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A DESCRIPTION OF STUDENT-CUEING BEHAVIOR, TEACHER-MANAGEMENT RESPONSES, AND SELF-REPORTED TEACHER-MANAGEMENT CONCEPTIONS IN AN ELEMENTARY CLASSROOM

By

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ABSTRACT

A DESCRIPTION OF STUDENT-CUEING BEHAVIOR, TEACHER-MANAGEMENT RESPONSES, AND SELF-REPORTED TEACHER-MANAGEMENT CONCEPTIONS IN AN ELEMENTARY CLASSROOM

By

John Groves

Classroom management has long been a concern of teachers, school administrators, and teacher educators. Previous researchers examined student contributions to management situations and teacher responses to disruptive student behavior. The management exchange between teachers and students has received an increasing emphasis in research on preventive management techniques. In this study, three factors that contribute to management exchanges are examined: student behaviors that may function as management cues for teachers, teacher-management responses, and teacher-management conceptions.

One elementary school teacher and ten students were identified for observation purposes. The teacher was selected on the basis of education and teaching experience. Classroom observations were conducted for the purpose of numerically identifying those students who were most frequently involved in management exchanges with their teachers. The students who were most frequently involved were chosen.

A trained observer, following guidelines for the complete observer role, recorded behaviors exhibited by the ten students and

management responses of the teacher. Teacher-management conceptions were collected on a self-report instrument. Twenty hours of classroom observation were equally divided between morning and afternoon sessions.

Two procedures were used to analyze the collected data: a descriptive analysis and an explanatory analysis. The descriptive analysis consisted of frequency counts of recorded student behaviors that tended to be followed by management responses, teacher-management responses, and self-reported teacher-management conceptions. The explanatory analysis consisted of a Chi Square test for goodness of fit between recorded teacher-management responses and recorded student behaviors, an analysis of variance by ranks between time of day and assigned student tasks with the rates of management responses that were applied to student-cueing behaviors, an analysis of the influence time exerted on the reported frequency of teacher-management conceptions, and an analysis of the relationship between observer-recorded management responses and teacher-reported management conceptions.

The descriptive analysis indicated a narrow range of recorded student behaviors. Three of the listed twenty-four student behaviors represented a majority of the total recorded behaviors. The most frequently recorded student behaviors, in order, were (1) working on task, (2) talking with neighbors, and (3) aimlessly walking.

Maintaining teacher actions were the most frequently recorded management responses. Two maintaining actions, redirection to task and reduction of frustration, represented the majority of recorded teacher-management responses.

The frequency of self-reported general teacher-management conceptions emphasized student- and teacher-related responsibilities. The specific teacher attitudes stressed student social-emotional learning.

The initial explanatory analysis indicated that teacher-management responses were not equally distributed among recorded student behaviors. The majority of management responses that were applied to recorded student behaviors were maintaining actions. These were directed toward potentially disruptive student behaviors.

The analysis of variance by ranks indicated that time of day and assigned student tasks influenced the rates of recorded management responses that were applied to student-cueing behaviors. Maintaining actions were the predominant management responses; however, the type of maintaining action and recipient student cues varied given time and assigned student tasks.

Time of day also influenced the reported frequency of general teacher-management conceptions. Student-related responsibilities were emphasized during mornings, and teacher responsibilities were stressed in afternoons. A weak relationship existed between the frequency of reported specific teacher-management conceptions and time of day.

A positive relationship existed between observer-recorded management responses and teacher-reported management conceptions. Both sets of data revealed an emphasis on task completion.

The study results indicated directions for future quantitative research, i.e., an expanded number of observed teachers and students. Additionally, future qualitative research is needed to provide comprehensive examination of the teaching environment.

Every task that demands sacrifice and solitude also demands unwavering support from others; such support was provided by my wife, Janet Marie Bowles, to whom I dedicate this accomplishment.

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CHAPTER I

THE PROBLEM

Introduction

The management of classroom behavior is an important concern of classroom teachers and public-school educators. Parents and teacher educators are also deeply interested in effective management practices. Parents express their interest through their local boards of education and on occasion, through legal actions (Newsweek, 11/77). Teachers have consistently requested inservice training designed to show them how to manage children's behavior. Teacher educators have developed numerous preservice and inservice classroom management and organization courses. The content of these courses ranges from behavior modification to applied child-management strategies.

Currently teacher educators have emphasized the constructive aspects of preventive-management techniques (Good & Brophy, 1977). Constructive management practices emphasize the relationship between teacher-management practices and student learning (Moskowitz & Hayman, 1974). Three aspects are involved in these techniques: teacher-management conceptions, teacher-management responses, and student-cueing behavior. These include anticipation of classroom disruptions and application of a management response to avoid disturbance. In order to anticipate disruptions, teachers must be aware of student behaviors that are potentially disruptive. The teacher who practices

preventive-management techniques needs to observe and classify student behaviors (Kounin, 1970). Therefore, since preventive-management techniques are based in part on anticipation of potentially disruptive student behaviors, student behaviors can, in turn, function as management cues for teachers. However, identification of which student behaviors function as management cues is not complete. Research is needed to identify frequently demonstrated student-cueing behaviors, teacher-management responses, and teacher-management conceptions and also to identify variables that influence classroom-management exchanges.

The Problem

Previous classroom-management research was designed to study various components of management situations. Researchers studied student characteristics and behaviors (Hyde, 1976; Imamoglu, 1975; Swap, 1974). Teacher actions, their influence, and their characteristics were also studied (Berkowitz & Rothman, 1967; Flanders, 1960; Henderson, 1969; Johnson & Bany, 1970; Kounin, 1970; Moskowitz & Hayman, 1974). Different components of classroom-management exchanges were identified. However, the interaction among the components within management exchanges needs further study.

Henderson (1969) identified student behavior as one management-exchange component. She hypothesized that teacher observation of student behavior can serve as a base for improved management practices. She stated that, if teachers understand student behavior, they can make better management decisions. Further, she felt if teachers observe

student behaviors prior to disruptive acts, they then have the time needed to select an appropriate management response.

Moskowitz and Hayman (1974) also identified student behavior as a major component of management exchanges. They reported differences between management actions of best, typical, and first-year teachers. One of the major findings of their work was that best teachers respond to student behaviors that are less disruptive than student behaviors to which typical or first-year teachers respond. Moskowitz and Hayman also reported that students learn more from best teachers than do students who are assigned to the other teachers. Moskowitz and Hayman suggested that best teachers develop a referrent system consisting of student behaviors that precede disruptive acts and that serve as cues for management responses. First-year and typical teachers appear to manage the classroom without any such system.

Teacher contributions to management exchanges consist of management responses and conceptions toward management. Kounin (1970) reported teacher use of alerting cues as one management-exchange component. He defined alerting cues as teacher actions that help maintain student on-task behavior. These alerting cues are teacher behaviors that signal students if they are on-task or if they need to return to the assigned task. When teachers use alerting cues, there is a reduction in disruptive student behaviors.

Bishop and Whitfield (1972) identified a second aspect in exchanges--teachers' conceptions of classroom management. Bishop and Whitfield reported that teacher conceptions are the basis for all

management decisions. Therefore, teacher-management conceptions directly influence management responses.

Therefore, previous researchers have identified three components of management exchanges: student behaviors, teacher-management responses, and teacher conceptions toward management. However, the interaction among these components within a management exchange has not been clarified. A question remains concerning the origin of teacher-management responses. Previous research has not clarified if teacher responses are a function of student behaviors or if teacher-management conceptions influence classroom-management exchanges. Further study of management exchanges may clarify the role of student behaviors and the frequency of occurrence of teacher-management responses, teacher-management conceptions, and student behaviors. Each of these components is also influenced by the classroom variables of time and assigned student tasks. Therefore, in order to further clarify management exchanges, research is needed to explore the interaction among these variables.

The Need for This Study

Researchers have studied the characteristics of both teachers and students in classroom-management exchanges. Three components of management exchanges have been identified: student behavior, teacher-management responses, and teacher-management conceptions. Further study of the three management-exchange components may clarify the influence each exerts on classroom-management situations. In addition, it has been suggested that time of day and assigned student tasks

influence student and teacher behaviors. Therefore, these two variables should also be studied in relation to classroom-management exchanges.

Although it is recognized that student behaviors, teacher conceptions, and teacher responses are integral to classroom-management exchanges, each of these components needs to be described and defined. Specific examples of each need to be given. Student behaviors that are antecedent to disruptive actions need to be identified. Also, ways of recognizing such behaviors need to be studied. In addition, further study is needed to clarify the diversity of teacher-management conceptions and the frequency of teacher-management actions. Based on a clearer definition of these components, a more thorough understanding of their interaction can be gained, and a more constructive method for handling management situations can be suggested.

The Purpose of This Study

This study focuses on classroom-management exchanges between a set of elementary students and their teacher. Specific aspects to be studied include student behaviors that tend to be followed by management responses, teacher-management responses, teacher conceptions of management, and the possible influence that time and assigned student tasks may have on teacher and student behaviors. An examination of potential relationships between these variables will help define preventive-management techniques.

The study consists of a descriptive analysis and an explanatory analysis. The descriptive analysis will present the recorded frequency of student behaviors, teacher-management responses, and self-reported teacher-management conceptions. The explanatory analysis will identify student behaviors that receive a management response. Thus, a subset of the student behaviors, labeled student-cueing behaviors, will be identified. The explanatory analysis will also serve the purposes of (1) assessing if time of day influences the proportion of management responses that are applied to student-cueing behaviors, (2) assessing if assigned student tasks influence the proportion of management responses that are applied to student-cueing behaviors, (3) assessing if time of day influences the frequency of self-reported teacher-management conceptions, and (4) assessing if a relationship exists between observer-recorded management responses and self-reported teacher-management concepts.

The Objectives of This Study

In an effort to gain a more thorough understanding of classroom-management exchanges and to identify which student behaviors may function as management cues for teachers, the specific objectives of this study are to describe (1) the recorded frequency of student behaviors that tend to be followed by a management response, (2) the recorded frequency of teacher-management responses, and (3) the reported frequency of teacher-management conceptions.

In order to provide further clarification of classroom-management interactions, the specific objectives of the explanatory

analysis are (1) to complete a Chi Square test for goodness of fit for analyzing the relationship between recorded teacher-management responses and recorded student behaviors that receive a management response, (2) to identify a subset of the student behaviors that function as management cues for the teacher, (3) to calculate the percentage of management responses that are distributed among student-cueing behaviors, (4) to complete an analysis of variance to determine if time of day influences the distribution of management responses among student cues, (5) to complete an analysis of variance to determine if assigned student tasks influence the distribution of management responses among student-cueing behaviors, (6) to complete an analysis to determine if the frequency of self-reported teacher-management conceptions remains constant regardless of time, and (7) to complete an analysis of self-reported teacher-management conceptions in relation to observer-recorded management responses.

Null Hypotheses

Acceptance or rejection of the following null hypotheses will be used to shed light on the validity of this study.

Ho: The frequency of teacher-management responses is equally distributed among student-cueing behaviors.

Ho: The rates of teacher-management responses to student-cueing behaviors are equal for morning and afternoon observations.

Ho: The rates of teacher-management responses to student-cueing behaviors are equal for the five assigned student tasks.

Ho: General teacher-management conceptions and time of day are independent.

Ho: Specific teacher-management conceptions and time of day are independent.

Definition of Terms

These terms are used throughout the study. For purposes of clarity, they are defined below.

Student behaviors are those behaviors listed on the Management Exchange Form. The behaviors were actions students exhibited in an elementary classroom that tended to be followed by a teacher-management response.

Teacher-management responses are actions the teacher exhibited as a means for directing student behavior. In this study such teacher actions were classified according to Henderson's (1969) management model.

Teacher-management conceptions are the beliefs and attitudes the observed teacher reported in reference to her management actions.

Overview

Chapter I of this study explains the need for further description and explanation of the relationships that exist among student

behaviors that function as management cues for teachers, teacher-management responses, teacher-management conceptions, and time of day and assigned student tasks.

In Chapter II, three areas of pertinent literature are reviewed: literature on preventive classroom management, literature that examines the procedures available for studying the management interaction between student and teacher, and literature concerning the case-study format. Chapter III contains a description of the procedures used to conduct this study. An analysis of data is presented in Chapter IV. A summary of the study, discussion of results, and the implications for continued research are given in Chapter V.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In this chapter, a review is presented of research that has clarified preventive classroom-management techniques and that has described procedures available for classroom observation and data analysis. Preventive-management techniques are employed during the teaching process and are based on prior planning by the teacher and on certain management actions in the classroom. In this review, primary emphasis is placed on two aspects of preventive-management techniques: (1) teacher conceptions in relation to management actions, and (2) student-cueing behaviors exhibited in the classroom.

Emphasis is also placed on the case-study approach together with appropriate classroom observation methods. Literature relating to participant observation as a data-collection procedure is reviewed. The various participant-observation roles available for classroom data collection are presented. The limitations on the data analysis implied by the case-study format are also discussed.

Preventive Classroom Management

In this section, three aspects of preventive management are discussed: (1) classroom-management techniques, (2) teacher decision

making in relation to management responses, and (3) student-cueing behaviors exhibited in the classroom.

Classroom-Management Techniques

The importance teachers and teacher educators place on classroom management can be seen in the volume of literature on the topic. Educational journals abound with articles describing successful management techniques. The variety of approaches is as diverse as the number of articles is numerous. All the writers seem to agree that classroom-management techniques are designed to structure students' behavior. Further, the writers agree that the teacher's ability to manage student behavior is a critical determinant for teacher success or failure. Dunkin and Biddle (1974) stated this concisely:

> . . . Adequate management of the classroom environment also forms a necessary condition for cognitive learning; and if the teacher cannot solve problems in this sphere, we can give the rest of teaching away (p. 135).

Teacher educators have formulated various types of management approaches. A common basis has been democratic rather than punitive. Sheviakow and Redl (1944) stated a strong preference for democratic discipline; i.e., the structure and guidance provided by the teacher should be designed to clarify responsible behaviors of the children. This democratic discipline has been related to student learning of democratic principles of government. Glasser (1974) advocated a more psychological approach to managing student behavior. Glasser wrote that teacher management of children's actions based on psychology helps children adopt responsible behavior patterns. George Brown (1971) suggested that management actions need to be based on both

student behavior and student feelings. Brown believed that learning is facilitated when the whole being is addressed, i.e., that learning is most productive when cognitive and affective qualities are both involved. Common to these writers and researchers is the belief that there are preferable teacher-management actions.

More recently, researchers have referred to preventive classroom management. Preventive-management actions are aimed at avoiding classroom disruptions rather than dealing with unacceptable behavior once it has occurred (Good & Brophy, 1977). One characteristic of earlier theory is included in preventive management. This is the use of management to help clarify student responsibility. Preventive classroom management is preferred partly because it is felt that students learn best when given an opportunity to make decisions and experience the natural consequences of their behavior (Imamoglu, 1975).

A necessary condition for effective use of preventive-management techniques is careful teacher planning of lessons prior to instruction. If prior planning takes place, the teacher improves his/her ability to predict when a preventive-management action would help guide students' behavior (Glasser, 1974). The more predictable the teacher-management structure is, the more secure the environment for student learning. The value of thorough lesson planning is observed in teachers who are labeled successful in their classrooms. Henderson (1969) conducted classroom research while working at Michigan State University's Learning Systems Institute. She identified a series of planning and preparation behaviors common to better teachers. Later, Henderson and Prawat (1970) reported these behaviors,

labeling such teacher actions as the "tasks of teaching." These "tasks of teaching" behaviors are part of the performance of better teachers before and during their teaching. Each of the tasks of thorough planning and implementation of lessons helps teachers predict and avoid classroom disruption.

Kounin (1970) further clarified the relationship between lesson planning and teacher success. He reported four characteristics of successful teachers: (1) smoothness of their transitions from lesson to lesson, (2) a high level of challenge and variety in their lessons, (3) their ability to be aware simultaneously of various classroom situations, and (4) their ability to handle simultaneous events. Kounin wrote that the amount of planning influences the smoothness of lesson transitions. He found that the teacher who is more thoroughly planned is able to change lessons with greater ease and thereby to promote continued student work involvement. The challenge and variety of lessons are also related to teacher planning. The relevance of lessons is part of the challenge and variety experienced by students. This lesson relevance is related to teacher planning. The teacher's ability to plan challenging and relevant lessons and smoothly change subject matter contributes to the continuity of the instructional process. Kounin also suggested that more thoroughly prepared teachers experience less unacceptable student behaviors than teachers who are not adequately prepared because of the continuity of planned instruction.

Kounin, in two research studies (1966 and 1970), found that successful teachers employ management actions that avoid student

disruptions. Kounin defined "withitness" as the teacher's ability to be aware of activity in various areas of the classroom. The degree of teacher "withitness" seems to be influenced by his/her ability to provide managing guidance before serious student disruptions occur. Kounin suggested that "withit" teachers, due to their continuing awareness, are able to manage student behavior in a preventive fashion.

Kounin also reported that teacher "overlappingness" influences classroom management. "Overlappingness" is defined as the ability to deal with two classroom events occurring at the same time. The need to provide a management structure for students often necessitates dealing with more than one event at the same time. The teacher needs to order events according to his/her priority and to take appropriate action. The preventive quality of "overlappingness" is associated with responding before serious disruptions are evident in the classroom. Kounin wrote that appropriate "overlappingness," or providing preventive-management responses, is positively related to student work during recitation.

Kounin pointed out that one of the major differences between more successful and less successful teachers is the amount of busy time they provide for students. More successful teachers keep students occupied and shift topics smoothly. Less successful teachers allow more student time that is task-free and take longer making less clear and careful transitions between topics (Kounin, 1966, 1970). Good and Brophy (1977) stated: ". . . Most disruptive outbreaks occur when students are bored or restless rather than actively involved in

what is going on. . ." (p. 72). Kounin's report had made the same point. It would appear that preventive classroom-management techniques involve thorough planning, active instruction, and the ability to avoid disruptions.

Avoidance of classroom disruption involves anticipation of disruptive events. Good and Brophy (1977) described this as the teacher's ability ". . . to take action to stop a developing disruption before it becomes really serious" (p. 72). "Withitness" and anticipation are teacher characteristics that are central to preventive classroom-management techniques.

Henderson (1969) and Henderson and Prawat (1970) established that thorough planning prior to teaching and ongoing assessment during instruction are characteristics of better teachers. The degree of preparation appears to influence teacher ability to foresee possible problem areas in lesson plans and prepare for such events. Ongoing assessment also appears to influence the teacher's ability to observe potential disruptions before they occur. Kounin (1966, 1970) stated the value of anticipation after observing successful teachers who exhibit "withitness" and "overlappingness."

Moskowitz and Hayman (1974) referred to teacher ability to anticipate disruption. They reported distinctions between best, typical, and first-year teachers. Their findings were derived from field-based research conducted in three urban junior high schools. This survey took place one week prior to the opening of school in the fall. Best teachers were selected by surveying students and asking them to name a teacher they liked and learned from. The top

five or six teachers, according to student standards, were selected from each school. Typical teachers were randomly selected from experienced teachers in each building. The first-year teachers were those starting their first full-time teaching assignment.

Moskowitz and Hayman wrote: "Best teachers . . . began by setting expectations, standards, and orienting students about subject matter" (p. 230). As a result of these early preparatory actions, best teachers responded more clearly and quickly to disruptive student behaviors. These teachers were able to specify specific student behaviors they believed indicated an increased potential for disruption. Antecedent student behaviors that were labeled inappropriate thereafter were used as signals of potential problems because they tended to be followed by disruptive student actions. These became the signals for anticipating disruptive student behavior. The findings of Moskowitz and Hayman (1974) supported the contention of Henderson (1969) and Kounin (1966, 1970) that better teachers are able to anticipate disruptive student actions.

Good and Brophy (1977), in their review of classroom-management literature, arrived at the conclusion that preferred teacher-management actions would be directed toward potentially disruptive behaviors rather than toward disruptions. Antecedent behaviors are actions that precede student disruptions and, as such, may act as student-cueing behaviors for teachers (Gage, 1975a).

In summary, preventive-management techniques influence positively student classroom behavior (Kounin, 1966, 1970; Moskowitz & Hayman, 1974). Henderson (1969) and Kounin (1966, 1970) suggested

that successful teachers more thoroughly plan their teaching than less successful teachers. Successful teachers also employ preventive-management techniques during instruction (Good & Brophy, 1977; Kounin, 1966, 1970; Moskowitz & Hayman, 1974). Preventive-management actions appear to be designed to avoid disruptions rather than to encounter deviant student behavior.

There are numerous aspects of preventive management, but two are important for this study. The first is the influence that teacher attitudes may have on management decisions. Teacher attitudes may provide a basis for deciding that student behavior is appropriate or inappropriate. A second aspect is the possible influence student-cueing behavior may have on teacher-management actions.

Teacher Decision Making

Henderson and Prawat (1970) stated that teacher assessment skills are necessary prior to and during instruction. Kounin's research (1966, 1970) supported this belief. Assessment during instruction involves observation and classification of student behavior. In order to label student actions, there must be a referent, some system for classifying student actions. One such referent system is the teacher's conception of management exchanges.

Bishop and Whitfield (1972) called the process of assessing events appraisal. They believed that teacher values are the basis for appraisal: ". . . The teacher needs to be aware of his own values to enable effective appraisal to take place" (p. 7). In other words,

the teacher's values or attitudes strongly shape his/her assessment.

The influence personal conceptions have on teacher assessment would seem to correspond to the influence on teacher classroom-management actions. Bishop and Whitfield suggested that teacher decision making is the crux of classroom success or failure. This contention that decision making is crucial to successful teaching was implied in Kounin's work (1966, 1970). The teacher's abilities to be "withit" and provide "overlappingness" are directly related to decisions about classroom management. The research of Moskowitz and Hayman (1974) also suggested that teacher decisions involving student actions influence the constructive quality of classroom environments.

In summary, preventive-management actions during instruction may be influenced by teacher conceptions of management exchanges. Bishop and Whitfield (1972) felt that personal values directly shape teacher assessment activities and, thereby, influence management actions.

Classroom Cueing Behaviors

There is little literature that clarifies the possible influence cueing behavior may have on classroom management. The antecedents expressed in animal behavior previous to exhibition of desired behaviors within controlled environments provide the most thorough studies of such actions. However, for purposes of this study, such research findings only establish the existence of antecedents. The limited literature specifically dealing with classroom cueing behaviors

prompts a review of studies that imply possible cueing-behavior influences in the classroom. One source of such research is the study of environmental influences on students.

Researchers in environmental influences commonly express the belief that environmental factors influence a participant's behavior. Burnham and King (1961) stated that an individual's behavior rarely occurs without some influence from his/her immediate environment. "The activity of individuals does not occur in isolation, but in relation to the actions of all the others engaged in the process of education" (p. 38). They believed that analysis of classroom influence must first take into account actions and beliefs of the people involved. They found that study of any individual needs to include other people who might be factors that influenced the subject's behavior. These individuals tend to influence one another through expected and accepted communication modes. Implied in this research is the role cueing behavior may have within communication networks. Cueing behaviors are defined as expected and accepted modes of interaction developed by a set of people who spend time together.

The fact that an individual's behavior is influenced by other people within the immediate environment is supported by research in the area of group dynamics. Lieberman, Yalom, and Miles (1973) described differences and similarities among sixteen encounter groups with different leaders. Lieberman, Yalom, and Miles reported factors that influenced various group leaders and members. This research supported the idea that individuals are influenced by one another's cueing behavior within a given context.

A student's external antecedents exhibited in the classroom are also worthy of study (Gage, 1975a). Antecedent behavior includes actions that serve as cues for teachers. Examples of these cues are student behaviors and personal characteristics such as ethnic background, speech patterns, and personal hygiene. The importance of these cues is the role they play in teacher decision making. Teachers, as part of their normal routines, observe and make use of various student behaviors and characteristics.

Kounin (1970) reported observations of teacher-expressed cueing behavior in the classroom. He labeled the teacher's use of cueing behavior as alerting skills, or ". . . attempts to involve nonreciting children in the recitation task. . ." (p. 117). These cues were behaviors a teacher could use to alert students and thereby increase their lesson involvement. This alerting action serves as a cueing function within the teacher's message. Kounin reported that teachers, through use of alerting skills, increase student on-task behavior while reducing disruptive behaviors.

Teacher alerting skills may serve as a management tool for cueing students during instruction and thereby may function as one preventive-management technique. The teacher's cueing behavior is partially designed to help avoid disruptions from nonparticipating class members; i.e., teacher cueing behavior is an alert for students to pay attention.

It can be inferred from the research of Miller and Dollard (1941) concerning model learning conditions that students also exhibit cueing behaviors. Flanders (1960) called the teacher the single most

powerful person in a classroom. It would seem logical that students would learn cueing behavior because their teachers demonstrate such behaviors. If such student actions are evident, it would appear that these actions may partially influence teacher-management decisions.

Moskowitz and Hayman (1974) suggested that student antecedent behavior serves as a signal for best teachers that a management response is needed in order to maintain a positive learning environment. The best teachers state early in the first week of school what their expectations are for student behavior. Shortly thereafter, these teachers can recognize a set of potential student-expressed cues that tend to precede disruption. Moskowitz and Hayman suggested that the best teachers rely on these cues as possible indicators of potential management conflicts. Moskowitz and Hayman implied that students thereby express cueing behaviors in the classroom.

Loss (1973) reported observer-recorded instances of student nonverbal cueing behavior. She noted this action in a doctoral study involving six observers trained to observe and record nonverbal behavior. Loss reported a correlation on three observation categories indicating that teacher and student nonverbal behaviors are interdependent. Loss wrote:

> A teacher's smile could evoke smiles from the class, but just as clearly, the class could evoke a smile from the teacher. The same interdependence was shown in negative expressions, movements and gestures (p. 24).

Loss established, as did Kounin (1970), that teachers cue student responses. However, Loss also observed and recorded instances of students cueing responses in their teachers.

In summary, the existence of cueing behaviors has been reported by classroom researchers. Kounin (1970) noted instances of teacher-expressed alerting cues. Moskowitz and Hayman (1974) suggested that student-expressed cueing behaviors are noted by the best teachers during instruction. Loss (1973) reported cases of teacher cueing behavior but also of student-expressed cues influencing teacher behavior.

In this section of Chapter II, a review has been given of literature dealing with preventive-management techniques. Thorough lesson planning is related to the teacher's ability to anticipate student disruptions. A major characteristic of preventive management is avoidance of disruptions through anticipation of potential problems. Research indicates that two aspects of anticipating potential disruptions are teacher-management conceptions and student-cueing behaviors. The teacher's conceptions act as a basis for classifying student actions as appropriate or inappropriate. Therefore, teacher-management conceptions influence ensuing management responses. The second aspect of preventive management is student-cueing behaviors. Such actions serve as the antecedent signals expressed by students prior to disruptive behavior. Therefore, teacher conceptions and student-cueing behaviors influence the preventive quality of teacher-management actions.

The Case-Study Method

Case studies have been used by researchers to examine social and educational environments. Such studies have resulted in detailed descriptions of phenomena within given environments (Anderson, Ball, &

Murphy, 1975). Babbie (1973) classified case studies according to research objectives. For instance, depending on their research goals, case studies are descriptive, explanatory, exploratory, or a combination of two classifications. Descriptive case studies involve analysis of a situation to make descriptive assertions about it. If a case study includes an explanation of variables that are examined within the research framework, it is labeled an explanatory study. An exploratory case study involves collection and analysis of data as a prelude to future and more specific studies. Thus, the case-study method, consisting of detailed and comprehensive data collection, can be adapted to a variety of research goals

Two common case-study data-collection procedures are participant observation and self-reported information (Babbie, 1973; Anderson, Ball, & Murphy, 1975). Participant observation provides a variety of roles for researchers. Each role elicits a different result in a study (Denzin, 1970; Babbie, 1973). The goal of case studies involving participant observation is the ". . . attempt to collect a maximum of data" (Babbie, 1973, p. 38). However, the type and scope of data to be collected are indicated by the objectives of the specific case study. "It will be humanly impossible to observe and record everything that happens; thus the participant observer must select his data" (Babbie, 1973, p. 38).

The second type of data collection is self-reported information. The limitation imposed on data collected through participant observation may be balanced through collection of additional self-reported data within the guidelines established by the case-study

objectives. The addition of self-reported data provides for more descriptive information. However, Loss (1973) cautioned against use of self-reported data as the sole basis for analysis. "The preference claimed by teachers for a particular teaching style is frequently inconsistent with their observed teaching styles. . ." (p. 24).

The data-analysis procedures that are appropriate for case studies are quasi-statistical procedures. Frequency-count analysis is the most common method used for describing patterns of data observed during case studies. The distribution of events within various case-study components is also a common analysis procedure. Nonparametric measures are the statistical procedures used for analyzing the distribution of events across various phenomena.

In summary, case-study research may include descriptive, explanatory, and exploratory objectives. The case study is designed to describe and thereby explain a given social situation. Participant observation and self-reporting are two data-collection procedures used for case-study research. Appropriate case-study analysis consists of quasi-statistical procedures.

Classroom-Observation Methods

The case study is essentially a programmatic means of studying a specific situation or environment; therefore, appropriate and varied methods of observing should be defined. In this section, a review is given of literature dealing with observation procedures that have been used in the classroom. The review includes guidelines for appropriate fieldwork design, use of participant observation as a

data-collection method, and the various roles available for participant observation in classrooms.

Earlier research has been somewhat biased, placing emphasis on the teacher's classroom influence while dealing only in a limited way with the influence students have on schooling.

> Historically, research in this area (human interaction) has started with the assumption that teachers influence pupils, and only in a few instances have researchers investigated how pupils influence teachers (Gage, 1974, p. 11).

One possible correction for this bias is field-based research employing more ethnological criteria. This approach would involve an expanded perspective on classroom interaction, on both teaching and its consequences. Fieldwork offers a design and method for such case studies.

Schwille and Porter (1976) stated fieldwork, as used in anthropology and sociology, holds unique opportunities for educators. They suggested that fieldwork, if used in schools, could highlight the social and cultural dynamics of schooling. The aspects of schooling represent the interaction of influencing factors within the educational process, i.e., the roles parents, students, teachers, and administrators fulfill within an educational setting. This fieldwork approach, if used by educators, would make possible research on the types and ways a variety of factors interact in the schooling process.

Fieldwork research, in order to produce worthy observational studies, must follow established guidelines. Homans (1950) wrote that the researcher should follow six indices when conducting observation studies. The researcher should consider (1) the amount of time spent

with subjects, (2) the degree of proximity between researcher and subjects, (3) the observation of varied situations involving research subjects, (4) the familiarity the researcher has with the subject's language, (5) the level of intimacy achieved between researcher and subjects, and (6) the degree of consensus between researcher and subjects.

In regard to the first index, time, Homans felt that the more time the researcher spends with a group, the more likely he/she can accurately report the social meaning of the subject's actions. Thus, the amount of research time invested with subjects influences the quality of data collected. Homans also wrote that the closer the researcher works to his subjects, the more accurate are his interpretations. Again, the level of researcher investment influences the quality of collected data. Furthermore, the degree of familiarity between researcher and subject influences the type of collected data; i.e., greater familiarity facilitates collection of more in-depth data.

The third index implies that a variety of circumstances in which observations are made allows the researcher to make more accurate interpretations of a subject's behavior. The fourth and fifth indices deal with the interpersonal relationship between the researcher and the subject. The researcher needs to learn the subtle language quirks and hidden meanings typical to an environment. Each group of people has its own interpretation of language based on shared past experiences. The researcher needs to learn these special language characteristics. The greater the researcher's investment is in

understanding the environment, the greater is the predictive accuracy of his/her observation.

Homan's sixth index, consensus, implies that the greater the degree to which the researcher confirms the expressed meanings of the subjects, the more accurate are the interpretations that the researcher makes. Therefore, the level of respect, familiarity, and communication between subject and researcher influences the quality of collected data. Cusick (1973) supported use of Homan's indices in the design of fieldwork research.

Educational researchers have favored live observation of classroom events for data collection. Live observation allows the researcher to experience the classroom physically and to take part in the interaction environment within the natural setting. One advantage of this approach has been maintenance of routine continuity for teacher and students. The observed participant's ability to predict events is enhanced if the natural setting is maintained. ". . . Live observation allows us to look at . . . the give and take between teacher and pupil. . ." (Dunkin & Biddle, 1974, p. 61).

Wolcott (1974, 1975) stated that educators are particularly susceptible to observing what they expect or have been trained to see. The educational researcher has usually selected for study a culture and system that he/she has directly experienced over a number of years. Thus, the educator studies a process he/she has previously developed beliefs about.

The variety of roles is limited for the classroom researcher who wants to observe but who does not want to alter the normal routine.

Wolcott (1974) wrote, ". . . It is very difficult to be an effective participant observer in a school unless one selects among the limited number of statuses available. . ." (p. 1). Generally, educational researchers have not been able to take an active role in classrooms without altering the environment. This limitation is an obstacle that educational researchers have to work around. Wolcott (1974), in his preparation of a bibliography on ethnographic research, stated that educators need to consider carefully their use of participant observation as a sole means for gathering data.

Denzin (1970) reviewed four participant-observation roles available to field-based research: (1) complete participant, (2) participant as observer, (3) observer as participant, and (4) complete observer. In the complete-participant role, "The observer is wholly concealed, his scientific intents are not made known, and he attempts to become a fullfledge member of the group under investigation" (p. 139). The complete-participant role has been criticized for ethical reasons because, by definition, the researcher enters into a research contract without informing the subject of the contract. Denzin reported strong objections by other professionals to fieldwork employing this role.

The participant-as-observer role involves the researcher with subjects in the field over time. This process allows the subject to acknowledge the researcher's presence while continuing normal routines. The participant-as-observer role demands time and a changing relationship with the subject.

The third participant-observer role Denzin defined is the observer-as-participant role. This role is characterized as ". . . one in which investigations typically include only one visit or interview with the respondent" (p. 193). This process may be hindered by the relationship between researcher and subject.

The fourth type of participant observation is the complete-observer role. The field worker is completely removed from interaction with the subject. This process has been traditionally used with mechanically recorded data-collection processes or when one-way mirror procedures are employed.

Live-observation procedures have one major limitation. Dunkin and Biddle (1974) defined the problem: "Because exchanges between teachers and pupils are rapid, the observer may be overwhelmed" (p. 61). The exchange rate between teacher and students cannot be reduced for the observer's convenience without seriously altering the environment. A recommended method for maintaining normal classroom routine while observing and coding events is to limit the amount of coded data. This reduction of the observer's task can best be accomplished through instrument design and designation of desired events when possible. Dunkin and Biddle (1974) summarized this recommendation: ". . . Instruments used for live observation usually are quite simple . . . and often attempt to represent only one dimension of classroom happenings" (p. 60).

A further recommendation for instrument design is to use a categorical instrument. Dunkin and Biddle defined categorical instruments as instruments on which the "observer makes judgements among a

set of categories into which the events he observes are to be classified" (p. 71). This process helps to simplify the observer's task in the classroom when he/she observes events.

The use of categorical instruments necessitates following two major guidelines. First, such a system is best used by a trained observer, someone familiar with the instrument categories. Second, there is a need for the categories to be mutually exclusive. Dunkin and Biddle (1974) recommended that instrument categories function as facets, for ". . . a facet forms a clear, mutually exclusive set, and all events of interest can be coded in one of the facets" (p. 73). If the instrument does not consist of facets, there are three possible consequences. First, the coding is likely to be unreliable. Second, there are likely to be weak and sometimes contradictory findings when the researcher attempts to relate results. Third, there will be questions about what behaviors are actually coded.

A further consideration for data collection within case studies is the influence time and events may have on classroom activities. As a means for controlling these variables, two research processes have been developed. The first was designed to take into account the influence of time on the research. Time sampling is the selection of behavioral units for observation at different times. Selection of various times can be random or systematic. If the researcher has identified specific types of teacher behaviors to be observed, use of a time sample can provide a wide base for determining when these behaviors are to be exhibited. The time sample also increases the probability of obtaining representative samples of

behavior. However, time samples are limited by a lack of continuity, lack of context, and possibly by a lack of naturalness.

A second consideration for data collection is the problem of observing desired events. This concern arises when the researcher prefers observation of specific events to observation of all events that occur. This process has been called event sampling and has three major attributes: (1) the events are natural situations, (2) the observations contain a continuity of events, and (3) the events are often infrequent.

The infrequent expression of desired events has been the concern of researchers using event-sampling procedures. The investigator may spend great amounts of time in order to observe few examples of the preferred behavior. As a possible means for getting the best qualities from event sampling and efficient use of time, both methods have been used by researchers within a single case study. This process has been employed when the desired event occurs with some degree of regularity and when time has been an important factor, either for efficiency or influence.

Summary

In Chapter II, a review was given of literature dealing with preventive classroom-management techniques. This approach to managing student behavior involves a teacher's ability to note student-cueing behavior and to avoid disruptive actions. The teacher's management conceptions in the classroom and the quality of the teacher's preparation are important aspects of preventive management.

The case study as a research method was also reviewed. Classroom observation as a means of data collection was described. The limitations on the analysis of data gathered by this method were noted.

CHAPTER III

DESIGN OF THE STUDY

Introduction

The preventive quality of teacher-management actions appears to depend partly on anticipation of potential student disruptions. Student behaviors may act as antecedents to overt student disruption. Such antecedent behaviors, because they may act as management cues for teachers, are an appropriate subject to study.

In Chapter III, a description of procedures used to collect and analyze information about this student-teacher interaction is given. There are six major sections in Chapter III: (1) an introduction, (2) a description of the observed subjects, (3) a description of the observation instruments, (4) a description of the observation procedures, (5) a description of the data-analysis procedure, and (6) a summary.

Subject Selection

The need to collect detailed and accurate information was of primary concern in determining the number of teachers to be observed. It was agreed, based on Homans' guidelines for field research, that observation of events in one classroom provided appropriate information. Homans' six indices for designing field-based research are as follows: (1) time, (2) proximity of researcher to subjects,

(3) observation of a variety of circumstances, (4) mutual researcher-subject language fluency, (5) development of a cordial relationship between researcher and subject, and (6) researcher- and subject-agreed understanding of the observed events. The decision to observe one teacher fulfilled these indices. The observation of one teacher, as opposed to observation of two or more teachers, increased the following: (1) the researcher's knowledge of the environment, (2) the subject's trust of the researcher, (3) the diversity of observed events, (4) the researcher's knowledge of the subject's unique language characteristics, (5) the relationship between researcher and subject, and (6) the understanding between the researcher and subject concerning observed events.

The preferred teacher, for purposes of this research, would be representative of a cross-section of the available population. In general, it was desired that the selected teacher (1) be someone with graduate school credits beyond certification, (2) have more than four years' teaching experience, (3) be able to work with the observer, and (4) be willing to meet the time demands of the study.

The teacher-selection process began with an assessment of the teaching staffs working in two urban elementary schools. Both schools had a mixed population of white and minority teachers and students. One school was selected because the researcher was familiar with its teaching staff.

Each of the twenty-five staff members at the selected school had at least four years of teaching experience. Fifteen of the staff had earned graduate credits beyond their certification. It was

decided that it would be best if the observed teacher had taught for at least one full year at the selected school. This decision was based on the desire to observe an established teacher, i.e., a teacher who knew the school setting and routine operating pattern. Thus, two teachers were removed from consideration. The number of teachers who were potentially available for observation purposes was reduced further by the need for the teacher and researcher to work compatibly. This reduction was based on schedule problems, interpersonal conflicts, and the desire for some collaborative past experience between the observed teacher and the researcher. The schedule conflicts and desire for shared past work experience were the major reasons for this further reduction in the number of available teachers.

The researcher had established a classroom-observation relationship with one of the remaining three teachers. This person was selected as the preferred teacher for the study. This teacher is white, female, and was in her mid-thirties. She has earned baccalaureate and master's degrees plus additional graduate credits. She had twelve years of teaching experience at the time of the study. She had known the observer during the previous six months, and she was willing to participate in the study.

It was essential for the researcher to gain permission from the teacher to observe classroom events. The researcher met with the teacher to discuss the tasks involved in the study. The teacher was told that the observer would be recording management interactions between her and the students. The teacher was given a brief explanation about the role student behaviors may play within management

exchanges. It was also explained that the observer needed to record information and that the teacher needed to complete a daily short-answer form. The researcher reviewed all observation and recording forms with the teacher. The teacher was assured of complete anonymity in the written report following completion of the project. The teacher was encouraged to ask questions regarding research purposes and procedures. At the end of this discussion, the teacher agreed to participate in the study and to complete the short-answer forms.

Kounin (1970) and Moskowitz and Hayman (1974) reported that there is a potential relationship between student behaviors and management situations. This researcher, therefore, believed students who were most frequently involved in classroom-management exchanges were also the students who would exhibit the largest number of behaviors that may function as management cues for the teacher. Thus, it was necessary to identify, from the twenty-nine students enrolled in the selected teacher's fourth-grade classroom, those students who were most frequently involved in management exchanges. The specific student-selection process is discussed below. The observation of a limited number of students would also simplify the observer's task.

In summary, the selection of one teacher was based on the teacher's education, teaching experience, and willingness to work with the researcher. Ten elementary students were selected on the basis of being the most frequently involved students in management exchanges with the teacher. The students were unaware that they specifically were being observed.

Instruments

In this study, two instruments were used for data collection. The first instrument used was the Management Exchange Form (MEF). This instrument was used for recording observed teacher-management responses and student behaviors that tended to be followed by a management response. The second data-collection form was Ward and Lanier's Focused Observation Form (WLFO). This instrument was used as a prompting device for the teacher in writing responses to researcher-selected management exchanges observed during each observation session. The Management Exchange Form and Ward and Lanier's Focused Observation Form were used throughout twenty hours of classroom observation.

Management Exchange Form

It was necessary to design an observation instrument for recording teacher-management responses and student behaviors that tended to be followed by management responses. There were four stages involved in arriving at a satisfactory form: (1) selection of Henderson's management model for coding teacher-management responses, (2) identification of behaviors expressed by elementary children that tended to be followed by teacher-management responses, (3) creation of an instrument format that would include both (1) and (2), and (4) pilot testing of the instrument.

The decision to use Henderson's teacher-management model (1969) was made by the researcher and members of his guidance committee. This model consists of categories used for coding observed teacher-management responses. Henderson's model had been used by the

Toward Excellence in Elementary Education (EEE) program staff at Michigan State University for a number of years. This experience established the validity of the model through a logical content-analysis process. This process had extended over a number of years and had involved many people who had used the model during classroom observations. For purposes of this research, such a procedure established a satisfactory level of validity for Henderson's model.

Dunkin and Biddle (1974) strongly recommended that observation forms be designed in such a way as to simplify recording procedures. Therefore, the MEF form was designed with a notation system so that the observer could place check marks on the form rather than write descriptive comments. Thus, as part of the instrument, it was necessary to provide descriptors of student behaviors that were potential cueing actions. As a means for gathering descriptors of student behaviors that elicit teacher-management responses, the researcher asked university supervisors to note behaviors elementary children exhibit in their classrooms that tend to be followed by teacher-management responses. These behaviors could be regarded as management cues for the teacher. Descriptors of these behaviors were collected by the researcher. The separate lists, from six field supervisors, were compiled into one list and all duplications were removed. The individual descriptors were then restated in short behavioral terms. The supervisors were asked to delete or add any descriptor they either disagreed with or felt needed to be included. The final list consisted of thirty-one student behaviors.

This procedure helped establish a satisfactory level of validity for the MEF form. The solicitation of elementary-student behaviors that tended to be followed by teacher-management responses followed the guidelines for establishing validity through use of expert opinion.

Discussions between the researcher and university supervisors produced a final list of student behaviors, which followed guidelines for establishing validity through use of a logical content-analysis process. The content analysis was used to establish a student-behavior list representative of actual student classroom behaviors.

The student behaviors were placed across the top of the MEF form. Henderson's management model was placed on the left vertical axis of a separate form. A matrix was imposed on both forms to create a grid of intersecting squares. This produced a format that would allow the observer to note teacher-management responses and student behaviors by placing a check mark in one of the squares on each form. (See Appendix A.)

A series of four pilot observations was conducted to test the convenience of the MEF and to compare the listed student behaviors with observed student actions. Early piloting efforts demonstrated the inconvenience of using two separate forms. It was clumsy to use two pieces of paper, and it was difficult to orient to both forms. The time lapse between observing and recording behaviors on one of two forms and returning to further observation insured that the observer would miss some classroom events. These two problems were significant enough to necessitate creation of a single form

listing both teacher-management responses and student behaviors. (See Appendix B.)

Two of the four pilot tests involved two observers, and two involved a single observer. One observer in the first two pilot tests was completing her doctoral research in counseling psychology, and the second observer was completing his doctoral training in teacher education and was an experienced classroom observer.

The first pilot test was used to determine both if the organization of the MEF was convenient and if it would be necessary for observers to have previous classroom-observation experience. The pilot test lasted for one hour during an afternoon session in the selected classroom. It was found that the organization of the MEF was convenient for recording observed teacher-management responses. It also became apparent that previous experience as a classroom observer was necessary. The inexperienced classroom observer was not able to put the behaviors she observed into a useful context. The purpose of the second and third pilot tests was to check the inclusiveness of the listed student behaviors. The observation period lasted for two hours during a morning session in the selected classroom. The arrangement and categorization of student behaviors were altered as a result of these pilot tests.

Prior to the second and third pilot tests, the student behaviors were categorized into verbal and nonverbal sets and into previously identified sets of people, e.g., student alone, student with student, and student with teacher. (See Appendix C.) These categories were not helpful in the recording process. The categories

tended either to force inaccurate labels onto behaviors or to create too many subgroups for efficient recording. The observer noted that he had to label an observed behavior as verbal or nonverbal and then to record the behavior according to who was involved, i.e., student alone, student with student, or student with teacher. These categories also increased the number of recorded behaviors because often the same action needed to be listed under both verbal and nonverbal categories. A final result of the third pilot test was to remove the verbal, nonverbal, student alone, student with student, and student with teacher categories and only list student behaviors that tended to be followed by management responses. This recommendation was adopted because it helped provide a more efficient observation instrument. (See Appendix D.)

A second result of the third pilot test was removal of some listed student behaviors and addition of others. Some behaviors were removed because the observer did not record any occurrence of them. Other student behaviors were added because they were observed as eliciting teacher-management responses. A final recommendation was to leave some blank spaces on the horizontal axis for penciled-in student behaviors.

The fourth pilot test involved use of the MEF designed to include the recommendations of the third pilot test. This instrument listed teacher-management responses on the left vertical axis and student behaviors on the top horizontal axis with blank spaces for listing additional student behaviors if needed. The results of the fourth pilot test were favorable to continued use of the form. The

student-behavior list included the actions students expressed during the observation period. The observer was able to record the desired behaviors of both students and teacher.

Rater Reliability

Kerlinger (1963) wrote: "Reliability is usually defined as the agreement among observers" (p. 450). Observer agreement was used in this study for establishing the reliability of the MEF. Two experienced classroom observers were used during one and one-half hours of observation to collect data independently for comparison purposes.

The second observer was a doctoral student in educational psychology. He had worked with the researcher prior to the observation sessions. The second observer was aware of the research purpose of this study and the observation methodology to be used. He received a one-hour orientation to the classroom being observed. He was given a group picture of the students who were most frequently involved in management exchanges with the teacher. A seating chart was also provided as an orientation aid. The second observer used the MEF during a one-hour observation as an orientation process conducted in a separate classroom.

The researcher and the second observer, during observation sessions for data-collection purposes, were supplied with identical and separate copies of the MEF. Each observation session lasted for fifteen minutes. The observation sessions totaled ninety minutes. During observation sessions, the researcher verbally called a student's

letter code indicating that student should be observed. The researcher and the second observer independently recorded whatever behavior they observed the identified student exhibiting. All teacher-management responses were recorded as they happened by each observer independently.

A Chi Square test for independence was used to determine the rate of agreement between the raters. Two Chi Square tests were completed: one to calculate the rater reliability for recording student behaviors and the second for recording teacher-management responses.

The null hypothesis used for recorded student behaviors was that the frequencies of recorded student behaviors are equal for the two observers. The Chi Square test result failed to reject the null hypothesis. The rater reliability for recorded student behaviors was sufficient ($\chi^2 = 6.68$; $df = 8$; $p = .57$).

The null hypothesis for recorded teacher-management responses was that the frequencies of recorded teacher-management responses are equal for the two raters. The Chi Square test result failed to reject the null hypothesis. The rater reliability for recorded management responses was sufficient ($\chi^2 = 4.59$; $df = 2$; $p = .101$).

Ward and Lanier's Focused Observation Form

The second data-collection instrument used was Ward and Lanier's Focused Observation Form (WLFO). The purpose of the WLFO form was to elicit information the teacher thought important when deciding to intervene in classroom activities. The rationale for selecting the Ward and Lanier form, a description of the instrument,

and the process used to establish its validity are presented below.

The primary concern was the referent system the teacher used when making classroom-management decisions. Ward and Lanier's Focused Observation Form was designed to record specific teacher actions, to act as a stimulus for teacher recall, and to record teacher responses. Use of the WLFO form encouraged the teacher's elaboration of reasons for making management decisions. (See Appendix E.)

The Ward and Lanier form was selected for this study because it allowed for collection of a teacher's self-reported reasons for using a management response in a given situation. The form, once a management action was recorded by the observer, was completed by the teacher independently. This advantage was important because of the freedom it allowed for data collection. The observer could not interview the teacher after each observation. Ward and Lanier's form allowed both observer and teacher to maintain their schedules and also collect data. The teacher responded to each observer-completed form after school.

In Ward and Lanier's form, objective facts of the observation were recorded on the first page: the grade level observed, the date, and the time of the observation. The observer was asked to summarize briefly the ten to fifteen minutes of classroom activity immediately preceding the observation and to note one specific teacher-management action during the specified time period. The teacher was asked to elaborate on the summary description of the classroom-management exchange. A second set of questions asked the teacher to describe

consequences of a specific action and state if this action was representative of an attitude she held about children and teaching. In a more general way, the questions elicited conceptions the teacher held regarding children and teaching.

Ward and Lanier's form was developed for the purpose of recording classroom behaviors and conceptions of teachers. Ward and Lanier used the collected information for comparison purposes in an effort to identify the beliefs of better teachers and their rationale for teaching. The validity of Ward and Lanier's form was established through logical content-analysis procedures and through use of expert opinion.

Summary

A thorough developmental effort was necessary before observation and recording of teacher-management responses and student behaviors could begin. These efforts included (1) development and pilot testing of the MEF for recording teacher-management responses and student behaviors that tended to be followed by a management response and (2) selection of the WLFO form for eliciting information the teacher thought important when deciding to initiate a management response.

Procedures

There were five purposes for conducting this study: (1) to describe the recorded frequency of student behaviors that may function as management cues for the teachers, (2) to describe the recorded frequency of teacher-management responses and conceptions of management,

(3) to analyze the distribution of management responses among student behaviors, (4) to analyze the influence that time of day and assigned student tasks may have on the rate of management responses to student-cueing behaviors, and (5) to analyze the relationship between observer-recorded management responses and self-reported teacher-management conceptions. To accomplish the study purposes, it was necessary to collect five types of data: (1) recorded student behaviors, (2) recorded teacher-management responses, (3) self-reported teacher-management conceptions, (4) the time of day when the observation occurred, and (5) the assigned student tasks.

The Management Exchange Form was used for recording four data categories: (1) student behaviors, (2) teacher-management responses, (3) time of day, and (4) assigned student tasks. Ward and Lanier's Focused Observation Form was used for recording the teacher's conceptions of classroom management. The time of day and assigned student tasks were also noted on the WLFO form for comparison with data collected on the MEF.

Below is a description of the five procedures used to obtain and analyze data for this study. Briefly, the five are as follows: (1) a description of the participant-observation role used, (2) a description of the procedures used to identify the elementary students who were most frequently involved in management exchanges with their teacher, (3) a description of the procedures used with the MEF, (4) a description of the procedures used with the WLFO form, and (5) a description of the data-analysis procedures.

Participant-Observation Role

The complete-observer role was used for the participant observer. In the complete-observer role, there is no interaction between observer and subjects (Denzin, 1970). Because of this separation of the observer from the classroom routine, the naturalness of the classroom environment was preserved. Preservation of expected classroom routines was considered crucial for observation and recording actual management exchanges between the teacher and students. The naturalness of observed events would directly influence the value of any research findings; i.e., the more natural the observed behaviors, the more representative the eventual findings would be of typical classroom events.

The complete-observer role was explained to the teacher before classroom observation commenced. It was expected that the observer would enter the classroom and record data without interacting with the teacher or the students. However, it was found that, when the observer entered the classroom, the teacher and some students would verbally and/or nonverbally acknowledge his entry. The attention directed toward the observer created a need to either answer or ignore the acknowledgment. It was decided that the observer would verbally, or preferably nonverbally, answer any response to his entry. This decision was based on the interpersonal belief that a continuous "non-reaction" by the observer would hinder data collection. The researcher believed that ignoring the behavior of others could create negative feelings and, therefore, limit the relationship between himself and the subjects. Homans (1950) wrote that the relationship between the

researcher and subjects would influence data collection. Therefore, the observer acknowledged the greetings of the teacher and students. The observer's response usually was nonverbal. In all other respects, the complete-observer role guidelines were followed; i.e., the observer did not interact with the subjects during observation sessions.

Student-Identification Procedure

It was necessary to identify those students who were involved in a high frequency of management exchanges with their teacher. In order to identify those students, an observation form was designed for numerical recording of which students were involved. The form consisted of a list of student names across the top of a matrix and a listing of Henderson's model of teacher-management behaviors down the left side of the chart. The observation form was used for recording teacher-management behaviors and identifying the student toward whom they were directed. (See Appendix F.)

The form was pilot tested during a one-hour period in the selected classroom during a morning session. As a means of limiting the judging demands of the observer, a distinction was made between general teacher-management responses and directed-management responses. General classroom-management responses consisted of teacher-management actions that were not limited to individual students. As an example, the teacher might manage the classroom in general by saying: "It's getting too noisy in here." Directed-management actions consisted of management responses the teacher directed to individual students by naming the student or by maintaining direct eye contact with the

student during a verbalized management response. For example, the teacher might say: "John, would you like some help?"

Identification of students most frequently involved in management exchanges was made during five and one-half hours over four days. Three and one-half hours of observations were conducted during morning sessions. The remaining two hours of observation were conducted during afternoon sessions.

The observer changes his recording position after each observation session. This procedure was followed to reduce the influence he might have on the behavior of students seated closest to him. The observer's position alternated between the northeast and southwest corners of the room.

The observer recorded only directed teacher-management behaviors, actions that involved an identified recipient. The purpose of these observations was to collect data that would numerically identify a set of students who received the highest number of teacher-directed management behaviors. The observer, by noting the recipient of each directed teacher-management action, was able to provide numerical data for each student during each observation session. Therefore, each student received a number representing the sum of management responses he/she received during five and one-half hours of observation. This process allowed for a rank ordering of students from the highest to least number of management responses directed to them.

A set of ten students was identified as receiving the highest number of teacher-management responses directed toward them. A concern that emerged from the early observations was the amount of data

generated by ten students. The number of observed students influenced the quality of the recorded data. An increased number of observed students resulted in a greater time lapse between observations of a particular student. The greater the time lapse between observations of a specific student, the greater the loss of data continuity. Thus, observation of fewer students, within a given time limit, would facilitate recording data with greater continuity. Therefore, the set of ten numerically identified students was divided into two separate subsets of five students.

Each student was placed in one of the two subsets according to his/her total number of management exchanges with the teacher based on the identification observations. The goal was to create two subsets of students having as equal a number of management exchanges as possible. Therefore, the ten students were divided into two separate groups for observation purposes. Each subset consisted of four boys and one girl. Subset A contained two black students and three white students. Subset B contained one chicano, two black, and two white students. (See Table 1.)

Table 1.--Subsets of students used for observation purposes.

Subset A	Number of Management Exchanges	Subset B	Number of Management Exchanges
A.1	46	B.1	37
A.2	16	B.2	16
A.3	32	B.3	27
A.4	18	B.4	20
A.5	27	B.5	24
Total	139	Total	124

Each set of observations was based on the recorded behaviors of one subset of students. Each student group was observed during alternating fifteen-minute sessions, thereby providing an equal amount of observation time for each group. An equal number of morning and afternoon observations was made for each student group.

The Procedures Used for the Management Exchange Form

Twenty hours of classroom observation were scheduled during fifteen school days. All observation sessions were scheduled into one-hour blocks. Each session was then divided into four fifteen-minute segments. An equal number of morning and afternoon observations was made to compensate for the fact that behavior of teacher and students might be influenced by the amount of time they spent together during a school day (Dunkin & Biddle, 1974). Morning sessions involved certain content tasks which took place when participants' energies and attitudes had been taxed by a limited number of events. Afternoon tasks followed whatever energy demands or interpersonal conflicts were experienced earlier.

The observer, being an adult, was viewed as a quasi-authority figure by students. Therefore, as discussed above, it was decided that the observer's recording position could influence the behavior of those students seated closest to him. As a method for controlling any such influence on student behavior, the observer alternated his position between two places, changing after each one-hour observation session. The observer, during one session, would sit in the north-east corner of the room. During the following session, the observer

would sit in the southwest corner of the room. An equal number of observations occurred from each position during morning and afternoon sessions.

The Management Exchange Form was used to record four categories of data: (1) student behaviors, (2) teacher-management responses, (3) the time of day, and (4) the assigned student task. The time of day and the student task assigned during the time segment were noted on each MEF.

When using the MEF, the observer was to observe sequentially and record the behavior exhibited by each identified student. Each student behavior was recorded individually immediately following the sequential observation of a particular student. This process was followed through twenty hours of observation. The observer, therefore, observed student A.1, recorded the behavior of A.1, and then observed and recorded the behaviors of student A.2 until the entire identified student population (five per subset) had been observed and the behavior recorded. The observer then started at the beginning of the student list and repeated this procedure. The purpose for adopting this process was to insure that a maximum of data was observed and recorded involving all identified students in a particular subset. Observations were scheduled in equal numbers for both student subsets and during both morning and afternoon sessions.

Teacher-management responses were recorded as they occurred. Regardless of the sequential observation of students, the observer would immediately record any management response directed toward one of the identified students. The observer, once a teacher-management

response was recorded, would then continue with the sequential recording of student behaviors. This procedure was followed throughout the twenty hours of classroom observation.

The Procedures Used for Ward and Lanier's Focused Observation Form

The procedures used with Ward and Lanier's form consisted of the observer recording one major classroom-management incident within each fifteen-minute observation period. The teacher was asked to respond to the questions on the WLFO form regarding the recorded management exchange.

The observer noted on each Ward and Lanier form the date, time of day, classroom activity, and the behaviors of the teacher and of the involved students. The observer arbitrarily decided which management situation, for each fifteen-minute session, was to be recorded. The guidelines for making this decision were (1) selection of an incident that would stay in the observer's mind longest and (2) that involved a teacher-management action, as defined by Henderson (1969), that was directed toward the selected students during a particular observation session.

In summary, twenty hours of observation were conducted during fifteen school days in a fourth grade classroom. Two subsets of five students were used for data-collection purposes. Observation sessions were equalized by time of day and student subsets. Each observation form was coded by date, time, and assigned student task. The behavior of the selected students was sequentially observed and recorded, along with teacher-management responses, on the MEF. Ward and Lanier's

Focused Observation Form was used to collect self-reported teacher conceptions of classroom management. One WLFO form was completed for each fifteen-minute observation period.

Data-Analysis Procedures

A descriptive and explanatory case-study format was used in this study. Participant observation was used as the data-collection process. The study purposes were (1) to describe teacher-management responses, teacher conceptions of classroom management, and student behaviors that might function as management cues for the teacher and (2) to analyze the potential relationships between variables within observed management exchanges. Therefore, the analysis procedures for this study included both descriptive and explanatory processes. The units of analysis in this study were (1) recorded student behaviors, (2) recorded teacher-management responses, (3) self-reported teacher concepts of classroom management, (4) time of day recordings occurred, and (5) assigned student tasks.

The analysis, in order to accomplish both descriptive and explanatory purposes, involved a two-step process: first, a descriptive analysis of the data; second, an analysis of the potential for relationships to exist between variables. The descriptive analysis included (1) a description of the recorded frequency of student behaviors that might function as management cues for teachers, (2) a description of the recorded frequency of management responses, and (3) a description of the reported frequency of teacher-management conceptions.

The descriptive analysis consisted of frequency counts for each variable. The explanatory analysis consisted of (1) a Chi Square test for goodness of fit to analyze the distribution of recorded management responses among recorded student-cueing behaviors, (2) an analysis of variance to determine the rates of teacher-management responses that were applied to student-cueing behaviors by time of day and by assigned student tasks, (3) an analysis of the frequency of teacher-management conceptions by time of day, and (4) an analysis of the relationship between observer-recorded management responses and reported teacher-management conceptions.

Summary

In Chapter III, the methodology used in this study was discussed. Four aspects of the study were described: (1) the selected subjects, (2) the data-collection instruments, (3) the observation and data-collection procedures, and (4) the data-analysis procedure.

After a review of two urban elementary school teaching staffs, one elementary school teacher was selected for observation purposes. The selection of one teacher conformed to Homans' guidelines for conducting field research. The characteristics of the selected teacher conformed to the desired qualities established for this study.

Ten fourth-grade students were selected on the basis of their having been identified as the students most frequently involved in management exchanges with the teacher. Two subsets of five students each were established for observation purposes. The subset populations

were closely matched by sex, ethnic background, and total number of recorded management responses received.

Two data-collection instruments were used. The Management Exchange Form was used to record (1) student behaviors that might function as management cues for teachers, (2) teacher-management responses, (3) the time of day, and (4) the assigned student task. Four pilot tests were conducted during the developmental phase of this form.

The second data-collection instrument was Ward and Lanier's Focused Observation Form. This form was used for collection of self-reported teacher conceptions of classroom management. The WLFO form was completed by the teacher independent of the observer.

Classroom-observation procedures were developed according to Denzin's definition of the complete observer; i.e., the observer did not interact with subjects during observation aside from simple acknowledgment of greetings upon entering the classroom. Twenty hours of observation were conducted during fifteen school days. Each one-hour observation session was divided into four fifteen-minute periods. The observation periods were set up to equalize the number of observations by mornings, afternoons, and between the two student subsets.

During each fifteen-minute observation period, the observer recorded on the MEF (1) student behaviors, (2) teacher-management responses, (3) the time of day, and (4) the assigned student task. The observer noted information on Ward and Lanier's form at the

conclusion of each fifteen-minute observation period. The teacher completed the WLFO form after school.

The data analysis involved two procedures. The descriptive analysis consisted of a frequency count of recorded student behaviors, recorded teacher-management responses, and self-reported teacher-management conceptions. The second procedure involved an explanatory analysis of variables related to both students and teacher.

CHAPTER IV

ANALYSIS OF THE DATA

Introduction

In this study, one elementary school teacher and ten students from her class were selected for observation. The teacher was selected on the basis of her education, teaching experience, and willingness to participate in the study. The ten students were those from the teacher's class most frequently involved in management exhanges with her.

A list was prepared by university-trained classroom observers of student behaviors that tend to be followed by teacher-management responses. This list of student behaviors was collected from observations in a variety of grade levels and classrooms. These behaviors were thought to be potential student-cueing behaviors. Henderson's management model was used to classify observed teacher-management responses. Twenty hours of classroom observation were conducted during fifteen school days. A trained classroom observer recorded instances of demonstrated student behaviors, as listed, and teacher-management responses. Teacher attitudes toward classroom management were collected on a self-report instrument.

A descriptive analysis was conducted for clarification of the recorded frequency of student behaviors, teacher-management responses, and self-reported teacher-management conceptions. The

frequency of recorded student behaviors and teacher-management responses was the basis for an analysis of potential relationships that may exist between these two variables in classroom-management exchanges. The self-reported teacher-management conceptions were collected to provide a further description of the teacher's management actions and to analyze the potential for a relationship between observer-recorded management responses and self-reported management conceptions.

An explanatory analysis was conducted to find out if relationships existed between the identified variables in management exchanges, i.e., between student behaviors and management responses and time of day and assigned student tasks. Self-reported teacher conceptions were analyzed in relation to observer-recorded management responses and time of day.

A descriptive analysis was conducted for the purposes of (1) describing the frequency of recorded student behaviors and teacher-management responses and (2) describing the frequency of one teacher's self-reported conceptions of classroom management. The explanatory analysis was conducted for purposes of (1) identifying which student behaviors received teacher-management responses, (2) identifying the proportion of student-cueing behaviors that received a management response, (3) analyzing if time of day influenced the proportion of student-cueing behaviors that received a management response, (4) analyzing if assigned student tasks influenced the proportion of student-cueing behaviors that received a management response, (5) analyzing if time of day influenced

self-reported teacher-management conceptions, and (6) analyzing if a relationship existed between self-reported teacher-management conceptions and observer-recorded management responses.

Summary of the Results

A summary of the descriptive and explanatory analysis follows. The descriptive analysis consists of a frequency count of recorded student behaviors, recorded teacher-management responses, and self-reported teacher-management conceptions. The explanatory analysis consists of an assessment of the recorded management responses that were distributed among the student behaviors. The result of this assessment is to identify the student behaviors that received one or more management responses. Such behaviors are labeled student-cueing behaviors. A Chi Square test for goodness of fit was computed using recorded student-cueing behaviors and management responses. Friedman's two-way analysis of variance procedure was used to test the significance time of day and assigned student tasks may have on the proportion of management responses that were applied to various student-cueing behaviors (Siegal, 1956).

Descriptive Analysis

The descriptive analysis was conducted to find out if a particular set of student and teacher actions was consistently recorded during classroom observations and which teacher conceptions were consistently reported in reference to selected management exchanges. An analysis of frequently recorded student behaviors and teacher-management responses showed which variables consistently

contributed to classroom-management exchanges. The self-reported teacher-management conceptions frequency count served as verification of the potential for relationships to exist between observer-recorded management responses and self-reported management concepts. The frequency counts of these three variables also helped clarify the potential for relationships to exist between the selected components of classroom-management exchanges.

A total of twenty-four student behaviors that tended to be followed by a management response was selected for observation and recording purposes. The observer recorded 11,103 examples of these behaviors. Eight of the twenty-four student behaviors represented 95.37 percent of the total recorded. The recorded student behaviors were grouped into three classifications. The first classification of student behaviors, constructive actions, represented 56.75 percent of the recorded total. Potentially disruptive student behaviors, the second classification, accounted for 41.84 percent of the total recorded. The third classification of student behaviors, disruptive actions, represented 1.41 percent of the recorded total. (See Appendix G.)

Henderson's management model was used for classification of observed teacher-management responses. A total of thirty-one specific management responses was grouped into three categories by Henderson (1969): creating, maintaining, and restoring responses. Maintaining management responses represented 87.57 percent of the recorded total. Three of the twelve listed maintaining responses accounted for 77.34 percent of the 354 specific management responses recorded.

Self-reported teacher-management conceptions were classified as either general or specific. A total of six general conceptions was reported ninety-four times. Three general conceptions referred to teacher responsibilities and represented 48 percent of the total reported. The three remaining general conceptions accounted for 52 percent of those reported and referred to student responsibilities. Fourteen specific teacher conceptions of management were reported eighty-two times. Three of the fourteen specific conceptions, which were related to students' social-emotional learning, represented 49 percent of the conceptions reported.

Explanatory Analysis

The explanatory analysis indicated that twenty student behaviors received one or more management responses during observation. These twenty student behaviors were, therefore, considered cueing behaviors, i.e., student behaviors that function as management cues for the observed teacher. A Chi Square test for goodness of fit was used to evaluate the distribution of management responses among the twenty student-cueing behaviors. The null hypothesis, that the rate of management responses is equally distributed among student-cueing behaviors, was rejected at the .005 level.

Friedman's two-way analysis of variance by ranks was used to test the influence time of day and assigned student tasks may have had on the proportion of management responses that were applied to various student-cueing behaviors. The null hypothesis, that the proportion of management responses applied to student-cueing behaviors

is equal during mornings and afternoons, was rejected at the .05 level. The second Friedman test for significance resulted in rejection of the null hypothesis, that the proportion of management responses applied to student-cueing behaviors is equal during the various assigned student tasks, at the .001 level. Therefore, the explanatory analysis resulted in the identification of twenty student-cueing behaviors and indicated that time of day and assigned student tasks influence the proportion of management responses that are applied to expressed student-cueing behaviors.

Descriptive Analysis

The descriptive analysis was completed to clarify the potential patterns of student and teacher actions and self-reported teacher conceptions in classroom-management exchanges. If a set of student behaviors was consistently recorded, such actions might function as management cues for the teacher. An identified set of teacher-management responses, if repeatedly recorded, might clarify consistent teacher input to management exchanges. A consistent set of exhibited teacher-management responses might also be related to self-reported teacher attitudes toward classroom management. The frequency counts of these variables might clarify the range of contributing factors involved in management exchanges and serve as a basis for the explanatory analysis of potential relationships that might exist among the variables.

Three variables were recorded for the descriptive analysis: (1) identified student behaviors that tended to be followed by

management responses, (2) teacher-management responses, and (3) self-reported teacher conceptions of classroom management. Student behaviors and teacher-management responses were recorded during classroom observations conducted in equal numbers during morning and afternoon sessions. Ten students were selected for observation based on the fact that they were the students most frequently involved in management exchanges with the teacher. Sequential observation and recording of each student's exhibited behavior was repeated throughout all observation sessions, thus insuring a maximum and equal amount of collected data on each student. A frequency count was completed to clarify if certain student behaviors were recorded more consistently than others.

Moskowitz and Hayman (1974) reported that best teachers apparently use a referent system of student antecedent cues to alert them to potential management situations. If students frequently exhibit a set of behaviors that tend to be followed by a teacher-management response, those behaviors can potentially function as management cues for the teacher. Therefore, a frequency count could identify these student-cueing behaviors.

The variables in the descriptive analysis of student behaviors were organized into rank order by frequency of occurrence. Each student behavior was ranked by the total number of times it was recorded and the percentage of the total the recorded frequency represented. (See Table 2.)

The recorded student behaviors were grouped into three classifications--constructive, potentially disruptive, and disruptive.

Table 2.--Frequency count of recorded student behaviors.

Student Behaviors	Number Recorded	Percent Recorded
Working on-task	5,884	53.00
Talking with neighbors	2,126	19.15
Aimlessly walking	759	6.83
Staring into space	574	5.16
Playing with toys	479	4.30
Raising hand	255	2.30
Sitting on foot/knees	251	2.26
Standing by the teacher	152	1.37
Organizing desk	104	.94
Calling the teacher	80	.72
Talking to self	68	.61
Answering other's question	64	.58
Putting head on desk	64	.58
"Rough-housing"	62	.56
Sharpening pencil	54	.49
Getting a drink	40	.36
Toilet trips	23	.21
Staring at the teacher	21	.19
Angry/yelling	13	.12
Smiling	9	.08
Refusing to answer question	9	.08
Crying	8	.07
Narrowing eyes	3	.03
Pulling teacher's clothes	1	.01
Total	11,103	100.00

Constructive student behaviors are those that indicate a student on-task behavior, satisfaction with their situation, or asking in an appropriate fashion for teacher assistance. There were four constructive student behaviors listed on the Management Exchange Form: (1) working on-task, (2) raising hand, (3) standing by the teacher, and (4) smiling. These four constructive student behaviors represented 56.75 percent of the total recorded.

Potentially disruptive student behaviors are those that may indicate a need for teacher attention. There were fifteen potentially disruptive student behaviors listed on the Management Exchange Form: talking with neighbors, aimlessly walking, staring into space, playing with toys, sitting on foot/knees, organizing desk, calling the teacher, talking to self, putting head on desk, sharpening pencil, getting a drink, toilet trips, staring at the teacher, narrowing eyes, and pulling teacher's clothes. The fifteen potentially disruptive student behaviors represented 41.84 percent of the recorded total.

Disruptive student behaviors are those that alter the learning environment in an inappropriate manner. There were five disruptive student behaviors on the Management Exchange Form: (1) refusing to answer question, (2) rough-housing, (3) angry/yelling, (4) answering other's question, and (5) crying. The five disruptive student behaviors accounted for 1.41 percent of the total student behaviors recorded.

The descriptive analysis clarified that three student behaviors represented 78.98 percent of the total recorded. The most frequently recorded student behavior was working on-task, followed by talking with neighbors and aimlessly walking. Therefore, the frequency count of recorded student behaviors illustrated that the ten selected students demonstrated a narrow range of behaviors in a repeated fashion.

Henderson's management model was used to classify observed teacher-management responses. The observer recorded management responses as they were exhibited, provided they were directed toward one of the selected students.

A frequency count of the recorded management responses was completed. The frequency range of exhibited management responses was considered important for analysis. Classroom-management exchanges involved the actions of both students and teachers. A descriptive analysis of recorded management responses might clarify the diversity of management responses a student experiences. In addition, the frequency count of management responses provided the basis for comparison with reported teacher attitudes. The management-response frequency count, in relation to the student-behavior frequency count, might clarify the diversity of contributing actions involved in classroom-management exchanges.

The descriptive analysis of recorded teacher-management responses by categories and by specific management responses was organized into a rank-ordered frequency count. The number of times the category and the management response were recorded and the percentage of the total that that number represented were calculated. (See Tables 3 and 4.)

Table 3.--Recorded teacher-management responses by major management categories.

Management Category	Recorded Management Responses	
	Number	Percent
Creating	6	1.70
Maintaining	310	87.57
Restoring	38	10.73
Total	354	100.00

Table 4.--Frequency count of recorded teacher-management responses.

Recorded Management Responses	Number Recorded	Percent Recorded
Creating	6	1.70
Questions student information	4	1.13
Questions student feelings	1	.28
Describes desired behavior	1	.28
Maintaining	310	87.57
Redirects to task	168	47.76
Reduces student frustration	74	20.90
Use of proximity control	32	9.03
Rewards behavior	12	3.39
Use of nonverbal signals	7	1.98
Safety valves	6	1.70
Regroups students	5	1.41
Shifts instruction	3	.85
Removes potential distraction	2	.57
Ignores cues	1	.28
Restoring	38	10.73
Requests behavior end	20	5.65
Sharpens boundaries	6	1.70
Verbal desist	5	1.41
Calls name	2	.57
Limits activities	2	.57
Directs behavior	1	.28
Promises	1	.28
Threatens	1	.28
Total	354	100.00

A total of 354 management responses was recorded during the observation sessions. Creating management responses, defined by Lanier (1969) as the ". . . techniques you use to get the classroom functioning well" (p. 6), represented 1.70 percent of the total recorded. Maintaining management responses, ". . . meant to extinguish the signs of potential disorder before disruption occurs" (p. 7), were

recorded 310 times or 87.57 percent of the total. Restoring management responses, which restore ". . . order and/or efficiency once it has been lost" (p. 8), were recorded 38 times or 10.73 percent of the total.

The most predominant of the recorded management responses was redirection to task, representing 47.46 percent of the recorded total. Thus, nearly one-half of the observed teacher-management responses were directed toward continuing student on-task behavior. Teacher efforts to reduce student frustration, the second most frequently recorded management response, represented 20.90 percent of the total. Therefore, the observed teacher, according to the descriptive analysis, relied on two maintaining responses to manage the behavior of these ten students during 68.16 percent of the observed management exchanges.

Teacher conceptions of classroom management were collected on a self-report instrument. The observer reported an arbitrarily selected management exchange involving the teacher and one selected student after each fifteen-minute observation session. Forty management exchanges were selected from morning sessions and from afternoon sessions. After school, the teacher reported her beliefs regarding each management exchange. The self-reported conceptions were classified into six general and fourteen specific conceptions of management.

Bishop and Whitfield (1972) reported that teacher values are the critical factor in teacher decision making. Thus, self-reported teacher conceptions were believed to be related to observed management responses. A frequency count of self-reported conceptions would

clarify if this teacher placed a priority on certain beliefs in relation to management exchanges. Frequently reported teacher conceptions could then be analyzed for potential relationships to observer-recorded management responses.

The self-reported teacher conceptions were grouped into two classifications--general and specific reports. General conceptions were summary phrases the teacher used in reference to two or more management exchanges. Specific conceptions were reported in reference to single management exchanges. A frequency of both conceptual classifications was completed. The conceptions were rank ordered by frequency of report.

The general teacher conceptions, presented in Table 5, were classified according to student or teacher responsibilities. Three general conceptions were related to teacher responsibilities: the teacher is responsible for classroom events, the teacher's management actions should be consistent, and students need structure. The teacher-related general conceptions represented 48 percent of the total reported. Three general conceptions were related to student responsibilities: students should use time productively, students should work independently of the teacher, and students should complete work regardless of other factors. The student-related responsibilities, as reported by the teacher, represented 52 percent of the total reported.

The teacher reported fourteen specific conceptions she held toward classroom management. Three of the fourteen specific conceptions represented 49 percent of the total reported and were related

to students' social-emotional learning: (1) those related to helping students with their feelings, (2) improving their self-concept, and (3) those related to providing positive reinforcement for students. (See Table 6.)

Table 5.--Frequency count of self-reported general teacher conceptions of classroom management.

General Teacher Conceptions of Classroom Management	Number Reported	Percent of Total Reported
Teacher-related responsibilities		
Teacher is responsible for classroom events	18	19
Teacher's management actions should be consistent	15	16
Students need structure and guidance from the teacher	12	13
Student-related responsibilities		
Students should use time productively	21	22
Students should work independently of the teacher	18	19
Students should complete work regardless of other factors	10	11
Total	94	100

Note: General teacher conceptions of classroom management, as used in this study, referred to two or more management responses or exchanges.

Table 6.--Frequency count of self-reported specific teacher conceptions of classroom management.

Specific Teacher Conceptions	Number Reported	Percent of Total Reported
Teacher should help students with feelings	14	17
Teacher should help improve student self-concept	13	16
Teacher should provide positive reinforcement	13	16
Noise level is indicative of the work level	8	9
Teacher should model desired behaviors	7	8
One-to-one conferences are good management	6	7
Teacher needs alone time	4	5
Teacher should be positive with students	3	4
Nonverbal signals are good management	3	4
Teacher wants to be liked by students	3	4
Teacher should be helpful to students	3	4
Teacher should meet students at their level	3	4
Cheating is bad	1	1
Teacher wants to be a good teacher	1	1
Total	82	100

Note: Specific teacher conceptions of classroom management, as used in this study, were defined as teacher beliefs that referred to a specific management response or exchange.

The descriptive analysis suggested an apparent relationship between the frequency of recorded management responses and reported general teacher conceptions. The observer recorded a high frequency of the management response, redirection to task. This management response apparently was repeatedly used to maintain student on-task behavior. The teacher, in her self-reported general conceptions, emphasized constructive use of time, independent work habits, and her responsibility to insure that these occurred. In addition, the management response, reduction of student frustration, seemed to be related to the frequently reported specific conceptions about the social-emotional learning of students.

Task completion was emphasized in all three variables--student behaviors, management responses, and conceptions. An apparent relationship, therefore, would seem to exist between recorded student behaviors and the frequency of recorded management responses and reported conceptions. The most frequently recorded student behavior was working on-task, which seemed to be related to the most frequently recorded management response, redirection to task, and to the most frequently reported general conception, that time should be used productively.

Explanatory Analysis

The explanatory analysis consisted of stabilizing one variable and comparing other variables to it. Time of day and assigned student tasks were stabilized, and the percentage of cueing behaviors that received a management response was compared to them. The

explanatory analysis consisted of six segments: (1) the identification of student-cueing behaviors, (2) the calculation of the percentage of management responses that were distributed among student-cueing behaviors, (3) an analysis of variance to determine if time of day influenced the distribution of management responses among student cues, (4) an analysis of variance to determine if assigned student tasks influenced the distribution of management responses among student-cueing behaviors, (5) an analysis to determine if the frequency of self-reported teacher-management conceptions remained constant regardless of time, and (6) an analysis of self-reported teacher conceptions in relation to observer-recorded management responses.

Student-cueing behaviors, as defined in this study, are student behaviors that receive one or more management responses during the observation sessions. There were twenty student behaviors that received a teacher-management response, i.e., that functioned as management cues for the observed teacher. There were 11,055 occurrences of individually recorded student-cueing behaviors.

The distribution of management responses among student-cueing behaviors was prepared. The data indicated the management response and its frequency for each student cue. The percentage of recorded student cues that received a management response was calculated. Since the observed teacher responded to particular student-cueing behaviors, it was felt necessary to determine if various cues received a diversity of individual management responses. A Chi Square test for goodness of fit was used to test the null hypothesis, that the rate of management responses is equally distributed among student-cueing

behaviors (χ^2_{19} = 439.79; $p < .005$). The null hypothesis was rejected; the rate of management responses was not equally distributed among student-cueing behaviors.

The diversity of management responses, by type of response, that were applied to a particular student-cueing behavior was analyzed on the basis of the recorded frequency of management response in relation to student-cueing behaviors. A total of 354 recorded management responses were applied to 11,055 recorded cueing behaviors. The analysis was organized into four segments: (1) the most frequently recorded type of management response, (2) the type of student cue that received a high percentage of management responses, (3) the cueing behaviors that were responded to 20 percent or more of the time with a management response, and (4) the type of management response the student cues received that were responded to 20 percent or more of the time.

The analysis of management responses, in relation to student-cueing behaviors, revealed that maintaining actions were the most frequently recorded type of management response. Three specific maintaining responses--redirection to task, reduction of frustration, and proximity control--represented 77.40 percent of the total management responses recorded. Therefore, the observed teacher responded with one of three management responses more than 75 percent of the time to a diverse set of student cues. The management response pattern of the observed teacher was further illustrated by an analysis that showed that eight student cues received 73.45 percent of the recorded management responses. Three cueing behaviors--working on-task, raising

hand, and standing by the teacher--were classified as constructive student cues and received 29.38 percent of the recorded management responses. The largest percentage of management responses, 44.07 percent, was directed toward potentially disruptive student cues--talking to neighbors, aimlessly walking, staring into space, playing with toys, and sitting on foot/knees.

There were six student-cueing behaviors that were responded to 20 percent or more of the time with a management response. Two of these were constructive cueing behaviors--smiling and standing by the teacher; one was potentially disruptive--calling teacher; and three were disruptive cueing behaviors--refusing to answer, answering other's question, and "rough-housing." Thus, three maintaining responses represented 77.40 percent of the management responses recorded, and eight student cues received 73.45 percent of the recorded management responses.

In summary, redirection to task, a maintaining response, was the most frequently recorded management action. Potentially disruptive student-cueing behaviors received the largest percentage of management responses, directed toward the eight most frequently recorded student cues. However, the most frequent classification of cueing behaviors, which were responded to 20 percent or more of the time, was disruptive student-cueing behaviors. Constructive and potentially disruptive cues received maintaining responses, whereas disruptive cues were predominantly responded to with both maintaining and restoring management responses. (See Table 7.)

Table 7.--The distribution of management responses among student-cueing behaviors.

Student-Cueing Behaviors (with the total number of times each cue was recorded)		Management Responses Recorded by Student-Cueing Behavior																						Total[a]	
		Questions information	Questions feelings	Described behavior	Redirects to task	Reduces frustration	Proximity control	Rewards behavior	Nonverbal signals	Safety valves	Regroups students	Shifts instruction	Removes distraction	Ignores cues	Requests behavior end	Sharpens boundaries	Verbal desist	Calls name	Limits activities	Directs behavior	Promises	Threatens		Number Recorded	Percent Responded To
Working on task	5,884	1			4	20		5	3	6	5	3												48	.82
Talking with neighbors	2,126			1	50	1	5								3	2	1							63	2.96
Aimlessly walking	759				43	2	1						1	1	6									54	7.12
Stares into space	574				10		2																	12	2.09
Plays with toys	479				13		9								1									23	4.80
Raises hand	253				2		2	1																5	1.96
Sits on foot/knee	251				2		1						1											4	1.59
Standing by teacher	152		1		7	38		5																51	33.55
Organizes desk	104				2																			2	1.92
Calls teacher	80	3			12	11	2	1																29	36.25
Talks to self	68						2																	2	2.94
Answers other's question	64				9	1	2		4						2									18	28.13
Puts head on desk	64				1																			1	1.56
"Rough-houses"	62														5	1	3	2	1	1			1	14	22.58
Sharpens pencil	54				4										1									5	9.26
Gets a drink	40				5										1	1								7	17.50
Angry/yelling	13														1				1					2	15.39
Smiles	9				4																			4	44.44
Refuses to answer	9						6									2	1							9	100.00
Cries	8					1																		1	12.50
Total	11,055	4	1	1	168	74	32	12	7	6	5	3	2	1	20	6	5	2	2	1	1	1	1	354	3.19

[a] The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

The possible influence time of day might exert on recorded student-cueing behaviors and management responses was of interest to the researcher. A Friedman two-way analysis of variance by ranks was conducted. As a result of the analysis, the null hypothesis, that the rates of teacher-management responses to student-cueing behaviors are equal for morning and afternoon observations, was rejected ($\chi^2_1 = 5.3$; $p < .05$). Therefore the conclusion was supported that time of day did influence the distribution of recorded management responses.

The diversity of recorded management response by type of response was noted by morning and afternoon observations. The morning observations showed eighteen student-cueing behaviors that represented 50.30 percent of the total recorded and 210 management responses that represented 59.32 percent of the total recorded. Maintaining actions were the most frequently recorded type of management response. Redirection to task, reduction of frustration, and proximity control represented 81.43 percent of the management responses recorded.

The eight most frequently recorded student-cueing behaviors received 156 management responses or 74.29 percent of the total recorded during morning observations. Sixty-three, or 30 percent, of the recorded management responses in the morning observations were directed toward constructive student cues--working on-task, raising hand, and standing by the teacher. However, for the eight most frequently recorded cueing behaviors, the largest percentage of management responses was directed toward the potentially disruptive student cues--ninety-three management responses and 44.29 percent of the morning responses. The student cues that were responded to 20 percent or more

of the time with a management response were predominantly disruptive cues--refusing to answer, answering other's question, angry/yelling, "rough-housing." This was partially because the student cue, refusing to answer, was responded to with a frequency of 500 percent. This figure resulted from one student's refusal to answer, or acknowledge, the observed teacher's repeated application of proximity control. (See Table 8.)

The afternoon observations represented 49.53 percent of the recorded student cues and 40.68 percent of the recorded management responses. Maintaining actions were the most frequently recorded management responses, with redirection to task and reduction of frustration representing 71.53 percent of the management responses recorded during afternoon observations. However, the recorded percentages for creating and restoring actions increased during afternoons; 66.67 percent of the creating actions and 71.05 percent of the restoring responses were recorded during afternoons.

The eight most frequently recorded student-cueing behaviors during afternoons received 104 management responses or 72.22 percent of the total recorded during afternoon observations. Constructive student cues received 28.47 percent of the afternoon management actions, whereas potentially disruptive cues received 40.28 percent of the afternoon recorded management responses. Constructive student cues also represented 50 percent of the cues that were responded to 20 percent or more of the time with a management action during afternoons. (See Table 9.)

Table 8.--The distribution of management responses among student cues during morning observations.

Student-Cueing Behaviors (with the total number of times each was recorded in the mornings)		Management Responses by Student Cues															Total[a]	
		Questions feelings	Questions information	Redirects to task	Reduces frustration	Proximity control	Rewards behavior	Safety valves	Regroups students	Nonverbal signals	Shifts instruction	Requests behavior end	Calls name	Sharpens boundaries	Verbal desist	Directs behavior	Number Recorded	Percent Responded To
Working on task	3,234	1		2	12		4	4	3	2	1						29	.90
Talking with neighbors	896			21	10	4					2			1			38	4.24
Aimlessly walking	361			17	8	3	3					1					32	8.86
Stares into space	331			5		2											7	2.12
Plays with toys	199			8		6											14	7.04
Raises hand	91			1	1	1											3	3.30
Sits on foot/knee	154			1				1									2	1.30
Stands by teacher	73			4	24		3										31	42.47
Organizes desk	25			1													1	4.00
Calls teacher	40		1	7	4	5											17	42.50
Talks to self	24					1											1	4.17
Answers other's question	17			4		6				1							11	64.71
Puts head on desk	38			1													1	2.63
"Rough-houses"	24				1							3	2		1	1	8	33.33
Sharpens pencil	24			2					1								3	12.50
Gets a drink	19			2		1			1								4	21.05
Angry/yelling	2											1					1	50.00
Smiles	8			2													2	25.00
Refuses to answer	1				1	3								1			5	500.00
Total	5,561	1	1	78	61	32	10	5	5	3	3	5	2	2	1	1	210	3.98

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

Table 9.--The distribution of management responses among student cues during afternoon observations.

Student-Cueing Behaviors (with the total number of times each was recorded in the afternoons)		Management Responses by Student Cues																Total[a]	
		Questions information	Describes behavior	Redirects to task	Reduces frustration	Proximity control	Nonverbal signals	Removes distraction	Rewards behavior	Ignores cues	Safety valves	Requests behavior end	Verbal desist	Sharpens boundaries	Limits activities	Promises	Threatens	Number Recorded	Percent Responded To
Working on task	2,650	2	1	2	8		2		2		1		1					19	.72
Talking with neighbors	1,230			22				2				1						25	2.03
Aimlessly walking	398			20								2						22	5.53
Stares into space	243			3														3	2.06
Plays with toys	280			5								4						9	3.21
Raises hand	164			2														2	1.22
Sits on foot/knee	97			1								1						2	2.06
Stands by teacher	79			13	3								2		2			20	25.32
Organizes desk	79			1														1	1.27
Calls teacher	40	1		5	2					1		1		2				12	30.00
Talks to self	44											1						1	2.27
Answer's other's question	47			5			2											7	14.89
"Rough-houses"	38			3								2	1					6	15.79
Gets a drink	21			2								1						3	14.28
Angry/yelling	11											1						1	9.09
Smiles	1			2														2	200.00
Refuses to answer	7													2		1	1	4	57.14
Cries	7											1						1	14.29
Sharpens pencil	30			2														2	6.67
Total	5,466	3	1	90	13	--	4	2	2	1	1	15	4	4	2	1	1	114	2.64

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

In summary, maintaining actions were the most frequently recorded management responses during morning and afternoon observations. Potentially disruptive student cues, of the eight most frequently recorded student behaviors, received the largest percentage of management responses. During morning observations, disruptive student cues, which were responded to 20 percent or more of the time, were the most frequently recorded classification. However, during afternoon observations, constructive student cues, which were responded to 20 percent or more of the time, were the most frequently recorded classification. Constructive and potentially disruptive student cues were primarily responded to with maintaining actions, whereas disruptive cues were responded to with both maintaining and restoring-management actions. Therefore, the analysis of variance and analysis of response diversity by type of management response support the conclusion that time of day did influence the distribution of management responses among recorded student-cueing behaviors.

The influence that assigned student tasks may have on the recorded frequencies of management responses and student-cueing behaviors was of interest. A total of five different assigned students was variably observed. The variable number of observations of different assigned tasks necessitated an adjusted frequency of recorded data for analysis between tasks. However, analysis of data within tasks was not influenced by variable observations. Therefore, the percentage of student cues that received a management response during ditto tasks could be compared to the percentage of

cues that received a management response in testing. However, comparison of data on the different assigned student tasks necessitated an adjusted frequency. Observations were scheduled in blocked time; therefore, the observation of assigned student tasks was determined by the instruction schedule. The adjusted frequency was calculated by dividing the recorded data by the number of observations conducted during each assigned student task and multiplying by one hundred. (See Table 10.)

A Friedman two-way analysis of variance by ranks was completed. The null hypothesis, that the rates of teacher-management responses to student-cueing behaviors were equal among the five assigned students, was rejected at the .001 level ($\chi^2_4 = 24.1$; $p < .001$). The analysis, therefore, supported the conclusion that assigned student tasks did influence the rates of management responses that were applied to student-cueing behaviors.

The distribution of management responses among the five assigned student tasks was organized by four descriptors: (1) the most frequently recorded management response, (2) the distribution of management responses among the eight most frequently recorded student cues, (3) identification of the student-cueing behavior type that was responded to 20 percent or more of the time, and (4) identification of the management-response category that was directed toward various types of student cues.

The first assigned student task was ditto. A variety of subjects was presented through ditto tasks: reading, math, and social science. A total of 4,176 student cues was recorded during ditto

Table 10.--Student behaviors recorded by assigned student task.

Student Behaviors	Student Behaviors Recorded by Assigned Student Task				
	Ditto	Workbook	Free Time	Testing	Group Work
Working on task	6,141	7,900	4,350	12,072	6,866
Talking with neighbors	2,991	2,312	1,950	1,609	3,226
Aimlessly walking	1,047	1,193	1,000	554	740
Stares into space	558	837	875	1,045	666
Plays with toys	444	706	275	681	860
Raises hand	144	325	50	572	593
Sits on foot/knee	164	387	325	509	426
Stands by teacher	202	243	225	45	200
Organizes desk	208	87	25	72	66
Calls teacher	67	100	125	190	100
Talks to self	111	56	---	81	80
Answers other's question	82	68	25	63	113
Puts head on desk	67	68	50	136	86
"Rough-houses"	58	43	150	27	173
Sharpens pencil	82	---	75	163	33
Gets a drink	67	31	---	36	53
Toilet trips	29	25	---	27	40
Stares at teacher	20	12	---	63	33
Angry/yelling	20	6	125	---	---
Smiles	2	---	100	9	20
Refuses to answer	8	25	---	9	---
Cries	17	---	---	9	6
Narrows eyes	---	---	---	---	20
Pulls teacher's clothes	2	---	---	---	---
Total	12,544	14,431	9,725	17,981	14,406

Note: The number of student behaviors recorded during a specific assigned student task was determined by dividing the number of recorded student behaviors by the number of observations conducted during the particular task and multiplying that figure by one hundred.

tasks (37.78 percent), whereas 176 management responses were recorded during ditto (49.72 percent of the total management responses recorded).

Maintaining actions were the most frequently recorded management responses. Three actions, redirection to task, reduction of frustration, and proximity control, represented 81.82 percent of the recorded management responses for ditto tasks. The eight most frequently recorded student-cueing behaviors received 126 management responses or 71.59 percent of the management responses recorded during ditto assignments. Fifty-one constructive student cues received 28.98 percent of the management responses recorded during ditto tasks. Seventy-five management responses were directed toward potentially disruptive cues (42.61 percent of the recorded management responses during ditto tasks). Seven student cues received a management response 20 percent or more of the time. The largest percentage of such student cues (42.86 percent) were disruptive--refusing to answer, "rough-housing," and answering other's question.

In summary, during ditto-task assignments, maintaining actions were the most frequently recorded management responses. The potentially disruptive student cues that were among the eight most frequently recorded cues received the highest percentage of management responses. However, disruptive student cues represented the highest percentage of cues that were responded to 20 percent of the time or more. (See Table 11.)

The second assigned category was workbook tasks. Students typically completed assignments in social science workbooks during

Table 11.--The distribution of recorded management responses among student cues for ditto assignments.

Student-Cueing Behaviors (with the total number recorded during ditto assignments)		Management Responses by Student Cues																Total[a]	
		Questions feelings	Questions information	Proximity control	Redirects to task	Reduces frustration	Rewards behavior	Safety valves	Regroups students	Shifts instruction	Removes distraction	Requests behavior end	Sharpens boundaries	Verbal desist	Calls name	Limits activities	Directs behavior	Number Recorded	Percent Responded To
Working on task	2,088				2	10	2	3	2	3								22	1.05
Talking with neighbors	1,017			3	24						1	1	1					30	2.95
Aimlessly walking	356				19	5						1						25	7.02
Stares into space	190			1	5													6	3.16
Plays with toys	151			5	7													12	7.95
Raises hand	49			1	1	1												3	6.12
Sits on foot/knee	56				1	1												2	3.57
Stands by teacher	69	1			3	20	2											26	37.68
Calls teacher	23		2	1	4	7												14	60.87
Answers other's question	28				5							1		2		1		9	32.14
"Rough-houses"	20											3		2	1		1	7	35.00
Sharpens pencil	28				2							1						3	10.71
Gets a drink	23				3	2												5	21.74
Smiles	1				2													2	200.00
Refuses to answer	3			3		1						1						5	166.67
Talks to self	38				2													2	5.26
Puts head on desk	23				1													1	4.35
Angry/yelling	7					1												1	14.29
Cries	6					1												1	16.67
Total	4,176	1	2	14	31	49	4	3	2	3	1	8	1	4	1	1	1	176	4.22

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

these periods. A total of 2,215 student cues was recorded during workbook tasks, representing 20.04 percent of the recorded student-cueing behaviors. Workbook assignments elicited 64 management responses, representing 18.08 percent of the total management responses recorded.

Maintaining actions were the most frequently recorded management responses during workbook assignments. Redirection to task, reduction of frustration, and proximity control represented 76.69 percent of the management responses recorded during workbook tasks. Seven of the eight most frequently recorded student cues were represented during workbook assignments and received 49 management responses representing 76.56 percent of the total during workbook tasks. Constructive student-cueing behaviors received 29.69 percent of the management responses recorded during workbook tasks. However, the highest percentage of recorded management responses during workbook tasks was directed toward potentially disruptive student cues (46.88 percent). Disruptive student-cueing behaviors represented 50 percent of the student cues that were responded to 20 percent or more of the time.

Workbook assignments, therefore, were characterized by a high frequency (46.88 percent) of maintaining-management responses that were primarily directed toward examples of potentially disruptive student-cueing behaviors. However, disruptive student cues received the majority of management responses that were exhibited 20 percent or more of the time. The observed teacher responded to constructive and potentially disruptive student cues with maintaining responses.

A combination of maintaining and restoring management responses was recorded in relation to disruptive student-cueing behaviors. (See Table 12.)

The third assigned student tasks were categorized as project time due to the tasks typically observed--completion of assignments, art projects, getting the day's work completed before school ended. A total of 369 student cues was recorded (3.34 percent of the total), with 28 management responses (7.91 percent) during project time. Maintaining actions were the most frequently recorded management responses. Redirection to task, reduction of frustration, and rewarding behavior represented 67.86 percent of the management responses recorded during project time. Six of the eight most frequently recorded student cues were recorded during project time, and those six cues received 71.43 percent of the recorded management responses. Constructive student-cueing behaviors received 25 percent of the recorded responses, and potentially disruptive cues received 46.43 percent of the management responses recorded during project time.

The three various types of student cues were each responded to twice, with management response 20 percent or more of the time. All of the management responses whose recorded frequency was 20 percent or more in relation to student cues during project time were maintaining actions. Therefore, regardless if a student expressed a constructive, potentially disruptive, or disruptive cue during project time, the observed teacher responded with a maintaining management

Table 12.--The distribution of recorded management responses among student cues for workbook assignments.

Student-Cueing Behaviors (with the total number recorded during workbook assignments)		Management Responses by Student Cues												Total	
		Questions information	Describes desired behavior	Redirects to task	Proximity control	Reduces frustration	Rewards behavior	Nonverbal signals	Safety valves	Removes distractions	Ignores cues	Requests behavior end	Promises	Number Recorded	Percent Responded To
Working on task	1,264	1				4	2	1	1					9	.71
Talking with neighbors	370			10	2									12	3.24
Aimlessly walking	191			10								1		11	5.76
Stares into space	134			2										2	1.49
Plays with toys	113			2	2									4	3.54
Sits on foot/knee	62					1								1	1.61
Stands by teacher	39			7		2			1					10	25.64
Calls teacher	16		1	2	1	2								6	37.50
Answers other's question	11			2							1			3	27.27
"Rough-houses"	7											2	1	3	42.86
Gets a drink	5			1										1	20.00
Refuses to answer	3				1					1				2	66.67
Total	2,215	1	1	36	6	9	2	1	2	1	1	3	1	64	2.89

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

response or responded to fewer than 20 percent of the cues. (See Table 13.)

The fourth assigned student task was testing. A total of 1,807 student cues was recorded (16.35 percent of the total) and twenty-five management responses (7.06 percent of the total). The most frequently recorded management response was redirection to task, representing 48 percent of the testing-period responses. Six student cues received 80 percent of the recorded management responses. The distribution of recorded management responses was equal between constructive and potentially disruptive student-cueing behaviors (40 percent each). Only one student cue was responded to more than 20 percent during testing situations. Standing by the teacher was responded to 80 percent of the times it was recorded. (See Table 14.)

The last assigned student task was group work. These assignments involved a variety of subject areas; however, students were to accomplish their tasks by working in groups. A total of 2,117 student cues was recorded during group-work assignments (19.15 percent of the total recorded). There were sixty-seven teacher-management responses recorded (17.23 percent of the total management responses recorded). The most frequently recorded management response was redirection to task (49.18 percent of the group-work management responses). The eight most frequently recorded student cues received forty-five management responses (73.77 percent of the total for assigned tasks). Constructive student-cueing behaviors received 27.87 percent of those recorded, whereas potentially disruptive student cues received 45.90 percent of the total management responses recorded

Table 13.--The distribution of recorded management responses among student cues for project-time assignments.

Student-Cueing Behaviors (with the total number recorded during project-time assignments)		Management Responses by Student Cues							Total[a]	
		Proximity control	Redirects to task	Reduces frustration	Rewards behavior	Nonverbal signals	Requests behavior end	Sharpens boundaries	Number Recorded	Percent Responded To
Working on task	174			1	1	1		1	4	2.30
Talking with neighbors	78	1	3				2		6	7.69
Aimlessly walking	40		3					1	4	10.00
Stares into space	35		1						1	2.86
Plays with toys	11	1	1						2	18.18
Stands by teacher	9			2	1				3	33.33
Organizes desk	1				1				1	100.00
Calls teacher	5			1	1				2	40.00
Answers other's question	1		1			1			2	200.00
"Rough-houses"	6						1		1	16.67
Angry/yelling	5			1					1	20.00
Smiles	4				1				1	25.00
Total	369	2	9	5	5	2	3	2	28	7.59

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

Table 14.--The distribution of recorded management responses among student cues for testing assignments.

Student-Cueing Behaviors (with the total number recorded during testing assignments)		Management Responses by Student Cues						Total	
		questions information	proximity control	redirects to task	reduces frustration	nonverbal signals	requests behavior end	Number Recorded	Percent Responded To
Working on task	1,328		2	4				6	.45
Talking with neighbors	177		2	1				3	1.69
Aimlessly walking	61			2			2	4	6.56
Stares into space	115					1		1	.87
Plays with toys	75		1	1				2	2.67
Stands by teacher	5		1	3				4	80.00
Calls teacher	21	1		1				2	9.52
Answers other's question	7			1				1	14.29
Sharpens pencil	18			2				2	11.11
Total	1,807	1	4	12	5	1	2	25	1.38

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

during group-work tasks. In relation to student cues, constructive student cues also received one-half of the management responses that were recorded 20 percent or more of the time. (See Table 15.)

Therefore, the assigned student tasks did influence the management-response rates that were applied to various student-cueing behaviors. However, maintaining actions were the most frequently recorded management responses in all five assigned student tasks. The six or eight most frequently recorded student cues received the majority of recorded management responses in each of the five tasks. Thus, while the student cues that were responded to differed, the general classifications of management responses and student cues that were involved remained constant.

Analysis of Teacher-Management Conceptions

Teacher conceptions of classroom management were collected on a self-report instrument completed by the teacher after school. Immediately following each fifteen-minute observation session, the observer noted on the form a major management response or exchange involving the teacher and one of the selected students. The self-report forms were equally divided between morning and afternoon observations (40 each) and across the five assigned student tasks. The self-reported teacher conceptions were classified into general and specific reports. General teacher conceptions were summary phrases used to explain the teacher's beliefs regarding two or more noted management responses. Specific conceptions were teacher reports that referred to a particular management response or exchange.

Table 15.--The distribution of recorded management responses among student cues for group-work assignments.

Student-Cueing Behaviors (with the total number recorded during group-work assignments)		Management Responses by Student Cues													Total[a]	
		Proximity control	Redirects to task	Reduces frustration	Rewards behavior	Nonverbal signals	Safety valves	Regroups students	Requests behavior end	Sharpens boundaries	Verbal desist	Calls teacher	Limits activities	Threatens	Number Recorded	Percent Responded To
Working on task	1,030			3		2	1	1							7	.68
Talking with neighbors	484	1	10						1						12	2.48
Aimlessly walking	111	1	7			1			1						10	9.01
Stares into space	100	1	1												2	2.00
Plays with toys	129	1	1						1						3	2.32
Raises hand	89		1		1										2	2.25
Sits on foot/knee	64			1											1	1.56
Stands by teacher	30		2	2				2			1		1		8	26.67
Organizes desk	10		1												1	10.00
Calls teacher	15	2	2											1	5	33.33
Answers other's question	17		2						1						3	17.65
"Rough-houses"	26		1							2					3	11.54
Gets a drink	8		1												1	12.50
Smiles	3		1												1	33.33
Refuses to answer	1									1					1	100.00
Total	2,117	6	30	6	1	3	1	3	4	3	1	1	1	1	61	2.88

[a]The Total column consists of the number of management responses recorded in response to a particular student cue, and the percentage of student cues that were responded to with a management response.

Teacher conceptions are believed to directly influence management decisions and the ensuing management response (Bishop & Whitfield, 1972). Therefore, it was considered important to describe and analyze the observed teacher's conceptions of classroom management. It seemed logical to expect some relationship to exist between self-reported management conceptions and teacher-management actions recorded during classroom-management exchanges.

The recorded frequency of general and specific conceptions was compared against time. The analysis was conducted to assess the potential for relationships to exist between the reported frequency of teacher-management conceptions and time of day. The analyses were presented separately by recorded frequency of general and specific conceptions and time of day.

The general teacher conceptions were grouped into two sets of beliefs--student-related and teacher-related responsibilities. The teacher-related general conceptions represented 49 percent of those reported, whereas student-related conceptions represented 51 percent of those reported. The six general conceptions were reported ninety-four times. A Chi Square test for independence indicated that a relationship did exist between general teacher-management conceptions and time of day ($\chi^2_5 = 9.07$; $p = .1$). Morning observations represented 55 percent of the reported total. The student-related general conceptions decreased in frequency of report during afternoons by 21 percent. The general conceptions that were related to the teacher's responsibilities increased during afternoons by 11 percent. Therefore, the observed teacher apparently emphasized

student-related management conceptions during mornings and emphasized her own responsibilities during afternoon observations. (See Table 16.)

Table 16.--Self-reported general teacher conceptions recorded by time of day.

General Teacher Conceptions	Percent Reported		
	Morning	Afternoon	Total
Teacher-related responsibilities			
Teacher is responsible for classroom events	9	11	20
Teacher-management actions should be consistent	5	11	16
Students need structure and guidance from the teacher	5	8	13
Student-related responsibilities			
Students should use time productively	16	6	22
Students should work independently of the teacher	14	5	19
Students should complete work regardless of other factors	6	4	10
Total	55	45	100

The recorded frequency of specific teacher conceptions toward classroom management was also compared to time of day. A total of fourteen specific conceptions was reported eighty-two times. The specific conceptions reported clarified the observed teacher's belief in reference to a particular management response or exchange.

Therefore, the recorded frequency range showed the emphasis this teacher placed on specific conceptions in relation to her management responses.

The specific teacher-management conceptions were analyzed in relation to time of day through use of a Chi Square test for independence. The analysis indicated a weak relationship may exist between time and specific management conceptions ($\chi^2_6 = 4.90$; $p = .6$). (The Chi Square test was calculated using seven specific management conceptions due to the low frequency reported for various specific conceptions.) Eight specific conceptions represented 82 percent of the reported total. The eight most frequently reported specific conceptions decreased in reported frequency during afternoons. Three of the eight most frequently reported specific conceptions were related to students' social-emotional learning--helping students with their feelings, improving students' self-concept, and providing positive reinforcement. These three specific conceptions represented 54 percent of the morning and 60 percent of the afternoon reported totals. The reported frequency of the identified eight specific conceptions, which were most frequently recorded, decreased during afternoon observations. However, the conceptions related to students' social-emotional learning, although reduced in frequency of report, were emphasized during both morning and afternoon sessions. (See Table 17.)

An explanatory analysis was conducted of the reported frequency of teacher conceptions compared to the recorded frequency of management responses. The frequency of reported teacher conceptions, both general and specific, was compared to the recorded frequency of

teacher-management responses. The analysis was completed assessing the potential relationships between this teacher's frequency of professed attitudes toward management and the frequency of observer-recorded management responses.

Table 17.--The eight most frequently reported specific teacher conceptions by time of day.

Specific Teacher Conceptions	Percent Reported		
	Morning	Afternoon	Total
Teacher should help students with feelings	12	5	17
Teacher should help improve student self-concept	10	6	16
Teacher should provide positive reinforcement	9	7	16
Noise level is indicative of the work level	6	3	9
Teacher should model desired behaviors	5	3	8
One-to-one conferences are good management	5	2	7
Teacher needs time alone	1	4	5
Teacher should be positive with students	4	--	4
Total	52	30	82

A rank-ordered frequency of reported general and specific conceptions and recorded management responses was prepared. The analysis results were divided into general and specific conception reports. The frequency of reported teacher conceptions was analyzed in comparison to the recorded frequency of specific management

responses. The teacher conceptions were organized into a rank-ordered frequency of report.

The majority of self-reported general teacher conceptions were related to maintaining responses (71 percent of the reported total). Maintaining responses represented 93 percent of the observer-recorded management responses. Therefore, the explanatory-analysis results supported the conclusion that there is potential for a relationship between the frequency of self-reported general attitudes and the recorded frequency of management categories. (See Table 18.)

Most of the general teacher conceptions (63 percent) were related to the three most frequently recorded management responses--use of proximity control, redirection to task, and reduction of student frustration. The reported frequency of general conceptions emphasized student-related responsibilities. The explanatory analysis also resulted in an emphasis on management responses directed to insuring continued student on-task behavior. The majority of the reported teacher conceptions were related to the management response, redirecting students to the assigned task. Therefore, potential for a relationship did exist between the reported frequency of general conceptions and the frequency of observer-recorded management responses. (See Table 19.)

The explanatory analysis, which consisted of the frequency of reported specific teacher conceptions compared to the frequency of observer-recorded management responses, produced the same results as the general teacher-conception explanatory analyses. The frequencies emphasized by both reported specific conceptions and recorded

Table 18.--General teacher conceptions in relation to recorded management-response categories.

Reported General Teacher Conceptions	Percent Recorded by Management Categories			
	Creating	Maintaining	Restoring	Total
Time should be used productively	--	20	2	22
The teacher is responsible for classroom events	--	13	7	20
Students should work independently of the teacher	9	10	--	19
Teacher-management actions should be consistent	--	12	4	16
Work should be completed regardless of other factors	--	11	--	11
Students need structure and guidance	3	5	4	12
Total	12	71	17	100

Table 19.--General teacher conceptions related to recorded management responses.

General Teacher Conceptions	Percent of General Conceptions Related to:			
	Proximity Control	Redirection to Task	Reduction of Frustration	Total
Time should be used productively	6	11	--	17
The teacher is responsible for classroom events	--	4	9	13
Teacher-management actions should be consistent	3	9	--	12
Students should work independently of the teacher	--	4	6	10
Work should be completed regardless of other factors	3	3	--	6
Students need structure and guidance	--	5	--	5
Total	12	36	15	63

management responses were related to maintaining responses. The three most frequently recorded management responses were related to the majority of reported specific conceptions. Therefore, an apparent relationship did exist between this teacher's frequency of self-reported general and specific conceptions and the frequency of observer-recorded management responses.

Summary

Two analyses were presented in this chapter--a descriptive and an explanatory analysis. The descriptive analysis showed 11,103 student behaviors, which were recorded during twenty hours of observation, were predominantly constructive cueing behaviors (56.75 percent). Teacher-management responses were predominantly maintaining (87.57 percent). Teacher-management conceptions were grouped into six general and fourteen specific conceptions.

Based on the explanatory analysis, twenty student behaviors were labeled as cueing behaviors; i.e., they were behaviors that received one or more management responses. A Chi Square test for goodness of fit was calculated to determine if management responses were distributed equally among student-cueing behaviors. The null hypothesis, that the management-response rate was equally distributed among student cues, was rejected at the .005 level. Friedman's two-way analysis of variance by ranks was conducted to see if time of day and assigned student tasks influenced the rates of management responses among student cues. Both analyses resulted in rejection of a null hypothesis. The null hypothesis regarding time of day was

rejected at the .05 level. The null hypothesis referring to assigned student tasks was rejected at the .001 level.

An analysis of the influence time of day exerted on teacher-reported management conceptions indicated that general management conceptions were related to time. However, the analysis revealed that a weak relationship may exist between specific management conceptions and time of day.

An explanatory analysis of observer-recorded management responses with self-reported general and specific teacher-management conceptions indicated that a positive relationship did exist. The emphasis indicated by recorded management responses and reported management conceptions was on task completion.

CHAPTER V

A SUMMARY AND DISCUSSION

In Chapter V, a summary and discussion of the study are presented. The limitations of this study are discussed. Some implications for further research concerning classroom-management exchanges are indicated.

Summary

Classroom management is a major concern for teachers, school administrators, and teacher educators. The management exchange between teachers and students has received an increasing emphasis through research about preventive-management techniques (Brophy & Putnam, 1979). Three factors that contribute to management exchanges were examined in this study: student behaviors, teacher-management responses, and teacher-management conceptions.

The purpose of this study was to examine relationships between the identified variables in management exchanges. The major objective was to describe the recorded frequency of student behaviors, teacher-management responses, and teacher-management conceptions. A second objective was to analyze the distribution of recorded management responses in relation to recorded student behaviors. The third objective was to assess the relationship between observer-recorded management responses and self-reported teacher-management conceptions.

One elementary-school teacher and ten students were selected for observation purposes. The teacher was chosen on the basis of her education, teaching experience, and willingness to participate in the study. Classroom observations were conducted in order to identify numerically those students who were most frequently involved in management exchanges with their teacher.

Two forms were used for data collection. The first, the Management Exchange Form (MEF), was developed for identifying and recording examples of student behaviors that tended to be followed by management responses and that elicited demonstrated management responses. The second instrument, Ward and Lanier's Focused Observation (WLFO), was used for reporting the teacher's conceptions of classroom management. Both forms were used during twenty hours of observation. Observations were divided equally between morning and afternoon sessions.

The researcher and a second trained classroom observer independently recorded student behaviors and teacher-management responses during six fifteen-minute observation sessions. A Chi Square test for independence was calculated to determine the rate of agreement between the observers. The Chi Square test indicated that the null hypothesis, recorded student behaviors are independent of raters, was accepted ($\chi^2_8 = 6.68$; $p = .57$). That is, the proportions of behavior placed in each category are the same for both observers. The analysis also indicated that the null hypothesis, recorded teacher-management responses are independent of raters, was not rejected ($\chi^2_2 = 4.59$; $p = .101$). Therefore, failure to reject the

null hypotheses indicated that, within both sets of recorded data, a significant rate of agreement existed between the observers.

Two procedures were used to analyze the collected data: a descriptive and an explanatory analysis. The descriptive analysis consisted of frequency counts of recorded student behaviors that tended to be followed by management responses, teacher-management responses, and self-reported teacher-management conceptions. This analysis indicated that the majority of recorded student behaviors consisted of constructive actions (56.75 percent), i.e., student behaviors that indicated on-task behavior, student satisfaction with the present situation, or student's asking in an appropriate fashion for teacher assistance. Student actions that may have indicated a need for teacher attention were labeled as potentially disruptive behaviors and accounted for 41.84 percent of the recorded total. Recorded disruptive student behaviors represented 1.41 percent of the recorded total. Such behaviors were defined as actions that altered the learning environment in an inappropriate manner.

The recorded teacher-management responses were predominantly maintaining actions (87.57 percent of the total). Such teacher actions were intended to eliminate problems before they arose (Henderson, 1969). Two maintaining responses, redirection to task and reduction of frustration, accounted for 68.16 percent of the recorded total of management responses.

Self-reported teacher-management conceptions were classified into general and specific conceptions. The general conceptions, indicated by summary phrases that referred to two or more management

exchanges, consisted of teacher-related responsibilities (48 percent) and student-related responsibilities (52 percent). The reported specific conceptions emphasized students' social-emotional learning (49 percent); specific conceptions referred to a single management situation.

The explanatory analysis consisted of an assessment of the relationships among the identified management-exchange variables. Four data manipulations were conducted: (1) an analysis of the distribution pattern of management responses among student behaviors, (2) an analysis of the influence time of day had on the rates of management responses applied to student cues, (3) an analysis of the influence assigned student tasks had on the management response rates applied to student cues, and (4) an analysis of the relationship between observer-recorded management responses and self-reported teacher-management conceptions.

An analysis of the proportion of student behaviors that received a management response was conducted. A Chi Square test for goodness of fit was calculated to determine if teacher-management responses were equally distributed among student behaviors (χ^2_{19} = 439.79; $p < .005$). The analysis indicated that twenty of twenty-four student behaviors received at least one management response. The student behaviors that received a management response were labeled student-cueing behaviors. Potentially disruptive student cues received the majority of management responses. Maintaining actions represented the majority of recorded teacher-management responses.

Management exchanges between students and teachers are susceptible to influences within the classroom environment. In this study, time of day and assigned student tasks were examined as two variables that may have influenced observed management exchanges. An analysis of variance by ranks revealed that the rates of teacher-management response that were applied to recorded student-cueing behaviors varied by time of day ($\chi^2_1 = 5.3$; $p < .05$) and assigned student tasks ($\chi^2_4 = 24.1$; $p < .001$). Maintaining actions were the most frequently recorded management responses during morning and afternoons. Such management responses were directed predominantly toward potentially disruptive student cues. However, while maintaining actions constituted the most frequently recorded management category, the recorded frequencies of creating and restoring responses increased during afternoons.

The analysis of the influence assigned student tasks had on the rates of management responses that were applied to student behaviors indicated that maintaining actions were the most frequently recorded management responses during each of the five assigned student tasks. The rates of management responses varied with each assigned task and were applied to different student cues during separate assigned student tasks.

Time of day also influenced the reported frequency of general teacher-management conceptions. A Chi Square test for independence resulted in rejection of the null hypothesis, general teacher-management conceptions and time of day are independent ($\chi^2_5 = 9.07$; $p = .1$). Therefore, the analysis indicated that a relationship did

exist between self-reported general teacher-management conceptions and time of day. During mornings, student-related responsibilities were emphasized, whereas teacher-related responsibilities were stressed in afternoon sessions. The relationship of time of day with specific teacher-management conceptions was much weaker than with general management conceptions. A Chi Square test for independence was calculated to test the null hypothesis, specific teacher-management conceptions and time of day are independent. The results indicated that a questionable relationship may exist between specific management conceptions and time of day ($\chi^2_6 = 4.90$; $p = .6$). Student social-emotional learning was emphasized in both morning and afternoon observations; however, the afternoon frequency was lower than that reported in the morning.

An analysis of observer-recorded management responses in relation to self-reported teacher-management conceptions indicated that both sets of data showed a similarity of teacher intention. The observer recorded redirection to task as the most frequent management response, and the teacher reported time should be used productively as the most frequent conception.

Discussion

The purpose of this study was to examine the possibility that particular student behaviors may function as management cues for teachers. The data analysis indicated that, for the observed subjects, particular student behaviors were more frequently responded to by a management response than were others. In addition, the data

analysis revealed that the rates of management responses that were applied to student cues were influenced by time of day and assigned student tasks. Therefore, the study findings may assist future teacher educators in their efforts to clarify patterns of interaction within classroom-management exchanges.

The observer recorded a large number of the student behaviors listed on the Management Exchange Form. Three of those behaviors were repeatedly recorded (working on task, talking with neighbors, and aimlessly walking). Talking with neighbors and aimlessly walking were potentially disruptive actions. The majority of recorded student behaviors, however, were constructive actions, i.e., working on task.

In this study, the student-cueing behavior working on task was defined as the student actively working on the teacher-assigned task. This definition is similar to the definition Rosenshine and Berliner (1978) used to distinguish academic-engaged time from other student activities. The concept refers to the time that a student spends engaged in academically relevant materials. Rosenshine and Berliner raised the point that researchers do not know how much academic-engaged time is sufficient for acceptable academic achievement. The data analyzed in this study indicated that students who had a high frequency of involvement in management exchanges were working on task 53 percent of the time. This result may provide future researchers with a reference for the amount of academic-engaged time.

The frequency of recorded management responses indicated that the teacher exhibited a limited range of managing actions. Maintaining efforts were the most frequently recorded management responses, regardless of time of day or assigned student tasks. The emphasis on recorded maintaining responses is consistent with the recommendation of Brophy and Putnam (1979) that direct management actions are more effective than indirect methods for reducing potentially disruptive student behaviors. The recorded teacher-management response pattern may serve as one example of classroom practice for researchers. The management pattern apparently was effective, based on the low number of observed classroom disruptions.

The reported frequencies of general teacher- and student-related responsibilities were nearly equal, there being a 4 percent difference. This does not indicate that an open form of education was conducted by this teacher. The directness of the recorded management responses and teacher control of appropriate student behaviors clearly indicated a teacher-centered classroom.

The frequency of reported specific teacher-management conceptions emphasized student social-emotional learning. The recorded management-response frequency for redirection to task, in conjunction with the reported emphasis on social-emotional learning, would appear to be consistent with the view of G. Brown (1971) that effective teachers attend to the students' cognitive and affective needs. The recorded frequency of teacher efforts to reduce students' frustration reinforces this view of the teacher.

Loss (1973) reported observer-recorded instances of teachers responding to student cues. The results of this study indicated that twenty of twenty-four student behaviors received a management response during observations. It appears, given the results of this study, that teacher-management responses may have influenced student behaviors and, conversely, that student cues may have influenced teacher-management responses. Further study is needed before such relationships can be defined.

A high rate of management responses was applied to student cues during testing sessions. This finding is consistent with conclusions of research concerning testing anxious students. Gaudry and Spielberger (1971) reported that students frequently involved in conflicts with their teacher also experienced high anxiety during testing situations. The students' increased anxiety level may induce greater activity that often resulted in management conflicts. The occurrence of management exchanges during testing situations needs further study to clarify whether increased activity during testing is typical of all students or is typical only of highly active students, or may be the result of student and/or teacher expectations.

Time of day influenced the frequency of reported general teacher-management conceptions. Student-related responsibilities were emphasized during mornings, and teacher-related responsibilities were emphasized during afternoons. This result would seem logical, based on the increased frequency of recorded restoring responses during afternoons. The increased frequency of recorded disruptive

student cues in afternoons would also seem consistent with the emphasis on teacher responsibilities during afternoons. The influence time apparently had on subject behaviors raises many questions about why the management-exchange rate altered at different times. Further questions arise because of the weak relationship between time and specific management conceptions and the stronger relationship between time and general management conceptions.

A positive relationship existed between observer-recorded management responses and self-reported teacher-management conceptions. The highest frequency, in both sets of data, occurred for task completion. This is consistent with the findings of Kounin (1970) that active and student-involved instruction is a characteristic of effective teachers.

Moskowitz and Hayman (1974) suggested that, based on student behavior, best teachers anticipate disruption. The findings of this study would seem to bear out the research of Moskowitz and Hayman. The description of student cues that were responded to may provide a reference for teacher educators about which student behaviors may be important. The description also provides clarification of which student cues may be influenced by different times of day and assigned tasks.

Kounin (1970) wrote that better teachers exhibited "withit" and "overlappingness" characteristics. Both of these teacher qualities involve awareness of student activity in the classroom. The study findings appear to support Kounin's findings. The observed teacher did respond to student-cueing behaviors, and the amount of

classroom disruption was minimal. The description of how the teacher responded, and what she responded to, may help illustrate Kounin's findings for future researchers.

The data results also indicate one teacher's procedure for maintaining the level of academically engaged time for highly active students. Rosenshine and Berliner (1978) noted the need for research to clarify management techniques for sustaining learning environments. The data analysis indicates how the teacher maintained the learning environment for highly active students.

The data analysis may provide clearer, more specific information for teacher-training programs emphasizing preventive-management practices. The rates of management responses applied to student cues and the identification of student cues that were responded to consistently may be used as a description of one example of classroom management. The same information may be useful for inservice training. Teachers may be able to analyze how they respond to students during management exchanges.

The finding that student behaviors did function as management cues for this teacher creates further questions. The generality of the study findings and the diversity of response modes necessitate further examination.

Limitations

The purpose of this study was to examine management exchanges between elementary-school students and their teacher. The subject selection was designed to identify an experienced teacher and students

who were frequently involved in management exchanges. While every effort was made to collect representative data, the observation of one teacher and a selected set of students placed a limitation on the generality of the results beyond the observed subjects.

The recorded student behaviors may not be typical of elementary-school students in general. The self-reported teacher conceptions of classroom management and the observer-recorded management responses are representative of a single teacher. Also, the applicability of these results beyond a fourth-grade classroom is not clear. Possibly the study findings are limited to fourth-grade management exchanges. Therefore, the study is limited by the observation and recording of data generated by one teacher and ten students in a fourth-grade classroom.

Implications for Future Research

Research concerning classroom management has clarified the preventive means teachers may use to avoid potential student disruptions. The study findings provide some clarity as to the relationship between management-exchange components observed in one classroom. However, many research questions remain unresolved.

The observation of limited subjects imposed restrictions on the applicability of the findings. However, the use of qualitative research provides a unique opportunity to be more precise about studying behaviors and management responses. Researchers, teacher educators, and teachers may choose to examine the following questions from a qualitative approach. This approach can provide types of

information that are useful to teachers and teacher educators and that cannot be gained in quantitative studies:

1. Does the sex of the teacher influence management attitudes, responses, and student behaviors that are recorded?

2. What differences exist in the management-exchange response patterns between experienced and inexperienced teachers?

3. Are there differences in the types of student behaviors that are exhibited in different grade levels?

4. Do students who are average or below average in the number of management exchanges in which they participate exhibit a different set of cues than students who are above average?

5. Do teachers respond differently to students of differing management-exchange frequencies?

6. Are there differences between the cueing-behavior patterns for boys and girls, for blacks, chicanos, and whites?

7. Which student behaviors may be used for teacher training at various grade levels?

8. How can teacher educators facilitate preservice teachers' awareness of and response to student-cueing behaviors?

9. What differences exist between inexperienced and experienced teachers' management response patterns given particular student cues?

10. What types of information do experienced teachers rely upon when involved in management exchanges?

11. Can rich case descriptions of successful teachers' classroom-management behavior be useful to preservice or first-year teachers?

The observation and recording procedures used in this study influenced the data collection. Perhaps researchers in the future may study the following:

1. The distinction between teacher-observed-but-ignored student cues and student cues never perceived by the teacher;

2. Data collection conducted during the fall, winter, and spring seasons for analysis of the influence students' and teacher's time spent together may have on student cues and teacher-management responses; and

3. An analysis of the management-exchange pattern between teachers with differing consistency rates of observed management responses and self-reported management attitudes.

The motivation for this study originated with the writer's frustration at not being able to teach an intern how appropriately to manage a classroom. The study provided the writer with the opportunity to study and generate rich descriptions of classroom-management exchanges, which contributed to the reduction of the original frustration. In addition, the study experience has resulted in this research report as well as providing the insight that field research is one of the appropriate places to seek answers to teacher-education questions.

Because of the richness of the setting, teachers, teacher-educators, and researchers may wish to use the qualitative research

format as a means for answering questions about classroom management or other critical questions concerning teacher education. The qualitative format enhances the opportunity to discover the rich knowledge teachers, students, and teacher educators possess.

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APPENDICES

APPENDIX A

MANAGEMENT EXCHANGE FORM, I

APPENDIX A

MANAGEMENT EXCHANGE FORM, I

The Management Exchange Form, I was the initial observation instrument used in the first pilot test. The form was convenient for recording teacher-management responses. The use of a two-page form, however, was not convenient.

Management Exchange Form, I

Teacher-Management Responses	Demonstrated					
CREATING						
1. prepare space/supplies						
2. efficiently handles materials						
3. provides for orderly movement						
4. describes desired behavior and why						
5. questions student about feelings						
6. questions student about information						
7. listens to students						
8. describes strategies						
a. concrete example						
b. time conditions						
c. rules						
9. asks student to paraphrase						
10. clarifies student concerns						
11. walks around						
12. reinforces desired behavior						
MAINTAINING						
1. redirects to task						
2. purposefully ignores cues						
3. reduces frustration with task						
4. uses nonverbal signals						
5. shifts instructional techniques						
6. provides safety valves						
7. removes potential distractions						
8. uses proximity control						
9. rewards desired behaviors						
10. regroups students						
11. spontaneous humor/affection						
12. changes instruction						
RESTORING						
1. verbal desist techniques:						
a. calls name						
b. requests end of specific behavior						
c. directs toward approved behavior						
2. limits activities						
3. sharpens boundaries						
4. conditional promises						
5. threats, warning						
6. physical restraint						
7. punishment						

Management Exchange Form, I

Student Behaviors	Dem.			Student Behaviors	Dem.		
Nonverbals				Encounter with Teacher			
Facial				Nonverbally			
1. smiles				1. winks at teacher			
2. looks out window				2. stares at teacher			
3. stares into space				3. stands by teacher			
4. narrows eyes				4. grabs teacher's arm			
5. furrows forehead				5. grabs teacher's clothes			
6. puts head down on desk							
7. cries							
Whole Body				Verbally			
1. slides down in seat				1. answers other's ?			
2. stretching				2. answers question wrong			
3. sits on foot/knee				3. answers question w/disgust			
4. raises hand				4. answers ? w/ fear/shyness			
5. plays with pencil				5. won't answer questions			
6. pulls models down				6. asks to help others			
7. gets out paints, etc.				7. calls teacher's name			
8. gets bat and ball				8. asks for teacher help			
9. spills toys				9. calls "I know" repeatedly			
10. picks paper from floor							
11. looking in desk							
12. not following directions							
13. off-task							
Out of Seat				Encounters with Others			
1. walks to window				1. hugs other student			
2. wanders about room				2. chases other student			
3. waters plants				3. bumps into others			
4. throws paper				4. throws paper at others			
5. gets many drinks				5. throws other's work			
6. washes hands often				6. throws paper clips			
7. goes to toilet often				7. takes other's tools			
8. runs out of room				8. slap-boxes with others			
9. sits on window ledge				9. copies other's work			
10. aimless walking							
11. sharpens pencil often							
				Verbally			
				1. talks across rows			
				2. yells across room			
				3. all students talking			
				4. hides behind paper			
				5. group work			
				6. group off-task			

APPENDIX B

MANAGEMENT EXCHANGE FORM, II

APPENDIX B

MANAGEMENT EXCHANGE FORM, II

The Management Exchange Form, II was not acceptable for recording information. The labels of verbal, nonverbal, student alone, student with student, and student with teacher complicated the recording procedure for the observer. Additionally, the above labels often resulted in a single behavior being recorded more than once due to the overlap between the labels.

Management Exchange Form, II

Teacher-Management Responses	Student Behaviors: asks for help	provides wrong answer	talks to others	yells	chases others	copies other's work	takes other's tools	throws paper	hugs other student	calls "I know" often	calls teacher	answer's other's ?	pulls teacher's clothes	stares at teacher	winks at teacher	sharpens pencil often	runs out of room	many toilet trips	many drinks	aimless walking	walks to window	off-task	looking in desk	drops toys	plays with toys	raises hand	sits on foot/knee	cries	head on desk	narrows eyes	stares into space	smiles
CREATING																																
prepares space/supplies																																
efficiently handles materials																																
provides for orderly movement																																
describes desired beh. & why																																
questions st. about feelings																																
questions st. about info.																																
listens to students																																
describes strategies																																
a. concrete examples																																
b. time conditions																																
c. rules																																
asks student to paraphrase																																
clarifies student concerns																																
walks around																																
reinforces desired behavior																																
MAINTAINING																																
redirects to task																																
purposefully ignores cues																																
reduces frustration w/task																																
uses nonverbal signals																																
shifts instruc. techniques																																
provides safety valves																																
uses proximity control																																
rewards desired behaviors																																
regroups students																																
spontaneous humor/affection																																
changes instruction																																
RESTORING																																
verbal desist techniques																																
a. calls name																																
b. requests end of spec. beh.																																
c. directs toward approved beh.																																
limits activities																																
sharpens boundaries																																
conditional promises																																
threats, warning																																
physical restraint																																
punishment																																

CODING: I VERBAL
II NONVERBAL

A STUDENT ONLY
B STUDENT TO STUDENT
C STUDENT WITH TEACHER

APPENDIX C

MANAGEMENT EXCHANGE FORM, III

APPENDIX C

MANAGEMENT EXCHANGE FORM, III

The organization of the Management Exchange Form, III was convenient for recording information. However, some of the listed student behaviors were removed because of observer recommendations.

Management Exchange Form, III

Student Behaviors

Teacher-Management Responses	asks for help	talks to others	yells	chases others	copies other's work	takes others' tools	throws paper	calls teacher	answers other's ?	pulls teacher's clothes	stares at teacher	sharpens pencil often	many toilet trips	gets many drinks	aimless walking	off-task	looking in desk	plays with toys	raises hand	sits on foot/knee	cries	head on desk	narrows eyes	stares into space	smiles
CREATING																									
prepares space/supplies																									
efficiently handles materials																									
provides for orderly movement																									
describes desired beh. & why																									
questions st. about feelings																									
questions st. about information																									
listens to students																									
describes strategies																									
a. concrete examples																									
b. time conditions																									
c. rules																									
asks student to paraphrase																									
clarifies student concerns																									
walks around																									
reinforces desired behavior																									
MAINTAINING																									
redirects to task																									
purposefully ignores cues																									
reduces frustration w/task																									
uses nonverbal signals																									
rewards desired behaviors																									
regroups students																									
spontaneous humor/affection																									
changes instruction																									
RESTORING																									
verbal desist techniques																									
a. calls name																									
b. requests end of spec. beh.																									
c. directs toward approved beh.																									
limits activities																									
sharpens boundaries																									
conditional promises																									
threats, warning																									
physical restraint																									
punishment																									

APPENDIX D

MANAGEMENT EXCHANGE FORM

APPENDIX D

MANAGEMENT EXCHANGE FORM

The final Management Exchange Form was convenient for recording purposes. The listed student behaviors were representative of observed behaviors. Some additional spaces were provided for penciled-in student behaviors if the need presented itself.

MANAGEMENT EXCHANGE FORM

Student Behaviors

Teacher-Management Responses	talks to self	toilet trip	gets a drink	pulls teacher's clothes	stands by teacher	stares at teacher	answers other's question	calls teacher	"rough-houses"	angry/yelling	refuses to answer	talks with neighbors	aimlessly walking	sharpens pencil	organizes desk	plays with toys	raises hand	sits on foot/knee	cries	puts head on desk	narrows eyes	stares into space	smiles	working on task
Creating:																								
prepare space/supplies																								
efficiently handle materials																								
provides for orderly movement																								
describes desired behavior & why																								
questions student about feelings																								
questions student about information																								
listens to students																								
describes strategies:																								
concrete example																								
time conditions																								
rules																								
asks student paraphrase																								
clarifies student concerns																								
walks around																								
reinforces desired behavior																								
Maintaining:																								
redirects to task																								
purposefully ignores cues																								
reduces frustration with task																								
uses nonverbal signals																								
shifts inst. techniques																								
provides safety valves																								
removes potential distractions																								
uses proximity-relation control																								
rewards desired behaviors																								
regroups students																								
spontaneous humor/affection																								
changes instr. on-going assessment																								
Restoring:																								
verbal desist techniques:																								
calls name																								
requests end of specific behavior																								
directs toward approved behavior																								
limits activities																								
sharpens boundaries																								
conditional promises																								
threats, warning																								
physical restraint																								
punishment																								

Time Observed:

_____ _____

Assigned Student Task:

_____

Student Identity Code:

A _____

B _____

C _____

D _____

E _____

APPENDIX E

WARD AND LANIER'S FOCUSED OBSERVATION FORM

APPENDIX E

WARD AND LANIER'S FOCUSED OBSERVATION FORM

Ward and Lanier's Focused Observation Form was used for recording observed management exchanges and for collecting self-reported teacher-management conceptions.

MSU/LSI: CSP 966 Case #_____

OBSERVATION REPORT (Form VIII)

Observer:_____ Age Range of Pupils:_____ Grade:_____

Teacher Observed:_____ Teaching Activity:_____

School:_____ Date:_____ Time:_____

Case # _____

This form records a 10-15 minute segment of teaching activity and describes one moment of teacher action. The particular act described on this page may be important or relatively unimportant, but it reflects a sample element in one teacher's style.

1a. Observer: On the basis of what you have been seeing and hearing, briefly describe what is happening in the classroom.

1b. Teacher: Make any additions to the above description which might aid in understanding what was occurring.

2. Observer: Describe an act that the teacher made during this brief observation. (To continue or to ignore may be considered "acts.")

ASK THE TEACHER TO FILL IN THIS PAGE.

6. Teacher: What happened as a result of the act described by the observer in question 2?

7. Teacher: What were you hoping to accomplish through the act described by the observer? (How did this act relate to your planned activity?)

8. Teacher: Does the act described suggest something important that you believe about the children you teach? If so, what?

9. Teacher: Does the act described suggest something important that you believe about teaching? If so, what?

APPENDIX F

STUDENT IDENTIFICATION FORM

APPENDIX F

STUDENT IDENTIFICATION FORM

This Student Identification Form was designed for identifying student recipients of directed teacher-management responses. The purpose for this procedure was to identify numerically the students who were most frequently involved in management exchanges with their teacher. Such students were used for observation purposes.

Subject Identification Form

Teacher-Management Behaviors	Student's Teacher Directs Management Response Toward															
CREATING																
1. prepares space/supplies																
2. efficiently handles materials																
3. provides orderly movement																
4. desc. desired beh. & why																
5. questions st. about feelings																
6. questions st. about info.																
7. listens to students																
8. describes strategies																
a. concrete example																
b. time conditions																
c. rules																
9. asks student to paraphrase																
10. clarifies student concerns																
11. walks around																
12. reinforces desired behavior																
MAINTAINING																
1. redirects to task																
2. purposefully ignores cues																
3. reduces frustration w/task																
4. uses nonverbal signals																
5. shifts inst. techniques																
6. provides safety valves																
7. removes potential distractions																
8. uses proximity-relation control																
9. rewards desired behaviors																
10. regroups students																
11. spontaneous humor/affection																
12. changes instruction																
RESTORING																
1. verbal desist techniques:																
a. calls name																
b. requests end of spec. beh.																
c. directs toward approved beh.																
2. limits activities																
3. sharpens boundaries																
4. conditional promises																
5. threats, warning																
6. physical restraint																
7. punishment																

APPENDIX G

DEFINITIONS OF RECORDED STUDENT BEHAVIORS

APPENDIX G

DEFINITIONS OF RECORDED STUDENT BEHAVIORS

A total of twenty-four student behaviors were listed on the Management Exchange Form (MEF) for recording purposes. Each of the student behaviors was classified according to one of three descriptors: constructive, potentially disruptive, and disruptive student behaviors. Constructive student behaviors were defined as actions students expressed that indicated on-task behavior, satisfaction with their present situation, or asking in an appropriate fashion for teacher assistance. Potentially disruptive student behaviors were defined as student actions that may have indicated a need for teacher attention. Disruptive student behaviors were actions that altered the learning environment in an inappropriate manner. Each student behavior has been listed with its classification and behavioral definition.

Definitions of Student Behaviors

Aimlessly walking: potentially disruptive student behavior; the student is moving about the classroom during an assigned task period that does not involve an expectation for movement.

Angry/yelling: disruptive student behavior; the student responds to the teacher in a loud voice while disagreeing with the teacher's request.

Answers other's question: disruptive student behavior; the student answers a question directed to another student by the teacher before the recipient responds.

Calls teacher: potentially disruptive student behavior; the student verbally calls the teacher's name to get attention.

Cries: disruptive student behavior; the student cries during class.

Gets a drink: potentially disruptive student behavior; the student gets a drink at the classroom drinking fountain.

Narrows eyes: potentially disruptive student behavior; the student furrows forehead and partially lowers his/her eyebrows.

Organizes desk: potentially disruptive student behavior; the student, during an assigned task, takes time to sort and rearrange the contents of his/her desk.

Plays with toys: potentially disruptive student behavior; the student actively manipulates toys, or tools, during an assigned task in a manner that does not contribute to completion of the assigned task.

Pulls teacher's clothes: potentially disruptive student behavior; the student grabs the teacher's sleeve or coat to get attention.

Puts head on desk: potentially disruptive student behavior; the student places his/her head down on the desk during classroom activities that do not include an expectation for such behavior.

Raises hand: constructive student behavior; the student holds arm above head as a request for acknowledgment while sitting without talking.

"Rough-houses": disruptive student behavior; the student physically pushes, bumps into or hits another student in an aggressive or hostile manner.

Sharpens pencil: potentially disruptive student behavior; the student sharpens his/her pencil.

Sits on foot/knee: potentially disruptive student behavior; the student places one or both legs under him/herself while in a chair.

Smiles: constructive student behavior; the student, while seated, smiles.

Stands by teacher: constructive student behavior; the student stands beside the teacher and waits for acknowledgment without talking.

Stares at teacher: potentially disruptive student behavior; the student, while seated at his/her desk, continuously watches the teacher without talking or working on the assigned task.

Stares into space: potentially disruptive student behavior; the student daydreams or looks off toward a distant space during an assigned task.

Talks to self: potentially disruptive student behavior; the student speaks out loud without an apparent recipient or respondent.

Talks with neighbors: potentially disruptive student behavior; the student talks with other students during an assigned task which does not include an expectation for verbal discussion between students.

Toilet trip: potentially disruptive student behavior; the student uses the classroom toilet.

Working on task: constructive student behavior; the student is actively working on the assigned task.