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CATEGORIES OF OBSERVED TEACHER BEHAVIOR
AS RELATED TO REPORTED SELF-CONCEPT

by

Ardeth Parish Cropper

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF SECONDARY EDUCATION
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1971
I hereby recommend that this dissertation prepared under my direction by Ardeth Parish Cropper entitled Categories of Observed Teacher Behavior as Related to Reported Self-Concept be accepted as fulfilling the dissertation requirement of the degree of Doctor of Education.

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After inspection of the final copy of the dissertation, the following members of the Final Examination Committee concur in its approval and recommend its acceptance:

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ABSTRACT

In recent years, two areas which have been the focus of much attention in education have been the significance of self-concept and the systematic analysis of teacher behavior. A review of related literature revealed few attempts to relate beliefs about self to teacher behavior. This study examined the relationship between these two factors in an attempt to contribute to a theory of teaching based on phenomenological premises.

A random sample of thirty-four junior and senior high school social studies teachers participated in the project. Each teacher completed the Interpersonal Perception Scale and the Index of Adjustment and Values. In addition, they were instructed to record approximately 120 minutes of teaching activity in their classrooms. These tapes were used to analyze their classroom behavior.

Two observation systems were developed for the purpose of analyzing dominant patterns of behavior. The Procedural Observation System enabled the researcher to examine the proportions of democratic and authoritarian procedures used by teachers. The Substantive Observation System provided a framework for determining the proportions of affective and cognitive content dealt with by the teacher.
The relationships between teacher reported self-concept and the results of the analysis of teacher behavior were examined by using the Pearson product-moment coefficient of correlation. Two substantive hypotheses, tested at the .05 level of confidence, provided direction for the study. The investigator found no relationship between reported self-concept of teachers and either the percentages of democratic procedures or affective content exhibited in their classroom behavior.

The writer recommended that future researchers make every possible effort to secure a representative sample of teachers when doing a field study. Greater variety of classroom behaviors should be obtained by lengthening the number of minutes of classroom interaction recorded. Increasing the number of participants would allow for the examination of additional variables such as age and sex.

The problem of measuring self-concept deserves intensive study. Efforts must be made to refine the techniques now available and substantiate their relative accuracy. The global nature of the self-concept makes precise measurement and description extremely difficult. It is suggested that more specific components of self, such as self-acceptance, anxiety, and threat be the focus of further studies.

The observation systems developed for this study proved very useful for that purpose. Further refinements must be made as they are used in a variety of situations. It was suggested that a
number of observation systems now available be utilized in examin­ing the relationships between beliefs and behavior.

The writer recommended that observation systems based on more central behavior criteria might provide useful data in examin­ing the relationship between beliefs about self as they relate to teaching behavior.

The replication of this project would provide a more sound basis for modifying future efforts in this area.
CHAPTER 1

THE PROBLEM AND HYPOTHESES

Introduction

During the past two decades a number of educators and psychologists have recognized the importance of beliefs about self in predicting human behavior. The crucial nature of these perceptions of self has been examined extensively by Combs and Snygg. They concluded, "The self-concept includes those perceptions about self which seem most vital or important to the individual himself. They are the core of the personality. They make up the map which each person consults in order to understand himself. . . ."\(^1\)

Jourard also noted the significance of self perception when he stated:

\[\ldots\] the concept which a person has of himself as well as the concept of him held by other people in his life can be factors in transcendence or in the inability to transcend present modes of functioning. . . . People who see themselves positively are likely to be persons who trust their ability to cope with situations as they arise. . . . If a person believes himself to be weak, helpless, or doomed, he will tend to behave or suffer in the way expected. If he sees himself as a being with much untapped potential to cope with problems and

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contradictions in his life, then he will persist in efforts to cope with them long after others have given up.  

If beliefs about self provide the primary motivation for behavior, then examining them in the educational setting could be productive.

Most of the research on the role of self in education has dealt primarily with the learner. Until recently little attention has been given to the teacher's self-perceptions in the teaching-learning situation. It has been suggested that the teacher's attitudes are critical because "The teacher determines to a great degree the positive or negative effect of his teaching. . . . Teachers, like everyone else, behave in terms of what is important to them."  

Jersild emphasized this when he made the following comment: "The teacher's understanding and acceptance of himself is the most important requirement in any effort he makes to help students to know themselves and to gain healthy attitudes of self-acceptance."  

There is a question as to whether teachers who report essentially positive or negative views of self behave in distinctly

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different ways in the classroom. Brown and Webb\textsuperscript{5} noted a lack of evidence that carefully measured belief systems are related to teacher behavior. Most of the systematic observation systems which have recently appeared have made few attempts to relate behavioral categories to teachers' beliefs.

If beliefs about self are central to all other attitudes, as Combs and Snygg\textsuperscript{6} asserted, the investigation of the relationship between beliefs and behavior could properly begin with an examination of the teacher's self-concept as related to his actions in the classroom.

\textbf{Statement of the Problem}

It was the purpose of this study to seek answers to the following question: What relationships exist between selected categories of observed teacher behavior and reported self-concept?

\textbf{Significance of the Study}

The teacher who appears to have essentially positive views of self and a high degree of self-acceptance has been, in quite general terms, described by Jersild,\textsuperscript{7} Jourard,\textsuperscript{8}


\textsuperscript{6}Combs and Snygg, loc. cit.

\textsuperscript{7}Jersild, loc. cit.

\textsuperscript{8}Jourard, loc. cit.
Kelly, Rogers, and Combs. Unfortunately, quantitative descriptions of classroom behaviors exhibited by a teacher having positive self regard have not been developed. If a theory of teaching based on self-perception is to be developed, teacher behavior must be analyzed through precise categories. A classroom observation system related to self-perceptions would be a useful research tool for teaching-learning theorists.

Codes which may be used by a teacher in analyzing his own behavior are often of value. They might be of even more significance if he could also gain insight into his perceptions of himself as a teacher.

Pre-service teacher preparation programs have often lacked a sound theoretical base from which teacher educators could make decisions regarding the experiences thought to best promote the growth of effective teachers. George Denemark recognized this when he stated:

It seems to me that there is in teacher education today, not only from the aspect of changing roles, but certainly with that as an important factor, an urgent need

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for theory development in order to provide a broad con-
text in which institutional experimentation can be
conducted and in which many such efforts can be coordi-
nated. Otherwise, programs will be fragmented, criti-
cized as unsubstantiated, and in some cases abolished.13

Providing a link between the systematic analysis of teacher behav-
ior and self-theory could be an important contribution to the
development of a teacher education rationale.

In-service teacher training programs have also been char-
acterized by an absence of unifying direction. Brooks observed,

The purpose of in-service training is to bring about
behavioral change in the teacher. Implicit in this at-
tempt is the assumption that the behavioral change will
result in more effective teaching and ultimately in
greater pupil learning. Little evidence is found to
substantiate the effect of in-service programs on
changes in teacher behavior.14

Flanders concurred that most in-service activities have little in-
fluence on teacher behavior. He stated:

At its worst, in-service training is a gigantic spec-
tator sport for teachers costing at least twenty million
dollars annually. As spectators, teachers gather to hear
speeches, usually choosing seats in the rear of the room.
They play a passive role in which their own ideas and
questions are not adequately considered. They react as
one does to any performing art and are more impressed or

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13George Denemark, "Teacher Education and the Changing
Role of Teachers," in Teacher Education: Action for Americans,
Proceedings of the 14th Biennial School for Executives of the
American Association of Colleges for Teacher Education (Washing-

14Elbert D. Brooks, "The Effect of Alternative Techniques
for Modifying Teacher Behavior" (unpublished doctoral disserta-
disappointed by the quality of the performance than with how much they may have learned.\textsuperscript{15}

One reason for the lack of influence in-service programs have had on teacher behavior might be their inattention to the most central aspect of the personality—the self-concept. If the goal were to involve teachers in a program which facilitated personal as well as professional growth, scores of programs would have to be revised.

Kvaraceus reported that the area of teacher self-concept is the most neglected aspect of both pre-service and in-service teacher training. He commented:

\textit{[Each individual should acquire] an awareness of himself as a person with reference to the dynamics of the teacher's own behavior, including his needs, job satisfactions, reactions to others and their reactions to him. It is this... area that is most neglected in the preparation or improvement of teaching personalities and of teaching competencies... This area is most in need of further discussion and exploration.}\textsuperscript{16}

A study of the relationship between reported self-concept and systematized observation of teacher behavior could contribute to a theory of teaching based on phenomenological premises.


Hypotheses to Be Investigated

The following hypotheses, tested at the .05 level of significance, provided order and direction for this study:

1. There will be a significant correlation between teacher reported self-concept and the proportion of classroom behavior which tends to be predominantly affective rather than cognitive.

2. There will be a significant correlation between teacher reported self-concept and the proportion of classroom behavior which tends to be predominantly democratic rather than authoritarian.

Assumptions

This study was based on the following assumptions:

1. The combination of all the ways an individual perceives himself is the "Gestalt" of his concepts of self or his phenomenal field.\(^\text{17}\)

2. Those perceptions which are most important and vital to the individual and which operationally define his behavior are known as his self-concept.\(^\text{18}\)

3. Beliefs or attitudes toward the self can be identified and measured.\(^\text{19}\)

\(^{17}\)Combs and Snygg, op. cit., p. 126.

\(^{18}\)Ibid., p. 127.

4. While self-report cannot be assumed to be identical with self-concept, those attitudes an individual does make known represent a reasonably valid expression of his personality.\(^{20}\)

5. Teacher behavior can be systematically described and analyzed.\(^{21}\)

6. The tapes used to analyze teacher behavior were from reasonably typical segments of the teacher's verbal behavior.

### Limitations

The following were recognized as limitations of this study:

1. While many theorists have examined the self-concept phenomena extensively, this area is relatively new to the scientific analysis of teacher behavior; therefore, there were few precedents upon which this project could be based.

2. The reported beliefs about self are unlikely to be a completely accurate measure of the self-concept.

3. When analyzing teacher behavior it is necessary to examine a dynamic, complex process through arbitrary categories.

4. No attempt was made to examine the non-verbal behavior of the teacher.


5. While the sample was randomly selected, those teachers who did agree to complete this study may have been somewhat atypical; that is, more interested in research and less threatened by reporting their attitudes toward self than the teachers in the population as a whole.

6. Appropriate norms were not available for the reported self-concept instruments used.

7. The size of the sample was too small to permit the analysis of some variables which might have been worthy of examination.

Definitions of Terms

The following definitions applied throughout this study:

Carter V. Good described self-concept as "those parts of a phenomenal field which the individual has differentiated as relatively stable and definite parts or characteristics of himself."\(^{22}\)

The phenomenal field has been described by Combs and Snygg as "... the entire universe, including himself, as it is experienced by the individual at the instant of action."\(^{23}\)

Combs, Soper, and Courson\(^{24}\) defined self-report as an individual's description of himself and his feelings as reported to another person.


\(^{23}\)Combs and Snygg, op. cit., p. 20.

\(^{24}\)Combs et al., op. cit., p. 494.
Affective behavior was defined as dominant patterns of teacher behavior which are characterized by emotional processes such as interests, feelings, attitudes, biases, and values.25

Cognitive behavior was defined as dominant patterns of teacher behavior which are characterized by thought processes such as remembering, comprehending, applying, analyzing, and synthesizing subject-matter ideas and materials.26

Democratic behavior was defined as dominant patterns of teacher behavior which are characterized by choosing, shared planning, institutional limits on student freedom, a variety of questioning procedures, interrupted teacher talk, and generally positive or encouraging responses to students.

Authoritarian behavior was defined as dominant patterns of teacher behavior which are characterized by an absence of choosing, unilateral planning, personal limits on student freedom, little variety in questioning procedures, uninterrupted teacher talk, and generally negative or critical responses to students.

**Summary**

It was asserted that self-concept is a prime determiner of teacher behavior. While many researchers have investigated the


importance of the learner's self-image in the educational setting, little attention has been given to the influence of the teacher's self-perceptions. In-service and pre-service teacher training programs are seldom based on a consistent theory of teaching. If the self-theorists are to make a contribution to the development of a systematic teaching theory, teacher behavior must be analyzed and attempts must be made to relate those findings to self-perceptions.

This study focused on an examination of selected categories of teacher behavior and their possible relationship to reported beliefs about the self as teacher.
CHAPTER 2

REVIEW OF SELECTED LITERATURE

Because of the extensive literature appearing in recent years which has dealt with the self and with the analysis of teacher behavior, it was necessary to be quite selective in reviewing pertinent publications. The writer selected those studies and theoretical constructs which were most closely related to the problem under investigation in an effort to provide a general background for the study.

This chapter consists of a rationale and selected literature and includes the following sections: (1) The Self-Concept, (2) The Analysis of Teacher Behavior, and (3) The Relationship Between Beliefs and Behavior in Teaching.

The Self-Concept

The Phenomenological Frame of Reference

The basic frame of reference accepted for this study was the phenomenological approach to understanding and predicting human behavior. The postulates of this point of view, as described by Donald Snygg,¹ are explained in the two following paragraphs.

All behavior is lawful or predictable. Behavior is completely determined by and pertinent to the phenomenological field (the universe, including himself, as experienced by the behavior at the instant of action) of the behaving organism. There is some relationship between the fields of different individuals, although this relationship is not open to direct observation.

Increased learning is concomitant with greater differentiation of the phenomenological field. The phenomenological field is fluid, shifting, continually reshaping itself and taking on new meaning. The direction and degree of differentiation are determined by the needs of the behaver. There is a fundamental need to preserve the organization and integrity of the behaver's phenomenal self and to reject data inconsistent with those beliefs. Differentiation takes time; therefore the principal way to accelerate learning or change behavior is to arrange the situation so that the required differentiations are more readily acceptable or are unnecessary.

As Snygg² suggested, the phenomenological explanation of human behavior is descriptive rather than causal or explanatory. It is concerned with predicting behavior of the individual and with generalizations about normative behavior which can be made by looking at the individual. This theoretical point of view has also been called the personal, perceptual or internal frame of reference.

²Ibid., p. 24.
Combs and Snygg stated that behavior is determined by the individual's "unique perceptions of himself and the world in which he lives."\(^3\) It follows, then, that if we are to understand others we must examine the factors which affect the perceptions they have. The most central of these factors is the perception the individual has of himself.\(^4\)

The Perceptions of Self

Self perceptions are descriptive, value laden, and of varying degrees of importance. They range from very vague to extremely clear.\(^5\) Those perceptions which are of most value in understanding human behavior are those considered most vital by the individual himself. This is the essence of what is uniquely him, or the self-concept. It is a kind of generalized self which provides guidelines for his behavior. The self-concept is generally thought of as "the central aspect of personality, consisting of a number of organized, defined objects, or ideas, each with a corresponding attitude indicating its adequacy in the eyes of the person who is literally looking at himself and judging himself."\(^6\)

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\(^4\) Ibid., p. 146.

\(^5\) Ibid., pp. 123-126.

Figure 1. The Phenomenal Environment, Phenomenal Self, and Self Concept*

*Combs and Snygg, op. cit., p. 126.
The nature of the self-concept and how it relates to the phenomenal environment and the phenomenal self is illustrated in Figure 1. The phenomenal environment or perceptual field includes all of a person's perceptions of himself and the world around him. The phenomenal self represents all of an individual's perceptions of himself, regardless of their importance to him. The self-concept consists of those perceptions of self which are the very essence of the individual. This central, most important aspect of the personality provides the generalizations about the individual which he uses as a filter for perception and guide for behavior.7

Change and the Self-Concept

As Combs and Snygg8 pointed out, an adequate self-concept must change as the world around us changes and the phenomenal environment takes on new meaning. While the self-concept is thought to be relatively enduring, it is not static. Changes are most likely to take place as an awareness arises of the discrepancy between the self-concept and cultural demands. They suggested that changes in self-concept are most likely to occur when:

1. The new concept is not of the most personal or central importance.

2. The new concept is related to a fundamental need, and

3. The new concept is enhanced by vivid personal experience.9

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7 Ibid., pp. 126-127.
8 Ibid., p. 157.
9 Ibid., pp. 163-164.
Lecky\textsuperscript{10} asserted that change in one's self concept is even more difficult to achieve than Combs and Snygg suggested. He proposed that consistency-striving is the core process in personality functioning, and that inconsistency is the prime determiner of behavior. In addition, one's preconceived notion of himself will resist any attempts to change and will actually deny all facts which contradict those notions.

The empirical evidence on the theory of change and self-concept appears to be inconclusive. Campbell,\textsuperscript{11} in reviewing the research in this area, concluded that the overriding issue was whether or not there are levels of self-concept which make it more or less easy to change. He suggested that an inclusive, comprehensive theoretical statement which would account for these points of view is needed.

Social Interaction and Perceptions of Self

The self-concept does not exist in a vacuum. Beliefs about self are formulated through and changed by interaction with one's environment. Jersild recognized this when he asserted that the interaction process is "central to the formation of beliefs


about self." He further suggested: "Just as it is within an interpersonal setting that one acquires most of the attitudes involved in one's view of oneself, so it is likely that only in an interpersonal setting can a person be helped to come to grips with some of the meanings of these attitudes." Dodson confirmed this idea when he suggested that, "Identity may be established through validation of self against others in different social relationships." Personality theorists have emphasized that the determinants of behavior are intrapersonal; however, that stable, internal structure is maintained through the congruent, ongoing interaction process.

The contributions of the social psychologists to self-theory have mainly been in the area of interaction. Sarbin noted that "the interaction of self and role as coordinates" has been a concern of the sociologist. They have been responsible for

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13Ibid., p. 543.


theories of social interaction as it relates to the self. Murphy concluded that "personality is in considerable degree a matter of role behavior; even more, however, it is a matter of role perception and of self-perception in the light of this role."\(^{17}\)

When the self-concept directs the individual to act in one way and the role expectations direct him to act in another, self-role conflict is said to exist. This conflict gives rise to the self-maintenance mechanism, and eventually to the preconditions for psychosis.\(^{18}\)

The relationship between self and role has been an active area of research. It is not necessary to examine these findings here other than to note that "the self is a cognitive structure that exercises a selective and directive effect on role perceptions and role enactment."\(^{19}\)

The Self-Concept and Implications for Teaching

This study was concerned with the self and interaction in the classroom. In commenting on the relationship between self-perception and teaching, Combs and Snygg\(^{20}\) suggested that the adequate teacher sees himself positively, as having the capacity for acceptance of self and others, and a high degree of identification

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\(^{18}\)Sarbin, op. cit., pp. 251-252.

\(^{19}\)Ibid., p. 255.

with others. They postulated that how a teacher behaves in the classroom depends, at least in part, upon how he sees himself.

Rogers agreed that the adequate teacher is free to share himself and become cooperatively involved in the learning process. He is also better able to take risks and discover more effective ways of interacting with students.

Some writers have suggested that teaching is basically a "helping" activity. According to Jack Gibb, for help to be truly helpful, the following conditions must exist:

1. Reciprocal trust (confidence, warmth, acceptance).
2. Cooperative learning (inquiry, exploration, quest).
3. Mutual growth (becoming, actualizing, fulfilling).
4. Reciprocal openness (spontaneity, candor, honesty).
5. Shared problem solving (defining, producing alternatives, testing).
6. Autonomy (freedom, interdependence, equality).
7. Experimentation (play, innovation, provisional try).

Gibb further suggests that the self-adequate, personally secure individual can best meet these conditions because he assumes others are also adequate and therefore trusts their motives.

\[21\] Ibid., p. 406.
\[24\] Ibid., p. 25.
In a series of studies conducted at The University of Florida by Combs and his associates, the "self as instrument" concept of professional work was examined. It was asserted that the professions of teaching, counseling, social work, pastoral care, nursing, and psychotherapy had one very common characteristic—that of spontaneous response to the client. Jackson has written about this aspect of teaching as the interactive phase. When the professional's immediate response to the client is most helpful, certain personal characteristics appear to be present. Gooding found that "effective teachers tended to see themselves as more identified with others, as having the capacity to meet the problems of life successfully, as being someone who is dependable, as having dignity and integrity, and as being likable and attractive." In summarizing data from the other studies in this series, Combs concluded that a major characteristic of the good helper "seems to be the existence of an essentially positive view of self." He explained this by stating:


A positive view of self seems to be characteristic of self-actualizing personalities as reported in the literature. A positive view of self provides the kind of internal security which makes it possible for persons who possess such views of self to behave with much more assurance, dignity, and straightforwardness. With a firm base of operations to work from such persons can be much more daring and creative in respect to their approach to the world and more able to give of themselves to others as well.29

Rogers' comments clearly have implications for looking at the self perceptions of teachers. He suggested:

The degree to which I can create relationships which facilitate the growth of others as separate persons is a measure of the growth I have achieved in myself. In some respects this is a disturbing thought, but it is also a promising or challenging one. It would indicate that if I am interested in creating helping relationships I have a fascinating lifetime job ahead of me, stretching and developing my potentialities in the direction of growth.30

When teaching is viewed as a helping activity, the self-concept of the teacher is of prime importance.

While the theoretical basis for examining the self-concept of teachers appears to be firmly established, empirical data focusing directly on this area is only beginning to be gathered. The following studies represent several of these efforts.

The self-concept of student teachers has been the subject of several recent studies. Soares and Soares31 investigated the

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29 Ibid., p. 74.


self-concept of student teachers as related to perceptions of college supervisors and cooperating teachers. They found that at the end of student teaching the prospective teachers reported essentially positive views of self. There were no differences between the students' self-concepts as teachers and the concepts they believed their college supervisors had of them. The student teachers did report that they believed their supervisors saw them more positively than they viewed themselves. The greatest congruence was between the student's perception of himself and his judgment of his college supervisor's rating of him as a teacher. This is especially interesting in light of the fact that the supervisor spends much less time with the student than does his cooperating teacher.

In an exploration of the factors associated with self-concept change in student teachers, Dumas\textsuperscript{32} reported that student teaching can generally be associated with positive views of self. Of the 106 prospective teachers participating in the study, seventy-one percent reported a more positive self-concept at the end of student teaching than at the beginning. In terms of actual changes in self-perceptions during student teaching, however, only those teaching English classes showed significant change in a positive direction. He also found that the presence of the

cooperating teacher in the classroom tended to be associated with a positive change in the student teacher's self-perceptions.

Walberg\(^{33}\) examined the structure of the self-concept in prospective teachers. He concluded that student teachers do not perceive themselves in the same dimensions that (1) pupils see teachers, or (2) that they see school teachers in general. They saw teachers in general as being more concerned with knowledge, and themselves more interested in pupil-centered learning activities. The role-self conflict discussed earlier in this chapter appeared to be a factor in this study.

The interpersonal perception characteristics of teachers were examined by McCallon.\(^{34}\) He found that the elementary teachers' perceptions of self were related to their perceptions of their students. The subjects described themselves in terms very similar to their descriptions of the students they most liked to teach. It was suggested that these findings may demonstrate the harmonious self structures of like perceptual entities.

A study at The University of Michigan focused on the relationship between teacher and pupil self-concepts. Blume\(^{35}\) reported

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that a comparison of the scores on a measure of self-esteem revealed a high positive correlation. He suggested that "if we want to develop children with high self-esteem we should first of all provide them with teachers who have high self-esteem." 36

Gooding's 37 research cited earlier in this chapter supported the premise that effective teachers generally perceive themselves as dependable, capable, likable, and attractive.

One of the most extensive studies of teacher self perception was conducted by Jersild. 38 After a comprehensive survey of the personal issues confronting teachers he developed an instrument which examines the concerns teachers express about their personal lives. The major issues appeared to be: (1) a search for personal meaning in life, and (2) feelings of anxiety. Many participants in this study freely acknowledged these issues and expressed an interest in discussing them. This indicated a measure of openness among teachers, at least when an atmosphere of involvement and mutual trust exists.

The studies reviewed above cannot be considered conclusive evidence of the relationship between teacher self-concept and other variables in the learning situation. Wylie's 39 comprehensive

36 Ibid., p. 9.
37 Gooding, op. cit., p. 34.
survey of the literature prior to 1960 did not include a major investigation of self perception of teachers. It would seem that much needs to be done in this area if the theorists' claims are to be validated.

The Self and the Organization

Argyris\textsuperscript{40} examined the role of the self in the complex organization. His research focused on the individual's opportunities for self actualization in the bureaucratic structure. He concluded that individual and organizational health are interdependent, interrelated concepts. He also noted that many employees actually felt some responsibility for the organization's effectiveness and that they appeared to be "willing to give of one's self without feeling one is giving up one's self . . . ."\textsuperscript{41} While he did not argue that man exists for the organization, he did note the need for a theory of individual-organizational health based on empirical knowledge.

A theory of management based on assumptions of personal adequacy has been suggested by McGregor.\textsuperscript{42} At the top of his heirarchy of needs or motivation is self-fulfillment. He noted

\begin{itemize}
\item \textsuperscript{41}Ibid., p. 197.
\end{itemize}
that this need, like the need for self-esteem, is seldom ful-
filled. Unless management contends with these higher level needs,
McGregor stated that both the employee and the organization will
continue to exhibit symptoms of illness.

In reviewing new patterns of management, Likert\(^43\) sug-
gested that the desire to achieve and maintain a sense of per-
sonal worth and importance was a characteristic of highly
productive managers. The mediocre or low producing managers were
generally not able to achieve this positive sense of self.

The basic dilemma, according to Argyris\(^44\) is the problem
of developing organizational structures which are efficient, yet
allow the people within to function freely and strongly as human
beings.

It appears that the emergence of highly effective organi-
zations is related, at least in part, to the development and par-
ticipation of highly effective personalities who perceive
themselves as essentially capable human beings.

\(^43\)Rensis Likert, "An Overview of New Patterns of Manage-
Hollander and Raymond G. Hunt (New York: Oxford University Press,

\(^44\)Chris Argyris, "Being Human and Being Organized," in
Current Perspectives in Social Psychology, eds. Edwin P. Hollander
and Raymond G. Hunt (New York: Oxford University Press, 1967),
p. 577.
The Analysis of Teacher Behavior

The Need for a Theory of Teaching

The development of theories of teaching has been recognized by researchers as an area deserving of immediate effort. Gage suggested that theories of learning are not adequate substitutes for theories of teaching. He stated, in part, that most of educational psychology:

. . . makes the teacher infer what he needs to do from what he is told about learners and learning. Theories of teaching would make explicit how teachers behave, why they behave as they do, and with what effects. Hence, theories of teaching need to develop alongside, on a more equal basis with, rather than by inference from, theories of learning.46

A four-year study at The University of Illinois focused on the problem of identifying a definitive theory of teaching. Smith reported that the researchers were unable to formulate a teaching theory applicable to the classroom situation simply by inference from philosophical ideas. The gulf between theory and practice is too wide. He further stated that actual classroom teaching is so varied, so complex, and so fluid that it cannot be attributed to the concepts of method as described in the textbooks.


46 Ibid., p. 133.

Medley and Mitzel,48 as a result of research at the City University of New York, hypothesized that a theory of teaching can be formulated only after ways of quantifying classroom behaviors have been developed and a large body of appropriate measuring instruments designed. They further suggested that judgments about behavior in the learning situation must be made from studies in the classroom, not by inference from laboratory experiments. They concluded that any effect the teacher has on the pupils is mediated by some overt behavior on the teacher's part and thus is capable of being seen or heard by an observer.

Gage and Unruh49 reviewed the theoretical formulations for research on teaching during a four-year period. They found that there are generally two approaches in investigating teaching theory—descriptive or improvement oriented. Jackson,50 in emphasizing the importance of describing the interactive phase of teaching, represents the first approach. These researchers are rather neutral in that they ascribe little or no value to certain


teaching patterns. Others, such as Skinner, Glaser, and Stolurow, studied teaching in order to improve it according to some value judgment as to what good teaching is. The first seeks to model the master teacher while the second seeks to master the teaching model. Gage and Unruh recognized that both areas can contribute to a theory of teaching.

It is evident that many researchers are searching for a theory of teaching through the quantitative examination of teacher behavior in the classroom.

The Systematic Observation of Behavior

Medley and Mitzel's examination of the measurement of classroom behavior by systematic observation appears to be a

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54Gage and Unruh, op. cit., p. 359.

55Ibid., p. 359.

comprehensive overview of efforts in this area. They asserted that even though observational data are costly and difficult to obtain, such data should not be omitted from important studies dealing with the analysis of teaching. They further suggested that when teachers and principals understand the potential value of participation and when they are assured of anonymity, many are willing to cooperate. In addition, while observed behavior may be slightly unlike unobserved behavior, it is still better than knowing nothing at all. They summarized the importance of observation in the study of teaching by stating: "It seems safe to say that almost any research on teaching and learning behavior can benefit by the use of direct observations of the behaviors, and that in many instances such observations are of crucial importance."  

Medley and Mitzel defined an observational technique as one which can be used to measure classroom behavior, and

... in which an observer records relevant aspects of classroom behaviors as (or within a negligible time limit after) they occur, with a minimum of quantification intervening between the observation of a behavior and the recording of it. Typically, behaviors are recorded in the form of tallies, checks, or other marks which code them into predefined categories and yield information about which behaviors occurred, or how often they occurred, during the period of observation.

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57 Ibid., p. 250.
58 Ibid., p. 253.
Observation Systems

Early studies concerned with classroom observation grew out of supervisors' efforts to identify effective teachers and dealt with identifying the extent of pupil participation. Since 1914, systems for classifying pupil participation have been developing, though recently they have not been frequently used.\textsuperscript{59} Attempts to measure effective teaching through direct observation have also been made. These researchers go to the classroom "not to find out what effective teacher behavior is, but to see whether the teacher is behaving effectively, i.e., the way they believe he should behave."\textsuperscript{60} Although an extensive number of studies have been based on this premise, they have been "uniformly unsuccessful in yielding measures of teaching skill. No fallacy is more widely believed than the one which says it is possible to judge a teacher's skill by watching him teach."\textsuperscript{61} Studies by Hellfritzsch,\textsuperscript{62}

\begin{itemize}
\item \textsuperscript{59} Ibid., p. 257.
\item \textsuperscript{60} Ibid., p. 257.
\item \textsuperscript{61} Ibid., p. 257.
\end{itemize}
Anderson, Lins, Brookover, and Gotham concluded that arbitrary ratings of effectiveness are generally not related to pupil learning.

Another series of studies grew out of a socio-psychological interest in the classroom. Observational research on classroom climate has been an area of much activity. Thomas, Anderson, Brewer, and Reed, Withall, Hughes, and Flanders.

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70 Marie Hughes, Development of the Means for the Assessment of the Quality of Teaching in Elementary Schools (Salt Lake City: University of Utah Press, 1959).

71 Ned A. Flanders, Teacher Influence, Pupil Attitudes, and Achievement (Minneapolis: University of Minnesota, 1960). (Mimeographed.)
are among the most important contributors to this body of knowledge.

Still another thrust in measuring classroom behavior has been efforts to quantitatively describe what goes on in the classroom regardless of its connection to any school of psychology or ratings of teacher effectiveness. Many of these attempts have drawn from earlier efforts; they look at complex schemes or dimensions of classroom activity. Cornell, Lindvall, and Saupe developed an observation system which has been widely revised and used by researchers. Medley and Mitzel's OSCAR was one such system which attempted to simplify the categories and increase the system's usefulness.

Another area of observational research has centered around the analysis of experimental programs in schools. It would seem that this technique could yield fruitful evaluative data for many innovations in the classroom.

It is apparent from this brief review of efforts to analyze teacher behavior that analysis systems have been developing for many years. Medley and Mitzel, however, attested to the

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75 Ibid., pp. 298-307.
lack of a well-established, definitive methodology for the measurement of classroom behavior, and have summarized some of the implications which can be drawn from efforts in this area. Those most central to this study are:

1. Preliminary informal investigations are helpful in identifying promising categories for analysis. Mechanical recordings are especially helpful in this respect.

2. There are two major types of categories which can be developed for an observation system—a category system or a sign system. The category system consists of a finite number of categories into which each behavior observed can be classified. It is exhaustive of the type of behaviors recorded. The sign system is designed to analyze only some of the behavior and is not intended to be exhaustive of those behaviors observed.

3. Every effort must be made to reduce the "halo" effect of the category. (The likelihood that the observer will be influenced by teacher characteristics other than the one under consideration.)

4. The relationship between the observer and the observed should be such that it contributes to the normality of the classroom situation and a relationship of mutual interest and trust between them.

**Beliefs and Behavior**

The preceding sections of this chapter have dealt with the two main variables investigated in this study—the self-concept
and teacher behavior. In the following section a brief review of attempts to relate beliefs and behavior is presented.

Brown and Webb\(^7\) reported that research about beliefs and behavior in the classroom has shown that how teachers behave is strongly influenced by their beliefs.

Brown, one of the most active researchers in this area, has been concerned with fundamental philosophic beliefs of teachers. He found that they are even more "consistently related to observed classroom behavior than teachers' educational beliefs."\(^7\)

Investigations of the relationship between observed teacher behavior and Rokeach's Dogmatism Scale by Brown, Mendenhall, and Beaver\(^7\) and by Ober,\(^7\) indicated a strong association between these two factors. McGee\(^7\) found that the California F Scale was predictive of teachers' behavior as measured by the

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77. Ibid., p. 211.


Classroom Observation Record. Harvey\textsuperscript{81} reported evidence of a relationship between concrete-abstract belief dimensions and teacher behavior.

Not all measures of beliefs or attitudes have been found to relate to behavior. Brown and Webb suggested that this may be due to the fact that "instruments used to identify attitudes have often been developed either out of thin air or by fiat. . . ."\textsuperscript{82} They made a distinction between these and the instruments designed to measure beliefs which appear to be developed from some theoretical foundation.

The Minnesota Teacher Attitude Inventory was cited as an example of an inductively constructed scale from which it has been difficult to develop an observation system.\textsuperscript{83} Giebink found no relationship between MTAI scores and teacher behavior.\textsuperscript{84}

Teacher perceptions of their role was the focus of a study conducted by Sorensen, Husek, and Yu.\textsuperscript{85} They hypothesized that

\begin{itemize}
  \item Brown and Webb, "Beliefs and Behavior in Teaching," loc. cit.
  \item Ibid., p. 211.
  \item John W. Giebink, "A Failure of the Minnesota Teacher Attitude Inventory to Relate to Teacher Behavior," \textit{Journal of Teacher Education}, Vol. 18, No. 2 (Summer 1967), pp. 233-239.
\end{itemize}
teacher behavior may be predicted from his role expectations, but this dimension has not yet been examined. Kerlinger's traditionalism-progressivism attitude scale has not been related to classroom behavior, Brown and Webb noted.86

Good's87 study of the self-perceptions of effective and ineffective teachers revealed a significant relationship between effective teaching and self-confidence of male teachers. Although the effective-ineffective criteria lacked objectivity, they were based on a well developed rationale of the "self as instrument" concept of teaching as described by Combs.88

Theoretically sound instruments designed to measure teachers' beliefs or attitudes are no doubt valuable research tools. However, Brown and Webb suggested that this is not enough.

Without empirical investigation, there is no way to identify those exact attitudes and beliefs which have a direct relationship to specific classroom behaviors and those which have little or no influence on what transpires in the classroom. Rather, one must take on faith that each of these instruments represents a general, global set of beliefs which affect all areas of behavior in the same manner to the same degree. Research on the relationship between beliefs and behavior shows that such an assumption is not warranted.89

86 Brown and Webb, op. cit., p. 213.


89 Brown and Webb, loc. cit.
The purpose of attitude or belief measurement is to make possible the prediction of behavior in some dimension believed to be important. Brown and Webb summarized the existing dilemma in this area when they concluded:

We hold that study of the relationship between beliefs and behavior is a most important key to unraveling the complexities in explaining and predicting teacher behavior. Belief instruments which have no theoretically related observation systems and observation systems which have no method of measuring beliefs along a similar theoretical dimension can do only half the job. Fruitful investigations into teacher behavior demand both.90

Summary

The phenomenological explanation of human behavior provided the frame of reference for this study. This implies that the self-concept provides the basic motivation for behaving. Concepts of self are relatively enduring and are formulated through social interaction. The implications for teacher self perception are only beginning to be validated by research.

It has been suggested that the systematic analysis of teacher behavior could contribute to theories of teaching based on empirical foundations. While the number of observation systems has rapidly grown in recent years, few attempts have been made to relate these behaviors to teachers' perceptions and belief systems. An analysis of these relationships could be a productive area of research.

90 Ibid., p. 215.
CHAPTER 3

RESEARCH PROCEDURES

This chapter outlines the procedures used to carry out the study and includes the following sections: (1) a brief description of the community and school district in which the study took place, (2) a description of the population, the sampling procedure, and the teacher participants, (3) the general design of the study, (4) an explanation of the type and use of equipment, (5) an examination of the instruments used to measure reported self-concept, (6) an examination of the instruments used to analyze teacher behavior, and (7) a description of the statistical method used to analyze the data.

The Community and School District

This study was conducted in a rapidly growing southwestern community of over 260,000 persons.\(^1\) Spanish and Mexican cultural influences are quite prevalent, and a number of the residents are bilingual. Major economic activities in the city and surrounding area include mining, tourism, agriculture, and some light industry. In addition, a large military base is located in the area,\(^1\)

and a major land-grant university serves as the hub of many cultural and social events.

The school district in which this investigation took place is the largest in the state. It serves a diverse cross-section of the population and has many ethnic, cultural, and socio-economic groups represented in the schools. The approximate proportion of major ethnic groups to the total enrollment is: American Indian 1%, Oriental 1%, Black 5%, Mexican-American 26%, and all others 67%. 2

The total pupil enrollment for the 1970-71 school year was 57,346, 3 and during the same year they employed 2,357 teachers in grades one through twelve. 4

In 1970-71, 53% of all teachers had earned at least masters degrees or the equivalent; the rate of teacher turnover, one indication of professional stability in a district, was 9% during the current year. 5

There appeared to be no reason to assume this district differed greatly from those in other southwestern communities of similar size.

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2 Tucson Public Schools Pupil Data Sheets, Tucson District No. 1, 1970.
3 Ibid.
4 Tucson Public Schools Personnel Data Sheets, Tucson District No. 1, 1970.
5 Ibid.
The Population, Sampling Procedures and Participants

Because of the practical limitations of time and expenditures, it was necessary to limit the size of the sample and meaningful differences between teachers of different subject areas could not be examined. It was decided to limit the population to social studies teachers in the district's junior and senior high schools.

Six of the eight high schools (grades 9-12) in the district were chosen for the study. During the semester in which this research was carried out the investigator was working with the staff of one of the high schools in a new teacher-training program, and it was felt that this might bias the data. The other school not included was relatively new and the social studies department was too small to permit random sampling. Two of the participating high schools had a large number of minority group students in attendance. The remaining four high schools were located in predominantly middle-class socio-economic regions of the community.

The junior high schools (grades 7-8) selected for the study were partially chosen by location—one was randomly selected for each high school attendance area. They also represented a wide range of cultural and economic differences.

In the twelve schools involved in this investigation there were a total of 162 social studies teachers from grades seven through twelve teaching a variety of courses in history and the social sciences.
A stratified sampling procedure as described by Van Dalen and Helmstadter was used to select the participants for this study. The names were drawn from a box, using the replacement technique.

It was decided that controlling the profile of the sample both in terms of the general socio-economic or ethnic characteristics of the pupils and the grade levels was desirable. The population was divided into strata based upon these criteria—junior vs. senior high school and socio-economic/ethnic groups. From each of these smaller predetermined groups (12 units) a random sample of four teachers was drawn.

The forty-eight individuals who appeared on the original sample were then mailed a letter explaining that they had been chosen to participate in a university research project, and that they would receive a telephone call in the near future explaining the nature of the study and seeking their agreement to participate (see Appendix A). The investigator suspected that a detailed explanation of the project in the initial contact might unduly bias the teachers against participation.

The following week each teacher was contacted by telephone. They were told that participation in the study would

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entail the following: (1) completion of perception scales designed to measure their thoughts about themselves, and (2) taping two full periods of a reasonably typical day in their classrooms. They were assured that they would not be identified in any way, and that all data would be kept in complete confidence. They did not place their names or the name of the school they taught in at any place on the perception scales or the tapes. Code numbers were used to match the self-perception scores with the recorded behavior.

As was expected, a number of teachers did not wish to participate. In any study which requires the time and effort of public school personnel, it is extremely difficult to secure a true random sample. It was recognized in the limitations of this study that those teachers who did agree to participate might be somewhat atypical. In essence, the researcher must work with data from a sample of those who express a willingness to cooperate.

The final sample consisted of thirty-six teachers, 75% of those originally contacted. During the data gathering process, two persons failed to complete all the data needed for inclusion in the statistical analysis, making the actual number of participants thirty-four. Fourteen were from the junior high schools and twenty were from the high schools. These six women and twenty-eight men were currently teaching the following subjects: American History, World History, American Problems, Economics, Anthropology, Sociology, Current Events, World Geography, World Cultures, and International Relations.
The Description and Use of Equipment

When taping classroom interaction for this study, the investigator determined that the equipment should meet two criteria: (1) It should provide the most complete record possible of what the teacher and students say; and (2) It should be as uncomplicated and easy to use as possible.

Prior to the collection of data for this study a number of different kinds of recording equipment were tested. Although the use of multiple microphones would have resulted in a more complete record of the classroom activity, this would have necessitated complicated physical arrangements which would have been quite costly and might have unduly influenced teacher or pupil behavior. It was therefore decided that the best results could be obtained with least artificiality by using a cassette recorder with an automatic recording level feature.

The tapes used by the teachers were 120 minutes in length. This made it possible for the teachers to turn on the recorder before the period began and let it continue to run until after the students had gone, facilitating a complete record of the class period without interruption (see Appendix B).

While the equipment used in this study was very easy to use and simple enough to be unnoticed by the students, it should not be used when it is necessary to clearly understand every student comment.
The Design of the Study

The design of this investigation was based on the definition of the field study as described by Kerlinger and Katz and Festinger. Kerlinger stated, in part, that "research aimed at discovering or uncovering relations is indispensable to scientific advance in the social sciences. It is necessary to know, for instance, the correlates of the variables of our science. Indeed, the scientific meaning of a construct springs from the relations it has with other constructs." 

The strengths of the field study were listed by Kerlinger as: realism, significance, strength of variables, theory orientation, and heuristic quality. Its ex post facto character and lack of precision in the measurement of field variables were given as methodological weaknesses.

In this research project the investigator examined the relationships between the teacher's reported beliefs about self and selected categories of observed teacher behavior in the classroom setting.

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In this type of study the researcher seeks to predict the relations among the attitudes, values, perceptions, or behaviors of individuals or groups within the institutional setting.


4. Ibid., pp. 382-386.
The self-report data were gathered on two instruments, both of which had been used by researchers prior to this study. A more detailed discussion of these instruments is presented later in this chapter. The instruments were distributed to each teacher at the school and they were instructed to return them by mail.

Each school where participating teachers were assigned had a tape recorder delivered and every teacher was given enough tape to record 120 minutes of classroom activity. The teachers had approximately two weeks to complete the recording. At the end of that time the tapes and recorders were collected from the schools.

These tapes were then analyzed according to the categories developed by the investigator as described later in this chapter.

Instruments Used to Measure Reported Self-Concept

The validity of the measurement of teacher attitudes and beliefs has been a dilemma faced by researchers for many years. It is not the purpose of this section to analyze the merits or dangers of the numerous techniques which have been developed, but rather to briefly mention the issue as it relates to the measurement of self-perceptions in this study.

One group of researchers has suggested that the most valid measurement of self-concept is the direct observation of the individual's behavior. Combs, Soper, and Courson described this

method in some detail. They suggested that a trained observer analyze the individual's behavior and make inferences about the self-concept from their observation. This approach is based on the assumption that "if behavior is a function of perception, it should be possible to observe behavior and infer the nature of the self-perceptions which produced that behavior."\(^{15}\)

Another group of investigators assumed that the individual can relate significant, reasonably reliable data on his attitudes or beliefs. Sarbin and Rosenberg\(^{16}\) accepted the postulate that the self is an organization of qualities which can be communicated through the use of linguistic devices. This self-report index is the most frequently used method of securing material from which to make inferences about an attitude, and entails simply asking an individual to reveal his beliefs about the dimension under investigation.

Thurstone\(^{17}\) recognized that there is a discrepancy or some error of measurement between one's stated belief and his true attitude. He stated, "... this discrepancy between the index and 'truth' is a universal characteristic of measurement."\(^{18}\) However,

\(^{15}\)Ibid., p. 495.


\(^{18}\)Ibid., p. 78.
he further suggested that a man's action "may not be a more accurate indication of his attitude than what he says. They may, in fact, be a distortion . . . ."\textsuperscript{19}

It is granted that self-report instruments have a number of characteristics which make them susceptible to distortion. As Cook and Selltiz\textsuperscript{20} reported, a person who wishes to give a certain picture of himself can do so rather easily. This problem has long been realized and approaches to minimize this factor have been described in detail. As Thurstone\textsuperscript{21} recommended, self-report scales should only be used in situations where one may reasonably expect people to tell the truth as they see it.

While inferences made from behavior may be less subject to some unreliable responses, they are at least as subject to other extraneous influences such as role expectations, social customs, or other values held by the observer and the observed.\textsuperscript{22} Sarbin\textsuperscript{23} suggested that direct observation of a person's behavior reveals only the action system resulting from the interaction of self and

\begin{itemize}
\item \textsuperscript{19}Ibid., p. 78.
\item \textsuperscript{21}Thurstone, op. cit., p. 79.
\item \textsuperscript{22}Cook and Selltiz, loc. cit.
\end{itemize}
role or role expectations. In addition, Bem\textsuperscript{24} asserted that both self-report and judgments made from observing one's behavior are merely inferences made from the same evidence. Inferences made from an observer's view of the behaver can hardly be assumed to be identical with the same act as seen through the eyes of the behaver.

Kerlinger\textsuperscript{25} and Rokeach\textsuperscript{26} suggested that the behavioral component of an attitude is only one aspect of a belief system. The individual may hold other attitudes which he does not act upon during the period of observation.

The foregoing discussion appears to indicate that no single method of measuring beliefs has absolute superiority over another. Evidence collected thus far is inconclusive. In this study precautions were taken to minimize the likelihood of distortions in self-reporting, and the study proceeded on the assumption that the beliefs an individual makes known will be a reasonable approximation of those he actually holds.


The two instruments administered to participants in this study were the Index of Adjustment and Values and an adaptation of the Interpersonal Perception Scale. These instruments are included in Appendix C.

Index of Adjustment and Values

The IAV was developed to measure variables important to perceptual theorists and client-centered therapists. One of the dimensions included is the self-concept. Although the entire instrument was completed by the participants, only one score (perceptions of self) was related to the hypotheses of this study and it was therefore the only factor used in the analysis of data. The entire scale is reproduced in Appendix D as it was administered. Bills suggested that this instrument is appropriate for the type of data needed in this investigation.

Split-half and test-retest reliability coefficients as well as content, concurrent, and construct validity analyses have been examined for this instrument.

The IAV lists forty-nine traits upon which the subject was asked to rate himself. The rating was on a scale of one to five based on the following key:

28Ibid., pp. 6-8.
29Ibid., pp. 53-73.
"How often am I this sort of person?"

1. Seldom
2. Occasionally
3. About half the time
4. A good deal of the time
5. Most of the time

In order to strengthen the concurrent validity of the self-concept measure of the IAV, it was decided that another instrument should also be used. In addition, it would be desirable for this scale to be simple, brief, and easy to administer. The Interpersonal Perception Scale as developed by Fiedler and adapted by McCallon appeared to meet these criteria.

Interpersonal Perception Scale

The Interpersonal Perception Scale is a 24-item bi-polar adjective rating scale of the semantic differential type recommended by Osgood, Suci, and Tannenbaum.

With positive poles denoted by asterisks, the bi-polar adjectives used were: Friendly*-Unfriendly; Cooperative*-Uncooperative; Quitting-Persistent*; Stable*-Unstable; Confident*-Unconfident; Shy-Sociable*; Upset-Calm*; Bold*-Timid; Ungrateful-Grateful*; Energetic*-Tired; Impatient-Patient*; Softhearted*-


Hardhearted; Thoughtless-Thoughtful*; Frank*-Reserved; Meek-Forceful*; Careless-Careful*; Easygoing*-Quick-Tempered; Practical*-Impractical; Boastful-Modest*; Intelligent*-Unintelligent; Gloomy-Cheerful*; Responsible*-Undependable; Unrealistic-Realistic*; and Efficient*-Inefficient.

The semantic differential has been shown to be "sufficiently reliable and valid for many research purposes."33 It was developed to measure the connotative meanings of terms in what Osgood et al. called "semantic space."34 Kerlinger concluded that it is a "useful and perhaps sensitive tool to help in the exploration of an extremely important area of psychological and educational concern: connotative meaning. The next decade should see many results of this exploration."35

Instruments Used to Analyze Teacher Behavior

The analysis systems developed for examining teacher behavior in this study may be classified as "category systems."36 Medley and Mitzel stated that such systems exhibit the following characteristics:

33Kerlinger, Foundations of Behavioral Research, op. cit., p. 578.
34Osgood et al., op. cit., pp. 31-75.
1. The record obtained must show the total number of units of behavior which occurred and the number classifiable in each category.

2. Since every statement the teacher makes is recorded, it is supposed to be exhaustive of all behaviors of the type recorded.

3. The code should be developed from some relatively sound theory.

4. The number of categories into which the behavior is to be classified should not be too large.

5. There is usually a category for neutral, unclassifiable behaviors.

6. The unit of behavior to be tallied may be a natural one such as a single statement or it may be a brief time-unit. The natural unit tally is usually preferable.

7. Categories should be defined so that the discrimination of the observer is as easy and free from other judgments as possible.\textsuperscript{37}

The observation systems described on the following pages appear to meet these criteria. They evolved after a series of preliminary trials with both typescripts and tape recordings which allowed the investigator to refine the categories and definitions. Since only two coders were used to analyze all of the data it is not possible to comment on the ease of training for coder reliability. The categories, definitions, and examples are reproduced in their entirety in Appendix E.

The Substantive Observation System

The Substantive Observation System was designed to examine the nature of the subject matter or content statements made by the

\textsuperscript{37}Ibid., pp. 299-301.
teacher. The categories, as listed in Figure 2, are based on the Taxonomy of Educational Objectives, Handbooks I and II. In analyzing substantive teacher behavior as either affective or cognitive it is assumed that it is possible to observe and classify teacher statements as predominantly dealing with emotional or intellectual processes at any given time. Behaviors characterized by intellectual processes (cognitive) vary from simple recall through activities of increasing complexity to quite creative ways of synthesizing new ideas. Teacher behavior is classified as cognitive when the intellectual task is dominant. Behaviors characterized by emotional processes (affective) range from mild interest through activities of increasing involvement to valuing. Teacher behavior is classified as affective when the emotional processes are dominant. The writer recognizes, however, that one does not find a single dimension present in any classroom situation. Gordon has discussed the importance of recognizing that a relationship between affect and cognition is a reciprocal one. The developers of the taxonomies also indicated that both exist in


all learning situations. This dichotomy exists only for the purpose of examining the dominant patterns of teaching behavior.

<table>
<thead>
<tr>
<th>Cognitive Categories</th>
<th>Affective Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge</td>
<td>Interests</td>
</tr>
<tr>
<td>Comprehension</td>
<td>Feelings</td>
</tr>
<tr>
<td>Application</td>
<td>Attitudes</td>
</tr>
<tr>
<td>Analysis</td>
<td>Biases</td>
</tr>
<tr>
<td>Synthesis</td>
<td>Values</td>
</tr>
</tbody>
</table>

Figure 2. Categories of the Substantive Observation System

The wide acceptance and use of the Taxonomy made it an especially appropriate basis from which to develop a code to analyze teacher behavior. It was possible to use the definitions developed by Bloom et al. and Roberson with only minor revisions for the cognitive categories.

Developing a code for the classification of affective teacher statements presented a different problem. The categories as presented by Krathwohl, Bloom, and Masia did not lend themselves to the development of a system clearly dichotomous from the cognitive dimensions. (For example, one cannot distinguish

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41 Krathwohl et al., op. cit., pp. 85-86.
42 Bloom et al., loc. cit.
"receiving" from a number of other intentions.) After carefully examining the definitions of affective processes in the Taxonomy, a number of categories were developed and field tested. The resulting dimensions, after several revisions, were found to be representative of nearly all teacher statements emphasizing emotional processes.

The category of "Evaluation" was omitted from both classifications because it was extremely difficult to determine when the evaluative statements were predominantly knowledge or emotion centered.

It was hypothesized that teachers who express positive views of self will exhibit classroom behaviors which are mainly affective. It was suggested in the previous chapter that persons who feel adequate and capable of dealing with life are more likely to share themselves in a personal way.

Beatty, in discussing emotion in education, stated:

As educators we have devoted almost exclusive attention to cognitive processes and their effective development. Men like Rogers and Combs are talking about the role of feelings and emotion in behavior and how their development can be fostered effectively. We have heard them say that for learning to take place a teacher must be accepting of children, must be understanding, and must be open and transparent in relationships with children, but somehow we seem to have missed the point.... We have tried to apply these guidelines to the fostering of intellectual behavior in children, when the real point is that these guidelines must be applied in relation to the affective and emotional behavior of children.

He further asserted that "research supports the idea that feelings and emotion play a critical role in blocking and enhancing learning. Further, they are a major determinant of what will be learned in any situation."\(^{45}\)

It has been suggested that the "key to effective behavioral change is an individual's personal discovery of meaning."\(^{46}\) It would seem, then, that the examination of the extent of affective teacher behavior would be worthwhile.

The Procedural Observation System

The Procedural Observation System was developed for the purpose of analyzing the types of classroom techniques teachers use. It is concerned only with how the teacher interacts with students and makes no attempt to analyze the topics being considered. These procedural dimensions are a major contributing factor to the classroom climate.

The categories may be divided into two general classifications—democratic and authoritarian—as represented in Figure 3. The two categories not given in that chart (clarifying-feedback questions and the attending response) were not clearly democratic or authoritarian behaviors and are therefore not included in the analysis of behavior reported in this study. They were included in the code in order to account for more of the total

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\(^{45}\)Ibid., p. 75.

behaviors exhibited and might be useful in other applications of this analysis system.

<table>
<thead>
<tr>
<th>Giving Instructional Directions</th>
<th>Democratic Procedures</th>
<th>Authoritarian Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limits on Student Behavior</td>
<td>Two or more actions are acceptable</td>
<td>Only one action is acceptable</td>
</tr>
<tr>
<td>Information-Giving</td>
<td>Institutional Criteria</td>
<td>Personal Criteria</td>
</tr>
<tr>
<td>Questioning</td>
<td>Discussion</td>
<td>Lecture</td>
</tr>
<tr>
<td></td>
<td>Divergent, Evaluative questions or a variety of these with some Convergent and Cognitive-Memory questions included</td>
<td>Convergent and Cognitive-Memory questions only</td>
</tr>
<tr>
<td>Planning</td>
<td>Cooperative</td>
<td>Unilateral</td>
</tr>
<tr>
<td>Responding Actions</td>
<td>Commending</td>
<td>Criticizing</td>
</tr>
<tr>
<td></td>
<td>Encouraging</td>
<td>Blocking</td>
</tr>
<tr>
<td></td>
<td>Using</td>
<td>Ignoring</td>
</tr>
<tr>
<td>Silence or Confusion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3. Categories of the Procedural Observation System
One of the most frequently mentioned goals of American education, especially in the social studies, is preparation for effective functioning in a democratic society. This objective is espoused by teachers, school districts, and philosophers. In practice, however, democratic principles seldom find their way into the classroom.

Remmers observed that the "schizophrenia from which we suffer has made possible the verbal espousal of the high ethical principles of the Judean-Christian heritage of the West while at the same time its other behavior has often emphatically denied these principles in practice."47 In an extensive study conducted by Horton,48 high school students who had taken no courses dealing with American government exhibited as great an understanding of democratic principles as those students who had taken such courses. It was suggested by Johnston49 and Weiser and Hayes50


that teachers are essentially authoritarian. Blumberg\textsuperscript{51} asserted that it is quite possible that teachers reinforce autocratic attitudes in their students.

Lewin, in an important analysis of the influence of the environment on children, concluded that "the social climate in which a child lives is for the child as important as the air it breathes."\textsuperscript{52} This would indicate that if we wish the products of our schools to value democratic principles and function effectively in a democratic society, the school must be a place where democratic processes thrive.

In the current study it was hypothesized that teachers who see themselves in a generally positive way will tend to behave in a democratic fashion. This contention is supported by Allport's\textsuperscript{53} plea for acceptance of a theory of human behavior which pictures man as capable of creating and living in a democratic society.

The phenomenological or perceptual premises as elaborated by


Combs\textsuperscript{54} and Rogers\textsuperscript{55} do conceive of the healthy person as capable of functioning democratically.

In the remaining section of this chapter the categories of this code are examined as they apply to the definitions of democratic or authoritarian behavior.

**Giving Instructional Directions.** One of the skills necessary in a democratic society is that of knowing how to make decisions about those things which are important to the individual. Therefore, in a classroom which emphasizes democratic skills, the students must be given an opportunity to make choices. Getzels and Thelen\textsuperscript{56} recognized the importance of making choices and the almost total absence of such opportunities in the schools.

**Limits on Student Behavior.** Rules or limits on freedom are a necessary aspect of cooperative living. Democratic structure does not imply a total absence of limits on individual behavior. It does imply, however, that the rules be mutually agreed upon and not simply arbitrary personal limits imposed by one person on another. The distinction made in this category is similar


to the one described by Hughes\(^5\) as private or public criteria. In the public school, students and teachers often have no control over many regulations that do affect their behavior. The authoritarian limits on student behavior, then, are only those imposed arbitrarily by the teacher for purely personal reasons.

**Information-Giving.** Relating information to students is no doubt an important aspect of teaching behavior. When this is seen as essentially democratic, the teacher is also concerned with the student understanding and participating. In an authoritarian situation he is concerned primarily with the information, and makes few attempts to gain student involvement.

**Questioning.** Democratic teaching behavior is related to the variety or types of questions asked by the teacher. The evaluative or divergent question allows for a variety of student responses. The convergent or cognitive-memory question is much more specific and permits the student to answer in only one manner. It would not seem, however, that a convergent question is necessarily autocratic by nature. Therefore, authoritarian questioning was conceived as a pattern which allows for convergent and cognitive-memory questions only. The democratic pattern may be a variety of all four types of questions or an emphasis on the evaluative and divergent.

\(^5\)Marie M. Hughes, Development of the Means for the Assessment of the Quality of Teaching in Elementary Schools (Salt Lake City: University of Utah, 1959), pp. 60-181.
Planning. Cooperative planning has been recognized as an essential aspect of democratic teaching. Effective group decision-making is an important aspect of the democratic process, and therefore deserves to be practiced in the classroom.

Responding Actions. Many of the statements teachers make are in response to a student comment. This frequent activity can contribute to or hinder the development of a democratic classroom climate. When the teacher commends a student, encourages him to participate, or uses his idea, he is indicating that participation of the individual is important. When the teacher criticizes, ignores, or blocks a student response, he communicates exactly the opposite—that students' ideas and participation are not factors deserving consideration.

Treatment of the Data

Coefficients of correlation between the variables in this study—reported self-concept and categories of observed teacher behavior—were computed. According to Van Dalen, correlation techniques are used to "ascertain the extent to which two variables are related, that is, the extent to which variations in one factor correspond with variations in another." He cautions the researcher by stating, in part, "a coefficient of correlation merely quantifies the extent to which two variables are related;


59Van Dalen, op. cit., p. 226.
it does not imply that a cause-effect relationship necessarily exists.\(^{60}\) No attempt was made in this study to speculate on such a cause-effect relationship. The investigator sought only to ascertain the relationships between variables.

There appears to be considerable disagreement among researchers as to the most appropriate type of correlation for educational studies. While some have stated that only nonparametrics should be used, others maintain that parametrics are usually best.

Kerlinger stated:

Unless there is good evidence to believe that populations are rather seriously non-normal and that variances are heterogeneous, it is usually unwise to use a nonparametric statistical test in place of a parametric one. The reason for this is that parametric tests are almost always more powerful than nonparametric tests. . . . in most cases in education and psychology, it is probably safer and usually more effective to use parametric tests rather than nonparametric tests.\(^{61}\)

Lindquist\(^{62}\) and Anderson\(^{63}\) also suggested that the importance of some of the assumptions usually required for the parametric test is overrated. The writer had no reason to believe that these data represented a great departure from these assumptions. It was

\(^{60}\)Ibid., p. 228.


therefore decided to use the Pearson Product-Moment Coefficient of Correlation. 64

Medley and Mitzel confirmed the appropriateness of this technique when they stated: "[One widespread misconception] is that a nonparametric method must be used . . . because the assumption of normality does not hold. . . . It has been shown that much information can be extracted from behavior data without making any assumption about the form of their sampling distribution." 65

Summary

This chapter dealt with the research procedures used in carrying out this investigation. The topics discussed included descriptions of the school district, the population, and participants. The sampling procedures, general design, and the type and use of equipment were explained. The instruments used to measure the variables were described, and the method for analyzing the data discussed.


65 Medley and Mitzel, op. cit., p. 325.
CHAPTER 4

PRESENTATION AND ANALYSIS OF THE DATA

It was the purpose of this study to examine the relationship between teachers' reported self-concepts and certain categories of their classroom behavior. In this chapter the data collected on reported self-concept and teacher behavior are examined, and the results of the statistical analyses presented.

Reported Self-Concept Data

Teacher reported self-concept scores were obtained by having the teachers complete the Inventory of Adjustment and Values (IAV) and the Interpersonal Perception Scale (IPS). The scores for each teacher on these scales are presented in Table 1.

Teacher scores on the IAV ranged from 135 to 228. The distribution of the raw scores obtained from this instrument is illustrated in Figure 4.

The scores on the IPS varied from 92 to 145. Figure 6 illustrates the distribution of teachers' raw scores on this measure.

Teacher scores on both of the reported self-concept scales appeared to approximate a normal curve for a sample of this size.
Table 1. Raw Scores Obtained from the Reported Self-Concept Scales

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>IAV Score (Column I)</th>
<th>IPS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>192</td>
<td>118</td>
</tr>
<tr>
<td>2</td>
<td>181</td>
<td>123</td>
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<tr>
<td>3</td>
<td>161</td>
<td>96</td>
</tr>
<tr>
<td>4</td>
<td>228</td>
<td>137</td>
</tr>
<tr>
<td>5</td>
<td>176</td>
<td>126</td>
</tr>
<tr>
<td>6</td>
<td>207</td>
<td>130</td>
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<td>12</td>
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<td>14</td>
<td>194</td>
<td>104</td>
</tr>
<tr>
<td>15</td>
<td>189</td>
<td>118</td>
</tr>
<tr>
<td>16</td>
<td>191</td>
<td>116</td>
</tr>
<tr>
<td>17</td>
<td>204</td>
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<tr>
<td>18</td>
<td>186</td>
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<td>119</td>
</tr>
<tr>
<td>34</td>
<td>177</td>
<td>125</td>
</tr>
</tbody>
</table>
Figure 4. Distribution of Raw Scores on the IAV
Figure 5. Distribution of Raw Scores on the IPS
In order to establish further evidence of the concurrent consistency of these two instruments, the Pearson product-moment coefficient of correlation\(^1\) was computed for the scores as given in Table 1. There was a positive correlation between the two sets of scores of .65, significant at the .001 level.

**Teacher Behavior Data**

The observation systems developed to analyze teacher behavior were presented in Chapter 3. The raw data, in the form of tallies, were converted to percentages because of some variations in the actual number of teacher statements analyzed during the taping period. These data for both observation systems are presented in Table 2.

The proportion of total behavior classified as affective on the Substantive Observation System ranged from 00% to 83%. Figure 6 illustrates the distribution of percentages of affective behavior as measured by this analysis system. The positive skewness of this distribution indicates that most teachers were dealing mainly with cognitive content in the classroom.

The proportion of total behavior categorized as democratic on the Procedural Observation System varied from 16% to 84%. The distribution of teacher behavior as measured by this observation system is illustrated in Figure 7. The positive skewness of this

distribution indicates that most teachers used more authoritarian than democratic procedures in the classroom.

Coder agreement was .88 for the Substantive Observation System, and .93 for the Procedural Observation System.

Table 2. Percentages of Teacher Behavior Classified as Affective and Democratic by the Observation Analysis Systems

<table>
<thead>
<tr>
<th>Teacher Number</th>
<th>Percentage of Behavior Classified as Affective</th>
<th>Percentage of Behavior Classified as Democratic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.21</td>
<td>.31</td>
</tr>
<tr>
<td>2</td>
<td>.09</td>
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<td>.38</td>
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<td>5</td>
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<td>34</td>
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<td>.45</td>
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</table>
Figure 6. Percentages of Teacher Behavior Classified as Affective
Figure 7. Percentages of Teacher Behavior Classified as Democratic
Analysis of the Data

Hypothesis 1: There will be a significant correlation between teacher reported self-concept and the proportion of classroom behavior which tends to be predominantly affective rather than cognitive.

The Pearson product-moment correlation was used to examine the relationship between the percentage of affective behavior and scores on both the IAV and the IPS. The coefficients of correlation were +.05 for the IAV and -.03 for the IPS. Using the .05 level of significance, the hypothesis must be rejected.

Hypothesis 2: There will be a significant correlation between teacher reported self-concept and the proportion of classroom behavior which tends to be predominantly democratic rather than authoritarian.

The Pearson product-moment correlation was computed in order to examine the relationship between the percentage of democratic teacher behavior and the scores on the IAV and IPS. Those correlations were +.13 and +.06 respectively. The hypothesis must be rejected at the .05 level of significance.

Summary

This chapter included a presentation of the data collected during this investigation and a description of the results obtained from the statistical analyses of these data.

Both hypotheses, stated in the substantive form, were rejected. The investigator found no relationship between reported
self-concept of teachers and selected categories of their classroom behavior.
CHAPTER 5

SUMMARY AND RECOMMENDATIONS

This research project was designed to examine the relationship between reported self-concept of social studies teachers and selected categories of their classroom behavior. In this chapter the study is summarized and recommendations for further research are given.

Summary

Rationale and Background for the Study

The basic frame of reference accepted for this study was the phenomenological approach to understanding and predicting human behavior. As described by Combs and Snygg, this point of view assumed that the individual behaves in terms of his perceptions of himself and his environment.

While there are many general descriptions of teachers who have essentially positive views of self and high degrees of self-acceptance, quantitative analyses of such teachers' behavior have been few. Contributions to a theory of teaching based on the phenomenological point of view must include both an examination of

teacher self-concept and the precise analysis of his classroom behavior.

In this investigation the researcher sought answers to the following question: What relationships exist between selected categories of observed teacher behavior and reported self-concept?

One's perceptions of self are quite varied. Those which are most central to the personality and make up the essence of the individual are known as the self-concept.

One of the major characteristics of the self-concept is its resistance to change. Beliefs about self are formulated through and modified by interaction with others. Role perceptions have been examined by social psychologists in an attempt to explain the relationship between the self-concept and role behavior.

Many writers have suggested that how a teacher sees himself is an important determiner of his behavior. When the relationship between teacher and student is seen as essentially "helping," the teacher's success in dealing with others depends, at least in part, upon his own feelings about himself.

More general research in the areas of the self and organizational effectiveness indicates that people who see themselves as capable human beings are more likely to further the emergence of highly effective organizations.

Some researchers have suggested that the development of theories of teaching based on the quantification of classroom behavior are needed if an understanding of the teacher's influence on pupils is to be forthcoming. The systematic observation of
classroom behavior has been a persistent activity of investigators since the early Twentieth Century. Identifying effective teachers, describing the classroom climate, and analyzing the teaching-learning process have been areas of much endeavor.

While a number of observation systems based on complex theoretical constructs have been in existence for many years, few attempts have been made to relate these findings to belief systems. In addition, instruments designed to measure attitudes or perceptions are seldom related to teacher behavior. An analysis of the relationship between beliefs and behavior appeared to present a potentially fruitful area for research.

This summary of the rationale and review of selected literature provides a background for the problem investigated in this study.

Participants and Research Procedures

This investigation took place in a large, metropolitan community in the Southwest. The participants were selected from a population of 162 junior and senior high school social studies teachers. Since participation in this project necessitated extra time and effort on the part of public school personnel, the researcher recognized that she must work with data from a random sample of those who were willing to cooperate. Thirty-four teachers completed the data required for this project.
The subjects were asked to complete the Interpersonal Perception Scale and the Index of Adjustment and Values. In addition, they were instructed to tape approximately 120 minutes of their teaching activity with an audio recorder.

The research design utilized in this study was the hypothesis-testing field study. This approach may be used when the investigator wishes to predict relations between variables such as perceptions and behaviors as they are found in the institutional setting.

Reported self-concept data were obtained from the raw scores on the two scales used. It appeared that the results on these instruments approximated a normal distribution for a sample of this size. The concurrent consistency of these scales was illustrated by a .65 coefficient of correlation, significant at the .001 level of confidence.

Two observation systems were developed for the purpose of examining teacher classroom behavior. The Procedural Observation System enabled the researcher to examine the teacher's behavior on the basis of democratic and authoritarian procedures used in the classroom. The Substantive Observation System provided a framework for determining the nature of the content dealt with by the teacher. This content was judged to be predominantly affective or cognitive according to the teacher statements. The tapes obtained from the participants were analyzed by using both of these observation systems, and the raw tallies were converted to percentages of teacher behavior classified as democratic and affective.
Findings and Conclusions

The relationships between teacher reported self-concept and the results of the analysis of teacher behavior were examined by using the Pearson product-moment coefficient of correlation. Two substantive hypotheses, tested at the .05 level of confidence, provided direction for the study. These hypotheses and the results are as follows:

1. There is a significant correlation between teacher reported self-concept and the proportion of classroom behaviors which tend to be predominantly affective rather than cognitive. This hypothesis was rejected.

2. There is a significant correlation between teacher reported self-concept and the proportion of classroom behaviors which tend to be predominantly democratic rather than authoritarian. This hypothesis was rejected.

In this investigation, the researcher found no relationship between reported self-concept of teachers and selected categories of their classroom behavior.

Recommendations for Further Research

Design and Method Reconsidered

The controls at the hands of the investigator who has chosen to conduct a field study are by necessity quite limited.

While it is certainly desirable to continue to examine teaching and learning in the public school classroom, precautions must be exercised whenever possible. It was recognized throughout this report that the writer was limited to drawing conclusions from data submitted by those teachers who were willing to report their self-concepts and tape segments of their classroom behavior. It seems likely that the participants may have been somewhat more self-accepting and less threatened by the prospect of revealing their personal beliefs than a completely random sample would have been. It is recommended that efforts be made to minimize this type of potential distortion in similar studies.

Because of the limitation of time and equipment, it was possible to analyze only about 120 minutes of each teacher's classroom behavior. In some instances, there was little variety in the classroom activity recorded and the investigator was unable to select from extensive records of teaching behavior. It is recommended that future researchers attempt to gain at least three hundred minutes of classroom interaction so that they may have increased opportunities to analyze a variety of teaching activities.

Variables such as age, sex, and teaching major were not examined because of the small size of the sample. Whenever possible, the number of participants should be increased to allow for the examination of these and similar factors.
The Measurement of Self-Concept

The problem of measuring self-concept needs extensive study. Perhaps, as Combs, Soper, and Courson suggested, the self-reporting technique is not a suitable method to use in obtaining data of this kind. Other researchers, such as Mischel, however, still believe it has merit. After an extensive discussion of the relative merits of several measurement techniques, he concluded:

In general, the predictive efficiency of simple, straightforward self-ratings and measures of directly relevant past performance has not been exceeded by more psychometrically sophisticated personality tests, by combining tests into batteries, by assigning differential weights to them, or by employing more complex statistical analyses involving multiple-regression equations.

The results of this study, however, appear to reinforce the need for considerable further research in the area of self-reporting.

Another technique which may be useful in measuring feelings toward the self is that of the interview. If a relationship can be established which minimizes threat, the researcher would be able to probe more deeply into personal attitudes and pursue expressed feelings more completely. In this way, the interview technique may be somewhat more self-correcting than many other devices.

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While the self-concept is thought to be the most central aspect of personality, and therefore certainly deserving of research effort, it may well be this global property which hampers efforts to qualitatively describe it. This investigator recommends that future researchers focus their attention on more specific components of self-concept such as self-acceptance, hostility, threat, and anxiety. This recommendation is supported by Wylie's conclusions regarding the measurement of self-concept. She suggested that more effort be directed toward identifying and measuring quite specific facets of the phenomena of the self.

The Analysis of Teacher Behavior

The observation systems developed for analyzing data in this study proved to be very useful instruments. As they are used in other situations such as micro-teaching and teacher self-evaluation, further refinements will no doubt increase their precision. The writer recommends that more evidence of the ease of training for coder reliability be gathered. In addition, the internal (between categories) consistency of the Procedural Observation System needs to be carefully examined.

Only two dimensions of teacher behavior were examined in this study. The writer suggests that beliefs about self need to be studied in terms of many different observation systems. A number of those now in existence might be utilized. The Interaction

Analysis system, because of its wide use in a variety of research situations as well as the general nature of its categories, might provide useful data regarding beliefs about self as they relate to teacher influence in the classroom. Another observation system which appears to be quite useful for this purpose is the Taxonomy for the Classification of Teacher Classroom Behavior. It represents a synthesis of many existing category systems and has been recognized as an instrument which can be widely used by researchers in a variety of situations.

The writer also proposes that a system for the analysis of interactive and reactive behavior patterns of teachers be developed. This behavioral concept, as described by Young, appears to provide a basic framework for examining the location of an individual's motivation for behaving.

The interactive teacher believes his behavior is initiated internally. He acts as if every individual is capable of controlling his own actions. The environment is seen by him as a neutral range of opportunities which he may interact with rather than react to.

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8 George A. Young, Jr., "Thinking in Other Categories" (unpublished manuscript, 1962), pp. 1-5.
The reactive teacher, on the other hand, behaves as if the control over his actions and feelings are in the hands of others. His environment is loaded with negative and positive forces to which he must constantly react.

This writer suggests that teachers with basically negative or ambivalent feelings about self may be incapable of essentially interactive behavior with their pupils. It also seems likely that teachers who are quite accepting of self will be able to interact with rather than react to students.

The theoretical framework which provided a rationale for this study appears to be quite compatible with this view of interactive behavior. This investigator suggests that since feelings about self may be quite closely related to the interactive-reactive behavior patterns of teachers, the precise examination of these two factors is an area deserving further research effort.

The findings reported in this investigation may appear to indicate that the basic premises of this study are faulty—that, in fact, how a teacher sees himself is not related to his classroom behavior. The writer, however, asserts that the results are more indicative of research problems than theoretical errors. The replication of this project would provide a more sound basis for modifying future efforts in this area.

When investigators have more sophisticated methods of examining self-perceptions and have related them to a variety of observation systems, empirical contributions to the development of a phenomenological theory of teaching may be forthcoming.
APPENDIX A

LETTER TO PARTICIPANTS

THE UNIVERSITY OF ARIZONA
TUCSON, ARIZONA 85721
COLLEGE OF EDUCATION

November 2, 1970

Name
Address

Dear

You have been selected in a random sample of Tucson District
#1 Social Studies teachers to participate in a research
study currently being conducted through the Department of
Secondary Education.

During the next few days we will call you to explain the
nature of this project and discuss the possibility of
your participation.

Your cooperation in assisting us to carry out this study
would be greatly appreciated.

Richard C. Krebs, Head
Department of Secondary Education

Paul M. Allen, Professor

Ardeth P. Cropper, Instructor
APPENDIX B

INSTRUCTIONS FOR TAPING

1. The individual in your school who is responsible for the tape recorder is __________. Whenever you have decided which classes you will be recording, please check to be sure no one else plans to use it at that time.

2. Do not put your name on the tape. It has a code number which we will use to compare the reaction sheets with your tape.

3. We seem to get the best results by placing the tape recorder in the center front area of the room facing the students. This will pick up most of the students' comments as well as the teacher's.

4. You have one tape which will run for an hour on each side. Please start the recorder as the students are coming in (before the bell rings) and let it run until the class is completely over.

5. I will pick up the tape recorder and your tapes at the principal's office Wednesday, November 25.

If you have any questions, feel free to call me any evening at home (795-1953) or during the day at The University of Arizona (884-2491 or 884-1344).

Ardeth Cropper
Department of Secondary Education

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APPENDIX C

INSTRUMENTS USED TO MEASURE REPORTED SELF-CONCEPT

The scales administered to the teachers for the purpose of measuring reported self-concept are included in this appendix exactly as they were given. Although data were collected on several dimensions of perception, the only scores used in this study were:

1. Self-report as measured by the "X" on the Interpersonal Perception Scale.

2. Self-report as measured by the first column on the "Perceptions of Self" in the Inventory of Adjustment and Values.
GENERAL INSTRUCTIONS

On the following pages you will find the two scales listed below:

1. Fiedler Interpersonal Perception Scale
2. Index of Adjustment and Values
   a. Perceptions of Self
   b. Perceptions of others

Each separate scale has detailed directions indicating how it should be marked. It is quite important that you be very honest in your answers.

There is no need to write your name on these materials. Use the code number which was assigned to you when you received your tapes. (If you have no record of that number, please call me. It is extremely important that this be accurate.) Place this number on each page of the following scales. You may be assured that no attempt will be made to identify your name or school.

Please return these materials in the enclosed envelope on or before December 3. If you have any questions, feel free to call me.

The results of this study will be mailed to you next spring when all the information has been compiled. Thanks again for your assistance in making this project possible.

Ardeth Cropper, Instructor
Department of Secondary Education
College of Education
University of Arizona

Phones:
Home - 795-1953
Office - 884-2491 or 884-1603
Below you will find a list of 24 adjective scales upon which you are to rate yourself as a teacher in two ways. Remember—there are no right, wrong, good, or bad answers and your responses will be kept completely anonymous. Please follow the directions carefully.

INSTRUCTIONS
Proper completion of these items will entail going through the entire list two times.

First, place an "X" at the point on each line which best describes you as a teacher. Read the list again and place an "0" at the point on each line which best describes how you would like, ideally, to see yourself as a teacher.

EXAMPLES

Sensitive

<table>
<thead>
<tr>
<th>X</th>
</tr>
</thead>
</table>

Insensitive

The above response indicates the person believes himself to be a somewhat sensitive teacher. Ideally, he would like to see himself as a more sensitive teacher than he believes he is now.

Dull

<table>
<thead>
<tr>
<th>X</th>
</tr>
</thead>
</table>

Interesting

This response indicates the person sees himself as quite an interesting person and ideally would like to be just as he believes he is now.
Frank
Reserved

Meek
Forceful

Careless
Careful

Easy-going
Quick-tempered

Practical
Impractical

Boastful
Modest

Intelligent
Unintelligent

Cheerful
Gloomy

Responsible
Undependable

Unrealistic
Realistic

Efficient
Inefficient
INDEX OF ADJUSTMENT AND VALUES

The following scale consists of two major parts. The first section deals with how you perceive yourself as a teacher and how you would like to see yourself. The second section deals with how you generally perceive the average teacher.

The instructions for each part are given separately. Please be especially careful to use the appropriate scale for each column in both sections.
INSTRUCTIONS FOR PERCEPTIONS OF SELF SECTION

On the opposite page is a list of terms that to a certain degree describe teachers. You are to start with the word "acceptable" and fill in columns I, II, and III for that word before going on to the next word. Be honest with yourself so that your description will be a true measure of how you look at yourself as a teacher.

The term "academic" will be used to illustrate how you are to mark each column.

I. Take each term separately and apply it to yourself by completing the following sentence: I am a (an) ______ person. In this example it would read, "I am an academic person." Next, decide how much of the time this statement is like you (is typical or characteristic of you as an individual) and rate yourself on a scale from one to five (1-5) according to the following key:

(1) Seldom is this like me.
(2) Occasionally this is like me.
(3) About half of the time this is like me.
(4) A good deal of the time this is like me.
(5) Most of the time this is like me.

A number "2" placed in column "I" beside the word "academic" would indicate that the person believes he is occasionally an academic person.

II. In marking column "II", indicate how you feel about yourself as you described yourself in column "I" by using the following key:

(1) I very much dislike being as I am in this respect.
(2) I dislike being as I am in this respect.
(3) I neither dislike nor like being as I am in this respect.
(4) I like being as I am in this respect.
(5) I like very much being as I am in this respect.

A number "2" placed in column "II" beside the word "academic" would indicate that the person disliked being occasionally an academic person. (Note that this refers to column "I".)

III. In marking column "III", complete the following sentence for each term: I would like to be a (an) ______ person. In this example it would read, "I would like to be an academic person." Next, decide how much of the time you would like this trait to be characteristic of you and rate yourself on the following scale:

(1) Seldom would I like this to be me.
(2) Occasionally I would like this to be me.
(3) About half of the time I would like this to be me.
(4) A good deal of the time I would like this to be me.
(5) Most of the time I would like this to be me.

If a number "5" were placed in column "III" beside the word "academic" this would indicate that most of the time I would like to be an academic person.
<table>
<thead>
<tr>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
<th></th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. academic</td>
<td></td>
<td></td>
<td></td>
<td>25. meddlesome</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1. acceptable</td>
<td></td>
<td></td>
<td></td>
<td>26. merry</td>
<td></td>
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<tr>
<td>2. accurate</td>
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<td></td>
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<td>27. mature</td>
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<tr>
<td>3. alert</td>
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<td></td>
<td>28. nervous</td>
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<td>4. ambitious</td>
<td></td>
<td></td>
<td></td>
<td>29. normal</td>
<td></td>
<td></td>
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<tr>
<td>5. annoying</td>
<td></td>
<td></td>
<td></td>
<td>30. optimistic</td>
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<td></td>
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<tr>
<td>6. busy</td>
<td></td>
<td></td>
<td></td>
<td>31. poised</td>
<td></td>
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<td>7. calm</td>
<td></td>
<td></td>
<td></td>
<td>32. purposeful</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>8. charming</td>
<td></td>
<td></td>
<td></td>
<td>33. reasonable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. clever</td>
<td></td>
<td></td>
<td></td>
<td>34. reckless</td>
<td></td>
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<tr>
<td>10. competent</td>
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<td></td>
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<td>35. responsible</td>
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<tr>
<td>11. confident</td>
<td></td>
<td></td>
<td></td>
<td>36. sarcastic</td>
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<tr>
<td>12. considerate</td>
<td></td>
<td></td>
<td></td>
<td>37. sincere</td>
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<td></td>
</tr>
<tr>
<td>13. cruel</td>
<td></td>
<td></td>
<td></td>
<td>38. stable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. democratic</td>
<td></td>
<td></td>
<td></td>
<td>39. studious</td>
<td></td>
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<tr>
<td>15. dependable</td>
<td></td>
<td></td>
<td></td>
<td>40. successful</td>
<td></td>
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<tr>
<td>16. economical</td>
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<td></td>
<td></td>
<td>41. stubborn</td>
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<tr>
<td>17. efficient</td>
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<td></td>
<td></td>
<td>42. tactful</td>
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<tr>
<td>18. fearful</td>
<td></td>
<td></td>
<td></td>
<td>43. teachable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. friendly</td>
<td></td>
<td></td>
<td></td>
<td>44. useful</td>
<td></td>
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<td></td>
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<tr>
<td>20. fashionable</td>
<td></td>
<td></td>
<td></td>
<td>45. worthy</td>
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<td></td>
</tr>
<tr>
<td>21. helpful</td>
<td></td>
<td></td>
<td></td>
<td>46. broad-minded</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>22. intellectual</td>
<td></td>
<td></td>
<td></td>
<td>47. businesslike</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>23. kind</td>
<td></td>
<td></td>
<td></td>
<td>48. competitive</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. logical</td>
<td></td>
<td></td>
<td></td>
<td>49. fault-finding</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
INSTRUCTIONS FOR PERCEPTIONS OF OTHERS SECTION

On the opposite page is a list of terms that to a certain degree describe teachers. You are to start with the word "acceptable" and fill in columns I, II, and III for that word before going on to the next term.

The term "academic" will be used to illustrate how you are to mark each column.

I. Take each term separately and apply it to the average teacher in the following manner: *He is a (an) ______ person.* In this example it would read, "He is an academic person." Next, decide how much of the time this statement is like the average teacher (is typical or characteristic of him in general) and rate him as he would rate himself on the following scale:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seldom is this like he sees himself.</td>
</tr>
<tr>
<td>2</td>
<td>Occasionally this is the way he sees himself.</td>
</tr>
<tr>
<td>3</td>
<td>About half of the time this is the way he sees himself.</td>
</tr>
<tr>
<td>4</td>
<td>A good deal of the time this is the way he sees himself.</td>
</tr>
<tr>
<td>5</td>
<td>Most of the time this is the way he sees himself.</td>
</tr>
</tbody>
</table>

A number "1" beside the term "academic" in column "I" would indicate that the average teacher seldom sees himself as an academic person.

II. In marking column "II", indicate how he feels about himself as described in column "I" using the following scale:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>He very much dislikes being as he is in this respect.</td>
</tr>
<tr>
<td>2</td>
<td>He dislikes being as he is in this respect.</td>
</tr>
<tr>
<td>3</td>
<td>He neither dislikes nor likes being as he is in this respect.</td>
</tr>
<tr>
<td>4</td>
<td>He likes being as he is in this respect.</td>
</tr>
<tr>
<td>5</td>
<td>He very much likes being as he is in this respect.</td>
</tr>
</tbody>
</table>

A number "2" beside the term "academic" in column "II" would indicate that this average teacher dislikes seldom being an academic person. (Note that this refers to column I.)

III. In marking column "III", complete the following sentence for each term: *He would like to be a (an) ______ person.* In this example it would read, "He would like to be an academic person." Next, decide how much of the time this average teacher would like this trait to be characteristic of him and rate him on the following scale:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Seldom would he like this to be him.</td>
</tr>
<tr>
<td>2</td>
<td>Occasionally he would like this to be him.</td>
</tr>
<tr>
<td>3</td>
<td>About half of the time he would like this to be him.</td>
</tr>
<tr>
<td>4</td>
<td>A good deal of the time he would like this to be him.</td>
</tr>
<tr>
<td>5</td>
<td>Most of the time he would like this to be him.</td>
</tr>
</tbody>
</table>

A number "5" beside the term "academic" in column "III" would indicate that the average teacher would like to be an academic person most of the time.
<table>
<thead>
<tr>
<th>Perceptions of Others Scale</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. academic</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. acceptable</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>c. accurate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. alert</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. ambitious</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>f. annoying</td>
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<td></td>
<td></td>
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<tr>
<td>g. busy</td>
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<td></td>
<td></td>
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<tr>
<td>h. calm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. charming</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>j. clever</td>
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<td></td>
<td></td>
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<tr>
<td>k. competent</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>l. confident</td>
<td></td>
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<td></td>
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<tr>
<td>m. considerate</td>
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<td></td>
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<tr>
<td>n. cruel</td>
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<tr>
<td>o. democratic</td>
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<tr>
<td>p. dependable</td>
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<tr>
<td>q. economical</td>
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<tr>
<td>r. efficient</td>
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<td></td>
</tr>
<tr>
<td>s. fearful</td>
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<td></td>
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<tr>
<td>t. friendly</td>
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APPENDIX D

INSTRUCTIONS FOR SCORING INSTRUMENTS
USED IN THE STUDY

Interpersonal Perception Scale

The participant has checked a space between each pair of adjectives which he feels best represents the way he sees himself as a teacher. Each position along the line is assigned a number between 1 and 7 as described below:

7 6 5 4 3 2 1

good | bad

These numbers must be assigned in reverse order when the negative trait is on the left side of the line. (Negative traits are noted in Chapter 3.) These numbers are then summed for each individual and the appropriate statistical analyses completed.

Inventory of Adjustment and Values (Column I)

Each participant has given a numerical value to the adjectives according to how he reports his feelings about himself as a teacher. After reversing the negative trait values indicated by the subject (adjectives 5, 13, 18, 25, 28, 34, 41, and 49) the researcher sums column I, obtaining a raw score for each individual. The appropriate statistical analyses are then made.
APPENDIX E

INSTRUMENTS USED TO ANALYZE TEACHER BEHAVIOR

INSTRUCTIONS FOR USING CODES

1. Observation System for the Analysis of Substantive Teacher Behavior
   A. Code each teacher statement by checking the appropriate category.
   B. If the teacher shifts from one category to another within a single statement, code each change of category.
   C. Place only one check in each column.
   D. Any statement which does not fit one of the definitions should be coded "other."

2. Observation System for the Analysis of Procedural Teacher Behavior
   A. Code each teacher statement by checking the appropriate category.
   B. If the teacher shifts from one category to another within a single statement, code each change of category.
   C. Place only one check in each category.
   D. Whenever categories 6a or 6b are checked, the coder must also check categories 1a or 1b.
   E. A rhetorical question is to be coded the same as the preceding or following statement with which it corresponds.
   G. Categories 4a and 6g are considered neither inherently democratic nor authoritarian, and they should not be included in a final tally of dominant behavior based on these criteria.
OBSERVATION SYSTEM FOR THE ANALYSIS OF
SUBSTANTIVE TEACHER BEHAVIORS

INTRODUCTION

In analyzing substantive teacher behavior as either affective or cognitive it is assumed that it is possible to observe and classify teacher statements as predominately dealing with either emotional or intellectual processes at any given time. Behaviors characterized by intellectual processes (cognitive) vary from simple recall to quite creative ways of synthesizing new ideas. Teacher behavior is classified as cognitive when the intellectual task is dominant. Behaviors characterized by emotional processes (affective) range from mild interest to valuing. Teacher behavior is classified as affective when the emotional processes are dominant.

It is recognized, however, that one does not find a single dimension present in any classroom situation. This dichotomy exists, then, only for purposes of examining the dominant patterns of teaching behavior.
CATEGORIES OF THE SUBSTANTIVE OBSERVATION ANALYSIS SYSTEM

COGNITIVE

Behaviors Characterized by Intellectual Processes

1. Knowledge
2. Comprehension
3. Application
4. Analysis
5. Synthesis

AFFECTIVE

Behaviors Characterized by Emotional Processes

6. Interests
7. Feelings
8. Attitudes
9. Biases
10. Values
DEFINITIONS AND SAMPLE TEACHER STATEMENTS FOR THE ANALYSIS OF SUBSTANTIVE TEACHER BEHAVIOR

The following definitions and sample statements are guidelines to be used in the classification of substantive teacher behavior.

COGNITIVE

Behaviors Characterized by Intellectual Processes

1. Knowledge

   **Definition**

   Knowledge. The teacher emphasizes the recall of specific information.

   **Examples**

   T: When did Columbus discover America?
   * * * * *
   T: Name the three main causes of the Civil War which we discussed yesterday.

2. Comprehension

   **Definition**

   Comprehension. The teacher emphasizes the translation or interpretation of information without seeing its full implications.
Examples

T: We know that Abe Lincoln was a statesman and a politician. How else could you describe him?

* * *

T: What did Wilson mean when he said World War I would make the world safe for democracy?

* * *

T: What appears to be the most direct route from New York to Moscow by boat?

3. Application

Definition

Application. The teacher emphasizes the use of abstractions in new and concrete situations.

Example

T: How would you describe the route that Columbus would have sailed if he had taken the most direct route from Spain to the West Indies?

4. Analysis

Definition

Analysis. The teacher emphasizes separating a complex whole into its parts until the relationship among the elements is made clear.

Example

T: What conditions during the 19th Century accelerated the Industrial Revolution?
5. **Synthesis**

---

**Definition**

*Synthesis.* The teacher emphasizes combining elements to form a new original entity.

---

**Example**

T: Imagine you are a Peace Corps representative to the Philippine Republic. Write an essay describing your activities during your first two weeks in a small village.

---

**AFFECTIVE**

Behaviors Characterized by Emotional Processes

6. **Interests**

---

**Definition**

*Interests.* The teacher emphasizes student curiosity or involvement.

---

**Example**

T: If any of you are interested in working on topics of special concern to you, please see me after class.

---

7. **Feelings**

---

**Definition**

*Feelings.* The teacher emphasizes sentiments such as happiness, sadness, anger, understanding, and sympathy.
Example

T: Let's see if we can imagine how the French people might have felt when Charles DeGaulle died yesterday.

8. **Attitudes**

**Definition**

Attitudes. The teacher emphasizes an opinion, usually for or against some issue.

Example

T: Many of you have expressed opinions on the planned withdrawal from Vietnam. Tod, what do you think about this?

9. **Biases**

**Definition**

Biases. The teacher emphasizes discrimination, indoctrination, or prejudgments.

Example

T: If other minority groups had worked as hard as the Irish immigrants, there would be no racial problems today. Do you agree?

10. **Values**

**Definition**

Values. The teacher emphasizes seeing the worth of some information or idea.

Example

T: Was the U.S. landing on the moon worth all the money and risk involved?
This code is designed to classify the procedures teachers use in general classroom situations. It is concerned, then, with how the teacher interacts with students and makes no attempt to analyze the topics being considered. The categories fall into two broad areas—democratic procedures and authoritarian procedures. These categories represent a variety of classroom activities and methods thought to be central to the teaching task.
CATEGORIES OF THE PROCEDURAL
OBSERVATION ANALYSIS SYSTEM

1. Giving Instructional Directions
   A. Two or more different actions acceptable
   B. Only one action acceptable

2. Limits on Student Behavior
   A. Institutional criteria
   B. Personal criteria

3. Information-Giving
   A. Discussion
   B. Lecture

4. Questioning
   A. Clarifying feedback
   B. Divergent
   C. Evaluative
   D. Convergent
   E. Cognitive-memory

5. Planning
   A. Cooperative
   B. Unilateral

6. Responding Actions
   A. Commending
   B. Criticizing
   C. Encouraging
   D. Blocking
   E. Using
   F. Ignoring
   G. Attending

7. Other

8. Silence or Confusion
DEFINITIONS AND SAMPLE TEACHER STATEMENTS FOR THE ANALYSIS OF PROCEDURAL TEACHER BEHAVIOR

1. GIVING INSTRUCTIONAL DIRECTIONS

A. **Two or more different actions acceptable**

**Definition**

The teacher indicates that students have an opportunity to choose between equally acceptable alternatives (two or more) in fulfilling a task.

**Examples**

T: At the conclusion of this project you may report your findings in several ways. Either a written report, an oral report, or a poster presentation would be acceptable. If you have any other ideas I'll be glad to talk with you about them.

* * *

S: May we hand in some magazine reports instead of a book report this time?

T: Yes. That would be fine.

B. **One action acceptable**

**Definition**

Students have no opportunity to choose—no options are available. The task to be carried out has only one acceptable action.
Examples

T: Turn to page 93 and begin reading.

* * *

T: Your assignment for tomorrow is to write out the answers to the questions at the end of Chapter 4.

* * *

S: Do we have to write the essay in ink?

T: Yes. All written work must be done in ink.

2. LIMITS ON STUDENT BEHAVIOR

A. Institutional criteria

Definition

The teacher indicates that certain behavior is unacceptable or that a specific action may not be pursued because it is contrary to recognized policy or the public (including other students in classroom) good.

Examples

T: We cannot go on the field trip you asked about because a bus is not available and the district will not allow us to use personal cars.

* * *

T: You must be more quiet back there so that the rest of us can hear Sharon.

B. Personal criteria

Definition

The teacher indicates that certain behavior is unacceptable or that a specific action may not be pursued because he personally finds it undesirable or unpleasant.
Examples

T: I will not stand for any more of this nonsense! Now settle down.

* * *

T: I do not want you to go to the library today.

3. INFORMATION-GIVING

A. Discussion

Definition

The teacher is giving information while inviting student comments, dealing with student-initiated responses, or asking a question at least every three statements.

Example

T: The film that we saw yesterday on the history and geography of Southeast Asia has given you a good background for our discussion of nationalism.

S: I'm not exactly sure what nationalism is, really.

T: I believe we decided nationalism was a feeling of patriotism or unity within a country. Of course almost every country is nationalistic to some degree or it doesn't exist for very long. We would not say the people of Southeast Asia were nationalistic during the 19th Century, but we would say they are more nationalistic today.

S: I don't think they are very patriotic even now. . . especially in Vietnam.
B. Lecture

**Definition**

The teacher is engaged in uninterrupted talk for four or more consecutive statements while giving information to the students. He neither invites nor deals with student comments during this period of time.

**Example**

T: Today I would like to talk with you about the Soviet Union. You will remember that yesterday we had just begun to discuss Communism as it has developed in Russia. Now, while Russia is considered a part of Europe in terms of its geography, it certainly has not been a "western" nation as have Germany or France. Its people are both European and Asian. This has given the . . .

S: (interrupting) What exactly makes a "western" country different from any other country?

T: If you had been listening yesterday you would know that we have already talked about that. Now, ah, this having both Asian and European people in its population has given the Russians some advantages. They have insight into the thought processes and needs of the developing Asian nations that the U.S. and others haven't had. This has been a special advantage in their propaganda and economic aid moves to many of the emerging nations in Asia. Russian Communism, however, was the result of two westerners, Marx and Engles. Because Russia, at that time, was mainly an agricultural country they had to modify the ideas of these two men who had been advocating change in the more industrial areas of the world. So the first Russian Communists build a government much like their old authoritarian type of rule—a communism that would work in a rural country.
4. QUESTIONING

A. Clarifying feedback

**Definition**
The teacher asks whether the pupils understand the assignment or some comments which have been made.

**Examples**
T: Are there any questions?

T: Does everyone understand the assignment?

B. Divergent

**Definition**
The teacher asks a question which allows the student to produce a variety of acceptable answers.

**Examples**
T: How could the U.S. promote peace in the Middle East?

T: Why did many of the colonists leave Europe to settle in the New World?

C. Evaluative

**Definition**
The teacher asks a question which is answered byformulating an opinion, making a value judgment, or weighing and assessing alternatives.
Examples

T: How effective has the United Nations been in keeping peace throughout the world?

T: What do you think about fair housing laws, Sally?

D. Convergent

Definition

The teacher asks a question which requires the students to use a number of facts and arrive at right answer through an inductive process.

Example

T: What geographic factors lead to the rapid growth of Chicago?

E. Cognitive-memory

Definition

The teacher asks a question which requires recalling facts or ideas which the students are expected to already know.

Examples

T: Jerry, would you please summarize our discussion of the events leading up to the Boston Tea Party?

T: Who were the major party's Presidential candidates in the election of 1948?
5. PLANNING

A. Cooperative

**Definition**

The teacher indicates that some aspect of a classroom activity or assignment was mutually or cooperatively agreed upon—that students shared the organizational task with the teacher.

**Examples**

T: Last week when you decided to have another debate I suggested several topics you might like to investigate. Did you decide on one of them or do you have another suggestion of your own?

* * *

T: Today we are going to discuss which area you would like to study next and plan some of the activities we will be involved in.

* * *

T: Some of you mentioned that you would like to discuss the latest developments in the Middle East crisis in class today.

B. Unilateral

**Definition**

The teacher reserves the planning process exclusively and completely structures the assignment or activity. There is no evidence of shared planning.

**Examples**

T: Each of you are to select a country to report on next week.

* * *
T: Today we are going to read the chapter on the executive agencies. I have scheduled a film for tomorrow on the Civil Service. Friday we will have a quiz on both the film and your reading assignment.

6. RESPONDING ACTIONS

A. Commending

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The teacher accepts, expresses a favorable opinion of, or praises a student's statement.

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T: That's very good, John.  
* * *  
T: All right.

B. Criticizing

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<th>Definition</th>
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The teacher expresses disapproval, judges negatively, or finds fault with a student comment.

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T: Someone has already mentioned that, Jerry.  
* * *  
T: No, I don't think that's quite correct.
C. Encouraging

Definition

The teacher invites a student to continue or elaborate on a comment, is reassuring, or expresses confidence in the student.

Examples

T: Um, hm. Go ahead.

T: Anything you'd like to add, Susan?

D. Blocking

Definition

The teacher is discouraging, interrupting, hindering, or thwarting the student.

Examples

S: ... they should settle it peaceably and ...

T: (interrupts) All right, Jim. Sandra what do you think?

T: That's enough Joan.

E. Using

Definition

The teacher clarifies, builds upon, or elaborates upon ideas suggested by a student. Repeating or rephrasing a student comment is also included.
Examples

T: Mary has asked about Communist China's admission to the U.N. What do you think about the U.S. position on this?

* * *

S: I don't think people should be disrespectful to the President of the United States.

T: O.K. John, you think people should respect the President.

F. Ignoring

Definition

The teacher refuses to recognize a student comment.

Examples

S: I didn't hear what Jim said.

T: Go ahead and read Sally.

* * *

T: Get back to your reading assignment.

G. Attending

Definition

The teacher indicates he is listening to a student's comment, including calling on a student to respond.
Examples

S: Sometimes I wonder about the FBI . . .
T: Um, hm.
S: . . . and whether they invade people's privacy.
T: Marty, you have your hand up.

7. OTHER TALK

Teacher talk is classified in this category when it does not fit any of the above definitions.

8. SILENCE OR CONFUSION

When coding directly from an audio or video tape record of interaction or using observers in the classroom, this category is used to indicate no talking or indistinguishable conversation and activity.
# TALLY SHEET FOR ANALYZING TEACHER BEHAVIOR

Teacher #___ Episode #___ Page ___

## Procedural Code

1. **Giving instructional directions**
   - a. two (+) actions acceptable
   - b. one action acceptable

2. **Limits on student behavior**
   - a. institutional criteria
   - b. personal criteria

3. **Information giving**
   - a. discussion
   - b. lecture

4. **Questioning**
   - a. clarifying feedback
   - b. divergent
   - c. evaluative
   - d. convergent
   - e. cognitive-memory

5. **Planning**
   - a. cooperative
   - b. unilateral
6. Responding Actions
   a. commending
   b. criticizing
   c. encouraging
   d. blocking
   e. using
   f. ignoring
   g. attending

7. Other

8. Silence or Confusion

Substantive Code

Cognitive
   1. knowledge
   2. comprehension
   3. application
   4. analysis
   5. synthesis

Affective
   6. interests
   7. feelings
   8. attitudes
   9. biases
  10. values

Other
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