RELATIONSHIP BETWEEN VOCATIONAL EDUCATION TEACHERS' PUPIL CONTROL IDEOLOGY AND THEIR CLASSROOM BEHAVIOR

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CHAPTER I

INTRODUCTION

While the art and/or science of teaching is of ancient lineage, a systematic approach toward gaining understanding of the nature and complexities of teaching is still lacking. Today, conceptions about teaching consist essentially of scattered ideas, theoretical speculations, pedagogical opinion and folklore, and untested assumptions about the function of the teacher in the classroom (Clark and Cyphert, 1963). Two factors have been identified which are of major consequence and concern to educators. The first factor is pupil control (Willower, Eidell, and Hoy, 1967). The second factor concerns the taxonomy of teacher behavior (Openshaw and Cyphert, 1966).

The maintenance of order and discipline in the classroom has become a subject of increasing interest and concern. Nelson and Thompson (1963) stated that success and failure of teachers are frequently reported in terms of pupil control. The maintenance of order and discipline is rated at the top of the list of problems teachers considered to be their major difficulties.

A variety of scholars have studied the dynamic interactions which exist between a number of aspects of teaching-learning situations and the teacher (Evans, 1969; Furst and Honigman, 1969; Hunter, 1969; Vickery, 1968). Recent advances in research in classroom behavior have

provided a base on which the classification and description of teacher behavior can be projected.

Within the past decade or so there has been a shift in the direction of educational research on the part of some investigators. The focus of inquiry has become, for them, what actually happens in the classroom. Attempts have been made to describe, through systematic analysis, what a teacher does and how he behaves while teaching. These researchers have been interested primarily in what goes on in the classroom when teachers and students are face to face. Careful examination of these factors are crucial in gaining an understanding of educational processes (Openshaw and Cyphert, 1966).

Statement of the Problem

Administrators and parents often judge a teacher's success or failure in terms of his ability to control pupils. One of the factors influencing pupil freedom in the classroom may center around the beliefs the teacher holds with respect to classroom control (Gossen, 1969). A second factor which is of concern to education is the teaching performance or teacher behaviors exhibited when engaged in the acts of teaching (Openshaw and Cyphert, 1966). The problem for this study was to determine the relationship between teachers' ideologies of pupil control and teacher classroom behaviors.

Purpose of the Study

The purpose of this study was to investigate the relationship that exists between the teacher's pupil control ideologies and the teacher's behavior in the classroom environment.

The objectives of this study were:

1. To determine if vocational education teachers have different pupil control ideologies.
2. To determine if there is a relationship between the vocational education teacher's pupil control ideology and their classroom behavior.

Research Question

Do vocational education teachers who hold a humanistic pupil control ideology differ from vocational education teachers who hold a custodial pupil control ideology in their observed classroom behavior?

Population

The secondary vocational education teachers employed by the Amarillo, Texas Public School District in the Fall of 1971 were used as the population for this study.

Major Assumptions

For the purpose of this study, the following assumptions are made:

1. The Pupil Control Ideology Form provides a systematic method for determining the pupil control orientation of vocational education teachers.
2. The Openshaw and Cyphert taxonomy for the classification of teacher classroom behavior provides a systematic method for the classification of vocational education teacher behavior in the secondary school classroom.

3. The use of trained observers is a reliable procedure for gathering data in secondary school classrooms.
4. The activities of the observers in the classroom will not appreciably alter the patterns of teacher behavior.

Need for the Study

Presently, there is concern about the adequacy of the preparation provided for teachers through existing programs of teacher education. There seems to be dissatisfaction with teacher preparation. The feeling is that professional teacher education has been only superficially identified and that the content and procedures frequently have no demonstrable relevance to the acts of teaching (Openshaw and Cyphert, 1966).

The existence of these conditions is explained in part by the practice of generating teacher education curricula and methods on logical grounds without explicit reference to a clear understanding of teacher behavior in the classroom (Openshaw and Cyphert, 1966). One of the major difficulties to be overcome is the identification of those behaviors in classroom teaching which can form a foundation for the development of teacher education programs (Smith, 1961).

The Openshaw and Cyphert (1966) study was an attempt to develop a means for describing all observable teacher behaviors. It was procedural and descriptive in nature, not introspective or evaluative. Their study involved the development and validation of instruments that could be employed in future research efforts in gaining knowledge and understanding about the phenomenon of teaching.

The concept of teacher behavior seems to be compatible with pupil control ideology orientation of teachers. Although there is wide

variation in the interpretation of what constitutes adequate control or discipline in the classroom and how to attain it, there seems to be near uniformity of opinion that unless teachers and student work together in harmony toward desired ends, little can be accomplished.

Research to analyze the relationship between the pupil control ideology of teachers and the teachers operational behavior in the classroom should prove to be a fruitful inquiry. A study of this nature would have merit in that it should lead to understanding, on the part of teacher educators, teachers, supervisors, and administrators, of how teachers function in the classroom environment.

Even though modern secondary school teachers may be better prepared to cope with the classroom control problem than their counterparts in the past, the intensity and complexity of the problems that beset students have increased. In any event, the teacher behavior and the pupil behavior have changed in the last decade, and such changes are worthy of analysis (Gossen, 1969). Therefore, it is necessary to analyze whether the pupil control orientation of teachers affects their behavior in the classroom setting.

Definition of Terms

For the purpose of this study the following definitions will be used:

Vocational Education Teachers. Those teachers employed by the Amarillo, Texas Public School District vocational education departments.

Control. Control as an essential ingredient of group life implies requirements for and restraints upon behavior. The orientation of teachers toward this aspect of school life is referred to as pupil

control ideology. The teacher's orientation toward pupil control ranges from "custodial" at one end of the continuum to "humanistic" at the other (Willower, Eidell, and Hoy, 1967).

Custodial Teachers. Teachers with a custodial pupil control orientation stereotype their students in terms of appearance, behavior, and parents' social status. These teachers view behavior in moralistic terms instead of attempting to understand it. Their relationship with students are on an impersonal basis. Teachers holding custodial viewpoints are imbued with pessimism and watchful mistrust (Willower, Eidell, and Hoy, 1967).

Humanistic Teachers. The humanistic teacher is optimistic that, through close personal relationships with pupils and the positive aspects of friendship and respect, students will be self-disciplining rather than disciplined. Learning and behavior are viewed not moralistically, but in sociopsychological terms. Two-way communication channels between teachers and pupils are open. Flexibility in status and rules lead to a democratic classroom climate. In such a situation the importance of the individual is stressed and emphasis is placed upon individual needs and patterns of growth (Willower, Eidell, and Hoy, 1967).

Encounter. An encounter is defined as a unit of behavior that serves a discernible function within a teaching situation. Each encounter must have a function and behaviors without purpose are not classified. An encounter begins when a function is observed and ends when that behavior has no function or when a shift to another teaching dimension is observed. One or more classifications are made in each dimension for each encounter (Openshaw and Cyphert, 1966).

Source Dimension. The source dimension indicates the origin of a given encounter. Since all teacher behavior may be viewed as response to some stimulus, the distinction between two source categories (respond and originate) is determined on the basis of immediacy of stimulation (Openshaw and Cyphert, 1966).

Direction Dimension. The direction dimension indicates the target (receptor) to which the teacher behavior is directed. In the interactive teaching process, the behavior of the teacher has a receptor or receptors (Openshaw and Cyphert, 1966).

Sign Dimension. The sign dimension indicates the mode of communication of a given encounter. Behavior characterized by spontaneous speech is coded "speak." Oral behavior that involves the reading of written material is coded "read." The other categories which compose this dimension are gesture, perform, write, and silence (Openshaw and Cyphert, 1966).

Function Dimension. The function dimension provides a system of categories for coding the significant teacher behaviors in terms of goal-directed learning or the purpose the teacher serves in the classroom. A variety of goals have been established by our pluralistic society for the schools. While any given set of goals or objectives may contain more or fewer statements than another, the teacher's role in meeting these objectives has been conceptualized as involving three essential tasks. These tasks are oriented toward subject matter or content, interpersonal relations between teacher and student, and the facilitation of the learning process. Five major categories encompass the purpose of the teacher behavior and form the function dimension.

They are: structure, develop, administer, regulate, and evaluate (Openshaw and Cyphert, 1966).

Dominant Behavior. Dominant behavior is the behavior of a person who is inflexible, rigid, and deterministic. Such a person disregards the desires or judgment of others and considers himself, in the conflict of differences, to hold all the correct answers. Examples are the use of force, commands, threats, shame, blame, attacks against the personal status of another. Domination is the technique of autocracy or dictatorship. It obstructs the growth process in others. It is the antithesis of the scientific attitude and the open mind (Anderson, 1939).

Socially Integrative Behavior. This term designates behavior leading to a oneness or commonness of purpose among individuals. It is the behavior of a flexible, growing person who is looking for new meaning, greater understanding in his contacts with others. It is noncoercive; it is the expression of one who attempts to understand others, who is open to new data. It is consistent with the scientific attitude, the open mind. It is an expression of growth in the person using it, and a stimulus to growth in others. It does not stifle differences, but makes the most of them; it actually creates new and harmonious differences (Anderson, 1939).

Limitations

For the purpose of this study the following limitations have been applied:

1. The 54 vocational education teachers who participated in the initial phase of this study were secondary school teachers who

teach in a large suburban school district in the Panhandle of Texas.

2. The analysis of teacher pupil control ideology and teacher behavior was limited to replies received from the instruments employed.
3. This study in no way attempted to identify the school, teacher, or student population by socio-economic stratification.

Organization of the Study

When all the materials were collected, they were arranged into categories adapted for the basic organization of the thesis as indicated. Chapter II is devoted to a review of related research and literature. Chapter III presents a discussion of the methodology of the study. Chapter IV presents a statistical treatment of the data used in the study. Finally, Chapter V summarizes the entire study, presents findings of the study, gives conclusions drawn from the findings, makes recommendations in keeping with these conclusions, and suggests areas for further research.

CHAPTER II

REVIEW OF LITERATURE

This chapter includes a review of selected sources of information pertaining to the general scope of the study, followed by teacher's classroom behavior as well as the sociological and psychological aspects of teacher attitudes toward the discipline of children, the rating and category systems, and the summary.

General Scope of the Review

Historically, any field of human endeavor has developed only as research findings and empirical knowledge provided a foundation on which to build. Efforts to examine selected aspects of the educative process abound and have done so for many years, but how, if at all, do these efforts relate to the development of an adequate understanding of teaching? There seems to be no one accepted explanatory theory of teaching or any satisfactory set of models to conceptualize teaching and its effect upon learning.

No approach to research on teaching has been used more persistently during the past 50 years than the analysis of teacher personality characteristics and their relationships to teaching effectiveness. Openshaw and Cyphert (1966) stated that the studies falling into this category are so numerous that individual description and reporting is impossible. Two excellent bibliographies by Domas and Tiedeman (1950) and Barr

(1961) report over 1,000 such studies. After years of extensive effort to relate teacher personality traits to teaching, most of the results still remain in a theoretical state. After an analysis of numerous studies of teacher characteristics, Getzels and Jackson (1963) concluded:

> Despite the critical importance of the problem and a half-century of prodigious research effort, very little is known for certain about the nature and measurement of teacher personality, or about the relation between personality and teaching effectiveness. The regrettable fact is that many of the studies so far have not produced significant results. For example, it is said after the usual inventory tabulation, that good teachers are friendly, cheerful, sympathetic, and morally virtuous rather than cruel, depressed, unsympathetic, and morally depraved. But when this has been said, not very much that is especially useful has been revealed. For what conceivable human interaction...and teaching implies first and foremost a human interaction...is not the better if people involved are friendly, cheerful, sympathetic, and virtuous rather than the opposite? What is needed is not research leading to the reiteration of the self-evident, but to the discovery of specific and distinctive features of teacher personality and of the effective teacher.

Other efforts have been focused on school organizational factors: sociologists have contributed concepts of role in describing individual behavior within the social system (Jenkins and Deno, 1969); psychologists have documented the importance of such concepts as retention or transfer of cognitive structures (Lippitt and White, 1943).

Within the past decade or so there has been a shift in the direction of educational research on the part of some investigators. The focus of inquiry has become, for them, what actually happens in classrooms and attempts have been made to describe, through systematic analysis, what a teacher does and how he behaves while teaching. Several groups have viewed teacher behavior in terms of roles played and functions performed, and this study will present many of these authors in the following pages of this review of literature.

Teacher Classroom Behavior

Classroom observation is a procedure that may be used by observers to systematically collect data in the classroom. It is a method of summarizing what the teacher actually does in such a way so that more accurate judgments may be made about his classroom behavior.

Teaching behavior is an area of research which is concerned with relationships between characteristics of teachers, teaching acts, and their effects upon the educational outcome of classroom teaching. In 1954, Morsh and Wilder concluded after reviewing research on teaching behavior published between 1900 and 1952: "No single specific, observable teacher act has yet been found whose frequency or percent of occurrence is invariable and significantly correlated with student achievement." Research in this area permits cautious optimism and indicates that the tools long needed for the analysis of the teaching-learning process are gradually being developed (Flanders and Simon, 1967).

In the last few years, however, research has begun to relate certain teacher behaviors to specific consequences in the climate of the classroom and in the academic achievement of pupils (Flanders and Simon, 1967). The first to give careful consideration to the logical aspects of teaching behavior was Smith and Meux (1959). A widespread assumption about effective ways of teaching is that understanding of the complexity of this process can be derived from philosophical and psychological theories. According to Smith, those who attempt to develop an understanding of teaching from such an assumption overlook the fact that to apply any theory one must first understand the phenomenon to which it is to be applied. Identification and description

of the dimensions of teaching behavior must be made before one can think realistically about concepts and principles relevant to its control. This study was an attempt to accomplish that task. The major purpose was to develop a means of dividing teacher behavior into pedagogical units for analysis. It was analytic and descriptive in nature and concerned the molar aspects of teaching behavior.

A second approach to the identification of behaviors related to learner achievement is reported by Wright and Proctor (1961). The investigators based their work on the assumption that the key aspect of the classroom is the mastery of particular subject matter.

Flanders (1962, 1970) directed his research toward describing the "verbal" effects of teacher behaviors on classroom climate and learning goals. Classroom behaviors were classified through the use of an instrument employing 10 behavioral categories. Seven of the 10 describe teacher behaviors, two other categories describe student behaviors, and the last category is used to record silence or confusion. Indirect influence is assumed to expand the freedom of action the student has, afford more opportunity for him to express ideas, and make him less dependent on the teacher.

Flanders (1961) compared the patterns of "verbal" behavior with seventh grade achievement in mathematics and social studies classes. He found that the verbal patterns of teachers in high-achieving classrooms were significantly different from those in low-achieving classrooms.

Arno Bellack and his associates (1963) reported on the analysis of linguistic behavior. Their work was concerned primarily with the various kinds of meanings conveyed through the language that teachers and

learners use in the classroom. The focus of the investigation was on a delineation of the rules of teaching, with descriptions of the respective roles that the teacher and the students play when engaged in the "game of teaching."

A number of investigations have focused on deliberately restricted or isolated characteristics of the teacher. Johnson (1935); Kounin and Gump (1958); Kounin, Gump, and Ryan (1961); and Alden (1959) have studied teachers disciplinary techniques. Smith (1960), Meux and Smith (1964), and Wright and Proctor (1961) have investigated the logic of teacher presentations.

A study by Miller (1964) devised a method to test a partial theory of instruction focusing upon classroom teaching behavior employing certain aspects of social psychology and educational pedagogy. This effort proposed to make somewhat explicit an emerging theory of instruction and to make a preliminary test of some aspects of that theory.

In another approach, teacher behavior is observed in terms of the pedagogical technique employed. Thus, teacher behavior is coded as "summarizing," "lecturing," "encouraging," "assigning," "explaining," "demonstrating," and so on by such investigators as Morsh (1956); Cornell, Lindvall, and Saupe (1952); and Johnson (1970).

Still other investigators have used concepts that appear to represent a wider variety of interest fields, for instance pedagogical and social activities. Typical extended studies have been those of Medley and Mitzel (1959); Morrison (1961); Wilk (1960); Bowers and Soar (1960); Soar (1962); Solomon (1962); and Spalding (1963). These studies have attempted to correlate various dimensions to teacher behavior in order to establish patterns of joint occurrence.

Openshaw and Cyphert (1966) used the concept of other researchers to build upon their specific findings, and to synthesize their instrumentation and methodology. One significant departure was made concerning their work and that was, in their study great effort was made to keep conceptions about the nature of teaching and the system of categories for viewing teaching as value-free as possible. No specific hypothesis or effectiveness constructs were used. The purpose was to develop a system of categories which would permit the classification of all observable teacher classroom behavior.

Since interest in descriptive research on teaching has been initiated, several experimental studies that involve the observation of classroom teaching have resulted in the development of instruments for the analysis of teacher behavior. The Openshaw and Cyphert (1966) system was an attempt to develop a means for describing all observable teacher behavior. It was concluded that a comprehensive view of teacher behavior is observable and quantifiable, the analysis of which provides empirical data about what a teacher does; how he behaves while teaching. This is to say, one cannot classify a teacher behavior response or originate without taking into consideration the total interaction of the situation which includes student behaviors (Openshaw and Cyphert, 1966).

Openshaw and Cyphert (1966) stated that since the process of interaction within the classroom is so complex and the phenomena that comprise teaching so varied, the system of classification encompassed by the taxonomy are, of necessity, still limited to the gross and middle-range levels of teacher behavior. Despite this fact, in its present state of development, the taxonomy provides a means for the empirical

description of levels of behavior and furnishes a conceptual screen through which teacher behaviors may be viewed.

In summary, it has been shown that teacher behavior has been established as a relevant concept in the effectiveness of the teaching and learning process. With the development of a taxonomy of behavioral characteristics a classroom teacher behavior can be measured. Some authors have claimed that observation of teacher behavior is a useful tool for measurement of teacher effectiveness and/or ability. However, it is more widely known for its use as a research tool for determining a variety of classroom methods and processes.

Pupil Control Ideology

Various terms are used to describe the phenomenon of pupil control. Terms such as "behavior," "order," and "discipline" appear frequently in the literature. Cogan (1967) explains that a pupil's school behavior is to some extent determined prior to his entering the classroom. However, he reasons that the behavior of the teacher is one important factor, among others, in the school related work of his pupils. Waller (1932) saw this pupil-teacher behavior as a confrontation of attitudes between pupils and teachers from which there is developed underlying hostility that can never altogether be removed.

The problem of pupil control is an old one. An abundance of literature can be found on this topic. However, a review of the literature reveals little more than a reporting of prescriptions or opinions. Hoy (1968) and Kounin, Gump, and Ryan (1961) state that more studies are needed to better inform us about what constitutes the nature of the classroom as a unique setting that is apart and distinct from other

settings for children's group. In an article dealing with expectations of behavior, Jones (1967) stated that from a review of philosophical discussions, surveys, and experiments on the subject of classroom control, the lack of an adequate, systematic body of concepts and generalizations seems evident. Hoy (1968) states that it is unfortunate that there is little systematic study of pupil control in schools.

The importance of the focus upon pupil control in the school should not be surprising, especially in the light of the involuntary nature of student participation (Hoy, 1968). Carlson (1964) provides us with a typology of service organizations and an incisive analysis of the school as a special type of service organization. He points out that some service type organizations are able to select their clients and some are not. In some cases, clients must participate in the organization and in others the clients can refuse to participate. Public schools, prisons, and public mental hospitals fall into the category of organizations that have no control over client selection and where clients have no choice concerning their participation in the organization. With these considerations in mind, it seems reasonable to expect that control of client will be of central concern to these types of organizations.

Another perspective of the teacher-pupil behavior is described by Landis (1939). He explains pupil control as a form of social control; the process by which social order is established and maintained.

Some of the earliest systematic studies related directly to pupil and teacher behavior were done by Anderson (1939) and were based upon what he termed "dominative" and "socially integrative" contacts. Dominative characteristics are those in which the teacher acts in a somewhat

rigid, even compulsive manner. The teacher tries to make others act in accordance with his own relatively unalterable designs or values. He attacks the attempts of his pupils to interact with him in a democratic way; he employs shame, force, commands, and threats. He is unwilling to permit the pupils' goals or desires or purposes to contribute to the determination or orientation of class goals. Socially integrative contacts are characterized by the individuals' ability to be flexible in behavior which attempts to bring out the differences in others and find common purposes among differences (Anderson, 1939).

Lewin, Lippitt, and White (1939) examined the aggressive response of ten-year-old boys subjected to three controlled leadership roles in an extra-curricular club setting. The leadership roles were defined as authoritarian, democratic, and laissez-faire. To gather this data, the researchers used an observational technique in addition to other instruments. They discovered that aggressive behaviors and extremely apathetic nonaggressive ones were produced by authoritarian leadership. These findings supported and extended the prior work of Anderson. An extension of the Lewin, Lippitt, and White study is the conceptualization of "dependence on the leader." This is a state of affairs in which group members are unable to proceed without direction from the group leader (Flanders, 1967).

The most intensive, long-range research program of the psychological dimensions of classroom teaching has been conducted under the leadership of Flanders (1951, 1962, 1970). His original investigation (1951) used the Withall (1949) formulations and reported that teacher-centered behaviors fostered more negative feelings on the part of students and resulted in higher anxiety and greater concern with

interpersonal problems than student-centered behaviors. Conversely, student-centered behaviors were characterized by a greater concern with learning problems.

A study that paralleled Flanders' was conducted by Hughes (1959). They, too, analyzed teaching in terms of degrees of control and freedom in the classroom. The research focused directly upon classroom life and analyzed the interaction of teacher and pupil, a teacher and a group of pupils, and a teacher and a whole class. Primary effort was directed toward defining and describing "good" teaching.

Since the process of interaction in classrooms are characterized by complexity and change, response or lack of response by the teacher to elements of change have a strong influence of interaction. Therefore, the teacher cannot speak or act in the classroom without performing some function for someone in the situation. The status position of a teacher in relationship to pupils makes all teacher classroom behavior functional in nature (Hughes, 1959).

In 1960, Flanders (1965) conducted an experiment involving 16 eighth-grade math teachers and 16 seventh-grade social studies teachers. The study demonstrated that both attitude development and achievement were significantly better for the classes of the teachers who use indirect teaching strategies.

Brown (1960) showed higher achievement in arithmetic among elementary classes of under- and over-achievers for pupil-centered classes. During 1961-1962, Flanders and Amidon (1967) conducted a study involving 560 eighth-grade math and 480 seventh-grade social studies students, producing the same results with significantly higher achievement and attitude development for the group by teachers using indirect methodology.

A study by Flanders (1963) using the implications of direct and indirect influence, was conducted with inservice teacher training. Teachers were differentiated for statistical control as being "more indirect" and "less indirect." It was reported that indirect teachers favored the indirect lessons more and profited most from the training. The same group liked the direct instruction least and profited less from it.

LaShier (1966) found significantly higher achievement and attitude development for eighth-grade biology students in classes with student teachers who use indirect teaching techniques. Nelson (1966), in a language arts study, found that first graders' compositions were superior both quantitatively and qualitatively in terms of total verbal output and vocabulary for the indirect methodology. Bellter, Weber, and Amidon (1966), in a study of 100 culturally deprived kindergarten pupils, indicated that teachers using indirect methodology produced greater gains from their classes or achievement measures.

Soar (1967) in a study, found vocabulary growth greater for groups instructed by indirect teaching techniques and reading growth greater for groups instructed by indirect methodology. Furst and Amidon (1967), in a study of high and low achieving groups, found that the high groups tended to have more teachers who use indirect teaching methodology than teachers who utilized direct instructional techniques.

Flanders (1967) noticed that the research of Anderson produced a series of consistent and significant findings:

1. The dominative and integrative contacts of the teachers set a pattern of behavior that spreads throughout the classroom; the behavior of the teacher more than any other individual sets the climate of the class. The rule is that when either type of contact predominates, domination incites further domination and integration

fosters further integration. It is the teacher's influence that spreads among pupils, even when the teacher is no longer in the room. Furthermore, the pattern a teacher develops in one year is likely to persist in his classroom the following year with completely different pupils.

2. When a teachers integrative contacts increase, pupils show an increase in spontaneity and initiative, voluntary social contributions, and acts of problem solving.

3. When a teachers dominative contacts increase, the pupils are more easily distracted from school work and show greater compliance to, as well as rejecting teacher domination.

Davidson (1968) in his study found that teachers who use indirect methodology produced higher levels of critical thinking. Powell (1968), in a study, found that classes instructed by teachers who used indirect methodology had higher scores on verbal creativity.

Campbell (1968), in studying 10 general science teachers and their seventh through ninth grade junior high school classes, found that the group instructed by indirect methodology was significantly better in terms of achievement and scientific attitude development.

It is apparent that elements involved in the indirect-direct teaching strategies do affect achievement and attitude development. Willower and Jones (1963) found the institutional theme was unmistakenly pupil control in their study of a junior high school in Pennsylvania. Pupil control problems appeared to play a central role in the teacher-teacher and teacher-administrator relationships (Willower, 1965). The work of Willower and Jones (1963) in identifying the central importance of pupil control in public school led to the development of an instrument to measure the control ideology of teachers.

The work of Gilbert and Levinson (1957) in classification of hospital personnel in their client-control ideology was adapted by

Willower, Eidell, and Hoy (1967), for the use with public school personnel. They conceptualized two categories of ideologies, "custodial" and "humanistic." These prototypes are conceived as being at opposite ends of a continuum and are considered to be "ideal" types in the sense in which Max Weber used the term; that is they are pure types not necessarily found in such form in experience (Willower, Eidell, and Hoy, 1967).

Willower, Eidell, and Hoy (1967) conducted a study to test various phases of the concept of pupil control ideology relating to professionals in public school education. The professionals were teachers, administrators, and counselors in the elementary and secondary schools. The findings indicated that teachers were more custodial in their pupil control ideology than principals and counselors, and that principals were more custodial in their control ideology than counselors. Furthermore, male teachers were found to be more custodial in their pupil control ideology than female teachers, secondary school teachers more custodial in their pupil control ideology than elementary school teachers, secondary school principals more custodial in their pupil control ideology than elementary school principals, and more experienced teachers more custodial in their pupil control ideology than less experienced teachers.

Further analysis of the data collected by Willower, Eidell, and Hoy revealed a relationship of certain personal characteristics to pupil control ideology scores. They found that male teachers had a more custodial pupil control ideology than female teachers; however, the authors state that this finding must be interpreted cautiously since most of the male teachers held their positions at the secondary level and most of

the female teachers held positions at the elementary school level. There was a positive relationship shown between age and the degree of custodialism; secondary school principals with five years or less experience in administration were significantly more custodial than their more experienced counterparts; and at the elementary school level, as the amount of education of the teachers increased, custodial pupil control ideology decreased.

In a more recent study, Willower, Eidell, and Hoy (1969) in reference to secondary school pupil control ideology attempted to determine "how custodial is custodial." It was found that secondary school teachers formed an adaptation of "on stage" custodialism. Thus, a teacher holding a relatively humanistic pupil control ideology can, for the benefit of fellow teachers, project a more custodial ideology than actually held. Two important consequences, according to the authors of "on stage custodialism," are:

1. It reinforces custodial norms in the teacher subculture and,
2. Custodial pupil control ideology gradually becomes internalized as individuals modify their verbal behavior.

The preceding study adds further evidence to Hoy's (1967) findings on the subject of teacher socialization and increased teacher custodialism. He found that student teachers were more custodial after than before their student teaching. His assumption from these findings was that the teacher subculture of the school would emphasize a greater custodial ideology than the student would have experienced in his college preparation.

A subsequent article by Hoy (1968) disclosed that the pupil control ideology of beginning teachers who taught the year immediately

after graduation became significantly more custodial, while there was no significant change in custodialism for those who did not teach the same year.

From the data of his more recent research, Hoy (1969) found that the second year of teaching experience seems to have had little impact on the pupil control ideology of the group of teachers under study. Hoy states that perhaps the first year of teaching provides most teacher subculture, at least as far as pupil control ideology is concerned. In addition, Hoy found an important exception to this general pattern in that teachers who changed schools after their first year of teaching were less susceptible to the socialization of the teacher subculture during their initial year of teaching. Although, he states these teachers became significantly more custodial during their student teaching, there was no further significant change in their pupil control ideology during their first year of teaching. Since Hoy's most recent study focused only upon the respondent's declared opinions and attitudes--their ideology, not behavior--he cautions the reader to keep these factors in mind when interpreting the results of his investigation. He states:

> If role related ideology, in part, determines a cognitive orientation to role, then the pupil control ideology of teachers would seem to serve a basic function of structuring aspects of behavior, that is of providing an internal guide to action. However, a perfect congruence between role ideology and role performance is not expected in the school situation; contemporary social system pressures as well as intrapersonal processes probably intervene to reduce the congruence.

In a case study, Roberts (1969) concludes that student teachers becoming more custodial during their student teaching is due largely to three factors: (1) student teacher's pupil control ideology upon

entering student teaching; (2) his perception of his cooperating teacher's pupil control ideology; and (3) the socialization process during his student teaching.

Appleberry (1969), in his study of 45 selected elementary schools, found a relationship between the organizational climate of the school and the pupil control ideology of the teachers. Hoy and Appleberry (1969) found significant evidence to support the premise of the pupil control orientation aspect of the organizational life of elementary schools. Their findings indicate that the behavior of teachers and administrators in humanistic schools was generally more open, accepting, and authentic than the behavior in custodial schools. The authors related authenticity and openness in organizational behavior with humanistic pupil control orientation.

Blankenship and Hoy (1969) used the Rokeach Dogmatism Scale (Form E) to identify open- and closed-minded biology teachers. Their study shows that the more open-minded an individual, the better should his ability be to receive and analyze information objectively and to act upon the information independently and upon its own merits. Additionally, they found that open-minded biology teachers were more ambitious, enthusiastic, resourceful, self-reliant, progressive, and assertive. They found that biology teachers who reacted favorably to new science curriculum materials ranked higher on measures of capacity for independence of thought and action than those teachers who reacted less favorably.

Jones (1969) research indicated that the teacher who has a more humanistic pupil control ideology will exhibit a higher percentage of classroom activities consistent with those recommended by the Biological

Sciences Curriculum Study (BSCS) than the teacher who has a more custodial pupil control ideology. He also concluded from the scores on the total Biological Classroom Activities Checklist (BCAC) that the expectation expressed by Blankenship and Hoy was borne out.

In summary, pupil control has been recognized as a central theme to the concerns of educators. The problem is not a new one, but not until recently have there been systematic studies that have provided insight into this area. This has been due, in the main, to the development of the pupil control ideology instrument which identifies a teacher pupil control ideology along a continuum from custodial to humanistic. This instrument was developed by Willower, Eidell, and Hoy (1967).

Rating and Category Systems

Instruments for the observation of instruction are currently divided into category systems and rating systems. This division is based on the amount of inference required of the observer or the person reading the research report. Inference here refers to the process intervening between the objective data seen or heard and to the coding of those data on an observational instrument.

Rating systems are classified as high-inference measures because they lack such specificity. Items on rating instruments such as "clarity of presentation," "enthusiasm," or "helpful toward students" require that an observer must infer these constructs from a series of events. In addition, an observer must infer the frequency of such behavior in order to record whether it occurred "consistently,"

"sometimes," or "never" or whatever set of gradations are used in the scale of an observation instrument (Gage, 1969).

Rating systems also vary widely in the scales used to record behavior. For example, when a teacher's "clarity" is scored on a five-point scale ranging from "consistently" to "seldom," the scale is apparently being used to estimate frequency. But on some instruments clarity is evaluated on five-point scales ranging from "superior" to "unacceptable" or from "clear" to "unclear." Depending upon the words given to each point on the scale, a person who received the top rating on a scale used to rate clarity might be described as consistently clear, clear 90% of the time, rated one in clarity, outstanding clear, or superior in clarity. These differences in scale making make it difficult to determine if rating scales are being used to judge the value or estimate the frequency of a behavior (Solomon, Bezbek, and Rosenberg, 1963).

Rating systems offer greater flexibility than category systems because they can include high-inference variables. Rating systems can also be less expensive if the students in the classrooms are used as observers. For example, by using unpaid students as observers, the investigators in Harvard Project Physics (Anderson, Walberg, and Welch, 1963) were able to obtain information on the classroom climate of more than 150 classrooms without any payment to observers. The disadvantage of using rating systems are summarized by Mouly (1969); they include the halo effect, the error of central tendency, generosity or leniency error, and the lack of a common referent for scoring calibrations such as "excellent" or "seldom." Another disadvantage, noted by Gage (1969) is that high-inference items are difficult to translate into specific

behaviors. This suggests that evaluative reports based on high-inference measures may offer few specific suggestions for improving an instructional program.

Many researchers use the category system because of its low-inference measures. Although, there is not a simple way to classify the variety of existing category systems which have been developed for the observation of classroom behavior. Some reviewers have classified them as primarily "affective," "cognitive," or as representing a combination of these dimensions (Amidon and Simon, 1965; Bellack, 1968; Simon and Boyer, 1967). Although such terms may be useful for classifying the major variables in an observational category system, one could also classify a category system by the number of "factors" which it contains.

Most category systems are one-factor systems in which each behavior is coded only in terms of its frequency. The variables in the factor can be affective, cognitive, or both. One-factor systems have been developed which are primarily affective (e.g., Flanders, 1965), primarily cognitive (e.g., Davis and Tinsley, 1967), or which focus on teacher feedback (Zahorik, 1968). There is no limit to the number of variables which can be included in a one-factor system. The major advantage of one-factor systems are the ease of coding and the ease with which they can be modified for use by other investigators.

Openshaw and Cyphert (1966) developed a four-factor system in which "encounter" is categorized according to the origin of the encounter, the target, the mode, (e.g., speaking, reading, writing), and the purpose of the behavior. This last factor is subdivided into five categories, each one containing three to eight subcategories.

Zahorik (1969) reported on the use of a three-factor system in which types of teacher feedback were also classified according to the type of venture (Smith, 1964) in which they were used and whether the feedback occurred within or at the end of the venture.

Other investigators expanded category systems by "subscripting" larger categories. Thus, Amidon, Amidon, and Rosenshine (1969) developed the Expanded Interaction Analysis System by adding from two to four subscripts to each of the 10 categories developed by Flanders (1965). This subscripting was accomplished by adding variables from other category systems such as those of Gallagher and Aschner (1963) and Hughes (1959).

According to Gage (1969), category systems are classified as low-inference measures because the items focus upon specific, denotable, relatively objective behaviors such as "teaching repetitions of student ideas," or "teachers asks evaluative question," and because these events are recorded as frequency counts.

In current usage, category systems contain fewer high-inference behaviors because frequency counts are used to record instances of a behavior. Behavioral constructs such as "enthusiasm," "understanding," or "clarity" (Solomon, Bezdek, and Rosenberg, 1963) have not been used as items in category systems because they need to be broken up into specific behaviors before the frequency of these events can be counted.

Category systems have become very popular in descriptive educational research and in teacher training because they offer greater low-inference specificity and because an "objective" count of a teacher's encouraging statement to students appear easier for a teacher to accept than a "subjective" rating of his warmth. The major disadvantage of

category systems are the cost of using observers and the difficulty of specifying behaviors before they can be included in a category system.

Summary

The literature reveals that a number of research studies have dealt with the identification and classification of teacher behavior in the classroom setting. Most of the studies of this type have been primarily concerned with elementary and secondary teachers in the general education areas. To date, little research in this area has been concerned with vocational education teachers. As this is becoming an increasingly important segment of this Country's public education system, it seemed appropriate to use vocational education teachers as subjects in this investigation.

CHAPTER III

METHODOLOGY

The purpose of this chapter is to present a description of the instruments used and a description of the methods and procedures.

Instrumentation

Two instruments were used to obtain the data for this study. The Pupil Control Ideology Form (PCI) was employed to identify the teachers' pupil control ideology. The Openshaw and Cyphert Taxonomy for the Classification of Teacher Classroom Behavior was used to identify patterns of teaching behavior.

Pupil Control Ideology Form

The Gilbert and Levinson (1957) study of the patient control ideology held by mental hospital staff members stimulated Willower, Eidell, and Hoy (1967) to conceptualize a similar scheme for schools. Prototypes of the custodial and humanistic pupil control orientations of teachers were developed. These were conceived of as pure types at opposite ends of the continuum.

The Pupil Control Ideology Form (PCI) was employed by the investigator to assess the pupil control ideology of the vocational education teachers. This instrument contains 20 statements. (See Appendix B.) Responses to each item are made on a five-point Likert-type scale and

are scored from five (strongly agree) to one (strongly disagree). The total score on the instrument represents the teacher's pupil control orientation; the lower the score, on the instrument, the more humanistic the ideology of the respondent. Permission for the use of the Pupil Control Ideology was secured by letter from the author, Donald J. Willower. (See Appendix C.)

Reliability. The authors who developed the PCI Form calculated a split-half reliability coefficient by correlating even-item subscores with odd-item subscores (N = 170). The resulting Pearson Product-Moment Coefficient was .91; application of the Spearman-Brown formula yielded a corrected coefficient of .95 (Willower, Eidell, and Hoy, 1967).

Further reliability calculations were made using data collected from a different sample (N = 55). Supporting the same technique, the Pearson Product-Moment correlation produced a coefficient of .83; an application of the Spearman-Brown formula yielded a corrected coefficient of .91 (Willower, Eidell, and Hoy, 1967).

Validity. The procedure used in validating the Pupil Control Ideology Form was based upon principals' judgments concerning the pupil control ideology of certain of their teachers. Principals read descriptions of the custodial and humanistic orientations and were asked to identify teachers whose ideology was most like each of the descriptions. Then it was possible to compare mean scores of the teachers identified in each group (Willower, Eidell, and Hoy, 1967).

A t-test of the difference of the means of two independent samples was applied to test the prediction that teachers judged to hold a custodial pupil control ideology would differ in mean Pupil Control Ideology

Form scores from teachers judged to have humanistic pupil control ideology. Using a one-tailed t-test, the t value was 2.639, indicating a difference in the expected significant at the .01 level (Willower, Eidell, and Hoy, 1967).

A further check on the validity of the Pupil Control Ideology Form was conducted by comparing the mean scores of personnel in schools known by reputation to be humanistic with the mean scores of personnel in other schools at the same grade level (Willower, Eidell, and Hoy, 1967). A trend was found in the expected direction.

A cross-validation was carried out using a new sample of seven schools. Using a one-tailed t-test, the researchers found the mean difference in Pupil Control Ideology Form scores for teachers judged to be custodial in ideology and teachers judged to be humanistic were significant at the .001 level (Willower, Eidell, and Hoy, 1967).

Openshaw and Cypherts' Taxonomy for Classification of Teacher Classroom Behavior Form

The Openshaw and Cyphert taxonomy for the classification of teacher classroom behavior, the second operational measure of this study, was utilized to classify the teacher behaviors of the 20 vocational education teachers, who were selected on the basis of their PCI Form scores. The classroom behavior of each teacher was observed three times. The three observers were trained in the Openshaw and Cyphert technique especially for the investigation.

A taxonomy for classification of teacher behavior was employed by Openshaw and Cyphert (1966) in their investigation to assess the extent of teacher classroom behaviors which accounts for the observable

dimensions of interaction in the classroom. The instrument is described in brief form in Appendix B. This form provides a means for the empirical description of levels of behavior and furnishes a conceptual screen through which teacher behavior may be viewed. Openshaw and Cypherts' system is composed of a four-factor system in which each "encounter" is categorized according to the origin of the encounter and the purpose of the behavior. As used in this study, an encounter is the specimen record or basic component of teacher behavior. The term encounter was chosen to emphasize the concept that a teacher's behavior has meaning to the degree that such behavior is perceived and acted upon by another person.

An encounter is a unit of teacher behavior that serves as a discriminate function within a teaching situation. During the teacher performance, the four dimensions (source, direction, sign, and function) change in sequence (pattern and order). Changes in dimension indicates a new encounter (Openshaw and Cyphert, 1966).

An encounter begins when a function is observed. It ends when that behavior has no function or when a shift to another teaching dimension is observed. Any change in the source dimension or direction dimension indicates a new encounter. Each encounter may have shifts within the sign dimension and a given behavior may be classified in more than one category of the function dimension (Openshaw and Cyphert, 1966). Permission for the use of the Taxonomy for the Classification of Teacher Classroom Behavior was granted by letter from the author, Frederick M. Cyphert. (See Appendix C.)

Methods and Procedures

For the purpose of this study, the following methods and procedures were followed:

1. The population for this study was the total secondary vocational education teachers (63 teachers) employed by the Amarillo Public School District. (See Appendix A.) Several considerations were taken into account which resulted in the selection of the population. First, the school district offered a large enough secondary school vocational teacher population to permit adequate sampling. The second consideration was the willingness of the administrative authorities of the district to participate in this study.
2. The assistant superintendent of the school district was contacted in person to secure permission for the secondary schools to participate. A personal visit was made to the vocational director to obtain permission for the vocational teachers to participate. Each secondary principal in the district received a personal visit to explain in general terms the focus of the investigation. The principal was then asked if he would permit the teachers in his school to participate in the study. Having secured permission from the principal to proceed, an appointment was made to meet in an in-service meeting with all vocational teachers in order to administer the Pupil Control Ideology Form. Sixty-three vocational education teachers, representing four secondary schools,

were invited to share in the study and only nine elected not to participate.

3. The investigator administered the Pupil Control Ideology Form to the 54 vocational education teachers in a regularly scheduled teachers meeting. Vocational Counselors from the four secondary schools assisted with the administration of the Pupil Control Ideology Forms. The counselors were responsible for the distribution and collection of the instruments during the teachers meeting.

The investigator read the instructions printed on the instrument, plus adding the following statements:

A. No one will see the responses on this instrument except the investigator.

B. The investigator cannot interpret any item on the instrument for you.

C. Each person is to respond to each item just as he reads it, and in light of his own situation.

D. Please do not discuss the questions or answers while you are responding to the instrument.

E. No school, principal, or individual will be identified in this study.

F. When you have answered all questions, please, give your papers to the guidance counselors and take a 10-minute coffee break.

Scoring the Pupil Control Ideology Form encompassed tabulating the instruments by the use of a desk calculator and ranking the scores to determine the 10 highest and the

10 lowest scores for selection of the two groups (custodial and humanistic) of teachers. The analysis of teacher pupil control ideology was limited to replies received from the instrument employed in the analysis.

4. The participating teachers' classroom behavior was ascertained by analyzing their behavior as categorized by the Openshaw and Cyphert (1966) Taxonomy for the Classification of Teacher Classroom Behavior Form. The intention of this study was to determine whether teachers who hold a humanistic pupil control ideology differ from teachers who hold a custodial pupil control ideology in their classroom behaviors.

The Openshaw and Cyphert taxonomy for the classification of teachers' classroom behavior was employed in three classroom observations made of each participating teacher in this part of the study. Each of the three observers made an independent observation, of 20 minutes duration, involving each of the 20 teachers in this study.

Selection of Observers

Mr. David Patterson (Assistant Professor in the Mathematics Department at West Texas State University) volunteered to assist the investigator in engaging and training three ladies to perform the observations. Each of the three ladies has baccalaureate degrees and prior teaching experience.

Training Observers

Four filmed sequences of different classrooms were used to train

the observers and obtain the desired reliability of the observers with the system of classifications. It was discovered that very few films (14) of teacher behavior were available for this study. Most of what is available has utilized videotape for recording, and permission has not been secured from the teacher and student subjects; therefore, use of these records of teacher behavior by others was not possible. It was anticipated that films in vocational education subjects could be found, but none were available for inclusion in training of the observers.

The observers were trained by Mr. Patterson and the investigator in eight 3-hour sessions. Training began with memorizing the Openshaw and Cyphert categories. In later sessions, the three observers met together to study and discuss the classification system and procedures. The films selected for the training period were viewed by the three observers to help familiarize them with the categorization system. At first, specific teacher behaviors were noted and examples of them discussed. Practice in categorizing total observable behavior of short sequences was undertaken. Each observer viewed the films and practiced categorizing the behavior independently until each felt comfortable with the system, the instrument, and the procedures. When trial observations indicated that the observers had attained a degree of consistency in observation and categorization, the reliability check was taken.

Additional instructions were given to the observers prior to their actual observation:

1. Only secondary vocational education classes were to be observed in this study.
2. Classes were not to be observed prior to or immediately after holidays.

3. Or, when a substitute teacher was in charge of the class.

Observer Reliability

Observer reliability for this study was estimated by the use of Scott's Coefficient. Scott's method is unaffected by low frequencies, and it can be estimated more rapidly, and is more sensitive at higher levels of reliability. Scott calls his coefficient "pi" and the formula is as follows:

$$\pi = \frac{P_o - P_e}{1 - P_e} . \qquad (1)$$

P_o is the proportion of agreement between observation made of the same teacher by different observers and P_e is the proportion of agreement expected by chance which can be found by squaring the proportion of tallies in each category and summing these over-all categories

$$P_e = \sum_{i=1}^{k} P_i^2 . \qquad (2)$$

In formula two, there are k categories and P_i is the proportion of tallies falling into each category. In formula one, "pi" can be expressed in words as the amount that two observers exceed chance agreement divided by the amount that perfect agreement exceeds chance (Flanders, 1966).

The observations were conducted during October, November, and December, 1971. The total length of the investigation was nine weeks. The observer reliability was computed prior to the investigation, once during the investigation, and once after the investigation. Four weeks elapsed between the first and second reliability estimates, and five

weeks elapsed between the second and third estimates. Filmed sequences of three different classrooms were used to obtain the reliability estimates.

Observation and Recording of Data

The observer recorded a sequence of category checks which represents the categorized teacher behavior. A recording was made every 15 seconds for 20 minutes. These checks were then totaled and recorded in a matrix (a table, 36 columns by 10 rows). The generalized sequence of teacher classroom behavior can be examined readily in this matrix. (See Appendix D.)

A separate matrix is used for each teacher group. By summarizing the different kinds of behavior in the form of recorded observation, the investigator is able to develop a description of the classroom behaviors.

Analysis of Data

Scoring the Openshaw and Cypherts' taxonomy for the classification of teacher behavior consisted of summarizing and tabulating the teachers' behavior as categorized by the observers. Totals were then computed for each category in the two groups. The process was accomplished by the investigator and personnel at the Oklahoma State University Education Statistics Laboratory.

The Chi-square statistic was used to determine the difference, if any, between the two groups (Siegel, 1956, pp. 104-110). The formula for this test of significant differences between two independent groups was employed (Siegel, 1956, pp. 104-110).

Test of Significance of Differences

Between Two Independent Groups

$$\chi^2 = \sum_{i=1}^{r} \sum_{j=1}^{k} \frac{(O_{ij} - E_{ij})^2}{E_{ij}} \qquad (3)$$

where:

O_{ij} = observed number of cases categorized in i^{th} row of j^{th} column.

E_{ij} = number of cases expected under H_o to be categorized in i^{th} row of j^{th} column.

$\sum_{i=1}^{r} \sum_{j=1}^{k}$ directs one to sum over all (r) rows and all (k) columns, i.e., to sum over all cells.

The values of χ^2 yielded by the above formula are distributed approximately as Chi-square with df = (r - 1) (k - 1), where r = the number of rows and k = the number of columns in the contingency table (Siegel, 1956, pp. 104-110).

The statistical test used to determine the differences, if any, between the two teacher groups on the Pupil Control Ideology Form was the t-test for significant differences between groups (Popham, 1967, p. 145). The level of confidence was set at the 0.05 level.

The following formula was employed for the t-test for significant differences between groups (Popham, 1967, p. 145).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{x_2^1 + x_2^2}{n_1 + n_2} - 2\frac{1}{n_1}\frac{1}{n_2}}} \qquad (4)$$

Summary

In summary, the two instruments described in this chapter comprise the instrumentation of this study. They were selected for the purpose of identifying the differences, if any, in the classroom behavior and pupil control ideology orientation of vocational education teachers.

The Pupil Control Ideology Form was employed to determine the pupil control orientation of teachers. This instrument identifies a teacher pupil control ideology along a continuum from custodial to humanistic. The lower the score on the instrument, the more humanistic the pupil control ideology of the respondent. The teachers who scored the highest on the Pupil Control Ideology Form comprised the custodial teacher group.

The Openshaw and Cyphert taxonomy provides a means for the empirical description of levels of behavior and furnishes a conceptual screen through which teacher behavior may be viewed. The taxonomy is a method of summarizing what the teacher actually does in such a way so that more accurate judgment may be made about the teacher's classroom behavior. The Openshaw and Cyphert study was restricted to the description of observable teacher behaviors which are purposeful in nature and have a direct relationship to the role of the teacher as a teacher in a classroom.

CHAPTER IV

RESULTS

The data gathered in this investigation were used for the purpose of testing the following research question:

> Do vocational education teachers who hold a humanistic pupil control ideology differ from vocational education teachers who hold a custodial pupil control ideology in their observed classroom behavior?

What appeared to be the more appropriate statistical tests were chosen and applied in analyzing the data:

1. The *t* test was used to determine the significant differences between groups using the Pupil Control Ideology scores (Popham, 1967, p. 145).
2. Scott's coefficient (Flanders, 1966, pp. 12-22) was employed to compute the observer reliability.
3. The research question was answered through the use of the test of significance between two independent groups (Siegel, 1956, pp. 104-110).

The Pupil Control Ideology scores of the 54 vocational education teachers were analyzed. From this analysis 20 vocational teachers were selected to comprise the two groups in this investigation.

The 10 vocational teachers who scored the highest on the PCI Form comprised the custodial pupil control ideology group. The scores in this group ranged from 62 through 77 with a maximum possibility of scoring 92 on the PCI Form. The 10 teachers who had the lowest scores

on the PCI Form comprised the humanistic control ideology group. These teachers, scored 32 through 53 with a minimum possible score on the PCI Form of 28. The relevant data are presented in Table I. Selected demographic data for the two groups are presented in Tables II and III.

The Pupil Control Ideology scores of these two groups were found to be significantly different. Information in Table I indicates a t value of 9.22; df = 18 was obtained. This value exceeds the tabled value of 3.92 for the 0.001 level of significance (Popham, 1967, p. 145).

Observer Reliability

Scott's coefficient (Flanders, 1966, pp. 13-22) was employed to compute the observer reliability prior to the investigation, once during the investigation, and once after the investigation. The observers did not know the experimental identity of the vocational education teachers involved in this study. The relevant data are presented in Table IV.

Analysis of Classroom Observations

The research question in this study was tested using the test of significance of differences between two independent groups (Siegel, 1956, pp. 104-110). The level of confidence for χ^2 was set at the 0.05 significance level.

Tables V through VIII were constructed to report each dimension separately. Tables IX through XIII were constructed to report the sub-divisions of the "function" dimension. The actual recording of teacher behavior in the subjects' classroom was tallied every 15 seconds

TABLE I

SUMMARY OF DATA FOR A t-TEST FOR SIGNIFICANT DIFFERENCES BETWEEN MEAN PUPIL CONTROL IDEOLOGY SCORES FOR THE TWO TEACHER GROUPS

Group A Custodial		Group B Humanistic	
Teacher	PCI Score	Teacher	PCI Score
1	62	11	32
2	63	12	41
3	63	13	42
4	63	14	44
5	66	15	47
6	67	16	47
7	68	17	47
8	68	18	49
9	68	19	49
10	77	20	53
N = 10	A 665	N = 10	B 451
Mean	66.5	Mean	45.1

t = 9.22 df = 18 Significant at the 0.001 Level of Confidence

TABLE II

DEMOGRAPHIC DATA FOR THE TEACHERS WHO COMPRISED THE CUSTODIAL PUPIL CONTROL IDEOLOGY GROUP

Teacher	Sex	Amount of Education	Years Experience	Age Range
1	M	Bachelor's Plus	5	40 - 49
2	M	Bachelor's Plus	3	30 - 39
3	F	Bachelor's	3	40 - 49
4	F	Bachelor's Plus	4	20 - 29
5	M	Bachelor's	12	30 - 39
6	F	Master's Plus	32	50 - 59
7	M	Less than Bachelor's	2	30 - 39
8	M	Less than Bachelor's	2	30 - 39
9	M	Master's	11	30 - 39
10	M	Bachelor's Plus	2	30 - 39
Mean Years Experience: 7.6				Mean Age: 37.5

TABLE III

DEMOGRAPHIC DATA FOR THE TEACHERS WHO COMPRISED THE HUMANISTIC PUPIL CONTROL IDEOLOGY GROUP

Teacher	Sex	Amount of Education	Years Experience	Age Range
11	F	Bachelor's Plus	12	30 - 39
12	M	Less than Bachelor's	3	20 - 29
13	F	Bachelor's Plus	11	30 - 39
14	F	Bachelor's Plus	4	30 - 39
15	F	Bachelor's	2	20 - 29
16	F	Master's Plus	10	30 - 39
17	F	Bachelor's Plus	15	30 - 39
18	F	Bachelor's Plus	7	30 - 39
19	M	Master's Plus	3	30 - 39
20	M	Bachelor's Plus	8	30 - 39
Mean Years Experience: 7.5				Mean Age: 32.5

TABLE IV

SUMMARY OF OBSERVER RELIABILITY

Observer	Time of observation relative to data collection.		
	Prior	During	After
A x B	.735	.793	.794
A x C	.785	.875	.736
B x C	.807	.784	.728

for 20 minutes, as recommended by Openshaw and Cyphert, (1966), on a sheet that was designed for this study. (See Appendix B.) The total observed frequencies, of all three observers, for each cell are listed in the tables.

Source Dimension

The source dimension indicates the origin of a given encounter. Encounter is defined as a unit of behavior that serves a discernible function within a teaching situation. Since all teacher behavior may be viewed as response to some type of stimulus, the distinction between the two source categories (respond and originate) is determined on the basis of immediacy of stimulation (Openshaw and Cyphert, 1966). The relevant data are presented in Table V.

TABLE V

SUMMARY OF THE OBSERVATIONS OF SOURCE DIMENSION BEHAVIORS

Teacher Groups	Source Dimension		Row Totals
	Originate	Respond	
Humanistic	1434*	963	2397
Custodial	1330	1039	2369
Column Totals	2764	2002	4766

$\chi^2 = 6.63$ df = 1 Significant at the 0.02 Level of Confidence

*Cell values were obtained by totaling the observations of the three observers.

The computed χ^2 for testing the source dimension was 6.63. With one degree of freedom, this value was significant at the 0.02 level.

Direction Dimension

The direction dimension indicates the target (receptor) to which the teacher behavior is directed. In the interactive teaching process, the behavior of the teacher has a receptor or receptors. The four categories which compose this dimension (individual, group, class, and object) are differentiated on the basis of composition of the classroom situation, arrangement of the classroom situation, and/or behavior which specifies the target (receptor) (Openshaw and Cyphert, 1966). The relevant data for the testing are contained in Table VI.

TABLE VI

SUMMARY OF THE OBSERVATIONS OF DIRECTION DIMENSION BEHAVIORS

Teacher Groups	Direction Dimension				Row Totals
	Individual	Group	Class	Object	
Humanistic	573*	129	1118	691	2511
Custodial	778	279	1029	470	2556
Column Totals	1351	408	2147	1161	5067
χ^2 = 131.62 df = 3	Sigificant at the 0.001 Level of Confidence				

*Cell values were obtained by totaling the observations of the three observers.

For the direction dimension, the computation of the test of significance of a difference between proportions yielded a χ^2 value of 131.62. With three degrees of freedom, the χ^2 value was significant at the 0.001 level of confidence.

Sign Dimension

The sign dimension indicates the mode of communications of a given encounter. For the sign dimension, the following categories were tested: speak, read, perform, write, and silence. The total sign dimension is represented by these six categories. The relevant data are presented in Table VII.

TABLE VII

SUMMARY OF THE OBSERVATIONS OF SIGN DIMENSION BEHAVIORS

Teacher Groups	Sign Dimension						Row Totals
	Speak	Read	Gesture	Perform	Write	Silence	
Humanistic	1225*	272	216	185	159	909	2966
Custodial	1460	124	431	132	129	732	3008
Column Totals	2685	396	647	317	288	1641	5974
χ^2 = 178.11	df = 5	Significant at the 0.001 Level of Confidence					

*Cell values were obtained by totaling the observations of the three observers.

For the sign dimension the computation of the test of significance of difference between two independent groups yielded a χ^2 of 178.11. With five degrees of freedom, the χ^2 value was significant at the 0.001 level of confidence.

Function Dimension

The function dimension includes a set of sub-divisions for the significant teacher behaviors in terms of goal-directed learning or the purpose the teacher serves in the classroom. A variety of goals have been established by today's pluralistic society for the schools. While any given set of goals or objectives may contain more or fewer statements than another, the teacher's role in meeting these objectives has been conceptualized as involving three essential tasks. These tasks are oriented toward subject matter or content, interpersonal relations between teacher and student, and the facilitation of the learning process. Five major categories encompass the purposes of the teacher behavior and form the function dimension. They are: structure, develop, administer, regulate, and evaluate (Openshaw and Cyphert, 1966). The relevant data are presented in Table VIII.

For the function dimension, the computation of the test of significance of a difference between proportions yielded a χ^2 value of 92.1. With four degrees of freedom, the χ^2 value was significant at the 0.001 level of confidence.

The five major sub-divisions encompassing the function dimension are: structure, develop, administer, regulate, and evaluate. The previous dimensions in this study, did not include sub-divisions and

in order to make the sub-divisions more meaningful, the same statistical treatment will be used as in the foregoing four dimensions.

TABLE VIII

SUMMARY OF THE OBSERVATIONS OF FUNCTION DIMENSION BEHAVIORS

Teacher Groups	Function Dimension					Row Totals
	Structure	Develop	Administer	Regulate	Evaluate	
Humanistic	151*	1069	1264	273	51	2808
Custodial	273	1130	944	341	35	2723
Column Totals	424	2199	2208	614	86	5531
$\chi^2 = 92.1$	df = 4	Significant at the 0.001 Level of Confidence				

*Cell values were obtained by totaling the observations of the three observers.

In a classical system of classification, each specimen is categorized in only one way. The system of classification devised by Openshaw and Cyphert (1966) takes into consideration the interrelatedness of a teacher's behavior and permits classifications of a given specimen (encounter) in more than one way. In short, an encounter may serve more than one sub-division of the function dimension. The function dimension provides a system of categories for coding the significant teacher behaviors in terms of goal-directed learning or the purpose the teacher serves in the classroom.

The following tables (IX through XIII) were used to summarize the data for the test of significance of a difference between the two independent groups for each sub-division of the function dimension.

Structure Sub-Division

Encounters which structure set the context for subsequent behaviors by initiating, providing focus, and launching a full unit, a single class session, or a single topic. Both subject matter and/or process may be objects of structure. Decisions are made by the teacher relative to what is to be studied, the framework in which study is to proceed, how elements of study are to be ordered, and what student activities are to be required. The structuring function is achieved through behaviors that initiate, order, and assign (Openshaw and Cyphert, 1966). The relevant data are presented in Table IX.

TABLE IX

SUMMARY OF THE OBSERVATIONS OF STRUCTURE SUB-DIVISION BEHAVIORS

Teacher Groups	Structure Sub-Division			Row Totals
	Initiate	Order	Assign	
Humanistic	16*	32	103	151
Custodial	89	65	119	273
Column Totals	105	97	222	424

$\chi^2 = 30.55$ df = 2 Significant at the 0.001 Level of Confidence

*Cell values were obtained by totaling the observations of the three observers.

The computed χ^2 for testing the structure sub-division yielded a value of 30.55. With two degrees of freedom, the χ^2 was significant at the 0.001 level of confidence.

Develop Sub-Division

Once the context and focus of study have been established, some sort of development or elaboration must take place so that the objectives of such study may be achieved. During this period of development a process of minor refocusing and extension within the established structure takes place. Facts, ideas, and concepts may be introduced by the teacher as the objects of focus is developed (goals or objectives are pursued). This elaboration and extension of the subject matter and/or process within an established structure is the develop sub-division. From time to time, the teacher engages in behavior whose function is to check student understanding, conduct a written quiz or examination and/or elicit a verbal response that states facts, ideas, concepts, etc. The developing sub-division is achieved through behaviors that inform, explain, summarize, check, elicit, test, reinforce, and stimulate (Openshaw and Cyphert, 1966). The relevant data are presented in Table X.

The computed χ^2 for testing the develop sub-division was 239.03. With seven degrees of freedom, this value was significant at the 0.001 level of confidence.

TABLE X

SUMMARY OF THE OBSERVATIONS OF DEVELOP SUB-DIVISION BEHAVIORS

Teacher Groups	Develop Sub-Division								
	Inform	Explain	Check	Elicit	Test	Rein-force	Summa-rize	Stimu-late	Row Totals
Human-istic	199*	398	38	117	151	50	44	72	1069
Custo-dial	513	314	45	63	47	54	11	83	1130
Column Totals	712	712	83	180	198	104	55	155	2199

$\chi^2 = 239.03$ df = 7 Significant at the 0.001 Level of Confidence

*Cell values were obtained by totaling the observations of the three observers.

Administer Sub-Division

In the administer sub-division the teacher executes certain tasks whose function establish and maintain classroom routine and procedure. Elements of the classroom environment (personal and physical) are arranged; media, supplies, or materials are provided and their use is determined and coordinated; and student activity is monitored. The administer sub-division is achieved through behaviors that manipulate, manage material, routinize, and proctor (Openshaw and Cyphert, 1966). The relevant data are presented in Table XI.

TABLE XI

SUMMARY OF THE OBSERVATIONS OF ADMINISTER SUB-DIVISION BEHAVIORS

	Administer Sub-Division				
Teacher Groups	Manipulate	Manage Material	Routine	Proctor	Row Totals
Humanistic	47*	409	366	442	1264
Custodial	57	261	304	322	944
Column Totals	104	670	670	764	2208
$\chi^2 = 12.12$ df = 3	Significant at the 0.01 Level of Confidence				

*Cell values were obtained by totaling the observations of the three observers.

The computed analysis of χ^2 for testing the administer sub-division was 12.12. With three degrees of freedom, this value was significant beyond the 0.01 level of confidence.

Regulate Sub-Division

The regulate sub-division focuses on standards for student behavior. The behaviors may function to provide support, express confidence, or commendation, and to show empathy toward a student or students, or they may serve to reprimand, threaten, and punish the student so as to restrict his behavior and achieve conformity. Regulate sub-division are performed when behaviors set standard, support, restrict, assist, inquire, or monitor-self (Openshaw and Cyphert, 1966). The relevant data are presented in Table XII.

TABLE XII

SUMMARY OF THE OBSERVATIONS OF REGULATE SUB-DIVISION BEHAVIORS

Teacher Groups	Regulate Sub-Division: Set Standard	Support	Restrict	Assist	Inquire	Monitor-Self	Row Totals
Humanistic	32*	19	13	166	40	3	273
Custodial	71	20	37	139	65	9	341
Column Totals	103	39	50	305	105	12	614
$\chi^2 = 30.49$	df = 5	Significant at the 0.001 Level of Confidence					

*Cell values were obtained by totaling the observations of the three observers.

The computed χ^2 for testing the regulate sub-division was 30.49. With five degrees of freedom, this value was significant at the 0.001 level of confidence.

Evaluate Sub-Division

The final sub-division in the system is composed of those behaviors which are designed to ascertain the relevance or correctness of subject matter and/or process. They are categorized evaluate. Behaviors which serve this function are fundamental both to the content task and to establishing interpersonal relations. Without some judgmental behavior by the teacher, focus cannot be established, learning activities developed, or interpersonal relations maintained. The teacher can ascertain the degree of relevance or correctness of subject matter, process, or

student behavior in several ways. The evaluate function is achieved through behaviors which appraise, opine, or stereotype (Openshaw and Cyphert, 1966). The relevant data are presented in Table XIII.

TABLE XIII

SUMMARY OF THE OBSERVATIONS OF EVALUATE SUB-DIVISION BEHAVIORS

Teacher Groups	Evaluate Sub-Division			Row Totals
	Appraise	Opine	Stereotype	
Humanistic	19*	16	16	51
Custodial	12	11	12	35
Column Totals	31	27	28	86
$\chi^2 = 0.105$ df = 2	Not Significant at the 0.05 Level of Confidence			

*Cell values were obtained by totaling the observations of the three observers.

The computed χ^2 for the evaluate sub-division yielded a value of 0.105. With two degrees of freedom, the χ^2 value was not significant at the 0.05 level of confidence.

Summary

The research question of this study was tested and the results were summarized in this chapter. The four dimensions were tested using

the χ^2 formula to determine the significance of differences between two independent groups.

An analysis of the four dimensions were made. The teacher groups were found to be significantly different for all four dimensions: the source dimension indicates the origin of an encounter; the direction dimension indicates the target to which the behavior is directed; the sign dimension indicates the mode of communication of an encounter; and, the function dimension indicates the purpose of the behavior within an encounter.

The function dimension encompasses five sub-divisions which are: structure, develop, administer, regulate, and evaluate. An analysis of these five sub-divisions using χ^2 were made. The teacher groups were found to be significantly different for four of these sub-divisions: the structure sub-division sets the context and focus of subsequent subject matter and/or process; the develop sub-division elaborates and extends within an established structure; the administer sub-division executes tasks of classroom routine and procedure; the regulate sub-division establishes and maintains interpersonal relations. No significant differences was found between the teacher groups for the evaluate sub-division, which is designed to ascertain the relevance or correctness of subject matter and/or process.

CHAPTER V

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This study was designed for the purpose of determining the relationship between vocational teachers' ideologies of pupil control and vocational teacher classroom behavior.

Summary

A review of related literature revealed two similar patterns of thought in relation to the focus of this study: (1) Many authors recognize that observation of teacher behavior is a useful measure of teacher effectiveness; (2) In conjunction with teacher behavior it has been recognized that pupil control is of concern to educators. In light of these similar psychosociological considerations, an investigation of this nature seemed to be justified.

Two instruments of analysis were used. The Pupil Control Ideology Form (PCI) was employed to identify the teachers' pupil control ideology. The Openshaw and Cyphert Taxonomy for the Classification of Teacher Classroom Behavior was used to identify patterns of teaching behavior by observing and recording the teacher behavior in 20 vocational secondary school classrooms.

The selection of the participating school district was based upon several factors: (1) an expressed willingness to enter into the

investigation; and (2) a teacher population large enough to permit adequate sampling. Twenty vocational education teachers were selected by their PCI scores from an original population of 54. The 10 teachers who scored the lowest on the PCI Form comprised the humanistic pupil control group, whereas the 10 vocational teachers who scored the highest on the PCI Form comprised the custodial pupil control ideology group.

The major objective of the study was to test the following research question:

> Do vocational education teachers who hold a humanistic pupil control ideology differ from vocational education teachers who hold a custodial pupil control ideology in their observed classroom behavior?

The data were analyzed through a test of significant difference between two independent groups. The level of significance was set at the 0.05 level of confidence.

Findings

The findings of this study considered to be the most significant were the following:

1. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.02 level of confidence) in the frequency of the source dimension, which indicates the origin of a given encounter.
2. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.001 level of confidence) in the frequency of the direction dimension, which indicates a target (receptor) to which the vocational teacher behavior is directed.

3. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.001 level of confidence) in the frequency of the sign dimension, which indicates the mode of communication of an encounter.
4. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.001 level of confidence) in the frequency of the function dimension, which indicates the purpose of the behavior within an encounter.
5. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.001 level of confidence) in the frequency of the structure sub-division, in which both subject matter and/or process may be objects of this sub-division.
6. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.001 level of confidence) in the frequency of the develop sub-division, which indicates the elaboration and extension within an established structure.
7. The humanistic and custodial pupil control ideology teacher groups differed significantly (0.01 level of confidence) in the frequency of the administer sub-division, which indicates the executive tasks of classroom routine and procedure.
8. The humanistic and custodial pupil control ideology teachers in this study differed significantly (0.001 level of

confidence) in the frequency of the regulate sub-division, which focuses on standards for student behavior.

9. No significant difference for the evaluate sub-division was found to exist between the humanistic pupil control ideology and custodial pupil control ideology groups of teachers.

Conclusions

The proceeding conclusions are drawn from the findings of this study. Following each statement, the category representing the highest frequency observed for the two groups of teachers is listed.

1. The pupil control ideology of teachers, in this study, appears to be reflected in their teaching procedures.
   A. Teachers who are humanistically oriented, in their pupil control, appear to be more concerned with personal help for the students (assist category); activities for students without active teacher participation (silence category); and, demonstrating relationships between ideas, objects, and principles (explain category).
   B. On the other hand, teachers who hold a relatively custodial control ideology appear to be more concerned with oral transmissions of facts, ideas, and concepts (speak category, and inform category); subject matter (initiate); and, assignments to be performed by the students (assign category).

2. The pupil control ideology of teachers appears to be reflected in the degree to which they expect conformity and compliance to rules and authority.
   A. The humanistic group of teachers were apparently more concerned with the development of all students (class category); group activity of the students (proctor); and, they solicited verbal responses from the students (elicit category). This seems to indicate these teachers are more concerned with independent thought and action on the part of the students.
   B. The custodial group of teachers were apparently more concerned with setting time tables for activities (order category); maintaining routine by causing students to do something (manipulate category); developing standards of behavior for the students (set standard category); and, reprimanding, threatening, and punishment of students (restrict category).
3. The pupil control ideology of teachers appears to be reflected in teacher communications.
   A. The humanistic group of teachers were apparently more concerned with the reading of written material (read category); demonstrations, exhibitions, illustrations, and dramatic representations (perform category); writing (write category); use of media, supplies, and materials (manage material category); and,

monitoring classroom during group activity (proctor category).

B. The custodial group of teachers were apparently more concerned with oral transmission (speak category); gestures (gesture category); and, ascertaining extent of student involvement in the class activity (inquire category).

4. The pupil control ideology of teachers appears to be reflected in the relationship of student and teacher interaction.

A. The humanistic group of teachers appear to be the source of the behavior in the classroom (originate category).

B. Observations of the custodial group of teachers seem to indicate that there are other discriminate aspects (e.g., students, instructional devices, or classroom disturbances) which cause the teacher behavior (respond category).

Recommendations

Much of the research literature concerning classroom social interaction indicates that students, whose teachers' classroom are permissive, tend to achieve better, produce more written work, and tend to exert social control over themselves. As yet most administrators, teachers, and parents of students in public schools in this country have yet to be convinced that this avenue is an acceptable approach.

The data from this study would seem to indicate that a pre-service program which includes studies in teacher behavior and pupil control would be helpful to individuals who are preparing for teaching careers. A program of this type might help them maintain a dynamic balance between freedom and control in the classroom. Hopefully, these experiences can lead these prospective teachers toward creating truly effective learning situations.

This study would seem to suggest that secondary vocational education teachers should become increasingly aware of the kinds of influence they exert over students in the classroom. This goal might be accomplished by a carefully designed in-service education program which is aimed, primarily, at helping teachers determine their own teaching behavior and interpersonal relationships in the classroom through careful analysis of their teaching strategies and methodologies.

There must be a sustained effort through programs of continuing education, whether it be district in-service or university follow-up programs, to assist teachers in understanding the dynamics of pupil control and teacher behavior. Teachers must be willing to continually strive to understand the dynamics of teacher-student interaction and the consequence of one upon the other. The teachers can accomplish this through an appraisal of the feelings and thoughts as manifested by the behaviors of themselves and their students.

Recommendation for Further Research

The questions that a research study generates is an important characteristic. Further empirical investigations can assist in verification of the validity of the results and conclusions of this study by

gathering further data on various aspects of the pupil control orientation of teachers and upon the behavior of teachers. The final section of this chapter will portray some of the areas that would seem important for further investigations:

1. A research investigation should be made to determine whether a relationship exists between humanistic and custodial pupil control orientation of teachers and the semester grades they record for students.
2. Additional investigations need to be made to determine whether demographic variables such as teacher, age, education, and years of experience relate to teacher behavior in the classroom.
3. Further research should attempt to analyze a group of teachers observed over a longer period of time; would attempt to validate the assumptions that the proportion of teacher behavior for the two groups of teachers are significantly different.
4. Further research should be attempted to determine the relationship, if any, between administrative and supervisory personnel and their perception of "ideal" pupil control orientation of teachers and teacher behavior in the classroom.

As research investigations continue to encompass more discrete behaviors and a body of descriptive data that will provide knowledge of the relationship between a specific teacher behavior and the response possibilities and probabilities of learners, generalizations concerning the teaching act can be made. The effect of these

investigations will be to contribute to the understanding of the teacher of his relationship with students in the classroom learning situation and effective teaching skills can be identified and organized into programs of teacher preparation.

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APPENDIX A

TEACHING FIELDS

TEACHING FIELDS OF THE SIXTY THREE VOCATIONAL EDUCATION TEACHERS IN AMARILLO, TEXAS PUBLIC SCHOOLS

Teaching Fields	Number of Teachers
Agricultural Education	3
Coordinated Vocational Academic Education	10
Distributive Education	7
Health Occupation Education	3
Homemaking Education	16
Technical Education	3
Vocational Industrial Education	14
Vocational Office Education	7
Total	63

APPENDIX B

INSTRUMENTS

I DO NOT WISH TO PARTICIPATE IN THIS STUDY.

_____

(Please sign your name here)

INFORMATION SHEET

INSTRUCTION: Please complete this form by checking the appropriate boxes and filling in blanks where indicated.

1. Sex

( ) Male ( ) Female

2. Age

( ) 20-29 Years ( ) 30-39 Years ( ) 40-49 Years

( ) 50-59 Years ( ) 60-69 Years

3. Experience as an educator (as of the end of this academic year).

_____years as a teacher.

_____years as a principal, supervising principal, or superintendent.

_____years as a guidance counselor.

_____years, other (please specify position) _____.

4. Amount of education.

( ) Less than a Bachelor's Degree.

( ) Bachelor's Degree.

( ) Bachelor's Degree plus additional credits.

( ) Master's Degree.

( ) Master's Degree plus additional credits.

5. Undergraduate preparation.

( ) Major within the field of education.

( ) Major in area outside the field of education.

6. Graduate preparation.

( ) Major within the field of education.

( ) Major in area outside the field of education.

On the following pages a number of statements about teaching are presented. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. (I will be unable to explain the meaning of any statement listed below.)

You will recognize that the statements are of such a nature that there are no correct or incorrect answers. I am interested only in your frank opinion of them.

Your responses will remain confidential. Your cooperation is greatly appreciated.

INSTRUCTIONS: Following are twenty statements about schools, teachers, and pupils. Please indicate your personal opinion about each statement by circling the appropriate response at the right of the statement.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
1. It is desirable to require pupils to sit in assigned seats during assemblies.	SA	A	U	D	SD
2. Pupils are usually not capable of solving their problems through logical reasoning.	SA	A	U	D	SD
3. Directing sarcastic remarks toward a defiant pupil is a good disciplinary technique.	SA	A	U	D	SD
4. Beginning teachers are not likely to maintain strict enough control over their pupils.	SA	A	U	D	SD
5. Teachers should consider revision of their teaching methods if these are criticized by their pupils	SA	A	U	D	SD
6. The best principals give unquestioning support to teachers in disciplining pupils.	SA	A	U	D	SD
7. Pupils should not be permitted to contradict the statements of a teacher in class.	SA	A	U	D	SD
8. It is justifiable to have pupils learn many facts about a subject even if they have no immediate application.	SA	A	U	D	SD

		Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
9.	Too much pupil time is spent on guidance and activities and too little on academic preparation	SA	A	U	D	SD
10.	Being friendly with pupils often leads them to become too familiar.	SA	A	U	D	SD
11.	It is more important for pupils to learn to obey rules than that they make their own decisions.	SA	A	U	D	SD
12.	Student governments are a good "safety valve" but should not have much influence on school policy.	SA	A	U	D	SD
13.	Pupils can be trusted to work together without supervision.	SA	A	U	D	SD
14.	If a pupil uses obscene or profane language in school, it must be considered a moral offense.	SA	A	U	D	SD
15.	If pupils are allowed to use the lavatory without getting permission, this privilege will be abused.	SA	A	U	D	SD
16.	A few pupils are just young hoodlums and should be treated accordingly.	SA	A	U	D	SD
17.	It is often necessary to remind pupils that their status in school differs from that of teachers.	SA	A	U	D	SD
18.	A pupil who destroys school material or property should be severely punished.	SA	A	U	D	SD
19.	Pupils cannot perceive the difference between democracy and anarchy in the classroom.	SA	A	U	D	SD
20.	Pupils often misbehave in order to make the teacher look bad.	SA	A	U	D	SD

OPENSHAW AND CYPHERT CATEGORIES

I.	Source Dimension	Indicates the origin of an encounter.
	A. Originate	The source of the behavior is undiscernible within the classroom setting.
	B. Respond	The source of the behavior is discernible aspect of the classroom setting.
II.	Direction Dimension	Indicates the target to which the behavior is directed.
	A. Individual	Behavior focused on one person.
	B. Group	Behavior focused on more than one person but less than the total class.
	C. Class	Behavior focused on the whole class.
	D. Object	Behavior focused on inanimate element in physical environment.
III.	Sign Dimension	Indicates the mode of communication of an encounter.
	A. Speak	Behavior characterized by spontaneous speech.
	B. Read	Behavior characterized by oral reading of (printed) written material.
	C. Gesture	Behavior characterized by purposive body movement.
	D. Perform	Behavior characterized by demonstration nonverbal illustration, singing, etc.
	E. Write	Behavior characterized by chalkboard presentation, writing on a chart, or overhead projector, but excluding drawing.
	F. Silence	Behavior characterized by an absence of other sign.
IV.	Function Dimension	Indicates the purpose of the behavior within an encounter.
	A. Structure	Set the context and focus of subsequent subject matter and/or process.

1.	Initiate	Introduce and launch an activity, task, or area for study.
2.	Order	Arrange elements of subject matter and/or process in a systematic manner.
3.	Assign	Designate required activity.
B.	Develop	Elaborate and extend within an established structure.
1.	Inform	State facts, ideas, concepts, etc.
2.	Explain	Show relationship between ideas, objects, principles, etc.
3.	Check	Request information concerning understanding.
4.	Elicit	Solicit a verbal response that states facts, ideas, concepts, etc.
5.	Test	Conduct a written quiz or examination, dictate questions, supply answers, without explanation.
6.	Reinforce	Confirm or sustain an idea, approach, or method through reiteration.
7.	Summarize	Restate principal points in brief form.
8.	Stimulate	Foster student involvement and participation.
C.	Administer	Execute tasks of classroom routine and procedure.
1.	Manipulate	Arrange elements of the classroom environment, personal and physical. (Cause others to do something).
2.	Manage Material	Provide or coordinate use of media, supplies or materials.
3.	Routine	Request information regarding compliance with individual, class or school expectations (regulations).
4.	Proctor	Monitor classroom during group activity, testing, student teacher performance, etc.

D.	Regulate	Establish and maintain interpersonal relations.
	1. Set Standard	Impose or guide development of standards.
	2. Support	Express confidence, commendation, or empathy.
	3. Restrict	Reprimand, threaten, punish, etc.
	4. Assist	Provide personal help; does for.
	5. Inquire	Ascertain student involvement.
	6. Monitor-Self	Recognize and interpret teacher's behavior. (Check own understanding).
E.	Evaluate	Ascertain the relevance or correctness of subject matter and/or process.
	1. Appraise	Verify by appeal to external evidence or authority.
	2. Opine	Judge on the basis of personal values and beliefs.
	3. Stereotype	React without stated reference to criteria or person.

Observer Reliability

In order to determine the reliability of the instrument, agreements between members of each team (intra) and the agreement between two teams (inter) for each category, was obtained. Disagreements were indicated by marking omissions and substitutions of one classification for another.

Intra Group

Two teams of two members each were used for the coding of teacher behavior, the teams observed and checked the sequences independently. In order to obtain the percentage of agreement, the number of agreements

were divided by the total possible coding. The formula was written as follows, $P_a = A/T_p$. P_a is the percentage of agreement. A is the total instance of agreement; T_p is the total instances of coding; $T_p = A + (O_i + S_i) + (O_{ii} + S_{ii})$. Again A is the total instances of agreement. O_i is the total omissions by Team I; S_i is the instances of substitution by Team II, respectively (Openshaw and Cyphert, 1966).

There was a high percentage of agreement in the coding by both groups. The range was from 93.8 to 99.3 percent for both 10- and 15-second interval timings (Openshaw and Cyphert, 1966).

Inter Group

As an additional indication of the degree of reliability of coding, the coded sheets of Member A of Team I were compared with the coded sheets of Member C of Team II. The degree of agreement for the sign and source dimension of behavior was relatively high ranging from 84.4 to 87.2 percent on both the 10- and 15-second coding. The function dimension showed the lowest percentage of agreement with 49.2 and 52.4 for both 10- and 15-second interval coding. The members did not view the film at the same time and this played a major role in the lack of reliability (Openshaw and Cyphert, 1966).

The results of the inter group observation indicated that when both teams viewed the filmed sequences at the same time, there was a much higher consistency in the agreement of the behaviors as observed at both the 10- and 15-second timed intervals (Openshaw and Cyphert, 1966).

OBSERVATION RECORDING SHEET

	SOURCE		DIRECTION				SIGN						STR.			DEVELOP								ADMIN.				REGULATE						EVAL		
Categories	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
TIME	ORIGINATE	RESPOND	INDIVIDUAL	GROUP	CLASS	OBJECT	SPEAK	READ	GESTURE	PERFORM	WRITE	SILENCE	INITIATE	ORDER	ASSIGN	INFORM	EXPLAIN	CHECK	ELICIT	TEST	REINFORCE	SUMMARIZE	STIMULATE	MANIPULATE	MANAGE Materials	ROUTINE	PROCTOR	SET STANDARDS	SUPPORT	RESTRICT	ASSIST	INQUIRE	MONITOR-SELF	APPRAISE	OPINE	STEREOTYPE

Figure 1. Observation Recording Sheet

APPENDIX C

AUTHORIZATIONS TO USE INSTRUMENTS

THE PENNSYLVANIA STATE UNIVERSITY
314 RACKLEY BUILDING
UNIVERSITY PARK, PENNSYLVANIA 16802

College of Education
Division of Education Policy Studies

June 1, 1971

Mr. Ken Hart
Occupational and Adult
Education
Classroom Building 406
Oklahoma State University
Stillwater, Oklahoma 74074

Dear Mr. Hart:

In response to your recent letter, you can use the PCI Form in your research. Simply duplicate it; be sure to reverse score items 5 and 13.

I am not clear on the type of analysia you intend to make. If you will let me know specifically how you want to use the PCI variable, I will be able to tell you whether related studies have been done. Quite a number of investigations using the PCI Form have been completed to date, some of them dealing with teacher behavior. We have tried to keep track of those that we have not done ourselves in order to be able to respond to requests such as yours.

Best wishes.

Sincerely,

D. J. Willower

Donald J. Willower
Professor of Education

DJW:sp

OFFICE OF THE DEAN
CURRY MEMORIAL SCHOOL OF EDUCATION

June 28, 1971

Mr. Ken Hart
Occupational and Adult
Education
Classroom Building 406
Oklahoma State University
Stillwater, Oklahoma 74074

Dear Mr. Hart:

Please forgive my delay in responding to your letter. Unfortunately, it took considerable time for it to be relayed to me from Ohio State.

I would be pleased to have you and your colleagues utilize the taxonomy of teacher classroom behavior which Karl Openshaw and I developed some years ago. I am unaware of anyone having modified this instrument, although I do know that the Stanford Laboratory was playing with it a few years ago. As you know, we saw the taxonomy having greater utility as a research instrument than as a tool of instruction.

Please let me know if there is anyway I can be of assistance. I would appreciate being informed of the progress you make.

Cordially,

Frederick R. Cyphert

Frederick R. Cyphert
Dean

APPENDIX D

OPENSHAW AND CYPHERTS' OBSERVATION DATA

TABLE XIV

OPENSHAW AND CYPHERTS' OBSERVATION DATA
TEACHER GROUP A (CUSTODIAL)

Teacher Number	Categories																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	225	15	17	2	219	4	224	23	69	3	40	12	3	1	2	151	17	2
2	159	81	43	4	130	73	156	4	26	1	18	64	52	8	3	68	20	3
3	73	158	104	81	36	44	162	2	81	24	0	47	4	15	16	46	48	10
4	56	164	157	33	21	50	150	17	62	44	7	68	13	11	16	62	26	1
5	142	98	46	1	159	98	98	0	2	7	1	139	4	1	3	93	14	0
6	145	95	100	3	78	62	104	35	38	3	21	100	1	5	8	11	19	0
7	144	96	123	4	71	42	108	29	7	0	13	125	2	7	9	10	12	3
8	110	130	84	74	57	18	144	6	41	2	21	45	3	10	16	22	56	11
9	146	92	67	69	73	75	182	2	78	48	6	39	3	4	26	48	70	0
10	130	110	37	8	185	4	132	6	27	0	2	93	4	3	20	2	32	15
Totals:	1330	1039	778	279	1029	470	1460	124	431	132	129	732	89	65	119	513	314	45

TABLE XIV (Continued)

Teacher Number	Categories																	
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1	7	0	7	1	23	1	9	4	2	7	2	1	1	3	1	3	0	2
2	3	0	3	3	2	2	29	38	11	16	2	1	1	2	2	5	2	1
3	6	0	10	4	2	5	26	18	11	5	4	0	12	5	1	0	1	1
4	4	17	5	1	9	4	57	2	21	1	1	0	48	3	2	0	2	3
5	4	0	0	0	26	6	40	49	14	1	1	1	0	12	0	0	0	0
6	15	0	0	0	10	7	31	46	64	3	8	3	13	5	0	1	2	0
7	13	0	1	1	0	10	9	60	71	0	1	0	5	17	3	1	1	4
8	6	0	8	0	2	11	25	39	20	13	0	11	5	14	0	0	1	1
9	0	0	2	0	1	3	22	37	16	4	0	2	40	2	0	2	2	0
10	5	30	18	1	8	8	13	11	92	21	1	18	14	2	0	0	0	0
Totals:	63	47	54	11	83	57	261	304	322	71	20	37	139	65	9	12	11	12

TABLE XV

OPENSHAW AND CYPHERTS' OBSERVATION DATA
TEACHER GROUP B (Humanistic)

Teacher Number	Categories																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	216	24	29	1	163	55	173	30	52	0	37	40	2	3	13	21	56	11
2	163	76	12	0	159	93	148	13	13	22	6	83	4	0	3	8	99	7
3	183	55	42	1	49	145	62	10	27	22	40	166	3	0	9	13	5	12
4	144	95	81	10	111	45	152	74	8	1	9	24	3	0	6	50	20	1
5	128	111	58	42	124	61	177	1	47	46	16	37	0	20	33	20	30	0
6	158	82	64	1	95	92	77	17	9	10	7	137	1	2	9	36	15	0
7	140	102	71	12	76	89	75	17	22	38	0	155	1	2	6	4	12	4
8	65	175	121	21	98	0	192	7	10	0	0	45	1	0	7	33	87	2
9	103	137	42	35	83	90	36	40	14	12	44	162	0	2	12	0	3	0
10	134	106	53	6	160	21	133	63	14	34	0	60	1	3	6	14	71	1
Totals:	1434	963	573	129	1118	691	1225	272	216	185	159	909	16	32	103	199	398	38

TABLE XV (Continued)

Teacher Number	Categories																	
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1	2	2	4	13	13	13	48	12	16	0	0	0	18	4	0	12	4	1
2	5	0	3	2	13	1	73	47	17	1	5	1	3	3	0	0	1	0
3	2	0	0	0	8	7	87	40	66	6	3	3	6	7	0	1	2	0
4	16	37	31	5	22	2	4	63	9	5	6	0	7	3	0	0	3	3
5	5	0	2	23	13	4	35	26	21	9	1	5	53	2	1	0	2	0
6	0	0	0	0	0	9	40	27	36	2	0	0	3	10	0	1	2	1
7	11	69	1	0	3	3	20	75	75	3	2	1	25	2	0	4	0	6
8	49	0	3	0	0	3	0	9	30	4	0	2	4	2	1	1	1	4
9	0	22	0	0	0	1	59	53	144	0	2	1	37	1	1	0	0	0
10	27	21	6	1	0	4	43	14	31	2	0	0	10	6	0	0	1	1
Totals:	117	151	50	44	72	47	409	366	442	32	19	13	166	40	3	19	16	16

VITA

Kenneth Eugene Hart

Candidate for the Degree of

Doctor of Education

Thesis: RELATIONSHIP BETWEEN VOCATIONAL EDUCATION TEACHERS' PUPIL CONTROL IDEOLOGY AND THEIR CLASSROOM BEHAVIOR

Major Field: Vocational-Technical and Career Education

Biographical:

Personal Data: Born in Floydada, Texas, February 12, 1930, the son of Mr. and Mrs. Leland A. Hart.

Education: Attended elementary schools in Floydada and Amarillo, Texas; graduated from Floydada High School, Floydada, Texas in 1948; received the Bachelor of Business Administration degree from West Texas State University, with a major in Business Administration in May, 1957; received the Master of Business Administration degree from West Texas State University, Canyon, Texas, with a major in Business Administration in May, 1960; completed the requirements for the Doctor of Education degree at Oklahoma State University in July, 1972.

Professional Experience: Teacher of Distributive Education at the Childress High School, Childress, Texas public schools, 1957-1959; teacher of Distributive Education at the Hereford, Texas public schools, 1959-1963; teacher of Distributive Education at the Amarillo, Texas public schools, 1963-1969; teacher of Mid-Management at South Plains College, Levelland, Texas, 1969-1970; EPDA 552 Fellowship, Oklahoma State University, 1970-1972.