).

analysis extracted eleven factors from the 72x72 correlation matrix whose eigenvalues were greater than one. These eleven factors explained 62.32 per cent of the original variance of the test space. Using varimax rotation, Giffin reduced the eleven original factors to three factors which accounted for 46.50 per cent of the original variance. The factor of "character" accounted for 19.68 per cent; the factor of "expertness" accounted for 16.65 per cent; and the factor of dynamism accounted for 10.18 per cent of the original variance.

The final revised form of Giffin's Trust Differential (GTD-Form E) is intended to determine an individual's introspectively reported trust of either another individual or of a group. This single page, twenty-seven item scale with its three factors each containing nine items based on their high capability of discrimination and high loading on only one factor is intended to fulfill the following requirements: (1) ease of administration, (2) ease of scoring, (3) ease of derivation of relative values for each factor or dimension. A copy of the scale is in the appendices.

Population Selection

All nineteen sections of the regular Fundamentals of Speech 1A, Speaker-Audience Communication Course at The University of Kansas during the fall semester of 1968-69 academic year comprised the original population of this study; however, because of a misunderstanding, one section did not take part. The student population was derived from the official class rosters of the University as prepared by the Registrar's Office which assigns students to the Fundamentals of Speech 1A, Speaker-

Audience Communication Course in a random fashion using the last digit of the students' identification numbers. This study of eighteen class sections containing approximately twenty-five students each originally included a total of 418 students. The instructors for these sections were all graduate assistants who were randomly selected for each class by the chairman of the fundamentals of speech program. A total of thirteen instructors took part in this study, six of whom taught two sections each of Fundamentals of Speech 1A.

Each class section made up an experimental group. All classes were taught in a similar manner with all using the same syllabus and basic texts. All instructors attempted to fulfill the same educational objectives. Six Fundamentals of Speech 1A workshops were held for the staff in order to compare and synchronize the teaching of these sections.

Although the students of these sections varied in background, age, and sex, they all were taking similar college courses concurrent with the Fundamentals of Speech 1A course.

Study Design

The descriptive-experimental design chosen for this study is a concurrent, multiple replication of what Donald Campbell calls "The One Group Pretest-posttest" design.¹³ This design provides a formal comparison of two observations and is represented as "0₁x 0₂." The "x" represents the exposure of a group to the experimental variables, the

¹³Donald Campbell, "Factors Relevant to the Validity of Experiments in Social Settings," Psychological Bulletin, LIV (1957), p. 298.

effects of which are to be measured. The "O" refers to the process of measurement, and the left to right dimensions indicate temporal order. In this study the "O's" symbolize the Giffin Trust Scale, the Speaker's Self-Concept Scale, and the Patton Speech Content Exam. The "X" represents the isolated variables experienced in the taking of Fundamentals of Speech 1A, Speaker-Audience Communication Course.

The design is simple in nature, but it provides the necessary flexibility found in measuring the relationships and changes of dynamic attitudes and behaviors. It also, when done in replication, minimizes the bias and maximizes the reliability of the evidence of descriptive studies as discussed by Selltiz, et al.¹⁴ This design, according to Campbell, is a valid descriptive design if the inherent extraneous variables are controlled.¹⁵

The descriptive nature of this present study has as its purpose the determination of the frequency with which one variable is associated with others; it rejects any claim of proving causal relationship and, therefore, diminishes the necessity to strictly control many of the other variables involved. Also, the multiple replication of the design as found in this study adds credence to the inferred generalizations of this research.

The null-hypotheses of this study further control the influence

¹⁴Claire Selltiz, Marie Jahoda, Morton Deutsch, Stuart Cook, Research Methods in Social Relations (New York, 1966), p. 50.

¹⁵Donald Campbell and Julian C. Stanley, "Experimental and Quasi-Experimental Designs for Research on Teaching," Handbook of Research on Teaching, ed. N. L. Gage (Chicago, 1966), p. 177.

of extraneous variables. With the null-hypotheses in the cases of correlation and differences, the researcher can reject the null-hypothesis, infer that there is some degree of correlation, legitimately proceed to set up a confidence interval, and predict what would happen statistically. If the null-hypotheses are not rejected, the researcher merely admits no significant relationship or difference.¹⁶

Campbell warns, however, that in this design ". . . there are four or five categories of extraneous variables left uncontrolled which thus become rival explanations of any differences between O_1 and O_2 , confounded with the possible effect of "X".¹⁷ The first of these is the main effect of history, the change-producing events which may have occurred between the O_1 and O_2 in addition to the experimenter's "X".

The large population randomly selected for the eighteen "One-Group Pretests-posttests" and the controlled curriculum of these students assure minimization of the direct influence of the extraneous variable of "history". It is difficult to conceive that "history" would affect the attitude results, and the achievement results are limited to knowledge gained in a speech class which is measured by the Patton Speech Content Exam, a valid test for measuring effects of speech training, specifically in Fundamentals of Speech 1A at The University of Kansas.

¹⁶Donald Campbell, "Factors Relevant to the Validity of Experiments in Social Settings," Psychological Bulletin, LIV (1957), p. 298.

¹⁷J. P. Guilford, Fundamental Statistics in Psychology and Education (New York, 1965), p. 172.

The second rival variable is designated as "maturation." It is a term used to cover all of those biological or psychological processes which systematically vary with the passage of time. "Maturation" is minimized by the short duration of the study, 18 weeks, and the large, randomized sample of the study population.

The third source of variance is that of "testing," the effect of the pre-test itself. To minimize this rival variable, the attempt was made to create a "nonreactive" environment during the administration of the tests. Subjects were told that the tests were diagnostic in nature and would not influence instructors' attitudes toward them or their grade in any way. It was made clear that the instructors would not have access to the test information until the course was completed and the grades submitted. Attempts to alleviate the "I am a guinea pig" feeling on the part of the subjects was diminished in the instructions for administering the instruments. Also, the Patton Speech Content Exam has been used in a controlled, experimental pre-post design, and no significant effect of the pretest upon the posttest was evident. No pre-post designs have been applied to Rossillon's Speaker's Self-Concept Scale, but the author, Rossillon, reported nothing in his development of this instrument that would suggest that a testing error would be of any consequence.

The two remaining uncontrolled sources of variance for this design, "instrument decay" and "statistical regression," seem irrelevant to this particular descriptive study. The "instrument decay" is not a factor, for the same mimeographed objective instruments are employed

for both the pre- and post-tests. Since the study includes the total population of each group, the statistical regression variance is negligible.

The internal validity of the design used in this study appears not to offer significant weaknesses; however, the external validity limits the study's generalizations to the relationship of variables in the speaker-audience speech communication course at the college level which has similar educational objectives.

Accumulation of Data

The initial data which consisted of the pretest scores of the three previously described instruments were collected during the first week of fall classes, 1968. The tests were administered by the instructors of the sections during the second class session. According to the instructions, a copy which can be found in the appendices, the instructors administered all three testing instruments within the same class session. The order in which the tests were to be given was prescribed. The Giffin Trust Scale was given first, followed by the Patton Speech Content Exam, and Rossillon's Speaker's Self-Concept Scale was administered last.

The students were asked to comply with this research, and they were informed that the tests were intended to be diagnostic with the purpose of instructional improvement. They were told that the exam score would not affect their grades nor would the test results be made available to the instructors until after the final grades had been submitted.

The terminal data consisted of the posttest scores of the three instruments. The posttest was administered during the final testing period. The same sequence was followed as was used in the pretesting administration.

Statistical Treatments

Three major statistical treatments are used in this study: one to establish relationships of variables, one to determine differences between pretest and posttest samples, and the other to measure the variance among multiple groups of data. To test the null hypothesis concerning the relationships of Patton's Speech Content Exam, Rossillon's Speaker's Self-Concept Scale, course grade, class withdrawals, and trust with its dimensions of "expertness," "character," and "dynamics," the computation of the coefficient of correlation is used. The specific treatment used is the Pearson's product moment coefficient for which the basic formula is

$$r_{xy} = \frac{\sum xy}{N \sigma_x \sigma_y}$$

Where r_{xy} = correlation between x and y

x = deviation of any x score from the mean in test x

y = deviation of the corresponding y score from the mean in test y

$\sum xy$ = sum of all the products of deviation, each x deviation times its corresponding y deviation

σ_x and σ_y = standard deviations of the distribution of x and y scores¹⁶

¹⁶J. P. Guilford, Fundamental Statistics in Psychology and Education (New York, 1965), p. 95.

The precise formula used is the Pearson "r" computed from original ungrouped data:

$$r_{xy} = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]} \quad 17$$

The treatment employed to test the null hypothesis regarding the difference between pretest-posttest data is Fisher's "t". Because the samples of this study are not independent but correlated, the formula for deriving "t" directly from sum of squares is

$$t = \frac{M_d}{\sqrt{\frac{\sum x^2 d}{N(N-1)}}}$$

M_d = mean of N difference of paired observations and

xd = deviation of a difference from the mean of the differences¹⁸

A modification of the "t" is used in facilitating the use of the covariance data provided by the computer.

In describing the variations among categorized groups of teachers and students in regard to trust, the analysis of variance is used. The data is computed from the within - sets sum of squares by the equation

$$(M_s)_w = \frac{(SS)_w}{K(n-1)} = \frac{\sum x^2_s}{K(n-1)} = \frac{\sum x^2_s}{N-K} \quad 19$$

Summary

The instruments chosen for obtaining the raw data of this research are the Patton Speech Content Exam, Rossillon's Speaker's Self-Concept

¹⁷Ibid., p. 97.

¹⁸Ibid., p. 184.

¹⁹Ibid., p. 271

Scale, and the Giffin Trust Scale.

The population of this study is composed of eighteen sections of Fundamentals of Speech 1A, Speaker-Audience Communication Course at The University of Kansas. This provides a total of 418 students and thirteen instructors.

The descriptive-experimental design used in this study is what Donald Campbell describes as "The One-Group Pretest-Posttest."

The statistical treatments include "Pearson product moment coefficient," "Fisher's Correlated 't'," and "analysis of variance."

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Experimental Treatments

As stated in Chapter III on methods and procedures, three basic statistical treatments were used in this study: the Pearson product moment coefficient to describe relationships of the variables, Fisher's "t" to describe the differences between two correlated variables, and variance analysis to describe the differences among several variables in special categories. It should be reiterated here that this study was exploratory and descriptive in nature, and the purpose of these treatments was not to establish causal relationship, but to describe the phenomenon of the variables involved.

The statistical treatments computed and analyzed were attempts to measure the relationships and variances of the variables. The two test score means of Rossillon's Speaker's Self-Concept Scale and the Patton Speech Content Exam were the variables representing the concept of teacher effectiveness, and the mean score of the Giffin Trust Scale was the variable representing the concept of interpersonal trust. However, separate computations were made for each of the three internal dimensions of interpersonal trust: "character," "expertness," and "dynamism." Also, the final course grades were included as experimental variables. As the description of the experimental design in Chapter III indicated, duplicate administration, pre- and posttests of the instruments, was accomplished; thus, data for thirteen independent, experimental

variables were obtained.

Since these treatments required composite scores to establish multiple relationship analyses by the computer, the raw data fed into the computer had to be complete and there had to be corresponding scores for each subject on each instrument for both the pretest and posttest administrations. Because some subjects' scores were incomplete due to absences, faulty test administration, and subjects' refusal to cooperate completely, the population sample for the correlation and variance treatments was reduced to 334 students, eighty-four fewer than the original population of 418.

The thirteen variable scores for each of the 334 subjects that made up the raw data were entered into the University of Kansas Computer Center under a program recommended by Robert Reed, Consultant for the University of Kansas Bureau of Educational Research and Service. The program was BMD02R-Stepwise Regression Version of April 13, 1965, developed at Health Sciences Computing Facility, University of California at Los Angeles.¹ The program was entered into the University of Kansas Computation Center for the first time on December 24, 1968. The computer program provided the grand mean and the standard deviation of each of the variables, a correlation matrix, and a covariance matrix for the thirteen variables.

Measurement of Teacher Effectiveness

One purpose of this research was to establish, to determine its

¹W. J. Dixon, ed. Biomedical Computer Programs (Berkeley, California, 1967).

feasibility, and to describe a method for measuring teacher effectiveness in the beginning public speaking course at the college level. The two instruments chosen, Rossillon's Speaker's Self-Concept Scale and the Patton Speech Content Exam, appear to measure the fulfillment of the educational objectives for the fundamentals of speech course, but their relationships and the relationship of the concepts they purport to measure need to be described in regard to each other, to the final course grade and to the effects of the course on the students. What is the relationship of a student's attitude toward himself as a communicator and his knowledge about speech? Are speech attitudes and knowledge separate and independently dynamic aspects of training as the educational objectives describe them? Does a student's self-concept as a communicator change during training, and does his knowledge about speech increase correspondingly?

The Relationship Between the Student Speaker's Self-Concept and the Student's Knowledge of Speech Communication

The analysis of the computed data indicated that the relationship of the initial Rossillon Speaker's Self-Concept Scale (SSCS) and the initial Patton Speech Content Exam (PSCE) was a positive correlation which was significant at the .01 level. The SSCS with a score range of -67.18 to +65.06 in the initial administration at the beginning of the course had a grand mean score of +4.097 with a standard deviation of 11.638; whereas, the PSCE with a score range of 0 to 30 in the initial administration had a grand mean score of 14.045 with a standard deviation of 4.430. The resulting coefficient correlation was .153

which was greater than the interpolated .01 table score² of .134. Thus, it was a statistically significant coefficient of correlation at the .01 level.

There appeared to be a significant relationship among the student's knowledge about speech, his attitude toward speech, and his attitude toward himself as a communicator. College students who knew more about speech tended to have a better attitude toward themselves as communicators.

The computation of the data for the terminal SSCS and the terminal PSCE did not provide a coefficient of correlation that was statistically significant at either the .01 or .05 levels. The mean for the terminal SSCS was 5.146 with a standard deviation of 11.43, and the mean for the terminal PSCE was 17.489 with a standard deviation of 4.932. The resulting "r" score of .017 was less than the coefficient of .103 necessary for significance at the .05 level. However, the coefficient of correlation for the initial SSCS and the terminal PSCE was .146 which was statistically significant at the .01 level, but the coefficient of correlation for the initial PSCE and terminal SSCS was .046 which was not statistically significant. The following schematic may clarify the observed relationships and aid in the understanding of this statistical phenomenon.

²J. P. Guilford, Fundamental Statistics in Psychology and Education (New York, 1965), p. 581.

It is beyond the scope of this research to determine which explanation is applicable, but this research does point out a consideration which must be made when one uses a combination of attitude and mental achievement instruments as the criteria for measuring teacher effectiveness.

TABLE II
THE RELATIONSHIP OF STUDENTS' SPEAKER'S SELF-CONCEPT
SCALES SCORES AND PATTON SPEECH CONTENT
EXAM SCORES

	MEAN	SD		MEAN	SD	"r"	
INITIAL SSCS	4.097	11.637	←→	INITIAL PSCE	14.045	4.429	.153*
TERMINAL SSCS	5.146	11.431	←→	TERMINAL PSCE	17.488	4.932	.017
INITIAL SSCS	4.097	11.637	←→	TERMINAL PSCE	17.488	4.932	.146*
TERMINAL SSCS	5.146	11.431	←→	INITIAL PSCE	14.045	4.429	.046

"r" score needed for significance with 333 degrees of freedom at the .01 level = .134.

* indicates scores significant at .01 level.

Analysis of the computed data warrants the rejection of the null hypothesis: "There is no statistically significant relationship between student speaker's self-concept and his knowledge about speech communication." However, the data indicates that student attitude toward himself as a speaker and knowledge about speech are two autonomous variables which develop independently of each other.

The Relationship Between Student Speaker's Self-Concept and Final Grade for the Speech Course

A study of the computed data revealed that there was a statistically significant relationship between students' speaker's self-concept or attitude toward themselves as communicators and the final grade which they received from the speech course. This relationship existed in both the initial and the terminal measurements with the greater relationship occurring at the terminal measurement. This relationship was especially noteworthy because of the high grade mean and the small standard deviation. The grades were given numerical value as follows: A=4, B=3, C=2, D=1, and F=0. The mean grade was 2.742 with a standard deviation of 0.794. The coefficient correlations for both initial and terminal SSCS values were significant at the .01 level. A student's speech attitude was relevant to his achievement in a speech course, especially achievement measured by the instructor's evaluation.

TABLE III

THE RELATIONSHIPS OF STUDENTS' SSCS SCORES AND FINAL GRADE FOR THE SPEECH COURSE

	MEAN	SD		MEAN	SD	"r"	
INITIAL SSCS	4.097	11.637	↔	FINAL GRADE	2.742	0.794	.154*
TERMINAL SSCS	5.146	11.431	↔	FINAL GRADE	2.742	0.794	.194*

"r" score needed for significance with 333 degrees of freedom at the .01 level - .153.

* indicates scores significant at the .01 level.

The above analysis warrants the rejection of the null hypothesis: "There is no significant relationship between a student's self-concept and that student's final grade in the speech course." The data indicates that students who perceive themselves as better communicators and who have a positive attitude toward speech communication will receive better grades in speech class.

The Relationship Between Students' Knowledge About Speech Communication and Final Grade in the Speech Course

There was a highly significant correlation between both the initial and terminal student knowledge about speech communication and the final grade in speech class. The data inferred that those students who initially knew more about speech and those students who learned more about speech received better grades. This appears to be a natural conclusion, but it is one which is often challenged by critics of speech education.

TABLE IV

THE RELATIONSHIP OF PATTON'S SPEECH CONTENT EXAM SCORE AND
THE STUDENT'S FINAL GRADE FOR THE SPEECH COURSE

	MEAN	SD		MEAN	SD	"r"	
INITIAL PSCE	14.045	4.429	←→	FINAL GRADE	2.742	0.794	.354*
TERMINAL PSCE	17.488	4.932	←→	FINAL GRADE	2.742	0.794	.317*

"r" score required for significance at the .01 level = .153.
* indicates scores significant at the .01 level.

The computed data affirms rejection of the null hypothesis: "There is no statistically significant relationship between a student's knowledge about speech communication and that student's final grade in the speech course."

The Relationship Between the Fundamentals of Speech Course and the Students' Gain in Speech Knowledge

To determine and describe the relationship between the material taught in the fundamentals of speech course and the students' gain in knowledge about speech communication, it was necessary to measure the students' knowledge at the initial point of the course and describe its variance from the students' knowledge at the terminal point of the course. The research design used was "The One Group Pretest-Posttest," which was described in Chapter III, and the statistical treatment used was a correlated "t" test, a modification of the basic Fisher "t" described in Chapter III. The modified "t" facilitated the use of the covariance matrix provided by the computer program, and it diminished the chance of mathematical error. The specific formula was

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{\sigma_{X_1}^2 + \sigma_{X_2}^2 - 2\sigma_{X_1X_2}}{N-1}}}$$

The computed data indicated that there was a very significant difference between the students' initial knowledge about speech communication and the students' terminal knowledge. Since Patton in his dissertation diminished the concern of contamination of the pre-speech content exam upon the post speech exam after a semester's time, the findings here corroborated the contention that students increased their

knowledge about speech communication within the fundamentals of speech course as the course's educational objective prescribed. The grand mean score for the pretest of the Patton Speech Content Exam was 14.045 with a standard deviation of 4.143. The students' speech knowledge increase raised the grand mean score on the posttest to 17.488 with a standard deviation of 4.932. This increase of 3.443 in mean score was particularly impressive when one considers the thirty-point range of the abridged test. The "t" value of this data was 15.816, a value which was significant at the .01 level. Thus, the null hypothesis: "There is no significant difference between students' knowledge of speech before the fundamentals of public speaking course and after the fundamentals of public speaking course," was rejected.

The Relationship Between the Fundamentals of Speech Course and the Students' Change in Attitude Toward Speech Communication

One of the purposes for teaching speech according to course objectives is to change positively the students' self-concept of, or attitude toward, his ability as a communicator in regard to communication adjustment, voice and articulation, bodily activities, language and audience adaptation. To determine this change, the same design and statistical treatment that was used to determine student gain in knowledge was employed. The resulting data disclosed a nonsignificant positive change in students' speaker self-concept from initial expression to the terminal expression. The students had a slightly better attitude toward themselves as communicators after the course in fundamentals of speech. The grand mean score for the pretest of Rossillon's

Speaker's Self-Concept Scale was 4.097 with a standard deviation of 11.637. This mean score, when observed from the perspective of the Rossillon scoring scale for the Speaker's Self-Concept Scale, which has a score range of -67.18 to +65.06, placed the average fundamentals of speech student in this study very slightly above the category of being neither effective nor ineffective speakers (+2.08 to -2.97) and below the "mid effective" category of 30.23. The posttest grand mean score for Rossillon's Speaker's Self-Concept Scale did not raise the average student into the Rossillon "mid effectiveness" category. The grand mean score for the posttest was 5.146 with a standard deviation of 11.430. The variance observed in both test scores illustrated the wide range of student scores within the classes.

The "t" value for the pretest and posttest of the SSCS was 1.620 which was less than the "t" ratio of 1.968 necessary to be significant at the .05 level. Data signifies acceptance of the null hypothesis: "There is no statistically significant difference between the initial student speaker's self-concept and his self-concept as a speaker at the terminal point of the fundamentals of speech course."

TABLE V

THE VARIATION OF THE PRETEST AND POSTTEST OF THE PATTON SPEECH CONTENT EXAM AND ROSSILLON'S SPEAKER'S SELF-CONCEPT SCALE

	MEAN	SD		MEAN	SD	"t"	
PRETEST <u>PSCE</u>	14.045	4.429	←→	POSTTEST <u>PSCE</u>	17.488	4.932	15.816
PRETEST <u>SSCS</u>	4.097	11.637	←→	POSTTEST <u>SSCS</u>	5.146	11.430	1.620

"t" ratio needed for significance at the .05 level = 1.968;
at the .01 level = 2.592.

PSCE = t 15.816 2.592 Null hypothesis is rejected

SSCS = t 1.620 1.968 Null hypothesis cannot be rejected

Interpersonal Trust Within a Speech Teacher and Student Relationship

The second aspect of the present research is to isolate, explore, and describe the phenomenon of the communication variable, interpersonal trust, between college speech instructors and their students in order that a subsequent paradigm can be established for describing the effective college speech teacher.

Empirical observations were accomplished by the "One Group Pre-test and Posttest" design using both correlation and variance treatment of data. The instrument used to describe the presence of interpersonal trust was the Giffin Trust Scale. This instrument was administered to each instructor to measure his perceived trust of each of his class sections as a group, and to the students of each class section to measure their perceived trust of their instructor.

The Relationship of the Dimensions of Interpersonal Trust

A computed correlation matrix revealed a significant relationship among the dimensions of "character," "expertness," and "dynamism" as they were expressed by students in regard to their perceived interpersonal trust for the instructors. The students who perceived in their instructor a high degree of character also perceived in their instructor a high degree of expertness. The mean score for "character" was 52.362 and the mean for "expertness" was 53.344. These both were high mean scores within a possible 9-63 score range. The coefficient correlations for the dimensions of "character" and "expertness" were .552 in the pretest and .649 in the posttest, both highly significant at the .01 level. Likewise, there was a distinct relationship between the

student-perceived instructor's "dynamism" and "character." In the pretest, "dynamism" and "character" had an "r" score of .253 which was significant at the .01 level and in the posttest the "r" score was .309 which was even more significant at the .01 level. The dimension of "dynamism" was also notably related to the dimension of "expertness." The pretest "r" ratio was .253 and the posttest "r" was .366, both significant at the .01 level.

TABLE VI

THE RELATIONSHIPS AMONG THE DIMENSIONS OF INTERPERSONAL TRUST
INITIALLY PERCEIVED BY STUDENTS FOR THE INSTRUCTORS

	MEAN	SD		MEAN	SD	"r"	
CHARACTER	52.362	6.794	↔	EXPERTNESS	53.344	5.689	.552
DYNAMISM	47.697	7.943	↔	CHARACTER	52.362	6.794	.253
EXPERTNESS	53.344	5.680	↔	DYNAMISM	47.697	7.943	.253

"r" score necessary for significance at the .01 level = .134

TABLE VII

THE RELATIONSHIPS AMONG THE DIMENSIONS OF INTERPERSONAL TRUST
TERMINALLY PERCEIVED BY THE STUDENTS FOR THE INSTRUCTOR

	MEAN	SD		MEAN	SD	"r"	
CHARACTER	50.248	8.183	↔	EXPERTNESS	52.347	7.112	.649
DYNAMISM	48.194	8.002	↔	CHARACTER	50.238	8.183	.309
EXPERTNESS	52.347	7.112	↔	DYNAMISM	48.194	8.003	.366

"r" score needed for significance at the .01 level = .134

There appeared to be significant relationship among the dimensions of the speech instructors' "character," "expertness," and "dynamism" as these dimensions were perceived by their students. The dimensions of "character" and "expertness" were more significantly related than was "dynamics" to either of the others, but all three dimensions were significant at .01. Therefore, the data requires rejection of the null hypothesis: "There is no statistically significant relationship among the three dimensions of trust."

The Dynamics of Interpersonal Trust

In the observation of the dimensions of interpersonal trust, the element of attitude change naturally evolves. Did the students perceive the speech instructor's "character," "expertness," and "dynamism" differently after they had had a semester of association with him, than they perceived them at their initial meeting? By using the data provided by the computed covariance matrix and the correlated "t" test, an analysis of this phenomenon was made. In regard to the dimension of "character," the initial grand mean score of 52.362 dropped to 50.248 on the terminal administration. This negative change produced a "t" value of 4.879 which was significant at the .01 level. "Expertness" also dropped in mean score from the initial 53.344 to the terminal 52.347. This drop was not as extreme, but it provided a "t" ratio of 2.595 which was significant at the .01 level. "Dynamism's" initial grand mean of 48.195 dropped only .417 to 47.698 at the terminal administration. This change provided a "t" value of 1.193 which was not significant at the .05 level.

The combination of these three dimensions making up the concept of interpersonal trust provided, within a score range of 27 to 189, an initial mean score of 153.374 and a terminal mean score of 150.769. This difference created a "t" score of 2.807 which was significant at the .01 level.

TABLE VIII
THE VARIATION OF GIFFIN'S TRUST SCALE ON PRETEST AND POST-
TEST STUDENT ADMINISTRATIONS

PRETEST	MEAN	SD	POSTTEST	MEAN	SD	"t"
CHARACTER	52.362	6.795	CHARACTER	50.248	8.183	4.879
EXPERTNESS	53.344	5.680	EXPERTNESS	52.347	7.113	2.595
DYNAMISM	47.697	7.943	DYNAMISM	48.195	8.002	1.193
TRUST	153.374	15.298	TRUST	150.769	18.422	2.807

"t" value necessary for significance at the .01 level = 2.592, at the .05 level = 1.908

The analysis of the data indicated that the concept of interpersonal trust as it was perceived in the instructor by the students diminished during an association of a semester's time. The students' attitude toward the instructor's "character" particularly changed, but the students appeared to change very little in their initial and terminal perceptions of their speech instructor's "dynamism."

It may be conjectured that new college students are initially awed by the prestige of the college instructors and that with association this "fixed" prestige of college instructors diminishes and with

it the students' trust. This is illustrated by the comparatively high mean score given initially to the instructors. The mean GTS score of 153 was much greater than the mean score of 126 initially expressed trust score of the instructors for the students of this study.

The computed data infers rejection of the null hypothesis: "There is no significant difference between initial and terminal interpersonal trust of the speech instructor by the students."

The Variation of the Instructor's Trust of the Class Sections Initially and Terminally Perceived

Unlike the students' trust for the instructor which diminished over the semester's time, the instructors' trust for the students as a class increased. However, the instructor's trust of the students at the terminal measurement had a mean score of 130.11 which was far less than the terminal student's trust for the instructor which had a mean score of 150.76. The instructor's mean score of trust of students increased 3.35 between the initial and terminal measurements which provided a "t" value of 0.7090, a value which was not significant at the .05 level. There was acceptance of the null hypothesis: "There is no significant difference between the initial instructor's trust of the students and his terminal trust of the students."

TABLE IX
 THE VARIATION OF INSTRUCTOR'S TRUST OF STUDENTS AT INITIAL
 AND TERMINAL ADMINISTRATION OF GTS

PRETEST	MEAN	SD	POSTTEST	MEAN	SD	"t"
TRUST	126.76	19.90	←→ TRUST	130.11	23.91.	0.7090

*2.110 is necessary "t" for significance at the .05 level.

From the above observations, it may be ascertained that interpersonal trust in a college speech classroom situation is a dynamic phenomenon. Initially, students express a high degree of trust in their instructors, but that degree of trust diminishes somewhat with association; whereas, the instructors express a lower degree of trust in students initially, but that degree of trust tends to increase somewhat with association. Interpersonal trust in the classroom is dynamic and changes with association. The instructors did not express the high degree of trust in the students which the students expressed for the instructors.

The Reciprocity of Interpersonal Trust Between Instructors and Students

Along with the study of interpersonal trust between students and speech instructors, it was necessary to determine whether or not this phenomenon was mutually perceived or reciprocal in nature. In order to statistically analyze the relationship of the perceived trust in students as a group by the instructor, the eighteen class sections were divided into three arbitrary groups on the basis of the instructor's

ratings of the class sections or student groups on the Giffin Trust Scale. The six class sections which received the highest ratings as a trusted group by the instructors made up one category. The six class sections which received the next highest sequence of ratings made up the second category. The third category was made up of the remaining six class sections which had received the lowest trust ratings by the instructors. The categories were labeled high, average and low trust groups. The statistical treatment used was variance analysis as it was described in Chapter III. The computer program used was BMD0IV Analysis of Variance for one way design version of May 4, 1965.³

The analysis of data obtained from the pretest indicated that there was no significant difference between the students' rating of their perceived trust for the instructor on the basis of the instructor's perceived trust in them. Students of the class sections which were rated highest by their instructors had a mean trust score of 154.70 for their instructor. The group of students who were rated low by the instructor had a mean trust score of 151.14. The analysis of variance of these scores provided an F ratio of 2.2993 which was not significant at the .05 level.

³W. J. Dixon, ed. Biomedical Computer Programs (Berkeley, California, 1967).

TABLE X
 VARIANCE OF TRUST FOR INSTRUCTOR EXPRESSED INITIALLY BY STUDENTS
 IN HIGH, AVERAGE AND LOW TRUSTED CLASS SECTIONS

	No. of Students	MEAN	SD	F Ratio
HIGH TRUST	120	154.90	15.27	
AVERAGE TRUST	116	154.70	14.75	2.2993
LOW TRUST	122	151.14	15.92	

Necessary F ratio at the .05 level = 3.04

The data obtained from the posttest indicated significant variance among the students' ratings of their perceived trust for the instructors in regard to the reciprocal trust expressed by the instructors toward the students as groups. The six class sections which received the highest amount of expressed trust as perceived by the instructor reciprocated with a perceived trust mean of 157.96 for their instructors; whereas, the average and low rated class sections reciprocated with perceived trust means of 148.02 and 147.01 respectively for their instructors. The analysis of variance for these scores provides an F ratio of 13.1749 which was significant at the .01 level.

TABLE XI

VARIANCE OF TRUST OF THE INSTRUCTOR EXPRESSED TERMINALLY BY THE STUDENTS IN HIGH, AVERAGE AND LOW TRUSTED CLASS SECTIONS

	No. of Students	MEAN	SD	F Ratio
HIGH TRUST	113	157.96	17.36	
AVERAGE TRUST	124	148.02	17.87	13.1749
LOW TRUST	121	147.01	18.60	

Necessary F ratio at the .01 level = 4.66

Interpersonal trust between students and college speech instructors appeared to be reciprocal after acquaintance with one another had been established. The trust of the students by the instructor who indicated a comparatively high degree of trust was reciprocated by a high degree of trust expressed by the students within his class section. The degree of trust reciprocation from the students diminished in sections taught by low and average trusting instructors.

The above data justifies the rejection of the null hypothesis: "There is no significant relationship between the degree of trust expressed by the instructor for a class section and the degree of trust expressed by students of that class for the instructor."

The Relationship of Interpersonal Trust and the Teacher Effectiveness Criteria

The major purpose of this research was to observe the relationship between interpersonal trust and the teacher effectiveness criteria:

students' gain in knowledge about speech communication and students' positive attitude change toward speech communication and himself as a communicator. Using "The One Group Pretest-Posttest Design" and the statistical treatment of the Pearson product moment coefficient, both initial and terminal relationships were observed for interpersonal trust and the teacher effectiveness criteria. The computed correlation matrix for 334 student scores on Rossillon's Speaker's Self-Concept Scale, the Patton Speech Content Exam and the Giffin Trust Scale were used.

The Relationship Between Student Speaker's Initial Attitude Toward Himself as a Speaker, and Student Expressed Interpersonal Trust for the Instructor

There appeared to be very little relationship between the students' attitudes toward themselves as speakers and their perceived trust for their instructors at the beginning of the course. The relationship, statistically analyzed, showed a negative and non-significant correlation. The "r" value was -0.009 which was far less than .120 value necessary for significance at the .05 level.

Of the three trust dimensions as they were perceived in the instructors by the students, only one, "character," showed a positive relationship with the student's concept of himself as a communicator. As perceived by the students, the instructor's "expertness" and "dynamics" were negatively and non-significantly related to student speaker's self-concept. The students' perception of the instructor's "character" was most closely related to the students' speaker's self-concept with a

coefficient correlation of .40, but all three lacked being statistically significant. It appeared that the students who initially met their speech instructors, and who perceived themselves as sufficient communicators, did not consistently nor necessarily perceive their speech instructor as having the characteristics worthy of the trust.

TABLE XII
THE RELATIONSHIP OF THE INITIAL ROSSILLON SPEAKER'S
SELF-CONCEPT SCALE AND GIFFIN TRUST SCALE

	MEAN	SD		MEAN	SD	"r"
TRUST	153.374	15.298	↔ SCS	4.0968	11.627	-0.009
CHARACTER	52.362	6.794	↔ SCS	4.0968	11.627	.040
EXPERTNESS	53.344	5.680	↔ SCS	4.0968	11.627	-.030
DYNAMICS	47.697	7.943	↔ SCS	4.0968	11.627	-.023

"r" score needed to be significant at the .05 level = .120

The Relationship of the Student Speaker's Terminal Attitude Toward Himself as a Speaker and Student Expressed Interpersonal Trust for the Instructor

The relationship between the student's attitude toward himself as a speaker at the termination of the course and his perceived characteristics of trust in his instructor were positively, but not significantly related. Trustworthiness of the instructor (as perceived by the student) and the student's self-concept as a speaker had a correlation coefficient of .020 which was not significant at the .05 level,

but which was higher than the -0.009 relationship established initially in the speech course. In regard to the student perceived dimensions of trust in the instructor and their relationships with the student's speaker self-concept, it was noteworthy that all were positively related. Although the relationship between the dimension of "character" with student speaker's self-concept diminished, the relationship with the dimension of "expertness" increased considerably. It was also interesting to note that the terminal student speaker's self-concept and initial student's perceived trust of the instructor indicated an "r" score of 0.082 ; although this was not statistically significant, it was the highest of the relationships among this group of variables.

Apparently, the students, who after the semester of fundamentals of public speaking course, indicated a high degree in speaker self-concept, did not necessarily or consistently perceive their instructors as being highly trustworthy.

TABLE XIII

THE RELATIONSHIP OF TERMINAL TRUST EXPRESSED BY THE STUDENTS FOR THE INSTRUCTOR (GTS) AND STUDENT SPEAKERS' SELF-CONCEPT OF COMMUNICATION (SSCS)

	MEAN	SD		MEAN	SD	"r"	
TRUST (GTS)	150.769	18.442	↔	SSCS	5.146	11.431	.020
CHARACTER	50.248	8.183	↔	SSCS	5.146	11.431	.013
EXPERTNESS	52.347	7.113	↔	SSCS	5.146	11.431	.028
DYNAMICS	48.194	8.003	↔	SSCS	5.146	11.431	.008

"r" score needed to be significant at the .05 level = .120

The Relationship of Student Change in Speaker Self-Concept and Student Expressed Trust for the Instructor

In order to describe the relationship between the change in student speaker's self-concept and student's terminal trust for the instructor, a computed stepwise regression technique was used which provided a seven variable correlation matrix including the pre and post scores of the SSCS, their variation or change, and the terminal GTS score.

Analysis of the data illustrated that there is no significant relationship between the student's change in his speaker's self-concept and his trust for his instructor after a semester of fundamentals of public speech. The mean student change of 1.409 with a standard deviation of 12.057 when related with the student's terminal trust score provided a coefficient correlation of .089 which is not significant.

In order to view this relationship from another perspective, the mean change in speaker's self-concept was calculated on the basis of class sections and was related to the mean terminal trust of the instructor by the sections. The data was acquired by computing the mean student gain over a semester's time for each class section and comparing it with the mean trust score for the instructor of each of these class sections. This procedure was appropriate since the data pertains to the class sections as groups of students, and it is a further observation of the relationship of the speaker's self attitudes change and the trusting climate of the classroom provided by the instructor. The

mean degree of change of speaker's self-concept among the seventeen class sections was only 1.50, but the relationship of this variable's change and instructor's trust of the class sections provided a coefficient correlation of $-.352$ which with only seventeen degrees of freedom was not significant at the $.05$ level. This finding does not refute the positive correlation of speaker self-concept and trust of instructor but indicates non-significance of the relationship between students' trust of the instructor upon their speaker's self-concept as measured by Rossillon's scale.

TABLE XIV

THE RELATIONSHIP BETWEEN STUDENT'S CHANGE ON THE SSCS AND THE TERMINAL STUDENT TRUST OF THE INSTRUCTOR (GTS)

	MEAN	SD	"r"
Individual Student change on <u>SSCS</u>	1.409	12.057	.089
Terminal Student Trust of Instructor <u>GTS</u>	150.73	18.49	

Degrees of Freedom = 343
Significant "r" score at $.05$ level = $.113$

Analysis of the data shows a warrant for the acceptance of the null hypothesis: "There is no significant relationship between a student's change in speaker's self-concept and that student's trust for his instructor."

The Relationship Between the Student's Initial Knowledge About Speech Communication and the Student's Initially Perceived Trust in His Speech Instructor

Analysis of the data signified a negative and significant relationship existed between the student's initial knowledge about speech communication and his perceived trust in his speech instructor. In other words, the student who had a greater knowledge of speech tended to express a lesser degree of perceived trust for the speech instructor, and the student who had a lesser knowledge of speech tended to express a greater degree of trust for the speech instructor. The coefficient correlation of these two variables was -0.295 which was significant at the $.01$ level. The relationships between student knowledge and each of the dimensions of trust were negative with two of the three being significant at the $.01$ level. Students' expressions of the degree of "character" and "expertness" perceived in their speech instructors and the students' own knowledge about speech provided a coefficient correlation value of $-.306$ and $-.260$ respectively above the $.153$ score necessary for significance at $.01$. The student's perception of the instructor's "dynamism" was related to the student's speech knowledge with an "r" score of $-.123$ which was above the $.120$ necessary for significance at the $.05$ level. It appeared that students who possessed a greater amount of knowledge about speech tended to initially perceive their speech instructors as being less trustworthy than students who had lesser speech knowledge initially perceived their speech instructors.

TABLE XV

THE RELATIONSHIP OF STUDENTS' INITIAL KNOWLEDGE OF SPEECH (PSCE) AND
STUDENTS' EXPRESSED TRUST OF THE INSTRUCTOR (GTS)

	MEAN	SD		MEAN	SD	"r"
TRUST	153.374	15.298	↔ PSCE	14.044	4.429	-.295
CHARACTER	52.366	6.794	↔ PSCE	14.044	4.429	-.306
EXPERTNESS	53.344	5.680	↔ PSCE	14.044	4.429	-.260
DYNAMICS	47.697	7.943	↔ PSCE	14.044	4.429	-.123

.153 = significance at the .01 level
.120 = significance at the .05 level

The Relationship Between a Student's Knowledge About Speech and His Trust of His Speech Instructor After a Semester of Speech

Again, there appeared to be a significant negative relationship between the student's knowledge about speech and his trust of the speech instructor. Students who obtained a better knowledge of speech tended to perceive their instructors as less trustworthy and those who obtained a lesser knowledge of speech tended to perceive their instructor as being more trustworthy. Although the degree of negative relationship diminished from the initial $-.295$ to the terminal relationship of $-.155$, the coefficient correlation was significant at the .01 level. The degree of negative relationship diminished in perceived trust the dimensions of "character" and "expertness" but increased in the "dynamism" dimension. Of the perceived trust dimension's relationships with student's speech knowledge, only "dynamism" was significant

at the .01 or even the .05 levels. Since the data indicated that after the semester speech course the students' knowledge about speech significantly increased, the students' trust of the instructor significantly diminished, and a negative, significant relationship of speech knowledge and student trust of instructor occurred, it seemed that a student's learning and his trusting of the instructors were converse in nature. Students who did well on the Patton Speech Content Exam were likely to rate their speech instructors lower on the Giffin Trust Scale.

TABLE XVI

THE RELATIONSHIP OF STUDENTS' TERMINAL KNOWLEDGE OF SPEECH (PSCE) AND STUDENTS' EXPRESSED TRUST FOR THE INSTRUCTOR (GTS)

	GRAND MEAN	SD		GM	SD	"r"
TRUST	150.769	18.422	↔ PSCE	17.488	4.932	-.155
CHARACTER	50.248	8.184	↔ PSCE	17.488	4.932	-.119
EXPERTNESS	52.374	7.112	↔ PSCE	17.488	4.932	-.109
DYNAMICS	48.194	8.002	↔ PSCE	17.488	4.932	-.131

.153 = significance at the .01 level

.120 = significance at the .05 level

The above data warrants rejection of the null hypothesis: "There is no significant relationship between students' speech knowledge or gain in knowledge and their trust of their speech instructor." There exists a negative, significant coefficient correlation at the .01 level for terminal speech knowledge and student trust of instructor.

The Relationship of Students' Gain in Knowledge and Students' Trust for Their Instructors

There is no significant relationship between the student's gain in speech knowledge and the amount of trust that he has for his instructor. From the data obtained through a stepwise regression technique for a correlation matrix, it was illustrated that the mean gain for individual student's score of 3.458 on the Patton Speech Content Exam was not related to the terminal score of 150.7 on the Giffin Trust Scale. The coefficient correlation for these two variables was .009 which was not significant at the .05 level.

From the perspective of mean for class sections in knowledge and the mean terminal trust score for each class section, there was no significant relationship between the two variables. The mean class section gain of 3.44 in speech knowledge when related with the terminal mean trust score for each section provided a coefficient correlation of -.096 which was not significant at the .05 level. Students who obtained greater knowledge about speech during the course tended to trust their instructors less, but this inclination was neither consistent nor definite and very insignificant.

TABLE XVII

THE RELATIONSHIP OF STUDENT'S GAIN IN SCORE ON PSCE AND STUDENT'S TERMINAL TRUST SCORE FOR INSTRUCTOR

	MEAN	SD	"r"
Individual Student Gain on <u>PSCE</u>	3.44	3.958	.009
Terminal Student Trust of Instructor Score	150.73	18.49	
Degrees of freedom = 343			
Significant "r" = .113 at the .05 level			

The data shows justification for accepting the null hypothesis:
 "There is no significant relationship between the student's gain in
 speech knowledge and his trust of the speech instructor."

The Relationship of the Students' Final Speech Grade and His Trust of
 the Instructor

There appeared to be no significant relationship between the stu-
 dent's trust of the speech instructor and the student's final speech
 course grade. Students who possessed a high degree of trust of the
 instructor were not given a significantly higher grade. The "r" score
 of these two variables was an insignificant .082. None of the dimen-
 sions of student trust for the instructor trust were close to a signifi-
 cant correlation with final course grade except the dimension of "char-
 acter." The trust dimension of students' perception of "character" of
 the instructor and student final grade had an "r" score of .103, a
 figure below the .120 necessary for significance.

TABLE XVIII

THE RELATIONSHIP BETWEEN STUDENTS' TRUST OF INSTRUCTOR AND FINAL GRADE

	MEAN	SD		MEAN	SD	"r"
TRUST	150.769	18.422	↔ Grade	2.742	.0793	.082
CHARACTER	50.248	8.183	↔ Grade	2.742	.0793	.103
EXPERTNESS	52.347	7.112	↔ Grade	2.742	.0793	.031
DYNAMICS	48.194	8.002	↔ Grade	2.742	.0793	.058

"r" score .120 necessary for significance at .05 level.

The analysis of the data indicates acceptance of the null hypothesis: There is no significant relationship between the student's trust of the instructor and that student's final grade."

The Relationship of Student Trust of the Instructor and Class Withdrawals

In order to analyze the relationship between student trust of the instructor and class withdrawals, an analysis of variance was computed. The computer program BMD0IV- of May 4, 1965 (Health Science Computing Facility UCLA) was used. Two treatment groups were used: those with initial trust scores who did and did not receive a final course grade. There were 39 students who dropped that made up one treatment group and 369 students who received final grades that made up the second treatment group.

Analysis of the data indicated that those students who withdrew from the class, initially, had a significantly higher degree of trust of the instructor than those who remained in class and received a final grade. The variance between the mean trust score for the withdrawals, 166, and the mean trust score for the finishers, 153, provided an F ratio of 6.3796 which was significant at the .05 level.

TABLE XIX
THE RELATIONSHIP OF STUDENT TRUST OF INSTRUCTOR AND STUDENT WITHDRAWALS FROM CLASS

	N	Mean Trust Scale	SD	F Ratio
Withdrawal students	39	166.05	83.46	6.796
Completed students	369	153.45	15.79	
F ratio 6.70 = significance at .01 level				
F ratio 3.86 = significance at .05 level				

As one can note from the table of data, the sample size and the standard deviation certainly restrict the generalizations that can be made from this data. Also, no attempt was made to determine the reasons for the withdrawals, thus, it is impossible to infer reasons for or categories of withdrawal types.

However, the data available in this study justifies rejection of the null hypothesis: "There is no significant relationship between class withdrawals and student trust of the instructor."

Summary

Chapter IV was divided into three distinct sections for the observation and analysis of the relationships and variations of the variables of the teacher effectiveness criteria, dimensions of interpersonal trust, and the teacher effectiveness-interpersonal trust involvement. The data can best be summarized by the statements of the null hypotheses and the actions taken in regard to them.

- NULL HYPOTHESIS I:
(rejected) There is no statistically significant relationship between a student speaker's self-concept and his knowledge about speech.
- NULL HYPOTHESIS II:
(rejected) There is no significant relationship between student speaker's self-concept and that student's final grade in the college fundamentals of public speaking course.
- NULL HYPOTHESIS III:
(rejected) There is no statistically significant relationship between a student's knowledge about speech communication and that student's final grade in the fundamentals of public speaking course.
- NULL HYPOTHESIS IV:
(accepted) There is no statistically significant difference between the initial student speaker's self-concept and that student's concept of himself as a speaker at the terminal point of the college course in fundamentals of public speaking.
- NULL HYPOTHESIS V:
(rejected) There is no statistically significant difference between a student's knowledge about speech before taking the college fundamentals of public speaking course and that student's knowledge about speech after taking the course.
- NULL HYPOTHESIS VI:
(rejected) There is no statistically significant relationship among the three dimensions of interpersonal trust: "Character," "Expertness," and "Dynamics."
- NULL HYPOTHESIS VII:
(rejected) There is no statistically significant difference between the perceived trust of the instructor by the students at their initial meeting and the students trust of the speech instructor at the time of their terminal meeting.
- NULL HYPOTHESIS VIII:
(rejected) There is no statistically significant difference between the perceived trust of the students as a group with class sections by the instructor as he perceives them at the initial and terminal meeting of the fundamentals of public speaking course.
- NULL HYPOTHESIS IX:
(rejected) There is no statistically significant relationship between the degree of trust perceived by an instructor for a class section and the reciprocal degree of trust perceived by that class section for that instructor.

- NULL HYPOTHESIS X:
(accepted) There is no statistically significant relationship between a student's concept of himself as a speaker and his trust in his speech instructor.
- NULL HYPOTHESIS XI:
(accepted) There is no statistically significant relationship between the student's change in speaker self-concept and his trust in his instructor.
- NULL HYPOTHESIS XII:
(rejected) There is no statistically significant relationship between a student's trust of his speech instructor and that student's knowledge about speech.
- NULL HYPOTHESIS XIII:
(accepted) There is no statistically significant relationship between the student's gain in knowledge and his trust in his instructor.
- NULL HYPOTHESIS XIV:
(accepted) There is no statistically significant relationship between the student's trust of his speech instructor and that student's final grade.
- NULL HYPOTHESIS XV:
(accepted) There is no statistically significant relationship between the student's trust of the instructor and that student's withdrawal from class.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Summary and Implications

The purpose of this research has been to explore and analyze the means of measuring teacher effectiveness and to isolate, to identify and to observe a variable within the speech teacher-student relationship which appeared to be relevant, in order to establish a paradigm for describing the effective speech teacher at the college level. For decades there have been attempts to isolate, to measure, and to describe the characteristics of effective teaching in many academic areas at different levels of education, but there is a void of this type of studies in speech education research. This research has been eclectic in nature; that which appeared to be the best means of teacher effectiveness measurement, and that which appeared to be the most outstanding variable of teacher-student relationships were applied to a speech course situation where relationships could be observed and analyzed, and the applicability of measurement and description to speech education could be determined.

From the educational literature surveyed, several criteria for the measurement of teacher effectiveness evolved. The first group of criteria employed in measuring teacher effectiveness is an evaluator's casual perception of the "common sense" characteristics of a "good" teacher such as, intelligence, personality and character. These criteria vary with evaluators, are unreliable and undefinable, and are

associated with neither the process of teaching nor goals of teaching. The presage criteria for measuring teacher effectiveness are frequently used at all levels of education today because of their expediency. A modern academic approach to these criteria is the paper-and-pencil teacher aptitude tests which are used as a means of screening and certifying teachers at the secondary and elementary levels.

The second set of criteria for measuring teacher effectiveness is the observation of the process. An evaluator observes a teacher in action and ranks or rates that teacher upon what he observes. These criteria are essential in the final analysis, but in the past these criteria have been unreliable, inadequate and unrelated to the goals of effective teaching. With these criteria the teaching process has been viewed as a static, unchanging and unidimensional phenomenon. The characteristics that are observed are inconsistent and unrelated to the teacher-student performance of educational objectives. Recently, observation scales have been developed by Ryans,¹ Flanders,² Medley and Mitzel,³ and Weisse⁴ which consider both teacher and student, but

¹David Ryans, Characteristics of Teachers (Washington, D.C., 1960).

²Ned Flanders, "Some Relationships Among Teacher Influence, Pupil Attitudes, and Achievement," Contemporary Research on Teacher Effectiveness, eds. Bruce Biddle and William Ellna (New York, 1964), pp.196-231.

³Donald Medley and Harold Mitzel, "A Tentative Framework for the Study of Effective Teacher Behavior," Journal of Experimental Education, XXX (June 1962), p. 317.

⁴Edward Weisse, "A Study of the Correlation Between Teacher Effectiveness and Pupil Attention," (Doctoral dissertation, University of Indiana, 1966).

they appear to lack perspective, educational level and subject area orientation, and relationships to the goals of the teacher-student interaction as prescribed by educational objectives.

The third group of criteria for measuring teacher effectiveness is based on student growth, change or gain. These criteria have been used very infrequently because of the lack of appropriate measuring instruments, inability to isolate effects of individual teachers and the impracticality of the criteria; however, it appears, at the college level at least, that the most reliable and valid means for measuring teacher effectiveness is the measurement of student fulfillment of the prescribed educational objectives for the course. Only after proper techniques for measurement of the student's fulfillment of the course goals are established can an appropriate description of the effective teacher be completed, and only after the description of teacher effectiveness is accomplished can an appropriate observation of teacher effectiveness be made.

Means of describing effective teachers have included the teacher's personal characteristics, teaching methods, and teacher behavior patterns. These means of describing teacher effectiveness provide insight, but they are frequently unrelated to and unconcerned with the fulfillment of educational objectives. Often they are abstract in nature and fail to provide a workable perspective for describing the dynamic process that makes a teacher effective. Several authors have suggested frameworks for observing the dynamic process of teaching; however, the framework that appears most applicable to speech teacher effectiveness

is the "content analysis of communication" recommended by Bales.⁵ It is assumed that the effective teacher is one who can establish a teacher-student communication climate that will motivate his students to the fulfillment of the prescribed educational goals of the course being taught. In using Bales' approach, it seems feasible, first of all, to isolate a communication variable and relate it to measurement criteria for teacher effectiveness in order to determine the value of pursuing the observation of this variable in an attempt to describe the characteristics of the teacher and the teacher-student communication situations which lend themselves to teacher effectiveness. It would not seem judicious to attempt observations of the complete teacher-student communication without a specific perspective, or to experiment with any communication variable until the relationship of this variable had been established with other teacher-student variables and measures of teacher effectiveness.

In an attempt to establish a paradigm for describing the effective speech teacher at the college level, the immediate research sought to analyze the relationship of the communication variable of interpersonal trust and the students' fulfillment of the speech course objectives.

Trust, first associated with communication variables by Aristotle, studied by Hovland, Deutsch and Gibb and conceptualized and measured by Giffin, has never been studied scientifically in regard to teacher

⁵Robert Bales, "Conceptual Framework for Analysis of Social Interaction," Journal of Experimental Education, XXX (June 1962), p. 323.

effectiveness, but has been observed in small task group interaction. Interpersonal trust—"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"⁶—appeared applicable to the teacher-student interaction since education is task oriented and both teacher and student are risking something, their prestige.

In the past there have been some observations made of the relationship between variables similar to trust and teacher effectiveness. Variables labeled "warmth," "friendly interaction," and "liking" when related to teacher effectiveness have provided mixed results. However, at the elementary and junior high levels there was a predominantly positive, significant relationship. None of the studies viewed their variables as mutual dynamic interaction of teacher and student, but only from the perspective of the students toward the teacher at a given time. The variables studied lacked operational definitions, consistency of criteria and compatible procedures. The exploratory and descriptive teacher effectiveness research at the college level in the area of speech seemed essential; thus a warrant for the immediate study was established. For this study, nineteen sections of Fundamentals of Speech 1A, Speaker-Audience Communication Course at The University of Kansas were chosen as the population. This population provided excellent

⁶Kim Giffin, "Interpersonal Trust in Small-Group Communication," Quarterly Journal of Speech, LIII (October 1967), p. 229.

controls since all class sections represented a randomly selected population with similar objectives, reading materials and syllabus. A total of 418 students and thirteen instructors took part in the study.

The teacher effectiveness measurement criteria were based on the students' fulfillment of the prescribed educational objectives of the Fundamentals of Speech 1A, Speaker-Audience Communication Course. The four broad objectives of the course were to provide students with a knowledge about speech, an appreciation of speech communication, a proficiency in oral expression and a positive attitude about themselves as communicators. Rossillon's Speaker Self-Concept Scale was chosen as the instrument purporting to measure attitude and proficiency, and the Patton Speech Content Exam (abridged) was the instrument chosen to measure knowledge and appreciation. The Giffin Trust Scale was chosen to measure the communication variable of interpersonal trust. The descriptive-experimental design used was what Campbell describes as "One Group Pretest-Posttest." The design is very simple in nature but suffices in observing dynamic, reciprocal relationships. The statistical treatments of Pearson's product-moment coefficient, Fisher's "t" and the analysis of variance were employed.

On the basis of the data supplied by this study it is evident that students' gains and changes in regard to the fulfillment of course objectives are feasible means for measuring teacher effectiveness. This observation concurs with the opinions of numerous educational researchers mentioned in the introductory chapter and is substantiated by the following information. The student speaker's self-attitude toward communication and his knowledge about speech both were found to be

significantly related to final grades which reflect the instructor's evaluation of each student's fulfillment of the course objectives. Terminal student speaker's self attitude and final grade relationship established an "r" score of .194 which was significant at the .01 level. The relationship between speaker knowledge and final grade was very significant with a coefficient correlation of .354 for the initial administration and .317 for the terminal administration, which is far above .153 necessary for significance at the .01 level. The importance of this relationship is magnified somewhat when consideration of grade mean distribution is made. Within the five point grade range provided by The University of Kansas grading system, the mean was 2.742 with a standard deviation of .794. Thus, approximately 95 per cent of the students who took speech 1A received grades between D+ and A with the mode of the distribution located around the grade of B. This small grade range and distribution made correlations more difficult to obtain with other variables and thus they are particularly significant.

The feasibility of using the students' fulfillment of course objectives as the measurement of teacher effectiveness is further supported by the established relationship of the measures and the independence of their change over a semester's time. Initially, the student's concept of himself as a speaker was significantly related to his knowledge of speech; this relationship provided a coefficient correlation of .153 which was significant at the .01 level. At the end of the semester that correlation was hardly in existence; knowledge and self attitude provided an "r" score of .017, which was not significant at the .05

level. The statistical reason for this phenomenon was that the student's gain in speech knowledge over the semester was out of proportion with the student's change in attitude. The achievement of 3.443 mean gain from the initial score of 14.045 to the terminal score of 17.488 in speech knowledge far surpassed the 1.049 change in speakers self-concept score from the initial 4.097 to the terminal 5.146. The gain in knowledge was particularly significant since the gain was made within a score range of 30 points and the final standard deviation of 4.932; whereas the 1.049 change in student speaker self-concept was within a score range of 122 points and the terminal score had a standard deviation of 11.431.

Since teacher effectiveness is an abstract concept which relies on the scores of instruments that measure student growth and change for its meaning, the instruments used for this purpose need to be evaluated. The Patton Speech Content Exam (abridged) appears to have the reliability and discrimination capabilities necessary for measuring teacher effectiveness among instructors of various class sections. The results of the thirty-item abstracted test used in this study compared favorably with the original sixty-item test results. In this study, students who had not yet participated in a college speech course achieved a mean score of 14.04 which represents about 50% of the total possible score; whereas, in 1966 at The University of Kansas, Patton's results from similar students showed a mean score of 30.38 on his original sixty-item test which also represented approximately 50% of the total possible score. The abridged test appears to be valid in measuring what the speech course purports to teach and to be capable

of discriminating the degree of learning among the class sections. The mean gain of 3.443 in scores between the initial and terminal administrations of the test signified its validity. Its discriminatory capabilities were verified by analysis of the pretest and posttest for each section ranged from .04 in one class to 5.69 in another. The grand mean gain among the class sections was 3.44 with a standard deviation of 1.45. Here is strong evidence to support the possibility that the Patton Speech Content Exam is capable of measuring the student's achievement sufficiently enough to reflect teacher effectiveness.

Some questions arise in regard to the capabilities of Rossillon's Speaker Self-Concept Scale to measure student change and teacher effectiveness. The Rossillon scale with its score range of over 122 points appeared not to be capable of measuring change in a pretest-posttest design. Within the score range of -67.19 to +65.06 the mean scores for the University of Kansas students were 4.097 on the pretest and 5.146 on the posttest, which were not significantly different. Neither of these scores, according to Rossillon, represents the "mid effective speaker" which is indicated by a score of +30. The range of student scores within each class section provided a grand mean range of 42.746 on the pretest and 40.830 on the posttest. The difference between the highest and lowest scores in each section was over forty points. In one class section chosen at random to illustrate the spread in SSCS scores, the lowest score on the pretest was -21.57 and the highest score was +25.91. In the same section on the posttest the lowest score was -15.18 and the highest was 22.07. Neither of the posttest scores belonged to the high and low scoring students on the pretest. The

variations of scores among students within the same sections and between the pretest and posttest administration were extreme.

There was considerable student reaction to the taking of the Speaker's Self-Concept Scale, which suggests the possibility of an experimental error of "reactive influence." Several of the students expressed resentment about having to answer some of the "self-incriminating" questions. Of the three instruments used, there were far more unusable responses on the SSCS than on the other instruments.

Perhaps the observation which best exemplifies the reliability and discrimination capabilities of the SSCS in measuring teacher effectiveness is the analysis of the mean change of a class section between the pretest and posttest administrations. The mean change within the class sections varied from -2.32 to +9.28. The grand mean of changes among the class sections was 0.212. The data raises doubt about the capability of the Rossillon scale to discriminate accurately enough to be of value in teacher effectiveness studies where differentiation among class sections is necessary.

It should be pointed out that the original purpose of the Rossillon scale is to measure individual speech aptitude and potential speaker effectiveness. It purports to accomplish this feat by measuring attitudes which supposedly reflect aptitude and ability. The major problem with its usage in this study was in obtaining reliability within a "One Group Pretest-Posttest Design." In the vast majority of the teacher effectiveness studies which have treated attitude as only a terminal phenomenon, the Rossillon type scale would suffice. The terminal SSCS score was significantly related to achievement and final course grade.

The scale was chosen because it appeared to be the best available measurement for the prescribed purpose. Other scales which purport to measure similar concepts or objectives lack tested reliability and validity; Patton created substantial doubt about the Knower Speech Attitude Scale in 1966. The present study points out the difficulty in obtaining sufficient reliability in an aptitude instrument to warrant generalizations about a group of tested individuals.

The data from this study provided some insight into the phenomenon of the communication variable of interpersonal trust as it exists in a college level public speaking course. Interpersonal trust was identified through three dimensions: "character," "expertness," and "dynamism."

The study sought to observe the relationship among the dimensions by measuring them with the Giffin Trust Scale at pre and post administrations. The three dimensions were all significantly related to one another, but the dimensions of "character" and "expertness" produced a much higher correlation. Initially, "character" and "expertness" produced an "r" score of .552; whereas, the relationship of "dynamism" and "character" produced an "r" score of .253, as did the relationship of "dynamism" and "expertness." After a semester of association with the instructor, the students' perceptions of the instructors' "character" and "expertness" were still very significantly related as the coefficient of correlation was .649; whereas, "dynamism" was related to "character" and "expertness" with an "r" score of .309 and .366 respectively. From this information it appears that students perceive their instructors' "character" (including respect, kindness, honesty, etc.) very similar to the way that they perceived their "expertness" (including their scholar-

ship, knowledge, intelligence, etc.). The dimension of "Dynamism" (including the perception of the instructors' aggressiveness, boldness, frankness, etc.) appeared to be more independently perceived; yet, it was significantly related to both "Character" and "Expertness."

The above observation substantiates what Giffin found in his factor analysis of adjectival scales in the experimental development of his trust scale.⁷ The dimensions are significantly related to one another; but, they are independent in nature. The dimension of "Dynamism" appears to be more stable as well as more independent than either "Character" or "Expertness." The observation also coincides with McCroskey's findings as these dimensions were studied in regard to his unidirectional speaker-audience research studies.⁸

The data indicate that interpersonal trust is dynamic. There was a significant negative variation from the initial trust of the instructors by the students and the terminal trust of the instructors by the students. The dimension of "Character" diminished most with a "t" score of -4.879 between pre and post administrations of the Giffin Trust Scale. The pre and post expressions of perceived instructor's "Expertness" varied enough to produce a "t" score of -2.595. Both of these differences were significant at the .01 level. "Dynamism" varied the least between initial and terminal measures and the variation was

⁷Kim Giffin, "An Experimental Evaluation of the Trust Differential," Communication Research Bulletin, Kansas University (October 1968).

⁸James McCroskey, An Introduction to Rhetorical Communication (New York, 1968), p. 60.

positive. The "t" score of 1.193 was significant at the .05 level. The combined dimensions, conceptualized as trust, varied from pre to post administrations to provide a "t" score of -2.807 which was significant at the .01 level. The dynamic nature of the dimensions of trust in this study corresponds with that of similar variables observed in ethos research.

The dynamic phenomenon of interpersonal trust of the instructor by the students changed in a negative fashion during the semester. This change in the direction of reduction of trust implied one basic explanation: college students who met college instructors for the first time were awed by their preconceived prestige of the college instructor. This explanation is supported by the circumstances of the study: college freshman students having their first contact with college instructors in the fall of the year. This explanation is further supported by the observation of the trust scores. Although there are no standardized levels for high and low trust for the Giffin Trust Scale, it appears that the mean trust score of 153 for the students' perceived trust of the instructors on a scale of a possible 181 was very high. The mean score for the instructors' perceived trust of the students in this study was 126 on the Giffin Trust Scale. In another study done at Peru State College using the Giffin Trust Scale as a measuring instrument, a mean score of 134 was obtained for student speakers as they were perceived by sixty-four fellow students. In comparison with the above two means, the freshman students at the University of Kansas expressed a high degree of trust in their instructors. This explanation is also supported by the observation of the extreme negative variation of the

posttest and pretest dimensions of "character" and "expertness" which, apparently are elements of preconceived prestige or "fixed ethos" factors; on the other hand, comparatively less variation which was positive in nature was found in the posttest and pretest "dynamism," a dimension which appears least related to "fixed ethos."

The instructor's trust of the students appeared less dynamic and less in degree than was the student's trust of the instructors, but the variation of the terminal from the initial expression was positive in nature. The variation from the initial mean score of 126.76 to the terminal mean score of 130.11 provided a "t" score of 0.709 which was non significant at the .05 level. Apparently instructors perceive their students with less trust than do the students perceive their instructors, but the less dynamic trust of the students by the instructors progresses in a positive direction as acquaintance of instructors and students develops.

Interpersonal trust between instructors and students appeared to be reciprocal after a semester of teacher-student association. Initially, the degree of trust expressed by the students in a particular class section toward their instructor was unrelated to the degree of trust expressed by the instructor for the students in that particular section. The "F" ratio for student trust scores in sections taught by "high," "average" and "low" student-trusting instructors was 2.299 which was not significant. However, at the terminal administration of the trust scale, a significant variance was observed among the grouped sections of "high," "average" and "low" student-trusting instructors.

Instructors who expressed a high degree of trust in their students were reciprocated with a comparatively high degree of student trust of them. The "F" ratio of 13.174 was derived, which was significant at the .01 level.

This observation of reciprocal interpersonal trust between instructor and students corresponds with the observations made by Jack Gibb⁹ and Morton Deutsch.¹⁰ Both of these researchers found that interpersonal trust increased when the persons involved communicated their intentions of reciprocating trust.

The unique finding of the present study was the variation in the degree of reciprocal student trust for the instructor in relationship to the degree of trust of the student expressed by the instructor. The greater the expressed trust by the instructor, the greater the degree of reciprocated student trust was developed. Those instructors who expressed "average" or "low" trust for their students were reciprocated with very similar degrees of student trust. The mean student trust-of-instructor scores for the "low" and "average" student trust-of-instructor were 147 and 148 respectively. The mean student trust-of-instructor score for the "high" student-trusting instructor was 157.9. It appears that "high" trust is highly reciprocated; whereas,

⁹Jack Gibb, "Climate for Trust Formation" in T-Group Theory and Laboratory Method: Innovation in Re-education, eds. Leland Bradford, Jack Gibb, and Kenneth Benne (New York, 1964), pp. 279-309.

¹⁰Morton Deutsch, "Trust and Suspicion," Journal of Conflict Resolution, II (1958), pp. 265-279.

"average" and "low" trust are hardly distinguishable in reciprocity.

The data of this study indicated no significant relationship between the student speaker's self-concept and his trust in his speech instructor. Initially, those students who displayed a positive degree of speaker's self-concept showed in comparison a lesser degree of trust for their instructors, but the relationship of the degrees was not significant. The initial relationship of these two variables was described by a coefficient correlation of -0.009 . The relationship between the student speaker's self-concept score and his trust score of his instructor became positive at the terminal measurement, but it was a non significant relationship. The "r" score of the two variables was $.020$ which is not statistically significant at the $.05$ level.

As one may expect from the above information, there was no significant relationship between the degree of change in the students speaker's self-concept (from both the individual and section perspectives) and the degree of terminal trust for the instructor. The coefficient correlation for speaker's self-concept change and terminal student trust of the instructor was $.089$ which is not significant at the $.05$ level.

Analysis of the data showed a negative and significant relationship between the student's knowledge about speech and his trust of his speech instructor. Those students who knew more about speech tended to trust the instructor less. In the initial administration of the instruments, there was a coefficient correlation of $-.295$ for these two variables. This correlation decreased at the terminal administration to $-.155$, but this ratio was still significant at the $.01$ level.

The present study indicates that those students who have a better speaker's self-concept and a better knowledge about speech have less trust in their instructors. This finding suggests that those students who possess knowledge of speech, experience in public speaking, and confidence in themselves tend to need less help in obtaining their goals and also express less trust in their instructors. Giffin has indicated that the degree of interpersonal trust present in a group will vary according to the importance of the task involved and the importance of each member of the group in accomplishing the task.¹¹

The relationship of the gain in student knowledge and the degree of terminal student trust of the instructor provided a correlation coefficient of .009 which was nonsignificant at the .05 level. Students who learned more about speech did not necessarily nor consistently express a comparatively high degree of trust in the speech instructor.

No significant relationship existed between a student's change in his speaker's self-concept over the semester and his terminal trust for his instructor. The coefficient correlation for student speaker attitude change, with a change mean of 1.409, and trust of the instructor was .089. The minute change mean must be considered in generalizing about these findings; however, the data clearly indicated no significant relationship between a student's gain in knowledge and/or change in speech attitude, and his trust for his instructor at the end of the semester.

¹¹Kim Giffin, "Interpersonal Trust in Small-Group Communication," University of Kansas Communication Research Bulletin (June 1966).

There was very little positive relationship between the student's final speech grade and the degree of trust that the student perceives in his instructor. The coefficient correlation of .082 was not significant at the .05 level.

This study also illustrated a relationship between the initial student trust of the speech instructor and student withdrawal from class. Students who withdrew from speech class before the completion of the speech course initially held a higher degree of trust for the instructor than did those students who completed the course. The analysis of variance of these two variables provided an "F" ratio of 6.796 which is significant at the .01 level. However, this degree of variance is diminished in significance when sample sizes are observed and the possible reasons for withdrawal are considered. It is also possible that for the withdrawal-student, the degree of trust was very rapidly reduced. Perhaps, the withdrawal-students' trust reduced more rapidly than the trust of those who remained in the class.

Conclusion

From a study such as this which is exploratory and descriptive in nature, some generalizations can be developed to act as guides for further research in the area. From the vast survey of related literature on teaching effectiveness and the findings of this study, there is a definite indication that a teacher's effectiveness is best measured by his students' gains and changes in regard to the prescribed educational objectives. This immediate research supports the contention of an eminent researcher in higher education, W. J. McKeachie, who has

recently written:

The ultimate criteria of effective teaching are changed in students in the direction of the goals of higher education. Thus research on college teaching begins with the consideration of institutional objectives and the goals of the courses.¹²

It is apparent that the Patton Speech Content Exam (abridged) is a valid and reliable instrument for measuring student achievement in speech knowledge, and it is discriminating enough to be used as partial criteria in measuring speech teacher effectiveness at the college fundamentals of public speaking level.

The observation of the data in this study does not warrant the use of Rossillon's Speaker's Self-Concept Scale as part of the measurement criteria for speech teacher effectiveness. It purports to measure what is needed to be measured for determining speech teacher effectiveness, but its reliability and discrimination capabilities raised questions in this pretest and posttest designed study. This observation does cause a dilemma for researchers interested in doing further study in teacher effectiveness since the Rossillon scale appears to be the best available instrument for measuring two of the fundamentals of public speaking course objectives.

The communication variable of interpersonal trust with its dimensions of "character," "expertness," and "dynamism" is observable in the teacher-student relationship. It appeared to be dynamic and reciprocal in nature. The trust dimensions appeared to be closely related

¹²W. J. McKeachie, "Procedures and Techniques of Teaching: A Survey of Experimental Studies," The American College, ed. Nevitt Sanford (New York, 1962).

to each other, but they were independently perceived and independently potent. This was especially true of the dimension of "dynamism" as it was perceived in the instructors by the students.

Although interpersonal trust is a part of the teacher-student relationship in communication, it is very possible that this communication variable will not suffice as a perspective from which speech teacher effectiveness can be identified or described, at least at the college freshman level, with the variables observed and the instruments used in this study. In this immediate research, there was no observation of interpersonal trust being related positively with any criterion that measured student achievement or change. No relationship existed between trust and the final grades, between trust and gain in knowledge, between trust and speaker's self-concept, or between trust and class withdrawals. It appears that the student's perceived trust of his instructor has very little relationship with or effect on what that student accomplishes in the fulfillment of the course's educational objectives.

The above observation has many philosophical ramifications in regard to the instructor and his role in student learning and in regard to the media which best stimulates the student to the fulfillment of the course objectives. It appears that the significance of the human element, the mutual effort, and the communication interaction of the teaching-learning situation has been diminished in this study. Although the statistical relationships and variations do not represent the entire process, the data provided by this study do not support the contention that a significant positive relationship between a student's achievement

and speech attitude change and his trusting attitude toward his instructor; one must raise serious questions concerning the proposition that interpersonal trust seriously influences student achievement and attitude change. Theoretically, when the significance of a basic variable of communication, trust, is in doubt, there is warrant to question the significance of the entire communication process. Perhaps, the teacher-student relationship is not significantly task oriented. Or perhaps, as Marshall McLuhan might observe, the personal interaction of the instructor and the student is not the preferable media for teaching speech at the college freshman level. Perhaps programmed reading, leaderless student group interaction, and/or educational television are better media for teaching speech.

Unfortunately, this study supplies few answers and raises more questions about the role of the speech instructors of the college fundamentals of speech course. But, these questions need to be raised when evaluation of instructors' teaching effectiveness is made without standard measurement criteria or means of describing the effective speech teacher.

This study certainly raises questions about the validity of the teacher-student interaction analysis currently used in describing teacher effectiveness and as a guideline for student-teacher training. The teacher-student observation schedules, such as those developed by Flanders, Medley, Hedlund, and Ryans purport to describe teacher effectiveness by noting the communication patterns which have not as yet, been shown to be related to student gain and change. The present study raised considerable doubt about the significance of teacher-

student communication climates, so often applauded in the literature on teacher effectiveness, especially at the college freshman level in the area of fundamentals of public speaking.

The present study was limited in scope, but from the data derived, it can be stated that the effective instructor of fundamentals of public speaking at the college level is not necessarily nor consistently one who is capable of establishing a trusting student attitude or a mutually supportive classroom communication climate.

Recommendations

It is evident that a void exists in speech education research and that void is in the area of teacher effectiveness. There is a need to identify, to describe, to measure and to understand what makes a teacher of speech effective. This research needs to be done specifically in speech education for the teaching of speech is a unique process. In very few other courses are theory and practice associated in the same immediate manner as they are in the teaching of public speaking. Few teachers in other areas are required to be trainer, critic, and judge so instantaneously.

The present study has explored the use of two measuring instruments for determining student achievement and change as the criteria for teacher effectiveness. Of these two the Patton Content Exam appears to meet necessary standards, but Rossillon's Speaker Self-Concept Scale seems to require some modification in order to suffice as a measure of teacher effectiveness. Research is needed to develop a scale that will measure what the Rossillon scale purports to measure,

but one which is precise, accurate and reliable enough to distinguish change and discriminate among students and class sections changes. Research that develops this speech aptitude test would be of very great value to speech education and is a necessity in speech teacher effectiveness research.

Although it appears that the communication variable of interpersonal trust has little significant relationship or effect on teacher effectiveness, further exploratory research on isolated communication variables and their relationships with students' fulfillment of educational and course objectives is necessary. Questions such as the following need to be answered. What is the relationship of perceived instructor's organization and teacher effectiveness? What is the relationship of student perceived instructor's verbal facilities and teacher effectiveness? What is the relationship of student perceived instructor's physical presentation of material and teacher effectiveness?

The significance of the relationship posited in the last question has been suggested by the findings of the present study in regard to the trust dimension of "dynamism." Indications are that the instructor's dynamism in communication has some influence upon his effectiveness as an instructor.

It seems reasonable to assume that what is true of college speech courses is not necessarily or consistently true of high school speech courses; thus, the communication variable of interpersonal trust could have a significant relationship with speech teacher effectiveness at the high school level and the possibility warrants exploration.

At the college level where a lack of relationship between the personal communication variable of interpersonal trust and teaching effectiveness appeared, there is a need for research in comparing the effectiveness of media such as educational television or programmed reading with the person-to-person method of teaching speech.

It appears that if personal teacher-student relationships play a significant role in the student's fulfillment of prescribed educational objectives, and if there are such people as effective speech teachers at the college level, then the identification and description of those people must lie within the interpersonal communication of those people and their students. The effective speech teacher must be one who can provide communication situations which motivate student mental achievement and attitude change in regard to educational objectives. For it is the medium, the interpersonal communication, that primarily distinguishes between the television, the film, or the textbook and the personal contact of the teacher. What needs to be accomplished through research is the finding of a valid perspective from which the teacher-student communication situations can be observed and analyzed.

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APPENDICES

INSTRUCTIONS TO INSTRUCTORS

Please adhere to these instructions very closely; the study you save may be mine.

1. Inform students that these exams serve two purposes: (a) they are intended to help the student develop a concept of the instruction in Speech 1A, and (b) they are diagnostic with the intention of instructional improvement. The exams will not affect the students' grades for they will not be scored by the instructor. The group results will not be made available to the instructor until after the final grade has been issued, nor will the individual student's result ever be made available to the instructor.
2. Distribute the "G.T.D." and ask the students to be certain that their names or student numbers, the instructor's name, and the section are written where they are designated.
3. Read the instructions on the cover of "G.T.D." with the class and provide your name (perhaps you can write it on the chalk board) as the concept being evaluated. Ask them to write your name on the line at the top and center of the scale. [Will the instructors also please do a scale with the particular section as the concept being rated on the extra enclosed scale.]
4. Collect "G.T.D." scales and immediately place into envelope without scrutiny. Distribute "Patton Speech 1A exam." Inform students of the enclosed answer sheet and ask them to place their name or student number and their instructor's name where they are designated; the section number should be placed where "grade or class" is indicated. (NOTE that the items on the score sheet progress from the left to the right of the page and not from top to bottom.)
5. Have students replace score sheet in test booklet when finished. Take up booklets and score sheets and return them to the envelope without scrutiny.
6. Distribute "Speaker's Self-Concept Scale." Have students fill in name, instructor's name, and section blanks. Read aloud the instructions on the cover page of the "SS-CS." When students are finished please take up the scales and put them into the envelope.
7. Return the envelope of materials to Paul Page as soon as possible.

Thank you very much for your cooperation.

SCHOLARLY	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNSCHOLARLY
DISRESPECTFUL	___ : ___ : ___ : ___ : ___ : ___ : ___ :	RESPECTFUL
UNKNOWLEDGEABLE	___ : ___ : ___ : ___ : ___ : ___ : ___ :	KNOWLEDGEABLE
KIND	___ : ___ : ___ : ___ : ___ : ___ : ___ :	CRUEL
EMPHATIC	___ : ___ : ___ : ___ : ___ : ___ : ___ :	HESITANT
PASSIVE	___ : ___ : ___ : ___ : ___ : ___ : ___ :	ACTIVE
FAST	___ : ___ : ___ : ___ : ___ : ___ : ___ :	SLOW
MEEK	___ : ___ : ___ : ___ : ___ : ___ : ___ :	AGGRESSIVE
EXPERT	___ : ___ : ___ : ___ : ___ : ___ : ___ :	IGNORANT
BOLD	___ : ___ : ___ : ___ : ___ : ___ : ___ :	TIMID
DISHONEST	___ : ___ : ___ : ___ : ___ : ___ : ___ :	HONEST
AGGRESSIVE	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNAGGRESSIVE
UNINFORMED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	INFORMED
TRAINED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNTRAINED
GOOD	___ : ___ : ___ : ___ : ___ : ___ : ___ :	BAD
INEXPERIENCED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	EXPERIENCED
EDUCATED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNEDUCATED
INTROVERTED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	EXTROVERTED
ENERGETIC	___ : ___ : ___ : ___ : ___ : ___ : ___ :	TIRED
SELFISH	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNSELFISH
SINCERE	___ : ___ : ___ : ___ : ___ : ___ : ___ :	INSINCERE
IMMORAL	___ : ___ : ___ : ___ : ___ : ___ : ___ :	MORAL
PATIENT	___ : ___ : ___ : ___ : ___ : ___ : ___ :	IMPATIENT
INTELLIGENT	___ : ___ : ___ : ___ : ___ : ___ : ___ :	UNINTELLIGENT
ILLOGICAL	___ : ___ : ___ : ___ : ___ : ___ : ___ :	LOGICAL
AWFUL	___ : ___ : ___ : ___ : ___ : ___ : ___ :	NICE
RESERVED	___ : ___ : ___ : ___ : ___ : ___ : ___ :	FRANK

GIFFIN TRUST DIFFERENTIAL (GTD - FORM E)

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).
3. Unknowledgeable - Knowledgeable (1,2,3,4,5,6,7).
9. Expert - Ignorant (7,6,5,4,3,2,1).
13. Uninformed - Informed (1,2,3,4,5,6,7).
14. Trained - Untrained (7,6,5,4,3,2,1).
16. Inexperienced - Experienced (1,2,3,4,5,6,7).
17. Educated - Uneducated (7,6,5,4,3,2,1).
24. Intelligent - Unintelligent (7,6,5,4,3,2,1).
25. 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:

2. Disrespectful - Respectful (1,2,3,4,5,6,7).
4. Kind - Cruel (7,6,5,4,3,2,1).
11. Dishonest - Honest (1,2,3,4,5,6,7).
15. Good - Bad (7,6,5,4,3,2,1).
20. Selfish - Unselfish (1,2,3,4,5,6,7).
21. Sincere - Insincere (7,6,5,4,3,2,1).
22. Immoral - Moral (1,2,3,4,5,6,7).
23. Patient - Impatient (7,6,5,4,3,2,1)
26. 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:

5. Emphatic - Hesitant (7,6,5,4,3,2,1).
6. Passive - Active (1,2,3,4,5,6,7).
7. Fast - Slow (7,6,5,4,3,2,1).
8. Meek - Aggressive (1,2,3,4,5,6,7)
10. Bold - Timid (7,6,5,4,3,2,1).
12. Aggressive - Unaggressive (7,6,5,4,3,2,1).
18. Introverted - Extroverted (1,2,3,4,5,6,7).
19. Energetic - Tired (7,6,5,4,3,2,1)
27. Reserved - Frank (1,2,3,4,5,6,7).

Name _____

SPEAKER'S SELF-CONCEPT SCALE

SS-CS

INSTRUCTIONS

- 1) This test is composed of a series of statements separated into groups or blocks with four (4) statements in each block. Read all four statements in block number 1 first, then check () the two (2) statements most descriptive of your attitudes, beliefs or opinions as a speaker.
- 2) Continue this process through all twenty (20) blocks.
- 3) Be certain to check () two (2) statements in each block.
Example:
 a. I feel I am easily excitable.
 b. I think I learn much from others.
 c. I think I have a good sense of humor.
 d. I feel my ideas are clear.
- 4) There are no right or wrong answers.
- 5) Begin when you are ready.

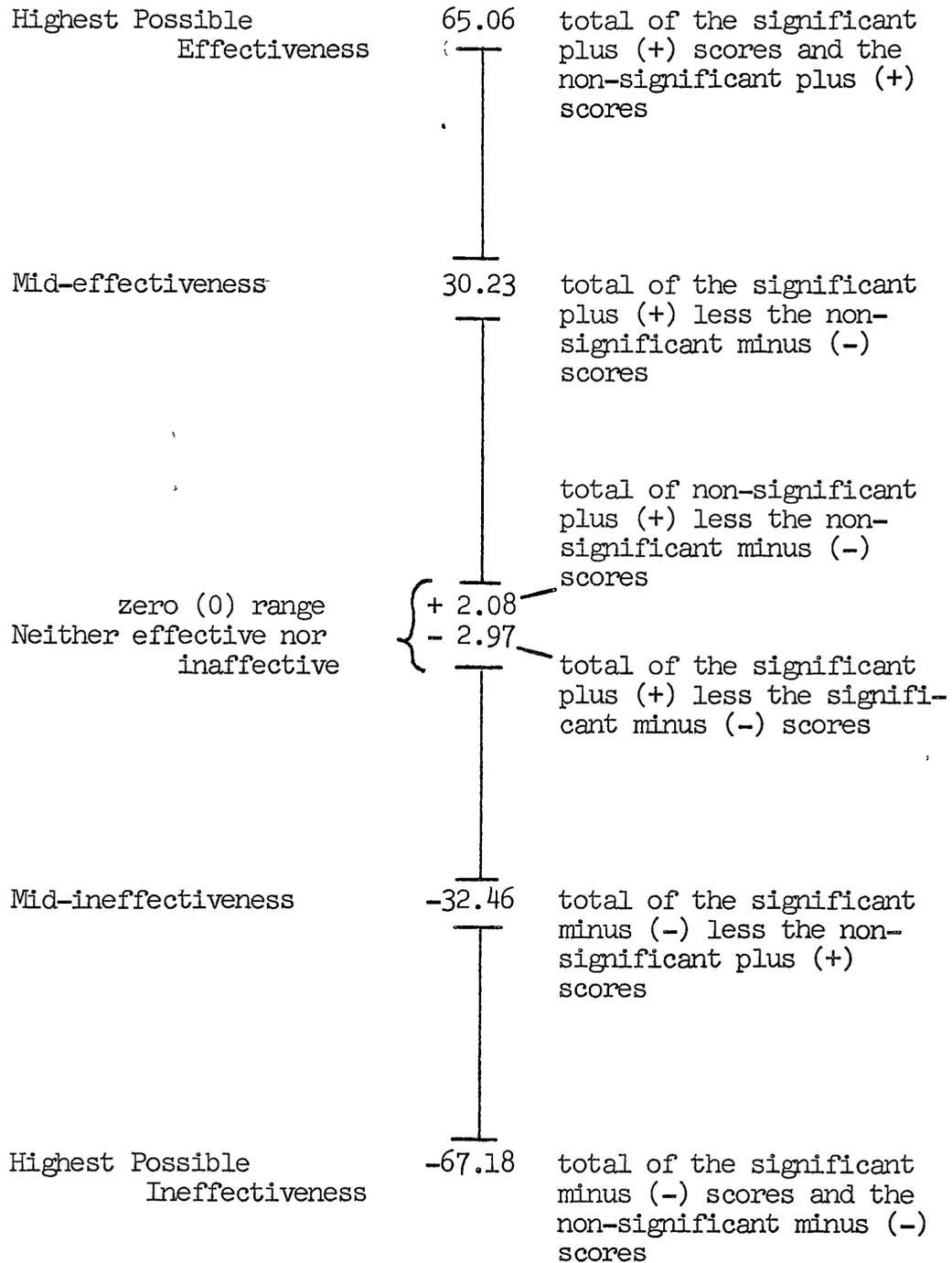
S S-C S

SCORING

KEY

1.	-2.12 +1.94 +1.50 -1.01	11.	+1.81 +1.53 -3.04 - .20
2.	+2.00 -2.22 +1.21 -1.60	12.	+ .20 - .58 -1.95 +3.02
3.	-2.42 -1.33 + .23 +2.35	13.	+ .21 +2.25 - .80 -2.17
4.	+2.36 +1.08 -1.41 - .93	14.	-2.58 + .50 +1.75 - .39
5.	+5.38 + .87 -2.38 - .93	15.	+1.13 +2.00 -2.12 - .36
6.	- .47 +2.79 +1.60 -2.92	16.	-2.66 +1.76 + .93 -1.21
7.	- .52 +1.36 +3.48 -1.81	17.	+ .20 -1.40 -2.12 +1.76
8.	+2.70 -2.44 - .71 + .54	18.	+1.91 - .66 +1.45 -2.36
9.	- .97 -2.03 +1.78 -8.83	19.	+1.25 -3.50 - .20 +1.86
10.	+ .65 -2.50 -1.46 +1.93	20.	+ .54 +2.42 -3.20 - .71

SCORING SCALE
for the
SPEAKER'S SELF-CONCEPT SCALE (SS-CS)



Name _____

1. a. I feel I plan ahead.
 b. I feel at ease in a group.
 c. I think I use good grammar.
 d. I don't think I act nervous when speaking on subjects I know.
2. a. I think I make sound decisions.
 b. I feel I try to say the right things.
 c. I think I have a good speaking voice.
 d. I feel I am a born leader.
3. a. Freedom of thought seems important to me.
 b. I feel I work hard to reach my goals.
 c. I feel I express my ideas clearly.
 d. I think I can handle an audience.
4. a. I feel I have high aspirations.
 b. I think I am concise when talking.
 c. I feel my success will demand good speech.
 d. I think I would rather find facts than argue.
5. a. I think I argue for my beliefs.
 b. I like to study an audience.
 c. I feel my parents want me to be successful.
 d. I think I accept criticism graciously.
6. a. I think I am an excellent manipulator.
 b. I feel I am competitive.
 c. I think I enjoy talking to groups.
 d. I think I make up my mind quickly.
7. a. I think I am destined to succeed.
 b. I feel my diction is adequate.
 c. I think I am usually a leader.
 d. I feel I am apprehensive.
8. a. I feel I get credit for my actions.
 b. I feel that my feelings are hard to hurt.
 c. I think I am methodical.
 d. I feel I use many gestures when speaking.
9. a. I feel I listen more than talk in a group.
 b. I think I always demand my rights.
 c. I think Speech will help me advance.
 d. I feel that most bad speakers lack organization.
10. a. I like to control groups.
 b. I prefer to wait and see what develops.
 c. I prefer group discussions over singular performances.
 d. I think I am practical.

Name _____

11. a. I think Speech will help me earn more money.
 b. I feel I behave moderately when speaking.
 c. I feel I am more critical than most people.
 d. I think I'll make out on my own.
12. a. I think I speak slowly.
 b. I prefer to work alone.
 c. I enjoy dominating conversations.
 d. I feel obligated to others.
13. a. I think Speech must be important, it is required.
 b. I feel that failure is an incentive to me.
 c. I must be nervous when I speak, my hands sweat.
 d. I feel I am uncertain.
14. a. I think I hate speaking, but I enjoy conversations.
 b. I feel I worry a lot about my failures.
 c. I feel I am average.
 d. I prefer "25¢" words.
15. a. I feel I am usually enthusiastic about everything.
 b. I enjoy persuading people to my view.
 c. I feel I solve problems best with action.
 d. I don't feel concerned about what I say.
16. a. I feel I learn quickly.
 b. I prefer to be competitive.
 c. I prefer to pass on information I gain.
 d. I feel I make many friends.
17. a. I think I would make a good actor.
 b. I like to solve my problems alone.
 c. I feel the best way to solve problems is with action.
 d. I think Speech is a pleasure for me.
18. a. I would rather sit and listen.
 b. I try always to do what I think is best.
 c. I feel that I need people.
 d. I think I make people stick to the point.
19. a. I feel that I am always trying to impress others.
 b. I feel I am nervous around "different" people.
 c. I feel I am intolerant of ignorance.
 d. I feel I depend greatly on others.
20. a. My attitude is, "I took Speech because it is required."
 b. I don't think I can tell a funny joke.
 c. I feel I am tense when speaking.
 d. I feel I am often misunderstood through others' stupidity.

PATTON'S SPEECH I

CONTENT EXAMINATION (ABSTRACTED)

PART ONE

Read the following instructions carefully:

Return this set of questions with your answer sheet.

DO NOT WRITE ON THIS MIMEOGRAPHED SET OF QUESTIONS.

Confine your answers to the IBM answer sheet. You will receive credit ONLY for your responses on the answer sheet.

Select the BEST answer from among alternatives provided for each question.

When you have completed the test, put your answer sheet in your test booklet and hand the booklet containing your answer sheet to your instructor.

1. Generally, the amount of time spent on the development of a controversial idea in a speech depends chiefly upon (A) how much support of the idea the audience needs; (B) how much time the speaker has at his disposal; (C) how much the speaker knows about the idea; (D) the amount of new evidence that the speaker can offer; (E) whether action on the part of the audience will be demanded.
2. "Should the University of Kansas offer a straight liberal arts undergraduate degree?" is a question of: (A) meaning and interpretation; (B) policy; (C) value; (D) fact; (E) controversy.
3. Which of these statements would be most effective in gaining audience understanding? (A) Almost 250,000, or 19%, of your fellow Kansans, about as many people as there are in Wichita, will suffer if this bill is made law. (B) This proposed law is unfair to 19% of the residents of Kansas; (C) This proposal will disrupt the lives of 250,000 Kansans; (D) As many people as the total population of Wichita will be wronged by this bill; (E) 250,000 Kansans will be harmed if this proposal is adopted, 19% of the state's population.
4. As a general rule, which of the following would be the best way to begin a speech: (A) Use a dramatic appeal to arouse the audience to action; (B) Begin with two or three jokes that do not pertain to the subject; (C) Present an example or illustration that focuses on the main theme of your speech; (D) Announce the title of your speech; (E) List the main points you intend to cover.
5. "I think there is no doubt that if we guaranteed a minimum income to the poor, we would have more money circulating in the economy. Paul Samuelson, professor of economics at MIT who has written one of the texts in economics used here at KU, made this clear when he said, 'The marginal propensity to consume is highest among the low income groups.'"

This argument, taken from a speech, seeks to gain logical adequacy and acceptance through use of (A) inductive reasoning; (B) specific instances; (C) authority; (D) causal reasoning; (E) deductive reasoning.
6. "A kilowatt-hour is a unit by which electric energy is measured, just as the bushel is the unit for measuring wheat and corn, and the pound is the unit for measuring butter."

Of which method of definition is this an example? (A) Definition by negation; (B) Definition by analogy; (C) Definition by etymology; (D) Definition by example; (E) a rhetorical definition.
7. "Let's suppose that a student was to borrow a thousand dollars to complete his schooling." From this remark you have an indication that a speaker is going to: (A) present an analogy; (B) draw an inductive conclusion; (C) reason from a general assumption; (D) present a hypothetical illustration; (E) reason from cause to effect.

8. The development of the thesis briefly outlined below follows which pattern of arrangement? (A) topical; (B) chronological; (C) problem-solving; (D) spatial; (E) causal.

Thesis: Funerals are strictly for the living.

(A) Social respectability is gained through burial practices by the family of the deceased; (B) Friends and relatives have the satisfaction of seeing the deceased for a last time; (C) Wakes provide an opportunity for conveying respect to the family of the deceased.

Well organized discourse should have unity, coherence, emphasis, proportion. Match each of these terms with the phrase that defines it or describes how it is achieved by marking on your answer sheet the letter of the term each of the following phrases defines:

9. Clues to the importance a speaker attaches to his various ideas. (A) Unity
(B) Coherence
10. Focusing on a central idea throughout the speech (C) Emphasis
11. The development accorded to the various parts of the speech. (D) Proportion
(E) None of above.
12. When a speaker changes his position on the platform: (A) he should do so only to indicate a transition from one main idea to another; (B) he introduces a distraction into his speech and should avoid movement; (C) he may do so without regard to what he is saying; (D) it should contribute to the communication of his ideas and attitudes; (E) he should do so simply to relieve tension and weariness.
13. On the question of "labor-management relations," which of the following lists these sources in an order from the most unbiased to the most biased source as far as the evidence on this question is concerned?
(A) a, b, c. (B) b, c, a. (C) c, a, b. (D) c, b, a. (E) b, a, c.
- a. Secretary of the Department of Labor
b. President of the International Association of Electricians
c. Harvard University Study of Labor Conditions in the U.S.
14. "Truman will go down in history as a very great or a very foolish president." This statement is an example of (A) an appeal to prejudice; (B) a valid historical assumption; (C) a black or white fallacy; (D) ad hominem fallacy; (E) ad populum fallacy.
15. Reasoning which moves from an assumption or a general principle to an application of that assumption or general principle in a given situation is: (A) legal; (B) deductive; (C) causal; (D) inductive; (E) categorical reasoning.

16. "I am closing my 52 years of military service. When I joined the Army even before the turn of the century, it was the fulfillment of my boyish hopes and dreams. The world has turned over many times since I took the oath on the plain of West Point, and the hopes and dreams have long vanished. But I still remember the refrain of one of the most popular barracks ballads of that day which proclaimed most proudly that--
 "Old soldiers never die; they just fade away. And like the old soldier of that ballad, I now close my military career and just fade away--an old soldier, who tried to do his duty as God gave him the light to see that duty." (Douglas MacArthur, Address before Congress, April 19, 1951)
- The language used in this speech excerpt is primarily: (A) denotative; (B) indicative; (C) objective; (D) allegorical; (E) connotative.
17. The term used to designate a sharing of the attitudes and feelings of the speaker on the part of the listener(s) is: (A) response; (B) symbolic communication; (C) empathy; (D) group dynamics; (E) imagery.
18. "Students are so immature these days you can't give them any responsibility. And they are going to continue to be immature until they accept some responsibility." This is an example of: (A) faulty causal reasoning; (B) ad hominem attack; (C) circular reasoning; (D) reasoning from a disjunctive assumption; (E) inductive reasoning.
19. To establish his credibility, his "personal proof," a speaker must, according to Aristotle: (A) be competent in his subject; (B) demonstrate good character; (C) display good will; (D) A, B, and C; (E) A and B.
20. "This year we did our most extensive nuclear testing we had a great many severe tornadoes in widely scattered parts of this country. Atomic tests have a severe effect upon the weather." This is an example of: (A) faulty analogy; (B) post hoc fallacy; (C) arguing in a circle; (D) ad hominem fallacy; (E) appeal to prejudice.
21. The use of force in articulating words, phrases, and syllables is known as: (A) timbre; (B) phonation; (C) stress; (D) effusion; (E) enunciation.
22. Suppose you are attempting to describe for your listeners the Lincoln Center in New York City. Which method of organization is most likely to be the best adapted to the presentation of your ideas: (A) deductive; (B) topical; (C) spatial; (D) chronological; (E) causal.
23. The final determinant of the meanings of words is: (A) usage; (B) the dictionary; (C) the origin of the words; (D) the inherent meanings contained within the words themselves; (E) all of the above.
24. A new Tru-Vue television burned out the picture tube twenty-eight days after it was purchased. A week after it was replaced one of the speakers began to squeal. A few days later the tuning knob came loose. The purchaser concluded: "Tru-Vue television sets are a pile of junk. They ought to be taken off the market." He (A) reasoned ex post facto; (B) reasoned from statistics; (C) was the victim of the black and white fallacy in thinking; (D) generalized hastily; (E) reasoned fallaciously from a faulty assumption.

25. Which of the following is least likely to affect your research on a speech topic? (A) the sex of the audience; (B) the educational level of the audience; (C) the geographical location where the speech is given; (D) the occasion of the speech; (E) the time of day.
26. "Four hundred and fifty of the 600 people living in the Jasmine Addition earn more than \$10,000 a year. It is quite clear that people living in an area where the average annual income is \$10,000 can afford to pay for a new fire station."

Which of the following statements applies the most appropriately to this unit of argument: (A) Average income cannot be computed from the statistics given above and the argument is therefore fallacious; (B) The argument is apparently sound and should be accepted; (C) The argument should be rejected on the grounds that it contains an ad hominem attack; (D) The argument would be sound and should be accepted if the speaker cited the source of his statistics; (E) None of the above statements is appropriate.

27. The character of the speaker which enhances his credibility with an audience is known as: (A) rapport; (B) pathos; (C) logos; (D) feedback; (E) ethos.
28. Introductions should be longer in a persuasive speech given before a (A) neutral audience; (B) selected audience; (C) hostile audience; (D) partisan audience; (E) concerted audience.
29. Speech communication can best be described as (A) an event; (B) persuasion; (C) inquiry; (D) a process; (E) expression.
30. If in a speech someone says that the word "propaganda" can be defined in many ways, but for the purposes of his discussion he will take the term to mean, "Short circuiting the rational process," he is using: (A) a dictionary definition; (B) an Aristotelian type of definition; (C) an operational type of definition; (D) a Platonic type of definition; (E) a rhetorical definition.

KEY AND ITEM RATIONALE FOR PATTON SPEECH CONTENT EXAM (ABRIDGED)

1. (A) A speech may be viewed as a stylized response to the constraints of an audience to which it is given. This question is concerned with this concept from the standpoint of how much time to spend on a controversial idea. It obviously is foolish to spend much time on an idea when little is needed and little time when much is needed. One does not simply "support an idea"; one "supports an idea in terms of an audience."
2. (b) Any persuasive speech involves a proposition. It is useful for the student speaker to know what type of proposition he is presenting. Additionally, from the standpoint of critical evaluation, different criteria need to be employed in the evaluation of different persuasive propositions. The classical concept of stasis still has much utility today.
3. (A) Statistics tend to be the most meaningful if they are presented in extremely graphic or concrete terms. This usually means expressing them in units which the members of the audience can readily picture. When speaking to a Kansas audience the unit of Wichita's population should be meaningful.
4. (C) An introduction should gain audience interest and disclose and clarify the subject to be discussed. Although speeches can be introduced in numerous ways, depending upon the subject and the audience, item C should be designated as the best answer because it is the only one that focuses on the main theme of the speech and has a potential interest factor.
5. (C) A speaker may draw on different kinds of supporting data in order to make his arguments acceptable to an audience. One aid to gaining acceptability is the use of authority opinion.
6. (B) Definition is an invaluable agent for achieving clarity in communication. The student should know more about definition than merely looking up words in a dictionary. He should know how words acquire their meaning; he should know how to make meanings clear through various definitional techniques. In this instance a comparison is used for the purpose of making meaning more graphic.
7. (D) The use of interest and clarity devices are essential to truly effective communication. This being true it is important that a student is aware of common interest and clarity devices. This question concerns one such device, the hypothetical illustration.
8. (A) The student completing the basic course in speech will not only know that organization is important in oral discourse but also that there are patterns of organization that will aid both speaker and listener.

The pattern described here, the topical, is a way of breaking down the thesis through separate but related topics which, when reassembled, lead the audience to accept the thesis.

9. (C) Similar to written communication, the factors of unity, coherence,
10. (A) emphasis, and proportion have importance in spoken messages. The stu-
11. (D) dent is first of all encouraged to make a unified presentation by focusing on a central idea throughout the speech; he is encouraged to relate the points of his speech in order to achieve clear thought progression; he is encouraged to strive for emphasis upon his key ideas; and he is encouraged to have some degree of proportion for his main points.
12. (D) The objective of all bodily activity in speech is to contribute to the communication of ideas and attitudes. It is sometimes useful to move, to indicate transition and to relieve tension and weariness, but neither of these factors constitute the basic rationale for bodily movement.
13. (C) This question concerns the possible bias of sources. Students in Speech 1A are trained to distinguish between biased, possibly biased, and probably unbiased sources. Of the three sources given in this test item the Harvard Study would probably have the least reason for bias, in fact one of its prime objectives probably would be objectivity; the Secretary of Labor is likely to be less biased than the president of the Electricians Association who has a vested interest.
14. (C) Most questions are multivalued in nature. Whenever a two-valued proposition is presented to him, the student is encouraged to look for other possible dimensions of the question in order to determine if the dichotomy the speaker presents is realistic or fallacious.
15. (B) Another example of the students' ability to discriminate the type of reasoning. The student who satisfactorily completes Speech 1A should be able to identify and use both inductive and deductive reasoning in oral discourse.
16. (E) The student is taught to recognize connotative language. Connotative language of course has its value, but at the same time it can be used to sway people by means of language alone. It is likely that this will happen if the listener can distinguish between connotative and denotative expressions.
18. (C) Circular reasoning of the type in this test item is probably far more common than most people realize. We feel that the student should be taught to detect it when it occurs.
17. (C) An important concept in communication is the idea of speaker-listener rapport. The speaker tries to present his message and himself, whenever possible, in such a way as to gain an emphatic response. Empathy

in some respects is technical jargon but on the other hand it is a term that probably should be found in any educated person's vocabulary. Moreover, it is difficult to deal with the concept effectively without the term.

19. (D) The foils of this test item represent what Aristotle thought to be the components of ethos or personal proof in speech communication. An image of expertness, trustworthiness, and good will is what any effective speaker will try to develop.
20. (B) False cause fallacies are extremely common. Careful examination of causal relationships lies near the heart of critical listening. The term post hoc should not be foreign to anyone with any previous speech background.
21. (C) Not much emphasis is placed upon the voice in Speech 1A; however, the student is expected to have some knowledge of the basic process of vocal production. Suggestions concerning vocal delivery are meaningful to the student if he knows the basic concepts. Stress is a meaningful and interesting part of vocal delivery.
22. (C) This question expects the student to have some knowledge of certain stock methods of arrangement which are useful for dealing with many speech subjects. In this instance spatial arrangement would doubtlessly be the best method.
23. (A) Students should know that words do not derive their meanings from the dictionary but from people. This question also tests the idea that meanings do not reside in words themselves but in people using the words.
24. (D) The hasty generalization is one of the most common reasoning problems that should be detected by the critical listener. The question of sufficiency of evidence is one that the student is taught to apply to claims a speaker makes.
25. (E) Each audience and each speech situation embody constraints to which the speaker must adapt his presentation. This test item identifies some of the important constraints and tests the student's ability to distinguish between the more critical ones and one, the time of day, that is not likely to be critical from the standpoint of research, even though the time of day may influence the communication act.
26. (A) A speech student is taught to take a close look at statistics whenever they appear in an argument. No average income could be computed from the information given in this argument.

27. (E) The role of the speaker's ethos in communication is discussed in almost any basic speech course. Ethos is known to exert considerable influence in speech communication.
28. (C) This item raises a question concerning audience adaptation. A brief introduction that discloses and clarifies the subject is all that is normally necessary for a partisan, selected, concerted, or neutral audience. However, a hostile audience may require that a speaker prepare them for his message with a longer introduction that embodies examples and various kinds of evidence before he states his central idea.
29. (D) Students are taught that speech communication is a process. It is an interaction between speaker and listener. To be sure it is not expression, because that term does not necessarily connote communication. It is not an event that just happens, and it is not limited to persuasion or inquiry.
30. (C) People commonly use operational definitions in their speeches, in fact the operational definition is a most useful technique. We feel that the speech student should know what an operational definition is.