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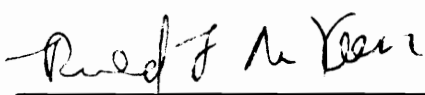IN THE PEER COACHING MODEL

by

Judith Bower Miller

Dissertation submitted to the Faculty of the
Virginia Polytechnic Institute and State University in
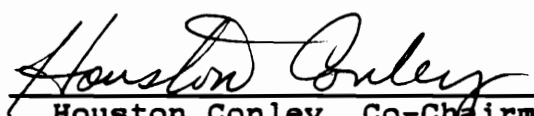partial fulfillment of the requirements for the degree of

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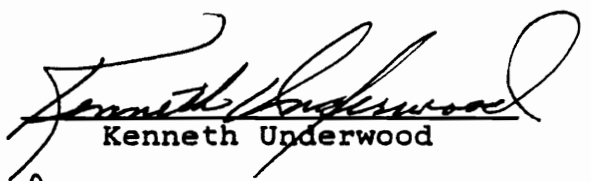Educational Administration

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February, 1990

Blacksburg, Virginia

AN INVESTIGATIVE SOCIAL RESEARCH STUDY
OF SELECTED VARIABLES THAT MAY BE IMPEDING FEEDBACK
IN THE PEER COACHING MODEL

by

Judith Bower Miller

Committee Co-Chairmen: Ronald L. McKeen and Houston Conley

(ABSTRACT)

The educational reform movement of the 1980's has called for a restructuring of our nation's public schools. The effective schools research and reform literature, such as the Carnegie Report (1986), suggest that collegiality offers teachers and administrators the opportunity to improve the structure of our nation's schools. Collegiality encourages intellectual sharing which promotes professionalism, consensus and unity among a school staff.

Peer coaching is recognized as one way teachers are provided opportunities to work in a collegial setting. The peer coaching model requires that teachers be provided with (a) theory, (b) practice in observation skills, (c) practice with notetaking as a source of data collection, (d) practice in giving specific feedback from the notes during an observation and (e) practice in observing videotaped teaching episodes. An important contribution of the peer coaching model is that it allows teachers the opportunity to observe and learn from each other. Therefore, if teachers

are to benefit from the peer coaching model, they must be able to provide feedback to their peers that is both useful and accurate.

Hall (1988) implied that the peer coaching teachers in her study needed more training in feedback skills in order to provide useful feedback to their peers. However, to date, there is no empirical evidence to support Hall's assumption. Furthermore, if the peer coaching model is to be successfully implemented and positively affect teacher behavior, then staff development personnel need information to address selected variables which may be impeding feedback in the peer coaching model. Therefore, the researcher of this dissertation conducted an investigative social research study in order to provide an objective assessment of peer coaching feedback and then to investigate selected variables that may be impeding that feedback. In order to provide this information, the researcher conducted her study in a large suburban public school system that had implemented peer coaching for a three year period. A select group of 54 teachers, who had been trained in mentoring and peer coaching skills, participated in telephone interviews, "scripting," feedback commentaries and a questionnaire in order to provide the data needed for the study.

ACKNOWLEDGEMENTS

throughout my graduate program are deeply appreciated.

I wish to thank Dr. Orion White for his careful critique of my dissertation prospectus and for his suggestions regarding the final editing of my study. His advice on both occasions led me to make needed improvements in my study.

I am also grateful to my fellow classmates, Carlton, Brenda, Beth, Cheryl, Carol, Carla, Mary, Mathell and Gerri, for always being there when I needed them. Their words of support carried me through many difficult hours.

Also, I wish to thank the school officials and teachers with whom I worked for their cooperation and support, and I wish to thank Bill Moore and Nancy Peyton for helping me in the final stages of my dissertation.

Finally, I wish to thank my parents for their support and encouragement and for their visit to the Blacksburg campus during my residency.

DEDICATION

I dedicate this study to my husband, Howard, a good and wise man, who has shared his philosophy of life with me. That philosophy is best described by Ayn Rand, author of <u>Atlas Shrugged</u>, 1957, and is as follows:

"My philosophy, in essence, is the concept of man as a heroic being, with his own happiness as the moral purpose of his life, with productive achievement as his noblest activity, and reason as his only absolute" (p. 1170).

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

LIST OF TABLES

ix

FIGURES

CHAPTER I

INTRODUCTION

According to the first-wave educational reform reports
of the 1980's, such as <u>A Nation at Risk</u>, published by the
National Commission on Excellence in Education (1983) and
the <u>Carnegie Report</u> (1986), there is little to rejoice about
regarding the education of America's youth. For example,
the Commission (1983) noted that some twenty-three million
American adults are functionally illiterate, and
international comparisons of student achievement, completed
a decade ago, revealed that American students were never
first or second, and, in fact, were last seven times.

Furthermore, both the Commission (1983) and the
<u>Carnegie Report</u> (1986) cite a need for educational reform
regarding the teaching profession. For example, the
<u>Carnegie Report</u> (1986) noted that school systems which are
based upon traditional bureaucratic authority must be
restructured so that teachers are provided opportunities to
work and learn together in a collegial environment, thereby,
allowing them to constantly strive to improve their
performance. Unfortunately, Michaels (1988) notes that much
of what schools have done to address the first-wave reform
movement is simply to alter the "external trappings of
schooling" (p. 3), such as adding ten minutes to the

1

homeroom period or adding an extra unit to modern math. Michaels (1988) further notes that preserving public education will take time, money and effort and a call for a second-wave reform movement which will also include the element of collegiality. Research studies, too, have focused attention on collegiality. The effective schools literature notes the importance of a collegial working environment for teachers. Purkey and Smith (1983), who have reviewed much of the effective schools literature, note that collegiality "encourages the kind of intellectual sharing that can lead to consensus and promotes feelings of unity and commonality among the staff" (p. 445). Finally, teachers, themselves, have called for a more collegial environment in which to work and learn as reflected in a recent poll conducted by the National Education Association (1988).

Peer Coaching

Therefore, if the call for collegiality is to be realized, then the work environment of teachers must be transformed in order to provide opportunities that encourage collegial relationships. Peer coaching has been recognized as one way through which teachers are provided opportunities to work and learn together in a collegial setting (Hall, 1988).

Peer coaching is a "process in which teachers assist each other in negotiating the distance between acquiring new skills or teaching strategies and applying them skillfully and effectively to instruction" (Hall, 1988, p. 6). Peer coaching not only involves both peer observations and conferences, but promotes staff and personal development as well. Teachers involved in peer coaching have the opportunity to learn about the theoretical foundation of a skill, such as a new model of teaching, during staff development. The teachers observe that skill being demonstrated and practice that skill with feedback from their peer. The peer coaching process is an intense one. This kind of staff development, for a single skill, can take up to as long as six days, and it may take as many as 30 trials for the teacher to achieve executive control or complete command of that skill (Glatthorn, 1987). Many programs involving peer coaching have been implemented throughout the nation in recent years (Sparks and Bruder, 1987; Leggett and Hoyle, 1987; Glatthorn, 1987; and Hall, 1988). These peer coaching models have been credited with increasing collegiality and professionalism of teachers (Glatthorn, 1987), decreasing teacher isolation (Hall, 1988) and increasing student learning through the improvement of the instructional process (Sparks and Bruder, 1987).

Feedback

A critical component of the peer coaching process involves the feedback that the observing teacher gives to his/her peer after viewing that peer teach. Such feedback must provide the receiver (the observed teacher) with information that will allow that teacher to make valid decisions as to how he/she will change their behavior and thus improve their performance. Providing useful feedback is not a simple process. It requires particular formats and protocols that must be learned and practiced. If feedback is given poorly, it is most likely to trigger certain defensive mechanisms in the receiver, and the purpose of staff development will be defeated. Included in the criteria for useful feedback identified by Joyce and Showers (1988) are the following: (a) accuracy, (b) specificity, and (c) value neutrality. If the peer coaching model is to be successfully implemented and, thereby, achieve the desired results, the observing teacher must be skilled in providing useful feedback to his/her peer regarding that peer's instructional behaviors.

Problem Statement

Hall (1988) conducted a survey study of 379 peer coaching teachers in a large suburban public school system that had implemented peer coaching for a two year period. Hall documented those teachers' levels of job satisfaction

and their perceptions about the usefulness of peer coaching, as well as their perceptions about the degree to which trust and sharing of resources existed in their schools. As a result of her study, Hall (1988) found that peer coaching teachers were generally satisfied with their jobs and regarded the peer coaching model as useful. She also found that the peer coaching model reduced teacher isolation and provided an environment for the sharing of resources and the development of trust. Another of Hall's findings indicated, though, that most peer coaching teachers tended to view the feedback that they received as more useful than the feedback they gave to other teachers. However, Hall's study lacked an objective assessment of the usefulness of the feedback given by the peer coaching teachers - was the feedback specific and descriptive? Therefore, the problem was to make an objective assessment of peer coaching feedback, to identify variables that affect feedback and to make recommendations as to how the feedback process can be improved.

Purpose of the Study

The purpose of this study was to, first, make some determination as to whether or not peer coaching teachers do or do not tend to give useful feedback to their peers and, then, to investigate selected variables that may be impeding feedback in the peer coaching model. The variables

investigated were scripting skills, communication skills, trust and teacher reflection and connoisseuring skills. In order to collect the data needed for the study, the researcher worked with a select group of teachers from the Hall study who had been trained in mentoring and peer coaching skills.

Research Questions

Douglas (1976) contends that "the goal of all social research is to discover, understand and communicate truth about human beings in society" (p. 1). Consequently, the researcher used the investigative social research method which relies upon "building and using friendly and trusting relations and then checking out the people and the information" (Douglas, 1976, p. 129) to conduct her study.

The first consideration in this study was to make some determination as to whether or not teachers do or do not tend to give useful feedback to their peers. Therefore, research question number one addressed this priority.

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific?

Since the answer to question one did cast serious doubt about the usefulness and adherence to the established

criteria of the feedback given, the following questions were pursued to identify factors that may relate to the outcome of the study.

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

3. To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers?

Limitations of the Study

Regarding external validity, it should be noted that due to the population size and the manner of selection, this study was not meant to be generalizable to all teachers involved in peer coaching across the country. It was, instead, meant to be a social research investigation of the peer coaching model.

Furthermore, it was recognized by the researcher that the case study may be particularly vulnerable to subjective

biases as the researcher may use selective judgments to rule certain data in or out, or assign a high or low value to their significance, or place them in one context rather than another (Isaac and Michael, 1971).

Finally, it should be noted that the data gathered in this study involved self-reporting, and may not be accurate. Therefore, all conclusions resulting from this study need to be considered in light of this fact.

Delimitations of the Study

Isaac and Michael (1971) note that case studies are "in depth investigations of a given social unit resulting in a complete, well organized picture of that unit" (p. 20). They further state that the case study "tends to examine a small number of units across a large number of variables and conditions which is in contrast to the survey which tends to examine a small number of variables across a large sample of units" (p. 20). Furthermore, case studies tend to be intensive and to bring to light important variables, processes and interactions that deserve more extensive attention (Isaac and Michael, 1971).

However, case studies are delimiting due to the fact that the focus is on a few units, and they do not allow valid generalizations to the population from which they came (Isaac and Michael, 1971). Likewise, this study was delimited to a specific school system in Virginia and was

also delimited to a select group of teachers who had been trained in mentoring and peer coaching skills.

Definitions

In order that a common language may be used regarding this study, the following terms have been defined:

Collegiality - "The bringing together of the combined judgment and expertise of a group of professionals" (Hall, 1988, p. 7).

Connoisseuring Skills - Weber (1987) describes connoisseuring skills as "artistry in teaching," (p. 48) while other educators refer to connoisseuring skills as simply good teaching pedagogy.

Feedback - "Feedback is a way of helping another person to consider changing his or her behavior. It is communication to a person that gives that person information about how he or she is affecting or 'coming across' to others" (McKeen and White, 1986, p. 1). Attributes of useful feedback include accuracy, specificity and nonevaluative judgments (Joyce and Showers, 1988).

Observational Skills - A process whereby a peer coaching teacher observes his/her peer in order to provide useful feedback to that peer regarding the model-relevant skill.

Peer Coaching - A process in which teachers assist each other in negotiating the distance between acquiring new

skills or teaching strategies and applying them skillfully and effectively to instruction (Showers, 1985).

Scripting - A process whereby an observing teacher makes a shorthand log of the teacher-pupil interaction that she/he has observed in the classroom. This log then becomes the basis for the observing teacher's diagnosis of the teaching behaviors observed (Brandt, 1985).

Script Tape - A written record of what a teacher does in the classroom. Brandt (1985) refers to script taping as a "kind of recording that you can play back to the teacher so the teacher knows in temporal order everything that happened in the lesson" (p. 64).

Teacher Reflection Skills - A process whereby teachers are provided opportunities for self-analysis in order to improve their instructional expertise and professional development.

Trust - "The degree to which the teacher perceives interpersonal relationships as characterized by an assured reliance or confident dependence on other teachers in the school" (Hall, 1988, p. 6).

Significance of the Study

This study will contribute to the research based literature on peer coaching and provide information that could be used by staff development personnel to address

selected variables which may be impeding feedback in the peer coaching model.

Organization of the Study

Following Chapter I, the remainder of the study is organized as follows:

Chapter II is a review of the related research and literature.

Chapter III discusses the methodology of the research study, including a description of the population and the instrumentation and analyses that were used in the study.

Chapter IV discusses the results of the analyses of the data obtained from the study.

And, finally, Chapter V presents the conclusions, implications, training recommendations and recommendations for further study.

CHAPTER II

REVIEW OF LITERATURE

Is educational reform taking place in America's schools today? Has the educational reform movement of the 1980's, which was generated by such reports as A Nation at Risk (1983), A Nation Prepared: Teachers for the 21st Century (1986) and Mortimer Adler's The Paideia Proposal (1982), resulted in a movement toward restructuring America's schools? Unfortunately, Michaels (1988) notes that much of the reform movement has only resulted in "tinkering with the external trappings of schooling" (p. 3), such as adding ten minutes to the homeroom period or developing a one-week unit in mathematics, rather than making the kinds of changes that schools really need. Furthermore, just as the first wave of reform included the element of collegiality, Michaels (1988) notes that the second wave of reform will also include the element of collegiality.

Collegiality or "the bringing together of the combined judgment and expertise of a group of professionals" (Hall, 1988, p. 7) serves many purposes. Collegiality encourages intellectual sharing and promotes feelings of unity and commonality among the staff (Purkey and Smith, 1983).

12

Therefore, if educational reform is to occur, teachers must be provided with opportunities that encourage collegial relationships. Peer coaching has been recognized as one way through which teachers are provided opportunities to work and learn together in a collegial setting (Hall, 1988). Peer coaching can be defined as a process in which teachers assist each other in negotiating the distance between acquiring new skills or teaching strategies and applying them skillfully and effectively to instruction (Hall, 1988). A critical component of the peer coaching process involves the feedback that peer coaching teachers give to each other in order to improve the instructional process.

Hall (1988) noted that the peer coaching teachers in her study "tended to view the feedback that they received as more useful than the feedback that they gave to other teachers" (p. 69). Furthermore, Hall (1988) implied that peer coaching teachers may need more training in order to give useful feedback to their peers. However, to date, there is no empirical evidence to support Hall's assumption that a lack of sufficient training may be impeding feedback in the peer coaching model. Therefore, the researcher of this dissertation will investigate selected variables that may be impeding feedback in the peer coaching model.

The literature review addresses collegiality and the peer coaching model with special emphasis upon (a) training, (b) feedback, (c) trust, (d) teacher reflection and

connoisseuring skills, (e) communication and (f) observation.

Collegiality

Schlechty and Vance (1983) note that "almost all the research on effective schools indicates that schools in which teachers engage in a great deal of job-related discussion and share in decisions regarding instructional programs are more effective than schools in which decisions are made by rule-bound bureaucratic procedures" (p. 479).

The above description denotes what many people today refer to as collegiality. Purkey and Smith (1983), for example, include collaborative planning and collegial relationships as one of the four components of school culture that characterize effective schools. Purkey and Smith (1983) further suggest that one way to change the culture of a school is to develop "a sense of ownership, commitment and general consensus among the staff of the school" (p. 447). After this groundwork has been laid, the use of discussion groups, faculty meetings and in-service programs should be utilized (Purkey and Smith, (1983).

Zahorik (1987) also suggests that collegiality offers teachers the opportunity to become less private about their classroom behaviors, to improve the instructional process and to make teaching a more rewarding experience.

Unfortunately, however, Vance and Schlechty (1983) note that relatively few schools exist that allow teachers the opportunity to build collegial relationships. Furthermore, Vance and Schlechty (1983) state the following:

> The often-noted lack of a shared language to describe work problems (e.g., Lortie, 1975), the tendency of schools to eschew long-term planning for short-term crisis management, and what Silberman (1970) calls the mindlessness of schools are at least in part attributable to teachers having little time to think alone and even less time to think together (p. 479).

Although some would argue that it is the supervisor's job to provide the support that is so sorely needed by so many teachers, Brandt (1987) notes that principals also lack the time to provide teacher support. Brandt (1987) states, "Good, constructive, helpful, committed support can come from peers and subordinates as well as from supervisors. And in many ways it's better coming from peers than from anyone else" (p. 17). Finally, Brandt (1987) notes that many school systems have implemented merit pay or "master" teacher evaluation systems that have as their main criteria for "master" teacher level the ability to establish collegial relationships with other teachers.

Hall (1988) also notes that "the structure of most schools inhibits teachers' opportunities to build collegial relationships" (p. 11). Furthermore, teaching has often

been characterized as a "lonely profession," and many beginning teachers are left on their own to learn the many intricacies of the teaching profession.

In contrast to the traditional school structure that Goodlad (1984) describes as "classroom cells" where teachers spend most of their time, the collegial or cooperative school offers a fundamental change in school organization. However, will the collegial school organization improve the quality of staff cooperation and thereby improve the quality of instruction? Johnson and Johnson (1987) note that "cooperation among adults promotes achievement, positive interpersonal relationships, social support, and self-esteem" (p. 30). In summary, the literature on collegiality suggests that cooperative or collegial school settings do contribute to "greater productivity and expertise, more positive interpersonal relationships and cohesion as a staff, increased social support within the faculty, and enhanced self-esteem for the educators" (Johnson and Johnson, 1987, p. 30).

The Peer Coaching Model

Although it would appear that teachers have many sources to which they can turn for support, encouragement and intellectual exchange, such as college professors, principals and supervisors, Duke (1984) contends that "the

conventional wisdom of schooling - wisdom frequently
supported by empirical research holds that teachers learn
best from other teachers" (p. 105).

The above theory has given rise to the peer coaching
model that many school systems are embracing today in order
to alter the traditional organizational structure of our
nation's schools. Such a restructuring would allow
teachers the opportunity to learn and gain support from
their peers, which should also result in improved classroom
instruction. The peer coaching model is synonymous with
the names of Bruce Joyce and Beverly Showers, for, they have
contributed much to the literature base of the peer coaching
model. Joyce and Showers (1988) note that the major purpose
of peer coaching is to effect change in teacher behavior
which should ultimately result in greater student
achievement for all children. However, the peer coaching
model requires change, not only on the part of teachers and
administrators, but also upon the traditional structure of
schools as we know them today. For example, Joyce and
Showers (1988) contend that the traditional hierarchical
relationship that currently describes most school settings
must "give way" to a climate more conducive to learning and
growing on the part of teachers - "a scientific climate
rather than a hierarchical one" (p. 93). A climate
conducive to learning and growing would allow teachers to
try new teaching strategies, to explore new content areas

and to "solve" educational problems in a collegial setting. Therefore, teachers would be encouraged to be more innovative and creative in their teaching methods, even though, at times, they would also experience failure or awkwardness in learning a new teaching strategy or fine-tuning an existing one. Joyce and Showers (1988) note that teachers must be provided with a climate that permits experimentation, permission to fail and a willingness to "try again in order to learn new teaching strategies" (p. 92). Furthermore, Joyce and Showers (1980) note that "mastery of new techniques requires more intensive training than does the fine-tuning of existing ones" (p. 380). Joyce and Showers (1987) note that it can take up to as many as 20 or 30 trials before the transfer of a new skill becomes automatic. Therefore, many advocates of the peer coaching model caution against combining evaluation with coaching. Bird and Little (1983) noted in their study of peer coaching that evaluation and coaching should be viewed as two separate processes and should not be combined. Joyce and Showers (1988) also warn "where there has been a failure to separate evaluation and the status and power difference from supervision, it is improbable that the process will create a climate conducive to learning and growing on the part of the teacher" (p. 92).

Training

Learning a new teaching strategy or fine-tuning an existing one is not an easy process for most teachers. Indeed, Johnson and Johnson (1987) note that much of what teachers need to learn in order to become skilled in the instructional process involves procedural learning. Procedural learning "relies heavily on receiving feedback about performance and modifying one's implementation until errors are eliminated" (Johnson and Johnson, 1987, p. 27). Unfortunately, Rosenholtz and Kyle (1984) note that most teachers learn by trial and error as a result of teacher isolation.

As peer coaching training draws heavily upon the theory of procedural learning, teachers should be provided with the following components when learning the coaching skill: (a) "a framework for the purpose of coaching, (b) practice in observation skills, (c) practice with notetaking (script taping) as a source of data collection, (d) practice in giving specific feedback from the notes during an observation and (e) practice in observing video-taped teaching episodes..." (Leggett and Hoyle, 1987, p. 17). In addition to the above components of training, Joyce and Showers (1988) note that peer coaching training also assumes a common language so that teachers can communicate clearly the knowledge, skills and strategies that they employ.

Contrasted with the peer coaching model of training is what some educators refer to as the "one-shot" inservice training session. Unfortunately, research indicates that the likelihood of this type of inservice program effecting change in teachers' skills is minimal if at all (Leggett and Hoyle, 1987). However, the peer coaching model including theory, demonstration, practice with feedback and application with coaching does result in the transfer of skills to teachers' repertories of effective teaching strategies (Joyce and Showers, 1987).

Feedback

Feedback is a crucial component of the peer coaching model and is the basis upon which teachers rely to improve their instructional expertise. Joyce and Showers (1982) note the importance of the feedback skill as they state the following:

Unfortunately, the development of skill by itself does not ensure transfer; relatively few teachers, having obtained skill in a new approach, will then transfer that skill into the active repertoire and use the new approach regularly and sensibly unless they receive additional information (p. 5).

McKeen and White (1986) and Munro and Elliott (1987) note that the feedback process is vital to the communication process which allows individuals to correct their behavior

in order to meet oranizational goals. Attributes of effective feedback include descriptive rather than evaluative language, specificity rather than generalness and "concern for the needs of others as well as one's own" (McKeen and White, 1986, p. 148). Joyce and Showers (1988) also note the importance of accuracy, specificity and nonevaluative judgments when giving useful feedback to one's peers.

Bird and Little (1983) indicated in their study of peer coaching that procedure should be considered when giving feedback to one's peer. For example, they suggest that the teacher who was observed should start the discussion of the lesson as this leaves the observer the opportunity to reinforce that topic or to choose to talk about something else. Bird and Little (1983) further recommend that the "coach" or observer pick just one incident or goal of the lesson to focus upon for improvement as too much information can be overwhelming to the teacher. Furthermore, feedback needs to be regular and consistent if "people are to make changes in very many areas of behavior and maintain those changes" (Joyce and Showers, 1980, p. 384).

Finally, Leggett and Hoyle (1987) note that further training in feedback skills is necessary as teachers move from the technical stage of giving feedback into "the more complex realm of mutual examination of the appropriate use of a new teaching strategy" (p. 20).

Trust

Education reform requires change. The successful implementation of the peer coaching model requires a basic change in the traditional hierarchical structure of our nation's schools. Joyce and Showers (1988) note that "the initiative required in effective teaching is incompatible with hierarchical dependency relationships" (p. 92). The traditional, hierarchical dependent relationship that is embodied in our schools today is the antithesis of the peer coaching model which relies heavily upon a foundation of trust and independence. Indeed, Gibb (1972) notes that the primary barrier to learning, creativity and competence is defensive fear which is the antithesis of trust.

Creating a supportive and trusting climate for the peer coaching model is fundamental for its implementation (Sparks and Bruder, 1987; Paquette, 1987; Gibb, 1972; Bird and Little, 1983). Providing a trusting and open environment includes the practice of completely separating the supervision and evaluation cycle from coaching relationships (Joyce and Showers, 1988; Bird and Little, 1983; Munro and Elliott, 1987). The trust factor also involves the element of risk-taking. Kegan (1972) defines risk-taking as "exposing oneself to the remaining unpredictability of the situation " (p. 182). McKeen and White (1986) note that descriptive language rather than judgmental language

encourages trust and openness between parties rather than promoting defensiveness.

Hall (1988) noted in her study of peer coaching that teachers felt more comfortable in receiving useful feedback than in giving it. McKeen and White (1986) note that "how easily a person will ask for feedback is related to the amount of trust in the interpersonal relationship" (p. 152).

Bird and Little (1983) emphasized in their study of peer coaching that trust can be conveyed through a negotiated agreement to use a specified instrument for a specified purpose in agreed ways. The specified instrument in their study was the observation form which did not depend upon knowing another person well and believing that the other intended no harm. Furthermore, research indicates that the elements of coaching and critiquing tend to create an atmosphere that is conducive to trust and openness (Paquette, 1987; Anastos and Ancowitz, 1987).

Finally, Gibb (1972) notes that the high trust environment is characterized by four relationships:

1. Personalized, no-role relationships which involve person-to-person relationships that do not include titles, roles descriptions or role presentations.

2. Open, non-strategic relationships which involve sharing of information, feelings and perceptions in a direct way.

3. Self-determining relationships which involve setting one's own goals and assessing one's progress toward them.

4. Interdependent relationships which involve a non-competitive effort and giving and receiving help in a cooperative effort.

Teacher Reflection

Although McIntyre (1978) notes that summative ratings by colleagues usually yield discouragingly low reliabilities, observations of another colleague can lead to greater self-awareness on the part of teachers (Munro and Elliott, 1987; Wildman and Niles, 1987; Joyce and Showers, 1982; Anastos and Ancowitz, 1987). Furthermore, self awareness or self reflection should enable the classroom teacher to improve his or her instructional expertise (Rothberg, 1979).

Colosimo (1986) notes in her study of microteaching that "in order for teaching to be successful, the teacher needs not only to know the pupils as individuals, but to know one's self" (p. 129). Video-taping, audiotaping and observation are three ways in which teachers can become more reflective about their teaching (Wildman and Niles, 1987; Anastos and Ancowitz, 1987). Unfortunately, however, Wildman and Niles (1987) noted in their study of teacher reflection that time constraints, a lack of administrative

support and a lack of collegial settings often interfere with teachers' opportunities to become more self-reflective.

Regarding the ability to describe and construct what goes on in the classroom, Wildman and Niles (1987) note that 20 to 30 hours of instruction is needed, followed by another 20 to 30 hours spent in practice. They further state that "productive systematic reflection takes time. Building descriptions, examining beliefs, and contemplating changes in one's practice are not automatic routines" (p. 9).

Fessler and Burke (1983) also recommend videotaping as a means to enhance teacher self reflection. However, they also advocate that teachers use personal assessment rating forms and teacher honesty in processing feedback from parents, students, other teachers and supervisors. Fessler and Burke (1983) state, "The open teacher will encourage this feedback, provide structure to facilitate this feedback and will process it in a manner that will be of value in identifying needed areas of professional growth" (p. 45).

Cruickshank and Applegate (1981) recommend using reflective teaching sessions as a way to enhance self evaluation. Their strategy calls for designated teachers to teach other teachers Reflective Teaching Lessons, and then allow the teachers the opportunity to discuss openly with their peers what the teaching and learning processes were like for them. Cruickshank and Applegate (1981) contend

that self analysis renews self-esteem and also results in self-improvement.

Joyce and Showers (1980) discovered that feedback alone can result in greater teacher awareness. In addition, Joyce and Showers (1982) also note that the coaching partner has "the privilege of seeing a number of trials of the new model by another skilled teacher" (p. 6).

In summary, McFaul and Cooper (1984) note that "teachers are often unaware of much of what they do, and their lack of perception sometimes results in unwise, self-defeating behevior" (p. 6). Therefore, if the peer coaching model is to result in greater student achievement, teachers must be provided with opportunities to become more self-reflective.

Communication

In order to be able to give useful feedback to a peer, the peer coach must be able to communicate effectively during the feedback conference. Lucio and McNeil (1967) note that effective communication can be blocked by mechanical, semantic or psychological barriers. Mechanical barriers can include the setting in which the conference takes place or factors such as mannerisms or external noises. Semantic barriers have to do with the verbal facility of the communicator, while, psychological barriers may include beliefs, attitudes and expectations of the

communicator (Lucio and McNeil, 1969). Regarding mechanical barriers, McIntyre and Morris (1982) note the importance of a supportive climate for the conference session, and they further note that this can be accomplished by emphasizing the conference as a problem solving session. Kuzsman and Harte (1985) note that in order to provide useful feedback, familiarity with the subject, as well as, with the methods and effects of classroom teaching combined with appropriate diagnostic and communication skills are necessary.

Interpersonal or psychological skills are also important in the communication process (Sweeney and Manatt, 1984; Withall and Wood, 1979; Lucio and McNeil, 1969; McKeen and White, 1986). Communication can be blocked if one party is disliked or feared by the other party. For example, McKeen and White (1986) note that "giving feedback effectively may depend on an individual's values and basic philosophy about himself, about his relationships with others and about the people in general" (p. 153). McKeen and White (1986) also note that effective communication can be blocked if the sender gives feedback regarding intentions rather than behavior. Self-concept is another important variable in the communication process. Lucio and McNeil (1969) note that "the feelings we have about ourselves affect the way in which we interpret the message of others" (p. 207).

The facility with which an individual can utilize semantics is also important in the communication process. For example, Pajak and Seyfarth (1983) note the importance of being direct, while McKeen and White (1986) recommend asking the receiver to try to rephrase the feedback he/she has received in order to see if the feedback corresponds with what the sender had in mind. Patterning the conference so that the coach listens more and talks less, acknowledges, paraphrases, asks and clarifies questions, praises, avoids giving direct advice and gives verbal and psychological support will aid the communication process (Davis, 1984). Sergiovanni (1986) recommends that the patterning include the language of actual classroom life and actual teaching events.

Finally, while Walker (1976) notes that the inability to listen greatly hampers the communication process, Lucio and McNeil (1969) note that the most important skill in the communication process is that of listening. Active listening can be characterized as "a special form of help where the helper truly works at allowing the other person to help himself or herself" (McKeen and White, 1986, p.1). Active listening is a self-reflective process that allows the speaker to hear himself/herself more effectively so that the speaker can actually solve problems through a more accurate and concrete construction of the situation he/she is in (McKeen and White, 1986). The technique of utilizing

active listening skills would seem to be of great value to the peer coaching process as the technique would enhance both self-reflection and problem solving.

In summary, McKeen and White (1986) note that communication is a vital component of the supervision process and provides the kind of information that will allow teachers "to improve their behavior to bring it more in line with the purposes of the organization" (p.1).

Observation

Peer coaching is a process which allows teachers to improve their instructional expertise through observing their peers. Although the peer coaching process greatly benefits the observed teacher in that he/she is provided with useful feedback, the observer also has the opportunity to learn through the observation process (Belford and Jackson, 1965; Brandt, 1987; McFaul and Cooper, 1984; Davis, 1984). Brandt (1987) notes that "much of the learning from coaching is not from listening to someone who has watched you, but from your watching the other person work" (p. 13). Therefore, peer coaching teachers should have opportunities that allow them to observe effective teachers, teachers who exhibit good pedagogy or what some educators refer to as "connoisseuring skills."

Amidon and Flanders (1963) noted in their study of classroom verbal behavior that classroom climate can be

objectively and reliably measured, and that such climate is related to teaching effectiveness. According to Amidon and Flanders (1963) teachers can be categorized as either direct or indirect. Direct teachers minimize the freedom of students to respond, and direct teachers rely heavily upon lecturing, giving directions and criticizing or justifying authority.

In contrast to direct teaching, indirect teachers maximize the freedom of pupils to respond by accepting student feelings, praising and encouraging students, asking students questions and accepting or using the ideas of students. Although Amidon and Flanders (1963) state that "it is well to remember that only the individual teacher can make the final decision about what behavior is 'good' or 'bad'" (p. 137), it should be noted that a teacher who engages in a great deal of direct teacher talk limits the opportunity for students to respond and ask questions in the instructional process.

Ryan and Cooper (1972) also describe effective teachers as those who possess theoretical knowledge, technical skills, constructive attitudes toward adults and children and a knowledge of subject matter. According to Ryan and Cooper (1972), an effective teacher draws upon theories related to psychology, anthropology, sociology and related disciplines in order to interpret situations and to solve problems. An effective teacher also utilizes technical

skills. For example, he or she has the ability to stimulate student thinking by asking probing questions, to reinforce positive behavior in the classroom, to diagnose learning disabilities in children, to relate learning to students' experiences and to judge the appropriateness of instructional materials.

Equally as important as the technical expertise of effective teaching is the attitudinal aspect of teaching. Ryan and Cooper (1972) note that an effective teacher is "real" or genuine and has a clear understanding of self which allows the teacher to empathize with students and adults and to value the unique abilities of each student. Finally, Ryan and Cooper (1972) note that an effective teacher must have a command and knowledge of subject matter and be able to communicate that knowledge to their students.

Therefore, after observing another teacher in action, the observer not only has the opportunity to reflect upon his/her peer's performance, but to also reflect upon his/her own performance as well. Davis (1984) notes that "teachers are more apt to change when they see their teaching performance as it really is and not as it is perceived to be, especially by others" (p. 26).

Consequently, it is especially important that the peer coach be skilled in data collection so that he/she can accurately describe the teacher behavior observed. In order to accurately describe teacher behavior, the observer should

try to "capture a near-verbatim record of what is said and done in the classroom" (Bird and Little, 1983, p. 15). Brandt (1985) refers to what he calls a "script tape" in order to achieve objectivity and clarity in data collection. He refers to the "script tape" as a "kind of recording that you can play back to the teacher so the teacher knows in temporal order everything that happened in that lesson" (p. 64).

Peer observations should only be descriptive, that is, they should not reflect observer bias or be judgmental (Mallo, 1984; McIntyre and Morris, 1982; Abel et al., 1986). Trust is also an important component in the observational process of the peer coaching model. Teachers must be afforded opportunities to grow and develop professionally without the fear of being judged while doing so (Mallo, 1984). Furthermore, "by making no judgmental statement, we allow the teacher being observed to make his/her 'reality' of the situation" (Mallo, 1984, p. 11). Johnston and Holt (1983) note that in order to be effective, the observer must not only know what he/she is looking for, but be able to yield data that permits specific recommendations and commentaries about the teacher's behavior. Johnston and Holt (1983) state, "If teachers are going to improve their teaching performance, they must have information about that performance and be able to evaluate their own behavior against some agreed-upon standard of performance" (p. 23).

Allowing teachers to observe other teachers has, not only, resulted in a high state of goal achievement but stimulated teacher growth as well (Joyce and Showers, 1982; Munro and Elliott, 1987). Dunkleberger (1982) contends that there are four criteria which offer an effective framework for teacher observation. Those four areas include planning skills, technical skills, instructional skills and classroom management skills. He further notes that teachers will view the observation procedure as helpful if they know what is expected and how they will be judged.

Finally, McKeen and White (1986) note the importance of process observation as a means of providing "information about what is going on at the surface, above the content" (p. 1). This skill would certainly seem appropriate for the peer coaching model as it allows for a descriptive, accurate and comprehensive account of "the actions of an individual or a group as they occurred during a given time period of observation " (p. 1).

CHAPTER III

METHOD

This chapter will present the research questions, a discussion of the investigative social research method, the selection of the population, instrumentation and protocols, the data collection procedure, the data analysis, tests of research design and a chapter summary.

Research Questions

Although the purpose of this study was to investigate selected variables that may be impeding feedback in the peer coaching model, a first consideration of the study was to make some determination as to whether or not teachers do or do not tend to give useful feedback to their peers. Therefore, research question number one addressed that priority.

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific? In order to determine if the select group of teachers with whom the researcher worked do tend to give useful feedback, the researcher participated in an all day training/workshop session with these teachers.

34

This select group of teachers, who had been trained in mentoring and peer coaching skills, was asked to view two videotaped teaching episodes. After viewing the two videotapes, the researcher asked the select group of teachers to give written feedback to the teachers observed on videotape. After the researcher had gathered this data, she first analyzed the feedback and then asked ten teacher colleagues (from a different setting) and four supervisors (two of whom were from the same setting and two of whom were from a different setting) to evaluate the feedback given by the select group of teachers in order to assess its usefulness. This process allowed for the first research question. The remaining research questions guiding this study are as follows:

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? The objective of the second research question was to determine whether the select group of fifty-four teachers could produce an accurate script tape of a teaching episode as a basis for providing useful feedback. Brandt (1985) describes a script tape as a "kind of recording that you can play back to the teacher so that the teacher knows in temporal order everything that happened in the lesson" (p. 64). Therefore, the select group of teachers was instructed to view a third videotape of a

teaching episode and to simply write down in temporal order while they watched the tape the teaching behaviors observed.

Data for research questions 3, 4 and 5 was obtained by a questionnaire and telephone interviews.

3. To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess communication skills, the select group of fifty-four teachers responded to a questionnaire which contained eleven questions regarding effective communication skills. The researcher then followed up the questionnaire by interviewing fifteen of the fifty-four respondents by telephone.

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess the trust variable, the select group of fifty-four teachers responded to a questionnaire which included thirteen questions pertaining to trust. The researcher also followed up the questionnaire by conducting telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of their answers regarding the variable, trust.

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess the fifth research question the select group of fifty-four teachers responded to twelve

questions on the questionnaire which related to teacher reflection and connoisseuring skills. The researcher also used telephone interviewing with fifteen of the respondents in order to further investigate some of the answers the teachers had given on the questionnaire pertaining to teacher reflection and connoisseuring skills.

The Investigative Social Research Study

The researcher of this dissertation study used the investigative social research method described by Douglas (1976) in order to address the above research questions. This strategy involved "building and using friendly and trusting relations and then checking out the people and the information" (Douglas, 1976, p. 129). In order to build friendly and trusting relations, the researcher talked with the coordinator of the mentor teaching program on several occasions. (The select group of teachers with whom the researcher worked had been trained in mentoring and peer coaching skills.) On every occasion that the researcher talked with the coordinator of the mentor teaching program, she noted a friendly, trusting and helpful attitude on the coordinator 's part toward her work. Further rapport was established with the coordinator and her secretary during a luncheon meeting. The researcher also established a rapport with the coordinator's staff and with the Director of Research and Evaluation through written communication,

telephone conversations and a planning meeting. The researcher participated in a "coffee" with the select group of teachers and also joined some of them in the discussion groups that were held during the training session. The researcher also noted a friendly and helpful attitude on the part of the select group of teachers with whom she worked and had the opportunity to talk with fifteen of those teachers during the telephone interviews that were a part of her study. The researcher also met with and communicated by telephone and by mail with two supervisors who were willing to invest their time in order to evaluate the feedback given by the select group of teachers. The researcher felt that all of the above experiences, although short-term, were positive, friendly and trusting.

A Description of the Respondents, the Teacher Colleagues, the Supervisors and the Study Site

The Respondents. In order to select the population for her study, the researcher met with the study site's Director of Research and Evaluation. After this discussion, the Director of Research and Evaluation recommended to the researcher that she work with a select group of 59 teachers who had been trained in both mentoring and peer coaching skills. As five of these teachers declined participation in the study, the researcher conducted her study with the remaining 54 teacher.

The Teacher Colleagues. The teacher colleagues in this study were a select group of elementary school teachers who work with the researcher. These ten colleagues had participated in a course that had given them the opportunity to view several videotapes of teaching episodes. Among those videotapes were the three teaching episodes the researcher used in her study.

The Supervisors. The researcher worked with four supervisors in order to conduct her study. Two of the supervisors were from the study site and had viewed both of the videotaped teaching episodes. These two supervisors had been trained in the peer coaching model, supervisory skills and leadership skills. The remaining two supervisors were from a different setting and had not viewed the videotaped teaching episodes. However, these two supervisors had both obtained doctoral degrees in education administration. One of these supervisors had developed an expertise in the peer coaching model through a dissertation study. The other supervisor had gained practical experience in the peer coaching model through staff development opportunities.

The Study Site. The site for this study was a large suburban public school system in Virginia. The school system serves approximately 40,000 students whose educational program is directed by an instructional staff of more than 3,000 employees. Currently, there are twenty-

seven elementary schools, nine middle schools and eight high schools.

Staff development opportunities have involved many of the school system's teachers in a peer coaching program called T.E.E. (Toward Educational Excellence). Hall (1988) found in her survey study (sample population of 379 teachers) that these participating teachers have perceived the peer coaching program as being useful, strengthening communication between and among teachers and decreasing teacher isolation. She also noted that some peer coaching teachers "tended to view the feedback that they received as more useful than the feedback they gave to their peers" (p. 69). As a result of this finding, Hall believed that some peer coaching teachers felt they needed further training in giving useful feedback to their peers. However, to date, there was no empirical evidence to support Hall's assumption that a lack of training may be retarding the feedback process in the peer coaching model. Therefore, the researcher gathered data from the select group of 54 teachers who work in the above school system in order to provide an objective assessment of feedback given by peer coaching teachers and then to investigate selected variables that may be impeding feedback in the peer coaching model.

Instrumentation and Protocols

A questionnaire, telephone interviews and videotapes were used to collect the data in this study. A questionnaire and telephone interviewing addressed research questions number three, four and five. Research questions number one and two were addressed through the use of videotapes and are discussed on pages 43 through 47 of this chapter. A discussion of the questionnaire, the telephone interviews and the videotapes follows.

The Questionnaire. The questionnaire was developed by the researcher after a careful review of the literature pertaining to communication skills, trust, and teacher reflection and connoisseuring skills. The questionnaire was used to assess the following research questions:

3. To what extent are communication skills a factor in why peer coaching teachers may not be providing useful feedback to their peers?

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers?

The questionnaire contained eleven questions that addressed communication skills, thirteen questions that

addressed the trust variable and twelve questions that
addressed teacher reflection and connoisseuring skills.
Generally, there were three responses to each question (1:
yes 2: no 3: sometimes). The questionnaire was
administered to each of the fifty-four respondents, and data
was collected from all fifty-four respondents. A final part
of the questionnaire included demographic data that provided
information about the respondents' teaching assignments,
subject areas, degrees earned and years of teaching
experience. This information is described in Chapter Four
in Table 1.

Regarding validity, the questionnaire was pretested for
clarity and for suitability as the researcher asked two
colleagues to read the questionnaire in order to assess its
clarity before it was administered to the respondents. A
copy of the questionnaire appears in Appendix A of this
dissertation.

In-depth Telephone Interviews. The second method used
by the researcher was in-depth telephone interviews.
Douglas (1976) recommends that the social research
investigator use in-depth conversational interviews in order
to obtain validity, and he also recommends a flexible
checklist of questions to make sure the researcher covers
all the things he/she knows to be important through
involvement and earlier discussions. Therefore, after
sorting through the questionnaire data, the researcher

selected fifteen questionnaires from which she developed a profile on each respondent. The profiles included demographic information and information regarding the respondents' answers on communication skills, trust and teacher reflection and connoisseuring skills. The researcher then chose those fifteen respondents for telephone interviewing. The telephone interviews averaged approximately ten to fifteen minutes depending upon the time restraints of the respondent. The researcher's objective in the telephone interviews was to probe deeper into certain answers the respondents had given on the questionnaire in order to find out more about the respondents' communication skills, trust and teacher reflection and connoisseuring skills.

Videotapes and Teaching Behaviors. The third method used by the researcher was a set of categories. These categories were developed by the researcher after viewing three videotapes. The three videotapes were obtained from the staff development program in Fairfax County, Virginia.

One videotape was to serve as a scripting tape. Research question number two was addressed through this tape and is as follows:

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? The purpose of the scripting tape was to assess whether or not the select group of teachers in

the study could script tape. A script tape is a "kind of recording that you can play back to the teacher so the teacher knows in temporal order everything that happened in the lesson," (Brandt, 1985, p. 64). Therefore, the thirteen script taping categories that the researcher had developed after viewing one of the teaching episodes was used to assess the "scripting" skills of the select group of teachers.

The Scripting Tape lasted approximately nine minutes and depicted a 9-12 summer school science class. During the tape the science teacher sets up an experiment using colored water to demonstrate the movement of a cold front. Events that occurred during the tape are listed in order:

1. The teacher stated lesson objectives.

2. The teacher asked a student to read background information which defines and describes a front.

3. The teacher stated the procedures and materials needed for the experiment.

4. The teacher taped paper to the back of a demonstration box so the children could see the experiment better.

5. The teacher continued giving directions about setting up the experiment and directed the students how to diagram their observations of the experiment.

6. The teacher asked a question about the cold front. "What kind of front are we going to be making here?"

7. The teacher answered questions and continued giving directions about the experiment.

8. The teacher gave out red and blue pencils to the students.

9. The teacher punched holes in the water bag to simulate the movement of the warm air mass.

10. The teacher gave further directions in order to direct the students' observations about the experiment.

11. The teacher asked questions about the movement of the front. "Which one is moving more quickly...the warm or the cold?"

12. A student responded to the question. "Cold."

13. The teacher asked a last question to see if the students wanted him to repeat the experiment.

In order to assess research question number one, two additional tapes were used. Both of these tapes were used to assess whether or not the select group of teachers could give useful feedback after viewing a teaching episode. The researcher refers to these two tapes in Chapter Four as Teaching Episode Number One and Teaching Episode Number Two. Research question number one is stated as follows:

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific?

<u>Teaching Episode Number One</u> lasted approximately 11 minutes and depicted a first and second grade combination class during circle time. Circle time in this particular primary class revolved around morning activities, such as calling the roll, taking the lunch count, placing the date on the classroom calendar, singing songs and making morning announcements. The researcher developed seven categories that described the events that occurred during the tape. The seven categories are as follows:

1.   The teacher used praise and encouragement.

2.   The teacher provided help for the ESL (English as a Second Language) child.

3.   The teacher emphasized taking turns with the children.

4.   Two children had a disagreement as one child screamed into another child's face.

5.   The teacher asked Lisa to make a decision, and then the teacher made the decision for Lisa herself.

6.   There was some confusion about classroom jobs.

7.   The momentum (time lag) was slow.

<u>Teaching Episode Number Two</u> lasted approximately 11 minutes also and depicted an eighth grade math class. During this tape the math teacher defines and demonstrates terms (volume, surface area, constant and variable) through a "hands on" experiment. Students used clay to make shapes in which the volume stayed the same, but shape varied.

Throughout this tape, the teacher relies upon lecturing and giving directions. There are few opportunities for student interaction in the discussion. Also, at one point in the tape, one students remarks, "I'm still working on the square," as the teacher gives instructions about making a shape with three surfaces. The teacher also ignores some student comments and questions, and she answers her own questions, at times, rather than having the students give her answers. The researcher developed eight categories that described the events during the tape. The eight categories are as follows:

1. The teacher used direct rather than indirect teaching.

2. The teacher made use of manipulatives to teach her lesson.

3. At times, momentum was too slow, at other times, momentum was too fast.

4. The teacher checked for understanding.

5. Student questions and comments were, at times, ignored by the teacher.

6. The students were not used to help pass out materials.

7. There was little time for student exploration or discovery with the manipulatives.

8. There was a lack of wait time on the teacher's behalf for answers to her questions.

The validity of the categories was based upon the researcher's past experience and knowledge in the teaching profession. In order to measure reliability, the researcher attempted to obtain a measure of interrater reliability. After the initial development of the content classification system, the researcher asked another individual who is knowledgeable about peer coaching "to verify that the categories derived by the researcher make sense in view of the data pool from which the researcher worked, and that the data have been appropriately arranged into the developed categorical system" (Guba and Lincoln, 1981, p. 122). Therefore, the researcher selected fifteen statements at random. She then asked a colleague, who had been trained in peer coaching skills, to use the same classification system that the researcher had used to rate fifteen of the respondents' narratives. This process helped to determine if the researcher had been consistent in appropriately arranging the data in the content classification system. As a result of this process, an interrater reliability coefficient of .73 was found.

The research technique used by the researcher in the above example is called content analysis. Content analysis is often used in identifying or solving educational problems. Borg and Gall (1983) define content analysis as "a research technique for the objective, systematic and quantitative description of the manifest content of

communication" (p. 511). For example, Zahorik (1968) used content analysis to study the classroom behavior of teachers. "The researcher tape records classroom verbal behavior, for example, and makes a typed transcript from the audiotape. The content of the transcript is then analyzed in order to measure variables formulated by the researcher" (Borg and Gall, 1983, p. 512).

Data Collection Procedure

In order to collect the data needed for the research study, the researcher's first objective was to obtain three videotapes of teaching episodes. Therefore, the researcher asked the school system in which she works if she could borrow some of their tapes to use in her study. The researcher was granted permission by staff development personnel to view several tapes at a staff development location. After viewing several tapes, the researcher chose three that she thought would best meet the needs of her study. The researcher was then granted permission by the school system to use these tapes in her study.

Having obtained the three tapes and having prepared the script tape categories for the "scripting" assessment and the feedback categories for the feedback analysis, the researcher traveled to the host school system to conduct her study. Upon arriving at the study site, the researcher was welcomed and introduced by the coordinator of the mentor

teaching program. (The select group of teachers with whom the researcher was to work had been trained in mentoring and peer coaching skills.) The researcher gave a brief introduction about herself and then gave a short talk about her study and about useful feedback skills and effective observational skills. The researcher then proceeded with the data collection.

The first method of data collection addressed the second research question which is as follows:

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? The fifty-four peer coaching teachers were asked to view a videotape of a teaching episode, and as they viewed the tape they were asked to simply write down in temporal order the teaching behaviors they observed. The researcher then collected this data and analyzed the results through content analysis. A discussion of this analysis appears on pages 53 and 54 of this chapter.

The second method of data collection involved written feedback. The written feedback addressed the first research question which is as follows:

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific? In order to collect the data for

this question, the researcher showed two additional tapes of teaching episodes to the peer coaching teachers. After viewing the tapes, the peer coaching teachers responded to the two teachers observed on tape by providing written feedback to them. The researcher then collected this data and used content analysis to analyze the feedback responses. Analysis of the feedback data as described by the researcher appears on pages 53 and 54 of this chapter.

A second analysis of the feedback was also conducted by ten teacher colleagues and four supervisors. Their objective was to determine if the feedback given by the peer coaching teachers was useful and did adhere to certain established criteria, such as being specific and descriptive.

Therefore, after having categorized the respondents' feedback narratives onto 3x5 cards, the researcher asked ten colleagues with whom she worked to review all of the feedback cards to determine the total number of cards found useful and the categories found helpful. (These teacher colleagues had participated in a course which had given them the opportunity to view several teaching tapes that included the teaching episodes that the researcher had used in her study.) The teachers were handed the cards and asked, "If this information were given to you, which of the cards would you consider useful information, and which categories would you find helpful?" After this data had been collected, the

researcher asked four supervisors, two of whom had viewed the tapes and two who had not, to go through the feedback to determine the following:

1.   What percent of the feedback was specific?

2.   What percent was descriptive enough to change the teacher's behavior?

3.   In your opinion was the feedback useable? Did it assist the teacher to do a better job in the classroom? A summary of the supervisors' evaluation is presented in Chapter Four in Table 2.

Finally, the researcher asked a colleague who had been trained in peer coaching skills to rate fifteen of the respondents' narratives to determine if the researcher had been consistent in appropriately arranging the data in the content classification system.

The third method of gathering data was through a questionnaire which was distributed to the 54 teachers. After the questionnaire had been answered by the teachers, the researcher selected fifteen of the respondents for in-depth telephone interviewing. The questionnaire, followed by in-depth interviewing, addressed the following research questions:

3.   To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers?

Collection of data was begun in the winter season of 1989 and completed by the spring season of 1989.

Data Analysis

The data obtained from the questionnaire and the follow-up telephone interviews was used to assess whether a lack of trust, communication skills, and/or teacher reflection and connoisseuring skills may be factors in why some peer coaching teachers may not be providing useful feedback to their peers. The questionnaire data was analyzed through simple frequencies, while the data obtained from the in-depth telephone interviews was analyzed through content analysis.

Analysis of the written feedback and scripting narratives also involved content analysis. Prior to collecting the feedback and scripting narratives, the researcher viewed each of the three videotapes and developed a set of categories for each of the three tapes. The researcher then sorted through the written feedback and

scripting narratives. She found likenesses and differences and categorized the information onto 3x5 cards. This process allowed her to analyze both the feedback data and the scripting skills of the peer coaching teachers. Finally, four supervisors and ten teacher colleagues analyzed the feedback to determine if the peer coaching teachers had given useful, specific and descriptive feedback to the two teachers that they had observed on videotape. This data was also analyzed through simple frequencies.

Tests of Research Design

In attempting scientific inquiry, the researcher must be cognizant of both validity and reliability.

Bartell (1985) noted in her study that construct validity is obtained by "establishing correct operational measures for the concepts being studied" (p. 51). Furthermore, triangulation, which is the technique of utilizing multiple data gathering methods, also adds to the validity of a study. Therefore, in order to meet the requirements for construct validity and triangulation, the researcher relied upon multiple data gathering methods. Those methods were feedback commentaries and "scripting" narratives, a questionnaire and telephone interviewing.

Guba and Lincoln (1981) note that the greatest threat to qualitative studies is instrumentation or researcher bias. They also state, though, that "this loss in rigor is

more than offset by the flexibility, insight and ability to build on tacit knowledge that is the peculiar province of the human instrument" (p. 113). Douglas (1976) also describes the advantages of qualitative data analysis. He notes that the detailed facts of field observation can, at times, be more enlightening than quantitative data analysis. However, in order to guard against researcher bias, the researcher in this study asked a colleague who is knowledgeable about peer coaching to determine if the researcher had been consistent in appropriately arranging the data in the content classification system. Therefore, the researcher selected at random fifteen of the feedback commentaries and "scripting" narratives. She then asked her colleague to use the same classification system that she had used in order to rate the fifteen narratives. As reported earlier in the chapter, an interrater reliability coefficient of .73 was found.

In order to "shore up" internal validity, Guba and Lincoln (1981) recommend what they refer to as "structural corroboration."

> Structural corroboration is a process of gathering data or information and using it to establish links that eventually create a whole that is supported by the bits of evidence that constitute it. Evidence is structurally corroborated when pieces of evidence

validate each other, the story holds up, the pieces
fit, it makes sense, the facts are consistent (p. 106).

As reported in Chapter Four, the results of the data
collected from the feedback commentaries and "scripting"
narratives, the questionnaire and the telephone interviewing
all seem to suggest that peer coaching teachers may need
more training in providing useful feedback to their peers.
More specifically, the questionnaire data and the telephone
interviews regarding communication skills and trust seem to
suggest that peer coaching teachers may need further
training in expressing feelings that might be construed as
negative by others.

Regarding external validity, this study is not meant to
be generalizable to all teachers who are involved in peer
coaching across the country. It is, instead, meant to
provide an understanding and awareness of selected variables
that may be causing some peer coaching teachers to fail to
provide useful feedback to their peers. As Douglas (1976)
notes, "The final stage is that of understanding the scene
more abstractly. This is the time when the researcher tries
to see the general significance and implications of his/her
work" (p. 127).

Finally, Guba and Lincoln (1981) note that naturalistic
methods are no worse than scientific methods in achieving
neutrality, and, naturalistic methods may, at times, be
better than scientific methods. "Whatever degree of

apparent objectivity may be lost is more than compensated for by the continuously emerging insights that naturalistic methods produce" (p. 127).

Chapter Summary

The researcher of this study conducted an investigative social research study in order to provide an objective assessment of feedback given by peer coaching teachers and then to investigate selected variables that may be impeding feedback in the peer coaching model. The variables investigated were (a) "scripting" skills (b) communication skills, (c) trust, and (d) teacher reflection and connoisseuring skills. In order to assess peer coaching feedback and the above variables, the researcher participated in an all day training/workshop session with a select group of fifty-four teachers who had been trained in mentoring and peer coaching skills. The site for the study was a Virginia public school system. The select group of teachers participated in script taping, feedback analysis, a questionnaire and telephone interviews. Data was then collected by the researcher and analyzed in order to assess the research questions guiding this study. Results are presented in Chapter IV, followed by conclusions and recommendations in Chapter V.

CHAPTER IV

RESULTS

Research Questions

Although the purpose of this study was to investigate selected variables that may be impeding feedback in the peer coaching model, the first consideration in this study was to make some determination as to whether or not teachers do or do not give useful feedback to their peers. Research question number one addressed that priority.

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback such as being descriptive and specific? In order to determine if this select group of teachers, with whom the researcher worked, do tend to give useful feedback, the researcher participated in an all day training/workshop session with these teachers. This select group of teachers, who had been trained in mentoring and peer coaching skills, was asked to view two videotapes of teaching episodes. After viewing the two videotapes, the researcher asked the select group of teachers to give written feedback to the teachers observed on videotape. After the researcher had gathered this data, she first analyzed the feedback and then asked ten teacher

colleagues and four supervisors to evaluate the feedback given by the select group of teachers in order to assess its usefulness. This process allowed for the first research question. The remaining research questions are as follows:

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? The objective of the second research question was to determine whether the select group of fifty-four teachers could produce an accurate script tape of a teaching episode as a basis for providing useful feedback. Brandt (1985) describes a script tape as a "kind of recording that you can play back to the teacher so that the teacher knows in temporal order everything that happened in the lesson" (p. 64). Therefore, the select group of teachers was instructed to view a third videotape of a teaching episode and to simply write down in temporal order while they watched the tape the teaching behaviors observed.

Data for research questions 3, 4 and 5 was obtained by a questionnaire and telephone interviews.

3. To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess communication skills, the select group of fifty-four teachers responded to a questionnaire which contained eleven questions regarding effective communication skills. The researcher then followed up the questionnaire by interviewing fifteen of the

fifty-four respondents by telephone.

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess the trust variable, the select group of fifty-four teachers responded to a questionnaire which included thirteen questions pertaining to trust. The researcher also followed up the questionnaire by conducting telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of their answers regarding the variable, trust.

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers? In order to assess the fifth research question the select group of fifty-four teachers responded to twelve questions on the questionnaire which related to teacher reflection and connoisseuring skills. The researcher also used telephone interviewing with fifteen of the respondents in order to further investigate some of the answers the teachers had given on the questionnaire pertaining to teacher reflection and connoisseuring skills.

Description of Subjects

A select group of fifty-nine teachers who had been trained in mentoring and peer coaching skills in a large Virginia public school system were the subjects for this

study. Of these fifty-nine teachers, five declined to participate in the study. Therefore, the demographic data included in Table 1 is a description of the fifty-four teachers who did participate in the study.

Five questions were included in the questionnaire in order to provide a demographic profile of the respondents. As indicated in Table 1, the subjects included 29 (54%) elementary teachers, 12 (22%) middle school teachers and 13 (24%) high school teachers. Years of experience ranged from a low of 1-5 years to more than twenty-five years of teaching experience. The majority of teachers had earned a Bachelors degree (72%), twenty-six percent had earned a Masters degree and two percent had earned a Masters + 30 hours.

Research Question 1: Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific? In order to assess the above research question three sources were used to analyze the feedback given by the select group of teachers. Those three sources were (1) the researcher, (2) other teachers and (3) supervisors. A discussion of each analysis follows.

Table 1

Demographic Profile of Teachers

	Total 54		Elementary 29		Middle 12		High School 13	
	N	%	N	%	N	%	N	%
Years of Teaching Experience								
1-5	4	7	3	10	1	08	0	0
6-10	17	32	12	41	4	33	1	08
11-15	14	26	4	14	4	33	6	46
16-20	13	24	6	21	1	08	6	46
21-25	5	9	3	10	2	17	0	0
25+	1	2	1	03	0	0	0	0
Degree Earned								
Bachelors	39	72	24	83	10	83	5	38
Masters	14	26	5	17	2	17	7	54
Masters+	1	2	0	0	0	0	1	08

The Researcher's Analysis of the Feedback. In order to determine if the select group of teachers with whom the researcher worked do give useful feedback, the researcher asked the select group of teachers to view two taped teaching episodes. After viewing the two teaching episodes, the researcher asked the teachers to give written feedback to the two teachers observed on videotape. After the researcher had gathered this data, she sorted through the written feedback and found likenesses and differences and categorized the information onto 3x5 cards. (Prior to collecting the feedback, the researcher had viewed the teaching episodes herself and had developed a set of categories that described the events that occurred in both tapes.) A description of teaching episode number one follows.

Teaching Episode Number One lasted approximately 11 minutes and depicted circle time with a first and second grade combination class. Circle time in this particular primary class revolved around morning activities, such as calling the roll, taking the lunch count, placing the date on the classroom calendar, singing songs and making morning announcements. Events that occurred during the tape are listed in order:

1. The teacher calls the children to the rug for circle time.

2. A discussion about which child does classroom jobs

follows.

3. A child calls the roll.

4. The teacher helps an ESL (English as a Second Language) child with the calendar job.

5. The "lunch person" does her job. (The "lunch person," in this instance, is a child who helps tally the lunch choices for the teacher.)

6. The teacher and students begin singing.

7. Two students have a disagreement when one child screams into another child's face.

8. The teacher discusses a Good Neighbor Program with the children.

Throughout the tape the teacher used praise and encouragement and the need for taking turns with the first and second grade students. At one point in the tape, the teacher also asked a child to make a decision, and then the teacher made the decision for the child herself.

The researcher then developed seven categories that described the events that occurred during the tape. The seven categories were as follows:

1. The teacher used praise and encouragement.

2. The teacher provided help for the ESL (English as a Second Language) child.

3. The teacher emphasized taking turns with the children.

4. Two children had a disagreement as one child

screamed into another child's face.

    5.   The teacher asked Lisa to make a decision, and then the teacher made the decision for Lisa herself.

    6.   There was some confusion about classroom jobs.

    7.   The momentum (time lag) was slow.

After having read each of the fifty-four respondents' feedback commentaries, the researcher classified the written feedback from each respondent into the seven categories noted above and used simple frequencies to describe the data. A summary of the data follows.

As illustrated in Figure 1, of the 54 respondents, three (6%) did not provide any feedback on the seven categories noted above. Eight (15%) of the respondents included only one of the seven categories in their comments to the teacher on tape. Seven (13%) of the respondents included two of the categories in their written feedback. Eighteen (33%) of the respondents included three categories in their written feedback, while, fourteen (26%) of the respondents included four categories in their written feedback to the teacher observed on videotape. Finally, only four (7%) of the respondents included five of the categories in their written feedback to the teacher observed on videotape. There were no respondents who included six of the categories in their written feedback, nor were there any respondents who included all seven of the categories in their written feedback.
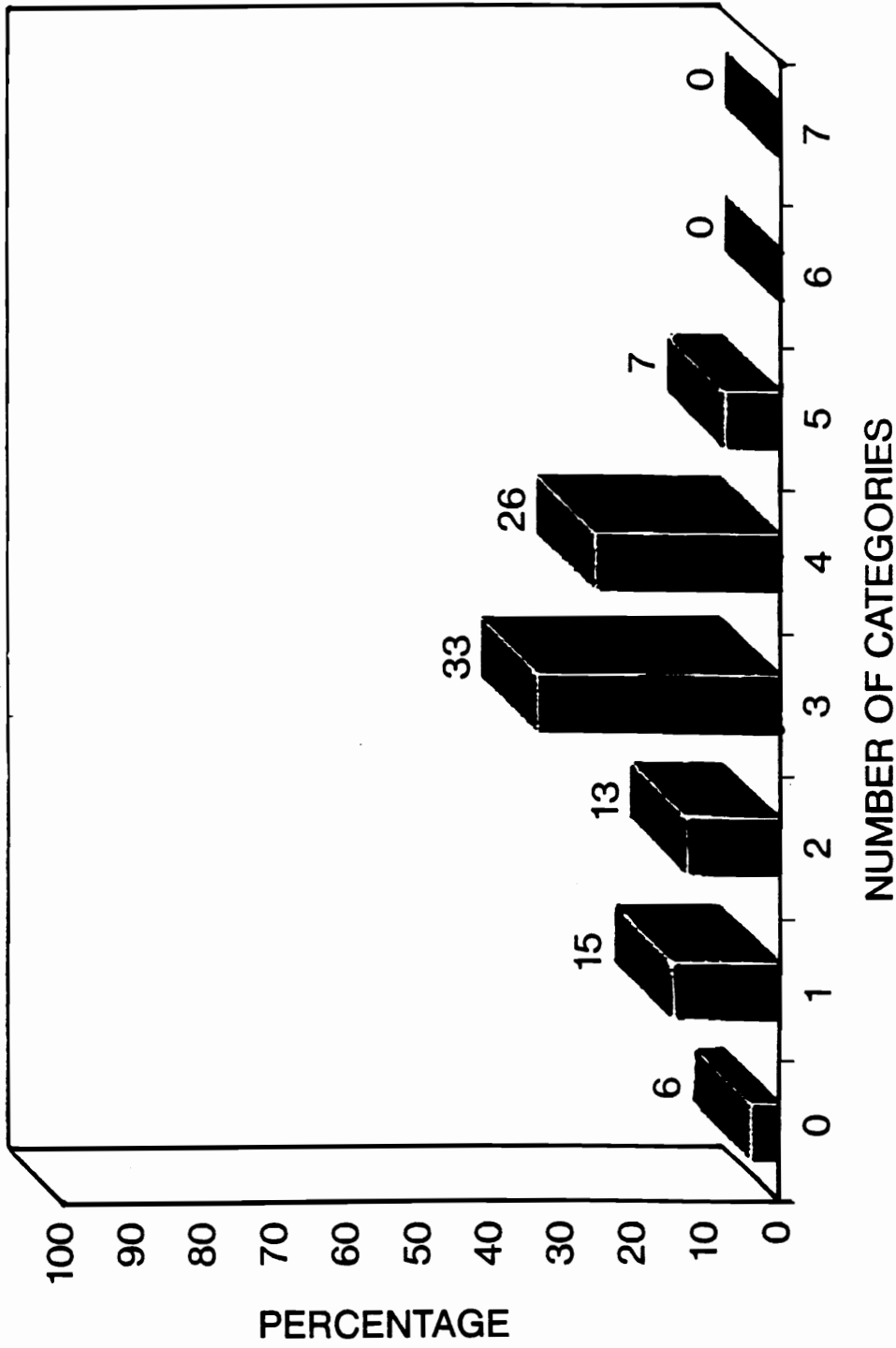
Figure 1. Distribution of the number of categories included in respondents' feedback for teaching episode number one.

Of the seven categories, 26 (48%) of the respondents provided feedback on category number one teaching behavior, the teacher used praise and encouragement. Twenty-three (43%) of the respondents included feedback on category number two teaching behavior, the teacher provided help for the ESL child. Nine (17%) of the teachers provided feedback on category number three teaching behavior, the teacher emphasized taking turns. Forty-nine (91%) of the respondents included feedback about category number four teaching behavior, the teacher emphasized appropriate classroom behavior. Six (11%) of the respondents provided feedback about category number five teaching behavior, the teacher made the decision for Lisa. Twenty-seven (50%) of the respondents included feedback about category number six, there was confusion about classroom jobs, while, 14 (26%) of the respondents included feedback about classroom momentum or time lag which was category number seven. These results are illustrated in Figure 2.

After the first tape on feedback was shown, and the select group of teachers was given the opportunity to respond with written feedback, seven of the 54 respondents were not able to participate in the second feedback tape as they left the session early in order to prepare for a training session with their colleagues. Therefore, there were 47 respondents regarding the second tape on feedback skills.
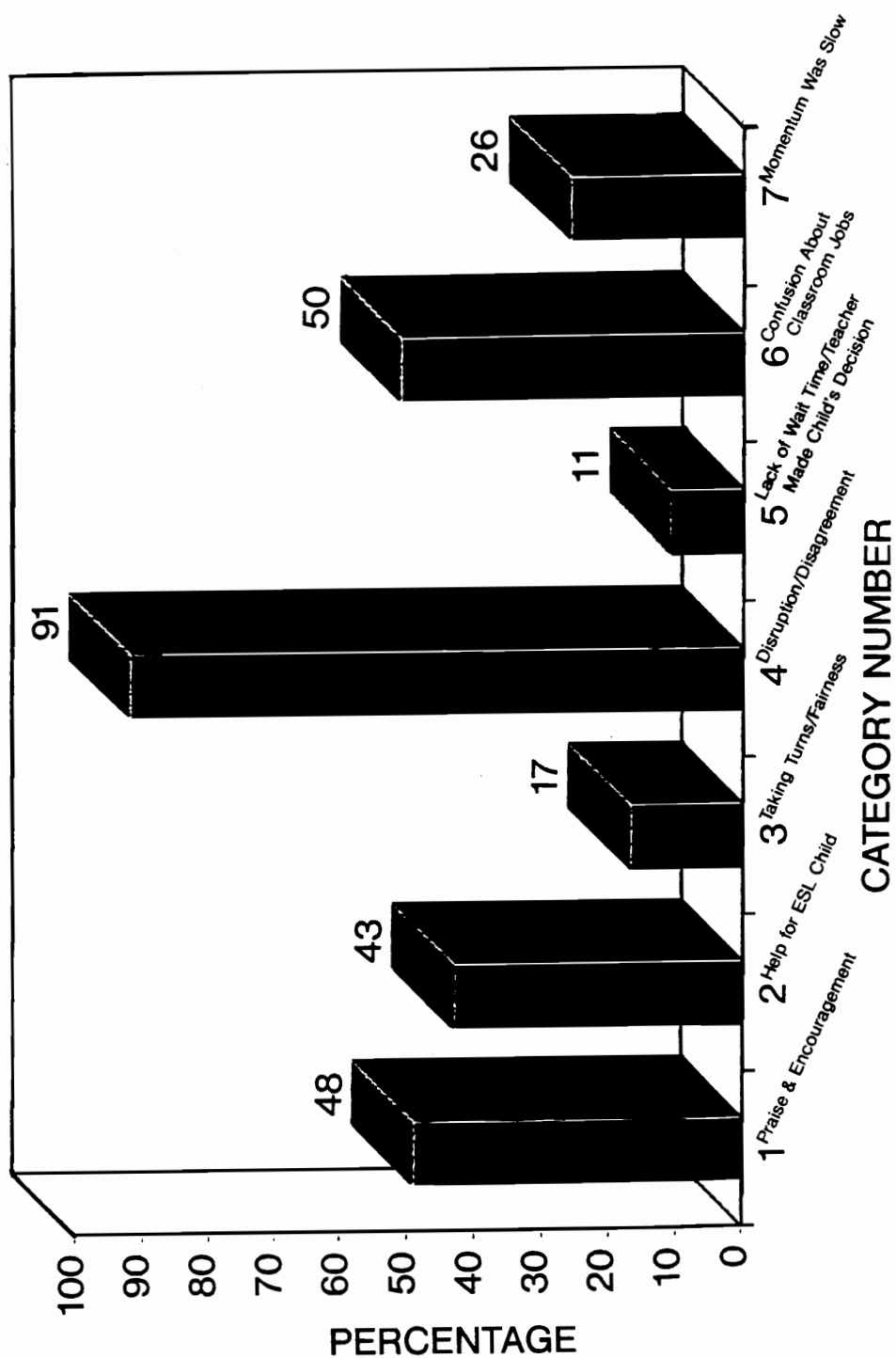
Figure 2. Distribution of the number of respondents who provided feedback on each of the seven categories of specific teaching behaviors for teaching episode number one.

Teaching Episode Number Two lasted approximately 11 minutes also and depicted an eighth grade math class. During this tape the math teacher defined and demonstrated terms (volume, surface area, constant and variable) through a "hands on" experiment. Students used clay to make shapes in which the volume stayed the same, but shape varied. Events that occurred during the tape are listed in order:

1. The teacher passes out materials.

2. The students are instructed to roll the play dough into a sphere or a ball and to wrap wax paper around it.

3. The teacher defines volume.

4. The students flatten out the play dough.

5. The teacher defines surface area.

6. The students poke holes in the play dough to make a line.

7. The teacher circulates the room to check on the students.

8. The students make a cube with the play dough.

9. The teacher directs the students to make a shape with three surfaces.

Throughout this tape, the teacher relied upon lecturing and giving directions. There were few opportunities for student interaction in the discussion. Also, at one point in the tape, one student remarked, "I'm still working on the square," as the teacher gave instructions about making a shape with three surfaces. The teacher also ignored some

student comments and questions, and she answered her own questions, at times, rather than having the students give her answers.

In order to determine whether the select group of 47 respondents could give useful feedback to the teacher observed on videotape, the researcher developed eight categories that described the events during the tape. The eight categories were as follows:

1. The teacher used direct teaching rather than indirect teaching.

2. The teacher made use of manipulatives to teach her lesson.

3. At times, momentum was too slow, at other times, momentum was too fast.

4. The teacher checked for understanding.

5. Student questions and comments were, at times, ignored by the teacher.

6. The students were not used to help pass out materials.

7. There was little time for student exploration or discovery with the manipulatives.

8. There was a lack of wait time on the teacher's behalf for answers to her questions.

After having read each of the forty-seven respondents' feedback commentaries, the researcher classified the written feedback from each respondent into the eight categories

noted above and used simple frequencies to describe the data. A summary of the data follows.

As illustrated in Figure 3, of the forty-seven respondents, ten (21%) provided feedback on at least one category. Nine (19%) of the respondents included written feedback about two of the eight categories. Seventeen (36%) of the respondents were able to give feedback regarding three of the eight categories. Nine (19%) of the respondents included feedback on four of the eight categories; while, only 1 (2%) respondent was able to give feedback on five of the categories, and only 1 (2%) was able to give feedback on six of the eight categories. There were no respondents who included seven of the eight categories in their written feedback, or who included all eight categories in their written feedback to the teacher on videotape.

Of the eight categories, thirty-four (72%) of the respondents provided feedback on category number one teaching behavior, direct vs. indirect teaching. Nineteen (40%) of the respondents included feedback about category number two teaching behavior, the teacher's use of manipulatives. Twelve (26%) of the respondents provided feedback about category number three, momentum; while, twenty-two (47%) of the respondents noted that the teacher checked for understanding, category number four teaching behavior. Category number five teaching behavior noted that the teacher, at times, ignored students' comments and
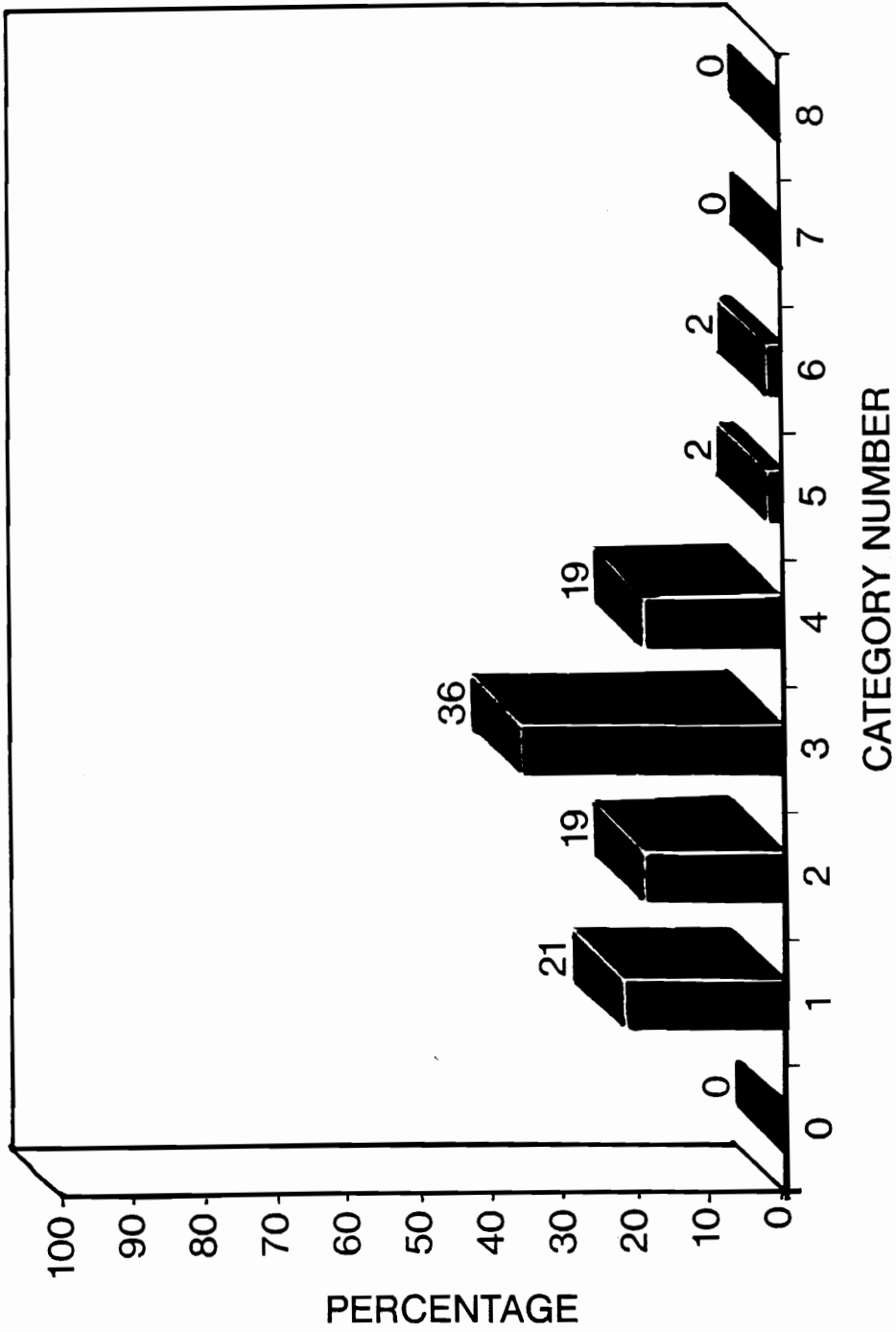
Figure 3. Distribution of the number of categories included in respondents' feedback for teaching episode number two.

questions. Five (11%) of the teachers commented on this fact in their feedback. Nine (19%) of the respondents noted that the students could have helped pass out materials or that the materials could have been prepared in advance which was category number six teaching behavior. Finally, seventeen (36%) of the respondents noted there was little time for student exploration or discovery with the manipulatives, category number seven; and only eight (17%) of the respondents commented on a lack of wait time regarding questions asked by the teacher, category number eight teaching behavior. These results are illustrated in Figure 4.

The Teacher Colleagues' Analysis of the Feedback. After having analyzed the feedback given by the select group of teachers, the researcher consulted ten teacher colleagues with whom she teaches. These ten colleagues were asked to review the feedback from both of the teaching episodes. Prior to consulting the ten teachers, the researcher had categorized the feedback from the select group of teachers onto three by five cards. Consequently, the ten teachers determined which of the cards they considered to be useful, and which of the categories they considered to be helpful feedback. A summary of their analysis follows.

Regarding teaching episode number one, seven (70%) of the ten colleagues found fifty percent or more of the feedback cards to be useful.
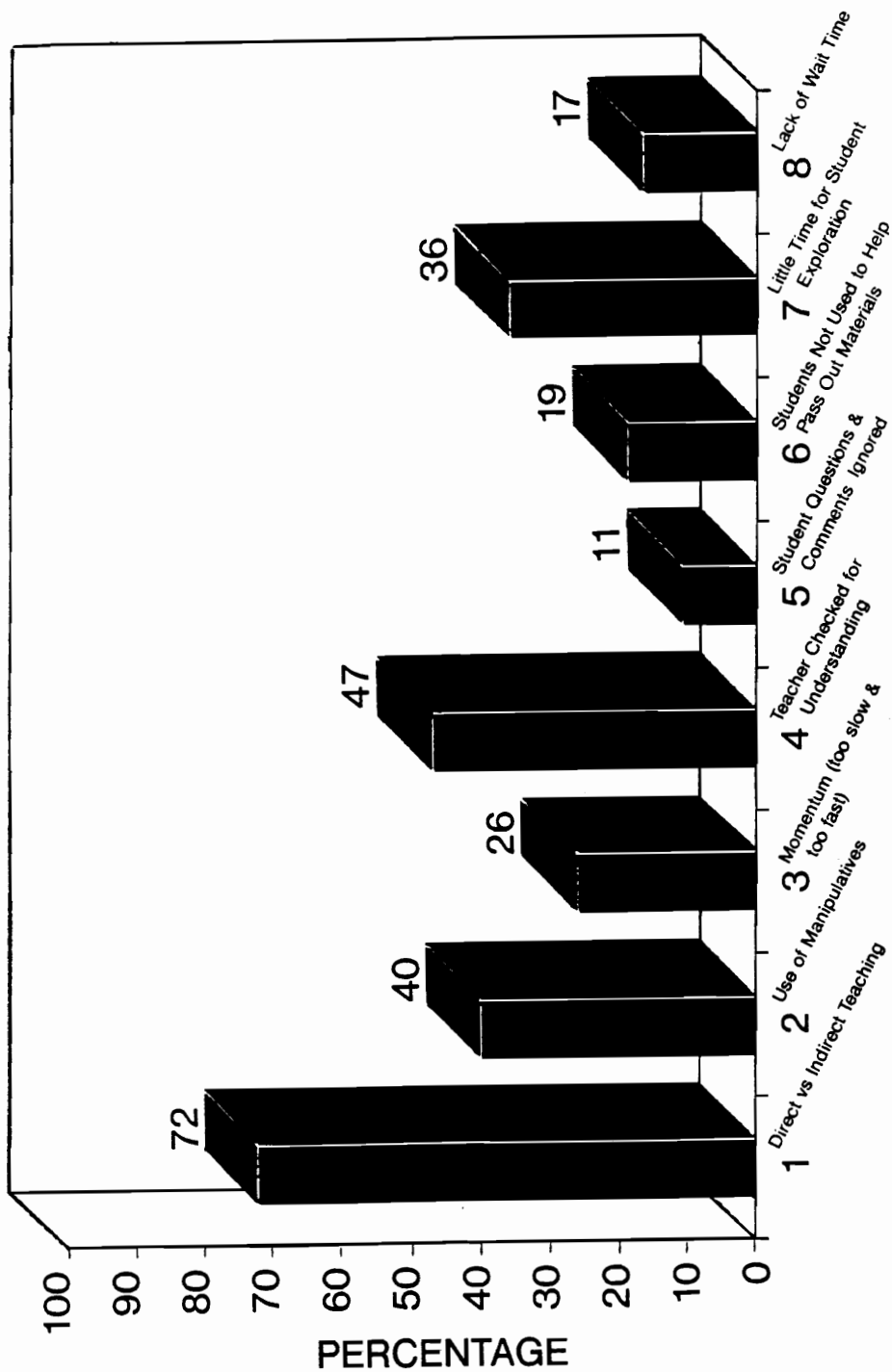
Figure 4. Distribution of the number of respondents who provided feedback on each of the eight categories of specific teaching behaviors for teaching episode number two.

Regarding the categories considered to be helpful feedback, three (30%) colleagues found all seven categories to be helpful feedback, while two (20%) colleagues found six categories to be helpful feedback; two (20%) colleagues also found five categories to be helpful feedback; one (1)%) found four categories to be helpful feedback, and two (20%) colleagues found three categories to be helpful feedback. None of the colleagues found less than three categories to be helpful feedback as illustrated in Figure 5.

Nine (90%) of the teacher colleagues found feedback about category one teaching behavior, the teacher used praise and encouragement, to be helpful feedback. Category two teaching behavior, the teacher provided help for an ESL (English as a Second Language) child, was considered helpful feedback by six (60%) of the teacher colleagues. Category three, the teacher emphasized taking turns, was considered helpful feedback by eight (80%) of the teacher colleagues. All (100%) of the ten teacher colleagues felt that category number four teaching behavior, the teacher emphasized appropriate behavior as two children had a disagreement, was helpful feedback. While only four (40%) colleagues felt that category number five teaching behavior was helpful feedback, the teacher asked a child to make a decision and then the teacher made the decision for the child herself. Finally, category number six, confusion about classroom jobs, was considered helpful feedback by eight (80%) of the

Figure 5. Distribution of the number of categories that each teacher colleague found to be helpful feedback regarding teaching episode number one.

teacher colleagues, while the same number also felt that feedback about momentum, category number seven was helpful. These results are illustrated in Figure 6.

Regarding teaching episode number two, six (60%) of the teachers found fifty percent or more of the feedback cards to be useful.

Regarding the eight categories that described teaching episode number two, eight (80%) of the ten teachers found fifty percent or more of these categories to be helpful feedback. One (10%) colleague found all eight categories to be helpful feedback; three (30%) colleagues found seven categories to be helpful feedback; one (10%) found six categories to be helpful feedback; three (30%) found five categories to be helpful feedback, and none found four of the categories to be helpful feedback. Two (20%) colleagues found three categories to be helpful feedback, while none of the colleagues found less than three categories to be helpful feedback as illustrated in Figure 7.

Five (50%) of the ten teacher colleagues found feedback about category number one teaching behavior, direct vs indirect teaching, to be helpful feedback. Six (60%) of the ten teacher colleagues found that comments about category number two, the teacher's use of manipulatives, were considered to be helpful feedback. Category number three which included comments about momentum was considered helpful feedback by eight (80%) of the teacher colleagues;

Figure 6. Distribution of colleagues' evaluation of the helpfulness of the feedback on categories of specific teaching behaviors for teaching episode number one.
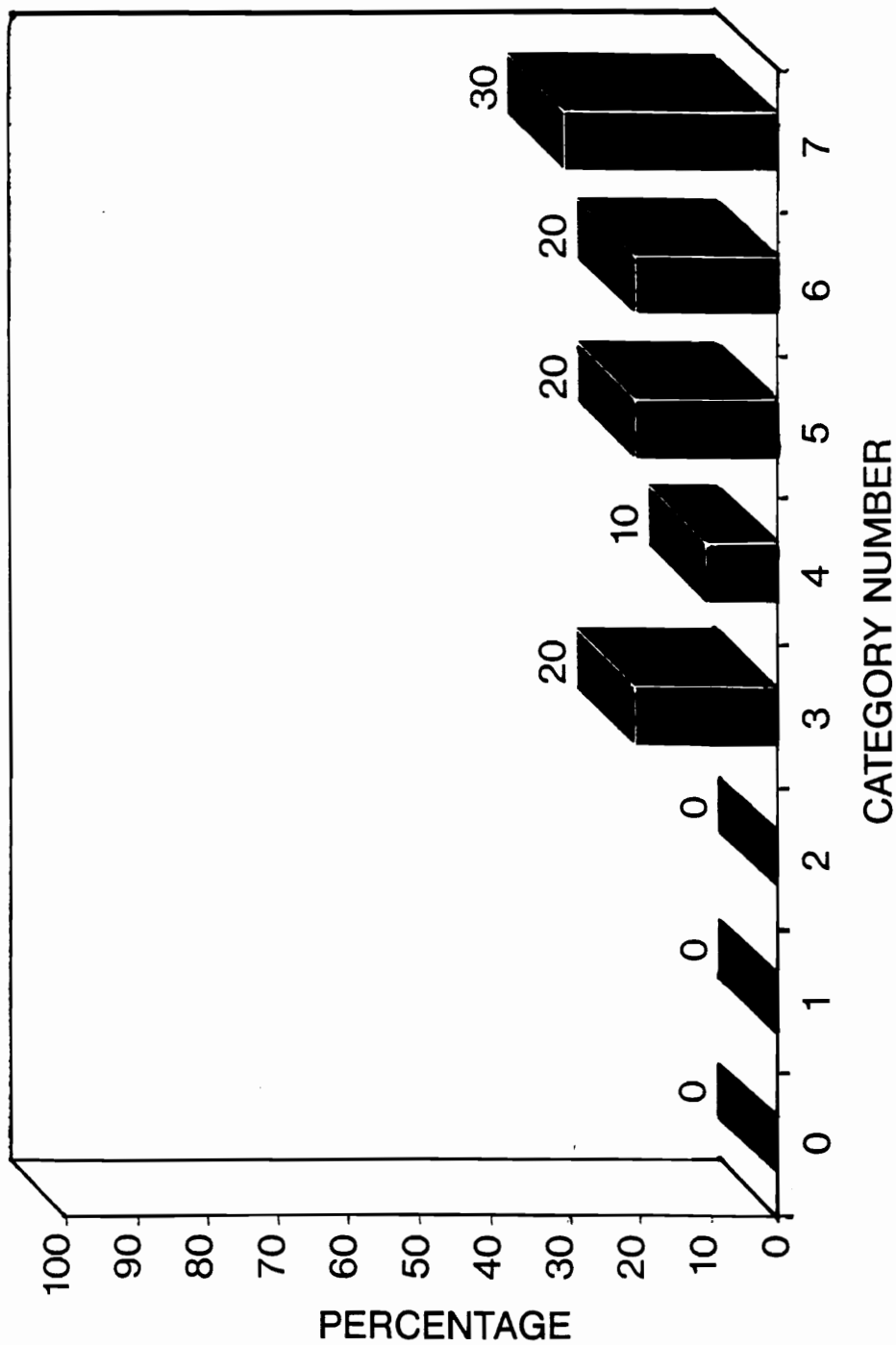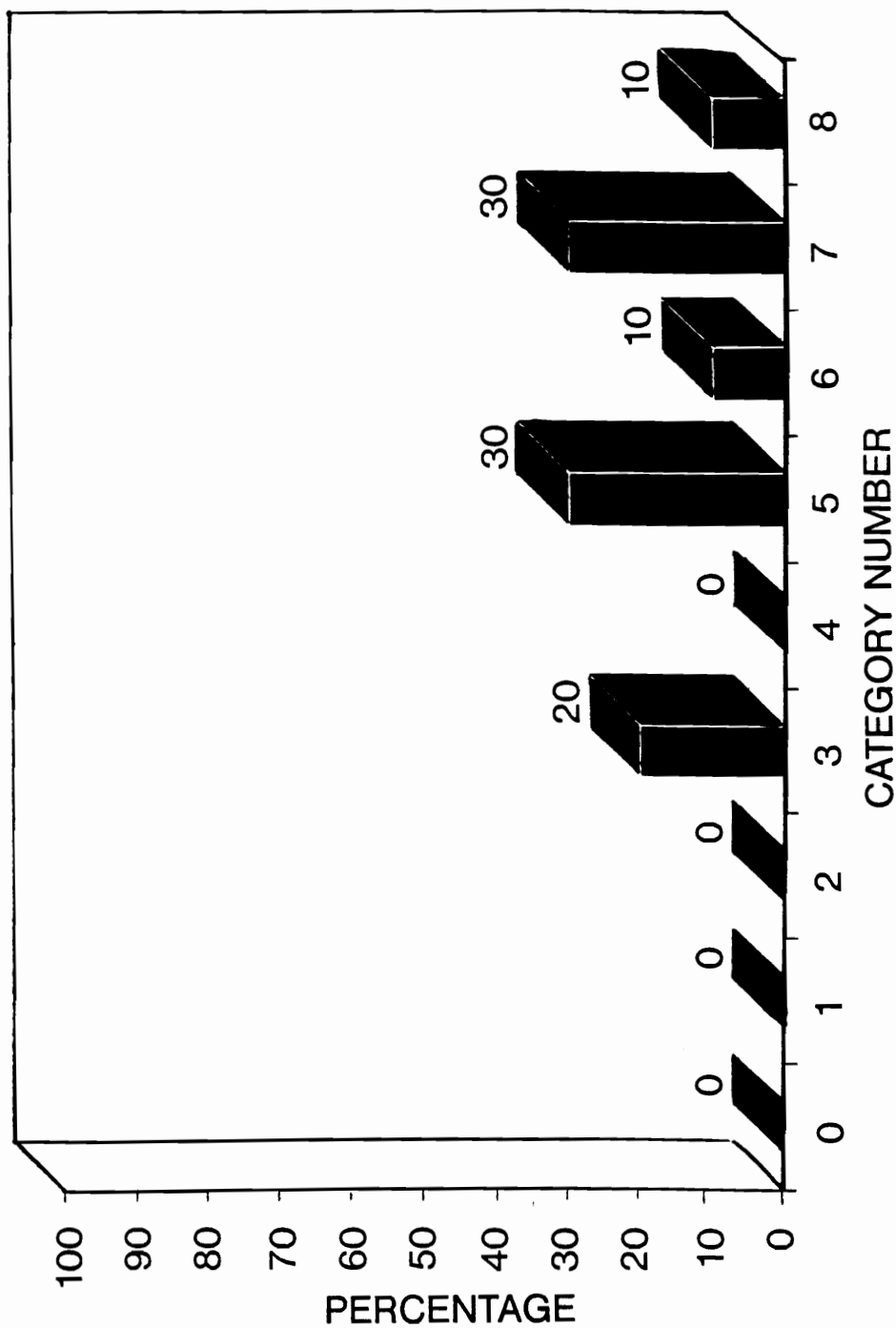
Figure 7. Distribution of the number of categories that each teacher colleague found to be helpful feedback regarding teaching episode number two.

while, nine (90%) of the ten teacher colleagues found category four teaching behavior to be helpful feedback, the teacher checked for understanding. Category number five teaching behavior, students' questions and comments were, at times, ignored by the teacher, was considered helpful feedback by eight (80%) of the teacher colleagues. Only three (30%) of the teacher colleagues found category number six teaching behavior to be helpful feedback, the students were not used to help pass out materials. Finally, nine (90%) of the colleagues found category number seven teaching behavior, there was little time for students' exploration or discovery with the manipulatives, to be helpful feedback; while, eight (80%) of the colleagues found category number eight teaching behavior to be helpful feedback, there was a lack of wait time on the teacher's behalf for answers to her questions. The above results are illustrated in Figure 8.

The Supervisors' Analysis of the Feedback. In order to "shore up" internal validity, multiple data gathering methods have been utilized by the researcher in this study. Therefore, in addition to the critiques of the feedback by the ten teachers, four supervisors (two of whom viewed the two teaching tapes and two of whom did not view the teaching tapes) were asked to consider the following questions regarding the feedback given by the peer coaches.

1. What percent of the feedback was specific?

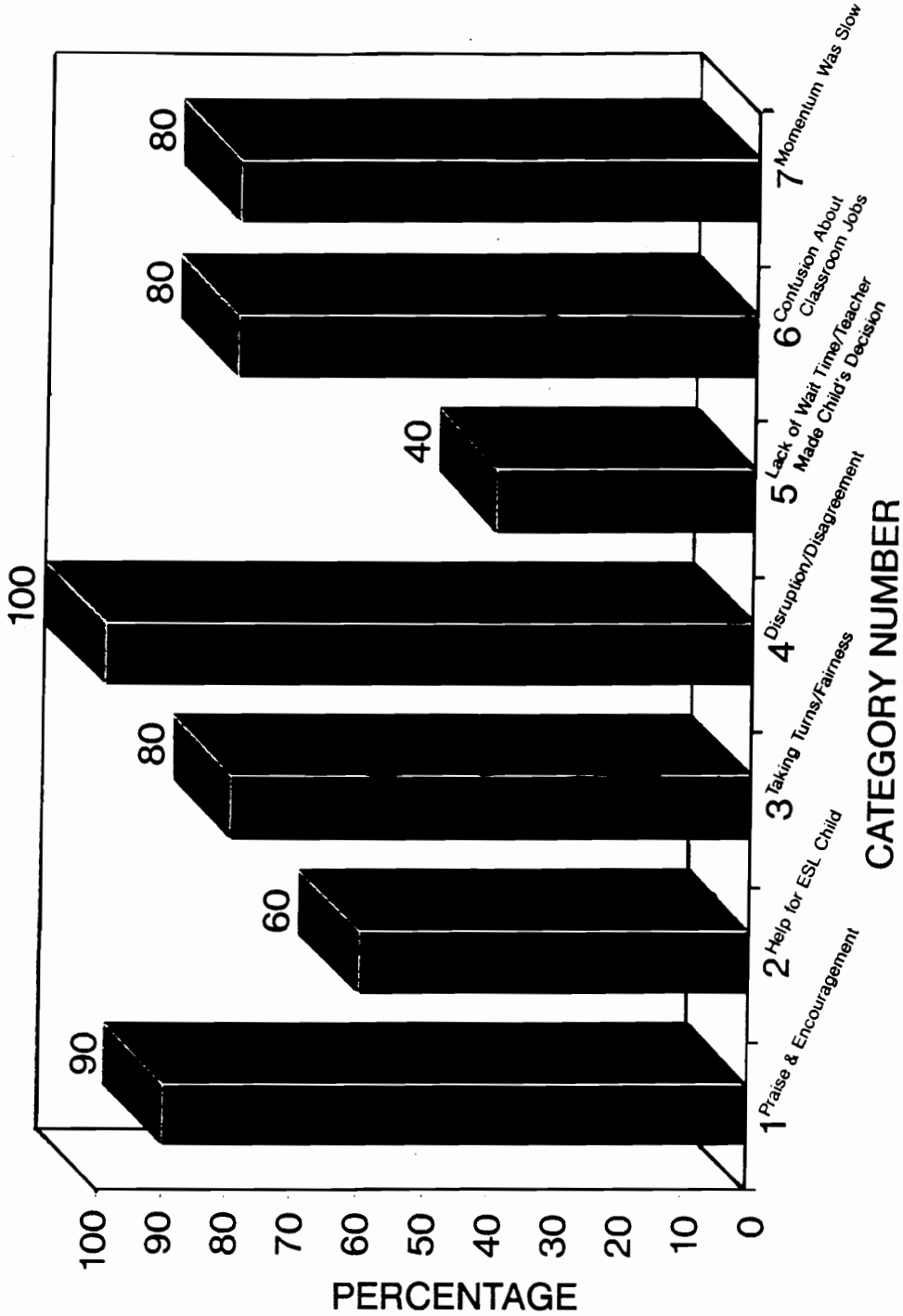2. What percent was descriptive enough to change the
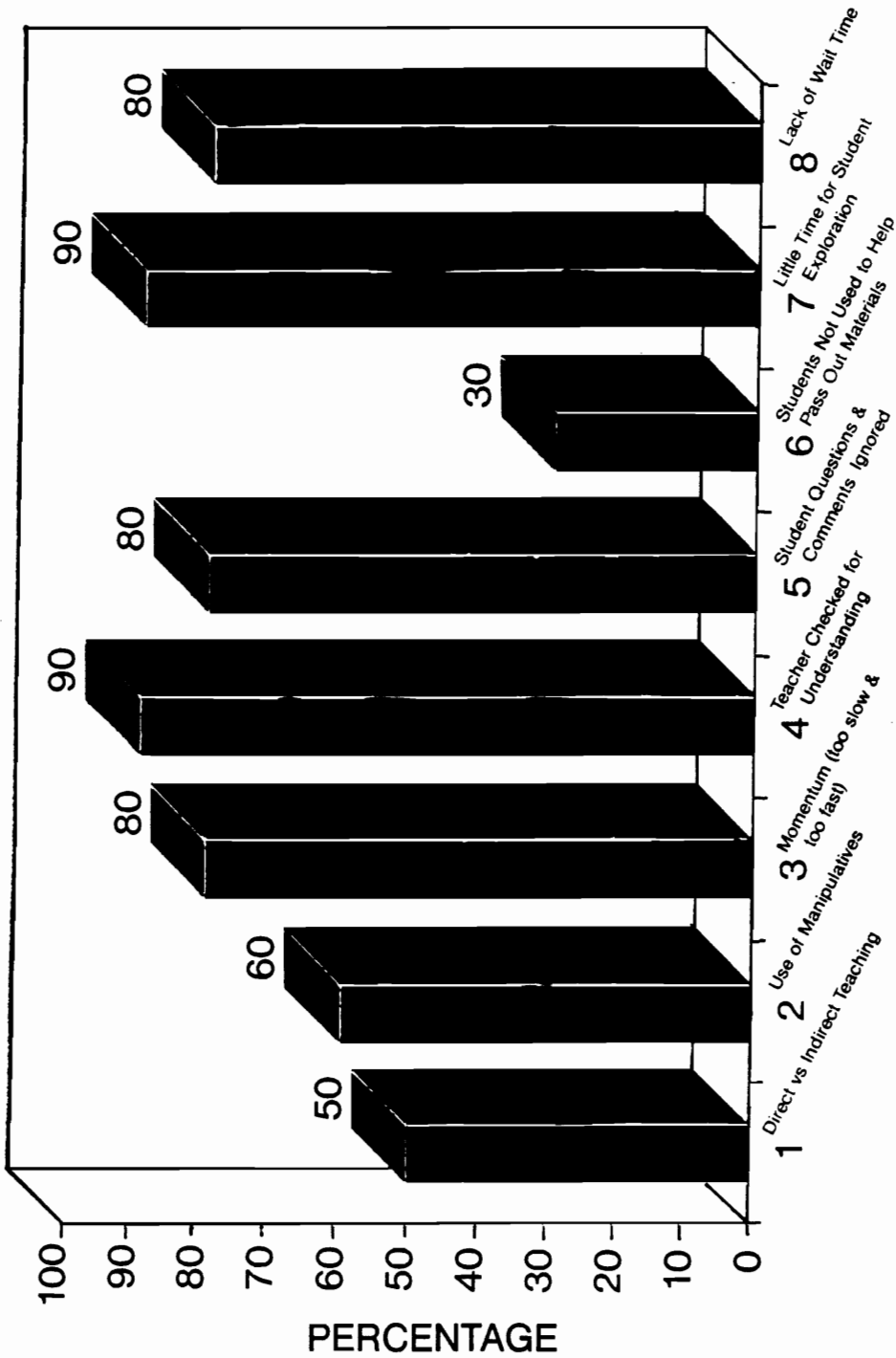
Figure 8. Distribution of colleagues' evaluation of the helpfulness of the feedback on categories of specific teaching behaviors for teaching episode number two.

teacher's behavior?

3. In your opinion was the feedback useable? Did it assist the teacher to do a better job in the classroom?

The following is a summary of the supervisors' findings.

Regarding teaching episode number one, three (75%) of the four supervisors found less than half of the feedback to be specific; while, all four of the supervisors found less than half of the feedback to be descriptive enough to change the teacher's behavior.

Two of the four supervisors considered none of the feedback to be useable, contrasted with the other two supervisors who felt that three-fourths or more of the feedback could be considered useable enough to assist the teacher to do a better job in the classroom.

A summary of the supervisors' evaluation of the respondents' feedback is described in Table 2.

Research Question 2: To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers? The objective of the second research question was to determine whether the select group of fifty-four teachers could produce an accurate script tape of a teaching episode as a basis for providing useful feedback. Brandt (1985) describes a script tape as a "kind of recording that you can play back to the

Table 2

Supervisors' Evaluation of Feedback

Teaching Episode Number One

	Specific	Descriptive	Useable
	%	%	%
S 1	72	45	78
SN 2	44	6	0
SN 3	42	33	75
S 4	19	37	0

Teaching Episode Number Two

	Specific	Descriptive	Useable
	%	%	%
S 1	87	43	78
SN 2	21	2	0
SN 3	38	19	75
S 4	6	22	0

S = Supervisors who viewed both teaching tapes.

SN = Supervisors who did not view the teaching tapes.

teacher so that the teacher knows in temporal order everything that happened in the lesson" (p. 64). Therefore, the select group of teachers was instructed to view a third videotape of a teaching episode and to simply write down in temporal order while they watched the tape the teaching behaviors they observed.

Prior to collecting the data for research question number two, the researcher had once again viewed a third videotaped teaching episode and had developed script taping categories that described the events during the tape. After collecting the "scripting" data from the select group of teachers, the researcher sorted through the script tapes, noted likenesses and differences and categorized the data onto three by five cards. The researcher then used simple frequencies to describe the findings. A description of the third videotape used and an analysis of the "scripting" skills of the teachers follows.

The "Scripting" Tape lasted approximately nine minutes and depicted a 9-12 summer school science class.

During the tape the science teacher sets up an experiment using colored water to demonstrate the movement of a cold front. Events that occurred during the tape are listed in order:

1. The teacher stated lesson objectives.

2. The teacher asked a student to read background information which defined and described a front.

3. The teacher stated the procedures and materials needed for the experiment.

4. The teacher taped paper to the back of a demonstration box so the children could see the experiment better.

5. The teacher continued giving directions about setting up the experiment and directed the students how to diagram their observations of the experiment.

6. The teacher asked a question about the cold front. "What kind of front are we going to be making here?"

7. The teacher answered questions and continued giving directions about the experiment.

8. The teacher gave out red and blue pencils to the students.

9. The teacher punched holes in a water bag to simulate the movement of the warm air mass.

10. The teacher gave further directions in order to direct the students' observations about the experiment.

11. The teacher asked questions about the movement of the front. "Which one is moving more quickly...the warm or the cold?"

12. A student responded to the question. "Cold."

13. The teacher asked a last question to see if the students wanted him to repeat the experiment.

The Researcher's Analysis of the "Scripting" Skills of the Select Group of Teachers. In order to determine whether

the select group of fifty-four teachers could produce an accurate script tape, the researcher used the above thirteen events to categorize each of the fifty-four respondents' script tapes.

Of the fifty-four respondents, forty-four (81%) included category one, the teacher stated objectives in their script tape. Category two, the teacher asked a student to read, was included by 41 (76%) of the teachers. Forty-five (83%) of the teachers included category three, the teacher stated the materials and procedures needed for the experiment. The teacher taped paper to the back of the box so the children could see better was category four, and only 14 (26%) of the teachers included this event in their script tape. Category five, the teacher continued giving directions, was included by 28 (52%) of the teachers. Category six, the teacher asked a question, was commented on 29 (54%) of the teachers, while category seven, the teacher answered questions and continued giving directions, was included by only 16 (35%) of the teachers. Twenty-nine (54%) of the teachers noted that the teacher passed out red and blue pencils, category eight, and thirty-four (63%) of the teachers commented on category nine, the teacher sets up the front. Category ten included the fact that the teacher continued giving directions with only 17 (31%) teachers noting this point in their script tape. Twenty-one (39%) noted that the teacher asked questions about the movement of

a front, category eleven, and only 5 (9%) of the teachers noted that a student responded to the teacher's question, category 12.

Finally, twenty-two teachers (41%) included in their script tape category thirteen, the teacher asked a last question to see if the class wanted him to repeat the experiment.

Figure 9 summarizes the above frequencies.

Figure 10 also illustrates the percentage of categories that each respondent included in his/her script tape.

Research Question 3:   To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

In order to assess the above research question, the select group of fifty-four teachers responded to a questionnaire which contained eleven questions regarding effective communication skills.   As this study was an investigative social research study, Douglas (1976) notes that "the goal of all social research is to discover, understand and communicate truth about human beings in society" (p. 1).   Therefore, the researcher then followed up the questionnaire by interviewing fifteen of the fifty-four respondents by telephone.

Although 49 (90%) of the fifty-four respondents felt that their peer understood what they were trying to say

Figure 9. Distribution of the number of respondents who included each of the thirteen categories in their script tapes.
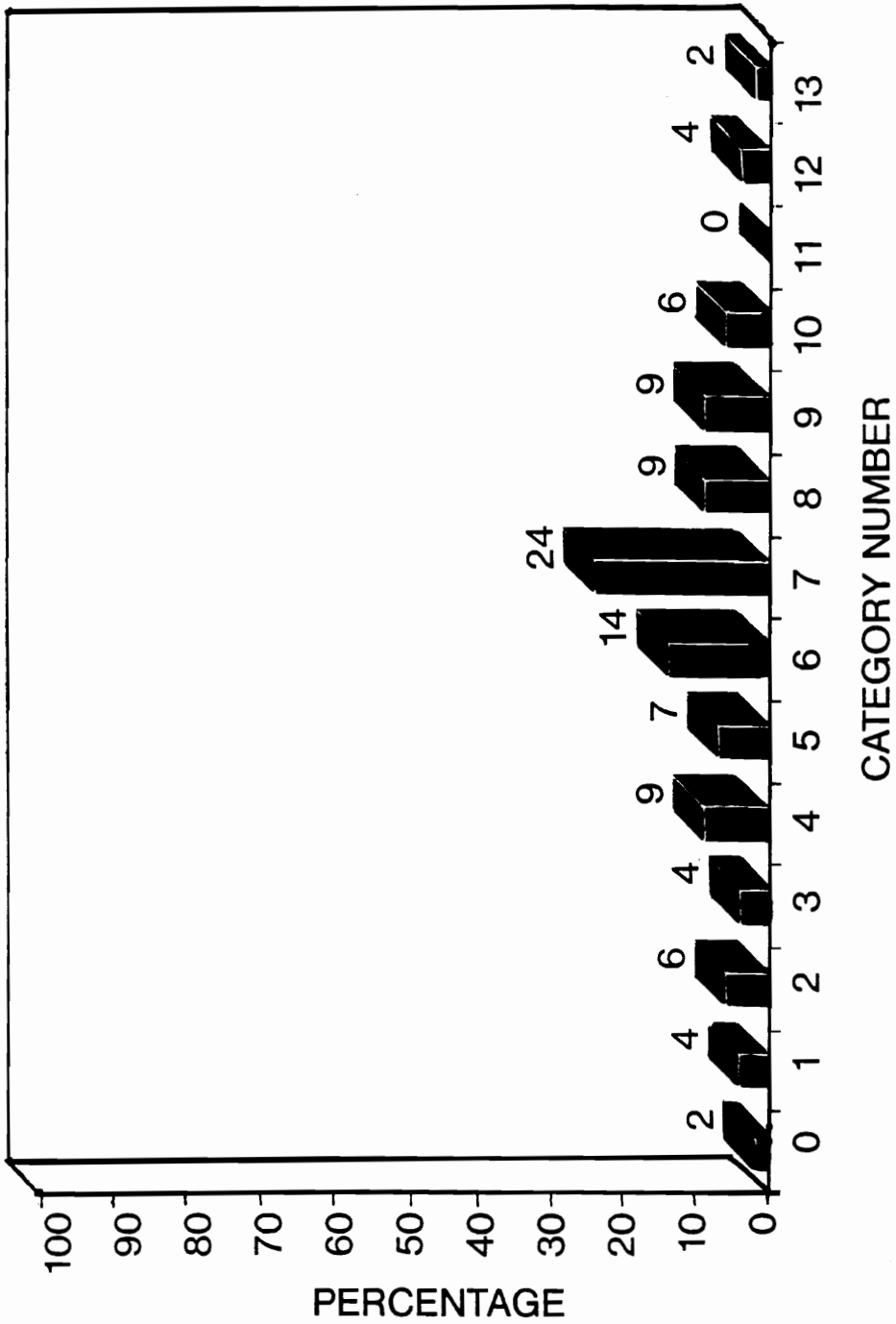
Figure 10. Distribution of the number of categories that each respondent included in his/her script tape.

during the feedback session, over half (52%) of them also stated that, at times, they felt they were misunderstood. Eleven (73%) of the fifteen telephone interviewees also indicated on their questionnaires that they felt they were, at times, misunderstood. Further investigation of this question by telephone indicated that the peer coaches felt that the peer receiving feedback, may, at times, feel defensive regarding their teaching strategies. In order to allay this defensive attitude on the part of the peer, interviewees stated that they often tried to convey their feedback so that the atmosphere and conversation was one of helpfulness and support, rather than a critical critique of the peer's teaching.

Half (50%) of the fifty-four respondents also indicated that they had to "search for words" to get their message across during the feedback session. Further investigation of this question by telephone interviewing revealed that the peer coach was very careful to formulate in his/her mind before verbalizing a statement just the "right" word to use with the peer in order to avoid the impression of being critical or evaluative regarding the peer's teaching. All fifteen of the telephone interviewees indicated that they tried to keep the feedback session on a very positive mode.

Davis (1984) noted the importance of clarifying and rephrasing information during the feedback process, and 37 (69%) of the fifty-four respondents indicated that they did

rephrase during the feedback conference. Further investigation of this question by telephone interviewing indicated that the peer coaches felt that rephrasing accomplished the objective of clarification and getting the point across.

McKeen and White (1986) also note the importance of listening during the feedback process, and almost all of the fifty-four respondents indicated that they spent more time listening to their peer than talking. Likewise, one hundred percent of the fifty-four respondents indicated that they allowed their peer to give his/her point of view during the feedback process.

Although McKeen and White (1986) note the importance of asking the receiver to rephrase the feedback he/she has received in order to see if the feedback corresponds with what the sender had in mind, 39 (72%) of the fifty-four respondents indicated that they did not use this strategy during the feedback process. Further investigation of this point by telephone interviewing indicated that the peer coaches often hesitated to use this strategy because they felt the peer did understand the message, and the peer coaches also felt it might seem as if they were relating to their peer as they would relate to the students they teach if they asked their peer to rephrase their message.

Finally, 39 (72%) of the fifty-four respondents indicated that their peer sometimes asked for further

information or clarification during the feedback process and 44 (82%) of the fifty-four respondents did give examples to their peer when trying to convey a message.

Research Question 4: To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

In order to assess the above research question, the select group of fifty-four teachers responded to a questionnaire which included thirteen questions pertaining to trust. The researcher also followed up the questionnaire by conducting telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of their answers regarding the variable, trust.

McKeen and White (1986) note that descriptive rather than judgmental language encourages trust and openness between parties during the feedback process. Forty-three (80%) of the fifty-four respondents described their feedback to their peer as descriptive, and the same number also stated that they felt comfortable in giving feedback to their peer. Likewise, 49 (91%) of the fifty-four respondents also stated that they felt the atmosphere during the feedback process was one of openness and trust.

An even greater number of the fifty-four respondents, ninety-three percent, also stated that the receiver of their feedback seemed to respond positively to their message.

However, when the respondents were asked if they felt there were times during the feedback session that they should <u>not</u> discuss unsuccessful teaching strategies with their peer, 34 (63%) indicated yes or sometimes. Eleven (73%) of the fifteen telephone respondents also indicated their hesitancy to discuss unsuccessful teaching strategies with their peer. Upon further investigation of this question by telephone interviewing, the researcher learned that, in some instances, the peer coaches felt that feedback should be limited to discussing only <u>one</u> unsuccessful teaching strategy per session, as too much negative feedback would do more harm than good. The telephone interviewees also indicated a sensitivity and care for the well-being of the recipient of the feedback as they also indicated that on "bad" days they did not feel it appropriate to overload the teacher with too much. One telephone interviewee also stated that most teachers can tell when a teaching strategy does not work well.

Concerning the well-being of their peer, 51 (94%) of the respondents indicated that they were concerned about the well-being of their peer, and 43 (80%) of the respondents also indicated that they did share their successful teaching strategies with their peer.

When asked if their peer ever seemed defensive or rejected the suggestions that related to improvement of instruction, 14 (26%) of the peer coaches replied sometimes

and 4 (7%) replied yes. Ten (67%) of the telephone respondents also answered yes or sometimes to the above question. Upon further probing regarding this question, the telephone respondents indicated that it was natural to feel defensive about one's teaching, and that teachers may not agree on one "best" answer to a problem. Furthermore, one peer coach stated that her peer had her own "legitimate" reason for doing things a certain way.

Finally, Gibb (1972) notes that a high trust environment is dependent upon interdependent relationships which involve a non-competitive effort and giving and receiving help in a cooperative effort, and 52 (98%) of the respondents indicated that their relationship with their peer could be described as cooperative rather than competitive.

Research Question 5: To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers?

In order to assess the fifth research question, the select group of fifty-four teachers responded to twelve questions on the questionnaire which related to teacher reflection and connoisseuring skills. The researcher also used telephone interviews to further investigate certain questions dealing with teacher reflection and connoisseuring

skills.

Videotaping, audiotaping and observation are three ways in which teachers can become more reflective and knowledgeable about their teaching (Wildman and Niles, 1987; Anastos and Ancowitz, 1987). Of the fifty-four respondents, twenty-nine (54%) indicated that they had not had the opportunity to analyze their own teaching through videotapes and/or audiotapes. Of the fifteen telephone respondents, nine (60%) indicated that they thought videotaping would help them to become more self-aware about their own teaching.

Many of the respondents (93%) had experienced opportunities to observe other teachers teach and felt that their principals were supportive of their efforts to observe other teachers teach (98%). The respondents also indicated that the peer coaching model had helped them become more reflective about their teaching (98%).

However, 37 (70%) of the fifty-four respondents still felt that they were, at times, unaware of their own teaching behavior.

Of the fifteen telephone respondents, 13 (87%) indicated that they were, at times, unaware of their own teaching behavior. Reasons given for being unaware of their own teaching behavior ranged from "having taught for so long, everything is routine," to "You do fifty things at once some days and you simply can't focus on everything."

One teacher even commented on the fact that she sometimes became so absorbed in the lesson, it was difficult to focus on specifics, for example, some children who may not be clued in on the lesson.

Self-awareness can also result in greater self-esteem and self-confidence (Cruickshank and Applegate, 1981). Fifty (93%) of the fifty-four respondents indicated that they felt confident in giving useful feedback to their peers. While, one hundred percent of the respondents stated that they shared their philosophy and educational beliefs with other teachers.

Forty-five (83%) of the fifty-four respondents indicated that their observations of their peer had given them opportunities to view new teaching strategies, and the same number also indicated that they had received useful feedback from their peer.

Finally, twenty-one (39%) of the fifty-four respondents answered yes and 31 (57%) answered sometimes when asked if they made specific recommendations to their peer regarding improvement of instruction, and 39 (72%) indicated that they do consult colleagues in order to solve classroom problems.

Chapter Summary

A first priority of this study was to make some determination as to whether or not teachers do or do not give useful feedback to their peers. Attributes of useful

feedback include accuracy, specificity and nonevaluative judgments (Joyce and Showers, 1988). The data resulting from the study suggests that some peer coaching teachers may not be providing useful feedback to their peers as useful feedback should be both specific and descriptive. Data regarding communication skills also suggests that some peer coaching teachers may benefit from further training in expressing feelings that might be construed as negative by others. Trust and teacher reflection and connoisseuring skills are two other variables that may be impeding feedback in the peer coaching model. Finally, the data from the study also suggests that the peer coaching teachers be provided with opportunities to practice script taping skills, as "scripting" may be another factor in why some peer coaching teachers may not be providing useful feedback to their peers.

Chapter V presents conclusions drawn from the results of the study and implications stemming from the data. The remaining section of Chapter V includes training recommendations and recommendations for further study.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was to provide an objective assessment of feedback given by peer coaching teachers and then to investigate selected variables that may be impeding feedback in the peer coaching model. To this end the following questions were posed.

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific?

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

3. To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

5. To what extent are teacher reflection and connoisseuring skills a factor in why some peer coaching

teachers may not be providing useful feedback to their peers?

Conclusions

1. Will feedback given by a select group of teachers (54) from the Hall study be judged by supervisors and other teachers as useful, and does the feedback adhere to any established criteria for useful feedback, such as being descriptive and specific?

In order to assess the above research question, the researcher consulted ten teacher colleagues with whom she teaches. These ten colleagues were asked to review the usefulness of the feedback given by the select group of teachers from the Hall study. Regarding teaching episode number one, seven (70%) of the ten teacher colleagues found fifty percent or more of the feedback from the select group of teachers to be useful. Regarding teaching episode number two, a slightly smaller number, six (60%) of the ten teacher colleagues found fifty percent or more of the feedback from the select group of teachers to be useful.

The researcher also consulted four supervisors and asked them to assess the usefulness of the feedback given by the the select group of teachers. In contrast to the critiques of the feedback given by the ten teacher colleagues, two of the four supervisors found none of the total feedback from the select group of teachers to be

useful. However, the other two supervisors found that three-fourths or more of the total feedback from the select group of teachers could be considered useful enough to assist the teacher to do a better job in the classroom.

Therefore, regarding the usefulness of the feedback, the results of the above data suggest that although a majority of the ten teacher colleagues found half or more of the total feedback from the select group of teachers to be useful, the data from the supervisors, in this instance, is inconclusive.

McKeen and White (1986) note that useful feedback should be both specific and descriptive. They state, "When the sender is specific, the receiver knows to what behavior the sender is responding, which he/she can then change or modify" (p. 150). Likewise, descriptive feedback will "create a more open situation, where it is easier to hear what is said, consider it, and respond constructively, rather than defensively" (McKeen and White, 1986, p. 1).

In addition to assessing the usefulness of the feedback from the select group of teachers, the four supervisors were also asked by the researcher of this study what percent of the feedback was specific, and what percent was descriptive enough to change the teacher's behavior?

In regard to this question, three of the four supervisors found less than half of the total feedback from the select group of teachers to be specific, and all four of

the supervisors found less than half of the total feedback to be descriptive enough to change the teacher's behavior.

Therefore, in this instance, the results of the supervisors' evaluation suggests that some of the feedback given by the select group of teachers may not be specific or descriptive. Furthermore, it appears that some of the teachers from the Hall study may benefit from training in feedback skills which will enable them to be more descriptive and specific when conveying information to their peer.

2. To what extent are "scripting" skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

Peer observations should only be descriptive, that is, they should not reflect observer bias or be judgmental (Mallo, 1984; McIntyre and Morris, 1982; Able et al., 1986). Therefore, the peer coaching model relies heavily upon the observing teacher's skill in "scripting," as this technique allows for a "kind of recording that you can play back to the teacher so the teacher knows in temporal order everything that happened in the lesson" (Brandt, 1985, p. 64).

It is assumed, then, that in order to give useful feedback to one's peer about his/her teaching strategies the observing teacher is skilled in the "scripting" technique.

Therefore, the objective of the second research question was to determine whether the select group of fifty-four teachers from the Hall study could produce an accurate script tape while viewing a videotaped teaching episode. To obtain the data for this question, the researcher instructed the select group of teachers to simply write down in temporal order, while they viewed the teaching episode, the teaching behaviors they observed. The researcher then used thirteen teaching events to categorize the fifty-four respondents' script tapes. Of the fifty-four respondents, twenty-five (46%) included less than half of the teaching events in their script tape. Furthermore, teaching event number four was included by only fourteen (26%) of the teachers, teaching event number seven was only reported on by sixteen (35%) of the respondents. Teaching events number ten, eleven, twelve and thirteen were reported on by seventeen (31%), twenty-one (39%), five (9%) and twenty-two (41%) of the respondents respectively.

As the peer coaching model requires the observing teacher to be skilled in capturing "a near verbatim record of what is said and done in the class" (Bird and Little, 1983, p. 15), the above data suggests that "scripting" skills may be a factor in why some peer coaching teachers may not be providing useful feedback to their peers. Furthermore, it appears that some of the select group of teachers from the Hall study may benefit from more

opportunities to practice "scripting" skills. Practicing "scripting" may enable some teachers to become more skilled in capturing an accurate account of the teaching behaviors they observe.

3. To what extent are communication skills a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

In order to assess communication skills, the select group of fifty-four teachers from the Hall study, who had been trained in mentoring and peer coaching skills, responded to a questionnaire which contained eleven questions regarding effective communication skills. Since the questionnaire reflected self-report data, which may not be accurate, all conclusions need to be considered in light of this fact. The researcher then conducted telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of the answers given by the respondents.

The literature on communication skills suggests that the most important skill used during the communication process is that of listening (Lucio and McNeil, 1969), and almost all (89%) of the respondents stated on the questionnaire that they spent more time listening to their peer than talking. Furthermore, all of the peer coaching

teachers noted that they allowed their peer to give his/her point of view during the feedback process.

Davis (1984) notes the importance of clarification and rephrasing during the feedback process. Of the fifty-four respondents, thirty-seven (69%) stated on the questionnaire that they did rephrase during the feedback conference. Upon further investigation of this question by telephone interviewing, the researcher learned that some of the peer coaches rephrased information during the feedback conference in order to clarify and "get the message across."

McKeen and White (1986) note that asking for feedback may indicate that the receiver is prepared to listen and wants to know how others perceive his/her behavior. Of the fifty-four respondents, thirty-nine (72%) stated on the questionnaire that their peer sometimes asked for further information or clarification during the feedback process.

In summary, the above data supports the conclusion that some of the select group of fifty-four peer coaching teachers may be using effective communication skills in that they stated they spent more time listening to their peer than talking, and they stated they allowed their peer the opportunity to give his/her point of view during the feedback process. Some peer coaching teachers also stated that they clarify and rephrase to get their message across and to "make their point." Finally, the results of the study suggest that some teachers may be prepared to listen

and may want to effect change in their behavior, as some peer coaching teachers stated that their peer requested further information about their teaching during the feedback process.

The following data concerning communication skills describes specific areas that could be addressed by staff development and resource personnel to help the select group of teachers to become more effective in the communication process and, thereby, increase their expertise in providing useful feedback to their peers.

For example, McKeen and White (1986) note that evaluative feedback often engenders defensiveness, and although the peer coaching teachers described their feedback as descriptive rather than evaluative, over half (52%) of the respondents stated on the questionnaire that they felt they were, at times, misunderstood. Further probing by telephone interviewing revealed that some peer coaching teachers did perceive some defensiveness on the part of their peer regarding their teaching behaviors. Therefore, some of the select group of peer coaching teachers may benefit from training in expressing feelings that might be construed as negative by others.

The above data is also supported by the fact that half (50%) of the respondents felt they had to "search for words" to get their message across during the feedback process. Further investigation of this question by telephone

interviewing revealed that some peer coaches were very careful to formulate just the "right" words in their minds before verbalizing a statement in order to avoid the impression of being critical of their peer's teaching.

Checking for understanding is another important tool that should be utilized by the sender of feedback. McKeen and White (1986) note the importance of asking the receiver to rephrase the feedback he/she has received in order to see if the feedback corresponds with what the sender had in mind. Of the fifty-four respondents, thirty-nine (72%) stated on the questionnaire that they did not use this strategy. Further probing by telephone interviewing indicated that some peer coaches felt that their peer did understand their message, and that it seemed "too elementary" to ask their peer to rephrase the feedback message.

The above data would seem to suggest, then, that this select group of peer coaching teachers may benefit from training in expressing feelings that might be construed as negative by others and may benefit from knowledge and skill relating to checking for understanding during the feedback process.

In summary, communication skills appear to be an important factor in why some peer coaching teachers may not be providing useful feedback to their peers.

4. To what extent is trust a factor in why some peer coaching teachers may not be providing useful feedback to their peers?

In order to assess the variable, trust, the select group of fifty-four teachers from the Hall study, who had been trained in mentoring and peer coaching skills, responded to a self-report questionnaire which contained thirteen questions regarding the trust factor. The researcher then conducted telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of the answers given by the respondents.

Joyce and Showers (1988) note that the traditional, hierarchical dependent relationship that is embodied in our schools today is the antithesis of the peer coaching model which relies heavily upon a foundation of trust and independence.

In order to build upon a foundation of trust and independence for the peer coaching model, McKeen and White (1986) note that descriptive language rather then judgmental language encourages trust and openness between parties during the feedback process. Of the fifty-four respondents, forty-three (80%) stated on the questionnaire that their feedback to their peer was descriptive rather than evaluative, and when asked if the recipient of the feedback seemed to respond positively or negatively to the feedback that was given, fifty (93%) of the peer coaches stated that

their recipient responded positively. Furthermore, forty-nine (91%) of the fifty-four respondents also stated on the questionnaire that the atmosphere during the feedback process was one of openness and trust.

Therefore, the above data would seem to support the contention that the elements of coaching and critiquing tend to create an atmosphere that is conducive to trust and openness (Paquette, 1987; Anastos and Ancowitz, 1987). Consequently, if an individual feels the atmosphere to be one of openness and trust, then that individual is more likely to open himself or herself up to the element of risk-taking. Kegan (1987) defines risk-taking as "exposing oneself to the remaining unpredicability of the situation" (p. 182). Therefore, a concern for the well-being of the other party must be conveyed during the feedback process. When asked if there was a concern for the well-being of their peer during the feedback session, fifty-one (94%) of the respondents answered yes. The above data, then, suggests that a high degree of trust may be evident in this particular peer coaching model.

Another factor that supports a high degree of trust in the environment is the fact that fifty-two (98%) of the respondents stated on the questionnaire that their relationship with their peer could be described as cooperative rather than competitive. Gibb (1972) noted in his study that relationships which involve a non-competitive

effort and giving and receiving help in a cooperative effort are indicative of a high trust environment.

Furthermore, when asked, "Do you feel that you give your peer an honest, open appraisal of his/her teaching strategies?" thirty-eight (72%) of the respondents answered yes. However, when asked if there were times when the peer coaches felt that he/she should not discuss unsuccessful teaching strategies with their peer, twenty-four (44%) answered sometimes and ten (19%) answered yes. Upon further investigation of this question by telephone interviewing, the researcher learned that some peer coaches felt that feedback should be limited to discussing only one unsuccessful teaching strategy per session, as too much negative feedback would do more harm than good. The above responses from some of the peer coaching teachers seem to reflect a sensitivity and concern for the well-being of their peer and once again support a high trust environment.

Finally, Bird and Little (1983) noted in their study of peer coaching that trust can be conveyed through a negotiated agreement to use a specified instrument for a specified purpose in agreed ways. When asked if there was a prescribed format followed when giving feedback to one's peer, forty-six (85%) of the fifty-four respondents answered no. Of the fifteen telephone interviews, four (27%) indicated that they did follow a prescribed format, and that it did seem to aid the feedback process. One interviewee

stated that she used the Hunter and Goldstein format, while another interviewee indicated that she used the "Project T" format. The remaining two interviewees described the format that they used as "self-correcting."

In summary, although it appears that some of these peer coaching teachers do experience a high trust environment as conveyed by the responses to the trust questions on the questionnaire, trust, too, may be a factor, although it appears to be to a lesser degree than the preceding variables, in why some peer coaching teachers may not be providing useful feedback to their peers. Therefore, staff development personnel might want to explore the possibility of providing opportunities for the respondents to become more knowledgeable about prescribed formats that would, not only assist the feedback process, but may add to the degree of trust in the environment as well.

5. To what extent are teacher reflection and connoisseuring skills factors in why some peer coaching teachers may not be providing useful feedback to their peers?

Weber (1987) describes connoisseuring skills as "artistry in teaching," (p. 48) while other educators refer to connoisseuring skills as simply good teaching pedagogy.

Teacher reflection is a process which allows teachers the opportunity to self-analyze their own teaching. It is

assumed that self-analysis should result in greater self-awareness on the part of the teacher, and, thereby, allow the teacher to improve his/her instructional expertise.

In order to assess teacher reflection and connoisseuring skills the select group of fifty-four teachers from the Hall study, who had been trained in mentoring and peer coaching skills, responded to a self-report questionnaire which contained twelve questions regarding teacher reflection and connoisseuring skills. The researcher than conducted telephone interviews with fifteen of the fifty-four respondents in order to further investigate some of the answers given by the respondents.

Munro and Elliott, 1987; Wildman and Niles, 1987; Joyce and Showers, 1982; and Anastos and Ancowitz, 1987, note that observations of another colleague can lead to greater self-awareness on the part of teachers. When asked if, "Other than your peer, have you had opportunities to observe other teachers teach?" forty-nine (93%) of the respondents stated on the questionnaire that they had experienced opportunities to observe other teachers teach. Furthermore, fifty (92%) of the respondents stated that their principals were supportive of their efforts to observe other teachers, and fifty-two (96%) felt that peer coaching had helped them to become more reflective about their own teaching. Therefore, the above data suggests that many of the peer coaching teachers have had the opportunity to observe other teachers

teach and may have also become more aware of their own teaching as a result of this experience.

Cruickshank and Applegate (1981) note that self-awareness can also result in greater self-esteem and self-confidence, and when asked if they felt confident in giving useful feedback to their peers, fifty (92%) of the fifty-four respondents stated on the questionnaire that they did feel confident in giving useful feedback to their peers. Not only did the respondents feel confident in giving feedback to their peers, all of them also stated that they shared their philosophy and educational beliefs with other teachers.

Of the fifty-four respondents, twenty-one (39%) answered yes and thirty-one (57%) answered sometimes when asked if they made specific recommendations to their peer regarding improvement of instruction, and thirty-nine (72%) stated that they do consult colleagues in order to solve classroom problems. As Purkey and Smith (1983) note that collegiality encourages intellectual sharing, the above data suggests that this select group of fifty-four teachers has been provided with opportunities to work and learn together in a collegial setting. Also supporting this conclusion is the fact that forty-five (83%) of the fifty-four respondents stated that their observations of their peer had given them opportunities to view new teaching strategies, and the same number also stated that they had received useful feedback

from their peer, which would seem to endorse Joyce and Shower's (1980) claim that feedback alone can result in greater teacher awareness.

Although the above data supports the contention that some of the peer coaching teachers have been provided with opportunities to increase self-awareness and collegiality, the data from the study also suggests that some of the peer coaching teachers are unaware of their own teaching behavior. For example, when asked, "At times, do you feel that you are unaware of your own teaching behavior?" thirty-seven (70%) of the fifty-four respondents stated that they were unaware of their own teaching behavior. Further investigation of this question by telephone interviewing revealed that some peer coaching teachers find it difficult to focus on all aspects of their teaching duties because so many variables enter into the teaching scenario. Furthermore, some interviewees stated that the longer they taught, the more routine teaching had become, and, therefore, the more unaware they had become of some of their own teaching behavior. Some studies (Wildman and Niles, 1987; Anastos and Ancowitz, 1987) suggest that videotaping and audiotaping and observations are ways to enhance teacher self-awarness. Although many of the respondents (93%) did state that they had experienced opportunities to observe other teachers teach, only twenty-five (46%) stated that they had experienced the opportunity to analyze their own

teaching through videotape and/or audiotape. Furthermore, twelve (80%) of the fifteen telephone interviewees indicated that they thought videotaping would help them to become more self-aware.

In summary, the above data suggests that some of the peer coaching teachers are provided with opportunities to develop teacher reflection and connoisseuring skills. However, the degree to which some teachers reported a lack of their instructional self-awareness seems to suggest that self-reflection may be, to some extent, another factor in why some peer coaching teachers may not be providing useful feedback to their peers. Therefore, videotaping and audiotaping are two ways that could be used by peer coaching teachers to further develop their teacher reflection and connoisseuring skills and, thereby, improve their expertise in providing useful feedback to their peers.

Implications

A central implication stemming from this study is that peer coaching teachers may need more intensive training in communication skills - skills that would enable them to be more descriptive and specific when conveying information to their peer. Furthermore, it appears that practice with "scripting" skills and opportunities to become more "self-aware" may enhance the expertise of peer coaching teachers in providing useful feedback to their peers. Unfortunately,

Brandt (1987) notes that only a very small percentage of teachers in this country are currently involved in intensive training coaching programs, and he further notes that the average teacher is still getting only about three days of staff development a year. Leggett and Hoyle (1987) also note a need for more intensive training in giving feedback, and Munro and Elliott (1987) recommend that teachers have opportunities to practice role playing feedback techniques.

Fortunately, the literature on communication skills suggests that there are strategies that teachers can learn to enhance their expertise in providing useful feedback to their peers. For example, McKeen and White's (1986) study on communication skills suggests various techniques that could be utilized by staff development personnel to increase the expertise of peer coaching teachers in giving useful feedback to their peers.

The data from this study suggests that there may be some defensiveness on the part of the feedback receiver. McKeen and White (1986) note that evaluative feedback often engenders defensiveness, and "when this occurs, the feedback is not likely to be useful" (p. 149). This study also revealed that some peer coaches often have to "search for words" to get their message across. This data implies that some peer coaching teachers may need further training in expressing feelings that might be construed as negative by others. Furthermore, McKeen and White (1986) also note the

importance of good process observation skills regarding giving and receiving feedback. They state, "With the proper format, one can convey almost any data about almost anything - even the most loaded area of behavior - to another person in a constructive and effective manner" (p. 1). Therefore, workshops in group processing skills where both the givers and receivers of feedback learn more about giving feedback as an interpersonal skill may help peer coaching teachers communicate their feedback in a more descriptive and useful manner.

Regarding trust, the data from this study suggests that this particular select group of fifty-four peer coaching teachers may enjoy a high trust environment. However, training with group processing skills could also enhance the trust environment.

Data from this study also implies that additional opportunities to improve "scripting" skills may enhance the teachers' observational skills, and additional opportunities to use videotaping and audiotaping may increase teacher reflection and connoisseuring skills.

Finally, the researcher would like to note that the select group of fifty-four teachers with whom she worked displayed a high degree of enthusiasm and support for the peer coaching and mentoring programs with which they have been associated.

Recommendations

Training

The ultimate goal of the peer coaching model is to effect change in teacher behavior. This change in teacher behavior should result in greater student achievement for all children (Joyce and Showers, 1988). Therefore, if the peer coaching model is to be successfully implemented and positively affect teacher behavior, then peer coaching teachers must become skilled in those components that will enable them to provide useful feedback to their peers. After a review of the data resulting from this study, the researcher recommends that the following training opportunities be provided to peer coaching teachers.

1. Practice with "scripting" skills. Peer coaching teachers should be given opportunities to practice script taping. A script tape is a written record of what a teacher does in the classroom. This record then becomes the basis for the observing teacher's diagnosis of the teaching behaviors observed (Brandt, 1985). Workshops to enhance teachers' "scripting" skills might include the use of videotaped teaching episodes. The videotaped teaching episodes could provide peer coaching teachers with practice in recording the teacher-pupil interaction in the classroom. This practice may result in a more accurate and descriptive account of the teaching behaviors observed.

2. Practice with communication skills - feedback techniques. "Feedback is a way of helping another person to consider changing his or her behavior. It is communication to a person that gives that person information about how he or she is affecting or 'coming across' to others" (McKeen and White, 1986, p. 1). Attributes of useful feedback include accuracy, specificity and nonevaluative judgments (Joyce and Showers, 1988). Workshops that provide peer coaching teachers with opportunities to learn more about giving and receiving feedback as an interpersonal skill may result in helping some peer coaching teachers communicate their feedback in a more descriptive and useful manner. McKeen and White's study (1986), entitled OD Skills: A Type Sensitive Approach, offers both an understanding and application of techniques that could be used by peer coaching teachers to enhance their feedback skills.

3. Practice that will enhance teacher reflection and connoisseuring skills. Self-awareness or self-reflection is fundamental to good teaching pedagogy or to what some educators refer to as "connoisseuring" skills or "artistry in teaching." Therefore, "in order for teaching to be successful, the teacher needs not only to know the pupils as individuals, but to know one's self" (Colosimo, 1986, p. 129). The literature on self-reflection suggests that videoptaping, audiotaping and teacher observations are three ways in which teachers can gain greater self-awareness and

self-confidence. Therefore, it is recommended that peer coaching teachers be provided with additional opportunites to observe other teachers and with opportunities to informally analyze their own teaching behaviors through videotapes and/or audiotapes.

4. Leadership training. A natural and positive outgrowth of the peer coaching model is leadership training. Basic leadership skills include those components that are inherent to the peer coaching model - effective communication skills, trustworthiness and a knowledge of good teaching pedagogy or "connoisseuring" skills. Therefore, the peer coaching model has the potential to provide the school system with an excellent "pool" of teachers who could contribute to school based management and staff development, as well as, system-wide curriculum development and administrative duties.

Further Study

1. Munro and Elliott (1987) stated in their study of peer coaching that "It was assumed, but not empirically tested in the evaluation, that effective teaching strategies applied in the classroom would increase student learning" (p. 26). Therefore, it is recommended that a study be conducted to assess the effectiveness of peer coaching as it relates to student achievement.

2. Zahorik (1987) noted in his study entitled, Teachers Collegial Interaction: An Exploratory Study:

> Elementary teachers are cautious about the types of information they exchange about teaching and the colleagues with whom they exchange it, and this relation between the exchange of information and school organization has implications for research and practice...Teachers' motivation for exchanging information is an area that needs more extensive study

(p. 394). Therefore, it is recommended that further studies be conducted regarding the motivation and exchanging of teacher information in the elementary school.

3. Joyce and Showers (1988) contend that the traditional hierarchical relationship that currently describes most school settings must "give way" to a climate more conducive to learning and growing on the part of teachers - "a scientific climate rather than a hierarchical one" (p. 93). Furthermore Bird and Little (1983) noted in their study of peer coaching that evaluation and coaching should be viewed as two separate processes and should not be combined. Therefore, it is recommended that further studies be conducted to assess the impact of traditional hierarchical relationships on the peer coaching model and the implications for the peer coaching model when combined with either formative or summative evaluation.

4. Finally, it is recommended that a follow-up study be conducted with the select group of fifty-four peer coaching teachers to determine to what extent workshops in group processing skills aid the feedback process in the peer coaching model.

In conclusion, this study was an attempt to provide useful information to staff development personnel who work with peer coaching teachers. It is also hoped that the results of this study will lend some understanding and awareness of the importance of trust, communication skills, "scripting" skills and teacher reflection and connoisseuring skills to the peer coaching model.

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124

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APPENDIX A

THE QUESTIONNAIRE

THE QUESTIONNAIRE PROTOCOL

Demographic Data

1. Name _____ Home Phone # _____

2. At what level do you presently teach?
   1: elementary 2: middle 3: high school

3. At what grade level do you presently teach?
   1: K-2 2: 3-5 3: 6-8 4: 9-12

4. What is your major subject area (select only the one
   that requires the most of your time)?
   1: Language Arts/English
   2: Math
   3: Social Studies
   4: Science
   5: Physical Education/Health
   6: Arts/Humanities/ Music
   7: Special Education
   8: Self-contained classroom (elementary)
   9: Other

5. Highest degree earned:
   1: Bachelor 2: Masters 3: Masters + 30 4: CAGS
   5: Doctorate

6. What is the total number of years that you have been
   teaching?
   1: less than one year 2: 1-5 years 3: 6-10 years
   4: 11-15 years 5: 16-20 years 6: 21-25 years
   7: more than 25 years

Communication Questions

7. Do you often find it necessary to rephrase your ideas
   when giving feedback to your peer?
   1: yes 2: no 3: sometimes

8. When giving feedback to your peer, do you feel that you
    are, at times, misunderstood?
    1: yes 2: no 3: sometimes

9. When giving feedback to your peer, do you give examples
    to him/her when trying to convey a message?
    1: yes 2: no 3: sometimes

10. Do you feel that your peer understands what you say
    during the feedback session?
    1: yes 2: no 3: sometimes

11. During the feedback session do you feel that you have
    to "search for" words to get your message across?
    1: yes 2: no 3: sometimes

12. During the feedback session, does the conference seem
    to lag?
    1: yes 2: no 3: sometimes

13. In giving feedback to your peer, do you feel that you
    should spend more time listening to your peer or
    talking to your peer?
    1: listening 2: talking

14. During the feedback session, do you allow your peer to
    give his/her point of view?
    1: yes 2: no 3: sometimes

15. During the feedback session, do you ever ask your peer
    to repeat what you have stated in order to be sure that
    he/she understands your message?
    1: yes 2: no 3: sometimes

16. Do you feel that you have difficulty communicating your ideas to others?
    1: yes   2: no   3: sometimes

17. When giving feedback to your peer, does he/she ask for further information or clarification regarding your feedback?
    1: yes   2: no   3: sometimes

Trust Questions

18. Would you describe your feedback to your peer as
    1: descriptive   2: evaluative   3: other

19. Do you feel comfortable in giving feedback to your peer?
    1: yes   2: no   3: sometimes

20. When giving feedback to your peer, does he/she seem to respond
    1: positively   2: negatively   3: other

21. Is there a prescribed format that you follow when giving feedback to your peer?
    1: yes   2: no

22. If yes, do you follow that format?
    1: yes   2: no   3: sometimes

23. During the feedback conference, do you feel the atmosphere is one of openness and trust?
    1: yes   2: no   3: sometimes

24. Would you describe your relationship with your peer as
    1: cooperative   2: competitive

25. During the feedback session, do you share your
    successful teaching strategies with your peer?
    1: yes   2: no   3: sometimes

26. During the feedback session, do you feel that you give
    your peer an honest, open appraisal of his/her teaching
    strategies?
    1: yes   2: no   3: sometimes

27. During the feedback session, do you have a concern for
    the well-being of your peer?
    1: yes   2: no   3: sometimes

28. During the feedback session, are there times when you
    feel you should not discuss unsuccessful teaching
    strategies with your peer?
    1: yes   2: no   3: sometimes

29. When offering feedback to your peer that relates to
    improvement of instruction, does your peer ever seem
    defensive or reject the suggestions that you offer?
    1: yes   2: no   3: sometimes

30. Does your peer seem to be at ease during the feedback
    session?
    1: yes   2: no   3: sometimes

Teacher Reflection Skills

31. During the feedback conference, do you make specific
    recommendations to your peer regarding improvement of
    instruction?
    1: yes   2: no   3: sometimes

32. Do you feel confident in giving useful feedback to your peer?
    1: yes 2: no 3: sometimes

33. Have you had the opportunity to analyze your own teaching through video-tapes and/or audiotapes?
    1: yes 2: no

34. Other than your peer, have you had opportunities to observe other teachers teach?
    1: yes 2: no

35. Has the peer coaching model helped you to become more reflective about your own teaching?
    1: yes 2: no

36. Do you consult your colleagues in order to solve classroom problems?
    1: yes 2: no 3: sometimes

37. Do you share your philosophy/educational beliefs with other teachers?
    1: yes 2: no

38. Have you received useful feedback from your peer coach?
    1: yes 2: no

39. Have your observations of your peer given you opportunities to view new teaching strategies?
    1: yes 2: no

40. At times, do you feel that you are unaware of your own teaching behavior?
    1: yes 2: no

41. Do you feel that your principal supports professional autonomy in the classroom? (Are teachers able to reflect their own teaching styles in the classroom, or are they forced to follow certain rules and guidelines regarding instructional strategies?)
1: yes   2: no

42. Is your principal supportive of your efforts to observe other teachers teach?
1: yes   2: no

APPENDIX B

COMMUNITY DEMOGRAPHIC INFORMATION

A summary of the demographics of the community in which the study was conducted. 1980 census data about the population, education, occupations, and income levels are included.

COMMUNITY DEMOGRAPHIC INFORMATION

1980 Population Characteristics:
         All persons   141,372
         Male   69,525
         Female   71,847
         Age
            Under 18   45,454
            18 to 64   89,404
            65 and over   6,514

         White   125,841
         Nonwhite   15,531

1980 Education Characteristics:
         Persons 25 and older 79,664
            Elementary (%)   12.2
            High School (%)   31.3
            College (%)   23.4

1980 Occupation Characteristics:
     Managerial and Professional Specialty Occupations:
         Executive, Administrative & Managerial
                             9,658
         Professional Specialty 9,454

     Technical, Sales & Administrative Support
         Occupations:
         Technicians and
            Related Support   2,489
         Sales   8,250
         Administrative
          support (including
          clerical)   13,491

     Service Occupations:
         Private Household   228
         Protective Service   1,019
         Other Service   4,316

     Farming, Forestry, &
         Fishing Occupations   424

     Precision Production, Craft
         & Repair Occupations 10,039

1980 Occupation Characteristics (cont.)

```
Operators, Fabricators, & Laborers:
   Machine Operators, Assemblers, &
      Inspectors        4,834
   Transportation &
      Material Moving  2,679
   Handlers, Equipment
      Cleaners, Helpers,
      Laborers          2,658
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1980 Income Characteristics:
```
Total Families          38,549
   <$10,000              3,418
   $10,000-$14,999       3,449
   $15,000-$19,999       5,030
   $20,000-$24,999       6,456
   $25,000-$34,999      11,107
   $35,000-$49,999       6,615
   $50,000 or more       2,591
   Median Income ($)    25,752
   Mean Income ($)      27,763

Total Households        45,821
   Median Income ($)    23,924
   Mean Income ($)      25,919
```

APPENDIX C

FEEDBACK TECHNIQUES

Suggested feedback techniques which are useful to both the giver and receiver as developed by McKeen and White (1986) in their manuscript entitled <u>OD Skills: A Type Sensitive Approach</u>.

FEEDBACK TECHNIQUES

1. <u>Focus feedback on behavior rather than the person</u>. It is important that we refer to <u>what a person does</u> rather than comment on what we imagine he or she is. This focus on behavior further implies that we use adverbs (which relate to actions) rather than adjectives (which relate to qualities) when referring to a person. Thus we might say a person "talked considerably in the meeting," rather than that this person "is a loudmouth."

2. <u>Focus feedback on observations rather than inferences</u>- Observations refer to what we can see or hear in the behavior of another person, while inferences refer to our interpretations of the behavior (as in "you were defensive or "you are a driver"). The sharing of <u>inferences or conclusions</u> may be <u>valuable, but it is important that they be so identified</u>.

3. <u>Focus feedback on description rather than judgment</u>- The effort to <u>describe</u> represents a process for <u>reporting</u> what occurred, while <u>judgment</u> refers to an <u>evaluation</u> in <u>terms of good or bad, right or wrong, nice or not nice</u>. The judgments arise out of a personal frame of reference or value grid, whereas <u>description represents more neutral reporting</u>.

4. <u>Focus feedback on descriptions of behavior which are in terms of "more or less" rather than in terms of "either - or"</u> - The "<u>more or less</u>" terminology implies a continuum on which any behavior may fall, stressing <u>quantity, which is objective and measurable</u>, rather than <u>quality</u>, which <u>is subjective and judgmental</u>. Thus, participation of a person may fall on a continuum from <u>low</u> participation to <u>high</u> participation, rather than "good" or "bad" participation. Not to think in terms of "more or less" and not to use continua is to trap ourselves into thinking in categories, which have different values for different persons and as such provide "blocks" in feedback.

5. <u>Focus feedback on behavior related to a specific situation, prefearbly to the "here and now," rather than to behavior in the abstract, placing it in the "there and then"</u> - What you and I do is best tied in some way to time and place, and we increase our understanding of behavior by keeping it tied to time and place. Information is most meaningful if given as soon as appropriate after the observation or reactions occur.

6. <u>Focus feedback on the sharing of ideas and information rather than on giving advice</u> - By sharing ideas and information, we leave the receiver free to decide for himself or herself, in light of his own goals in a particular situation at a particular time, how to <u>use</u> the ideas and information, and in that sense we take away his or her freedom to determine for himself or herself what is for him or her the most appropriate course of action, as well as reducing his or her personal responsibility for his or her own behavior.

7. <u>Focus feedback on exploration of alternatives rather than answers or solutions</u> - The more we focus on a variety of procedures and means for the attainment of a particular goal, the less likely we are to accept prematurely a particular answer or solution - which may or may not fit a particular problem. Many of us go around with a collection of answers and solutions for which there are no problems.

8. <u>Focus feedback on the value it may have to the recipient, not on the value of "release" that it provides the person giving the feedback</u> - The information provided should serve the needs of the recipient rather than the needs of the giver. Help and feedback need to be given and perceived as an offer, not an imposition.

9. <u>Focus feedback on the amount of information that the person receiving it can use, rather than on the amount that you have which you might like to give</u> - To overload a person with information is to reduce the possibility that he or she may use what he or she receives effectively. When we give more than can be used, we are satisfying some need for ourselves rather than helping the other person.

10. <u>Focus feedback on time and place so that personal data can be shared at appropriate times</u> - Because the reception and use of personal feedback involves many possible emotional reactions, it is important to be sensitive to when it is appropriate; to provide information presented at an inappropriate time may do more harm than good.

11. <u>Focus feedback on what is said rather than why it is said</u>

    The aspects of information which relate to the <u>what</u>, <u>how</u>, <u>when</u>, <u>where</u> of what is said are observable characteristics. The <u>why</u> of what is said takes us from the observable to the inferred, and brings up

questions of "motives." To make assumptions about the motives of the person giving information may prevent us from hearing or cause us to distort what is said. In short, if I question "why" a person gives me feedback I may not hear _what_ he or she says.

12. It is directed _toward behavior which the receiver can do something about_. Frustration is only increased when a person is reminded of some short-coming over which he or she has no control.

13. It is solicited, _rather than imposed_. Feedback is most useful when the receiver himself or herself has formulated the kind of question which those observing him or her can answer.

14. It is well-timed. In general, feedback is most useful at the earliest opportunity after the given behavior (depending, of course, on the person's readiness to hear it, support available from others, etc.).

15. It is checked to insure clear communication. One way to do this is to have the receiver try to rephrase the feedback he or she has received to see if it corresponds to what the sender had in mind. People should be able to feedback something that helps communication.

Feedback, then, _is a way of giving help_; it is a _corrective mechanism_ for the individual _who wants to learn how well his or her behavior matches his or her intentions_.

Suggestions for Learning the Skill Generally. Practice rephrasing sentences that you would have started with "You" with "I" instead - just to see how it feels. Get to where this feels comfortable even though you don't do it all the time. Also, practice identifying the type of thing you are saying - again just to see how it feels. When you want to judge something, say "Here comes a value judgment," or if you wish to show a _feeling_ about something, say that is what you are doing. This sort of exercise will help you develop the distance you need from your own perceptions to be able to put them in the form of good feedback.

APPENDIX D

TEACHER DEMOGRAPHICS

This study focused on an intact group of 54 teachers in a large suburban school system who have been trained in mentoring and peer coaching skills. The following is a summary of their total number of years of teaching experience, subject areas taught and the highest teaching degree earned.

141

TOTAL NUMBER YEARS OF TEACHING EXPERIENCE

Years of teaching experience	Number of select teachers
1 - 5	4
6 - 10	17
11 - 15	14
16 - 20	13
21 - 25	5
25 +	1

SUBJECT AREA TAUGHT

Subject area	Number of select teachers
Language Arts/English	12
Math	3
Social Studies	3
Science	5
Physical Ed./Health	4
Arts/Humanities/Music	0
Special Education	11
Self Contained Classroom	13
Other	3

HIGHEST DEGREE EARNED

Degree earned	Number of select teachers
Bachelors	39
Masters	14
Masters + 30	1
CAGS	0
Doctorate	0

VITA

Judith Bower Miller
312 Wrens Way
Falls Church, VA 22046

Personal Data:

Date of Birth: March 7, 1944

Place of Birth: Radford, Virginia

Education:

Ed. D.   1990   Virginia Polytechnic
                           Institute and State
                           University
                         Blacksburg, Virginia
                         Major: Educational
                           Administration
                         Cognate: Public Administration

M.A.   1975   George Mason University
                         Fairfax, VA
                         Major: Education
                         Cognate: Reading

B.S.   1966   Appalachian State University
                         Boone, North Carolina
                         Major: Education
                         Minor: Elementary Education

Experience:

1969 - present   Elementary Teacher for
                         Fairfax County Public Schools
                         Fairfax, VA

1979 to 1981   Private Reading Tutor
                         Falls Church, VA

1967 to 1969   Elementary Teacher for
                         Winston-Salem, Forsyth County
                           Public Schools

1966 to 1967   Elementary Teacher for
                         Ashe County Public Schools
                         Jefferson, North Carolina

Professional Organizations:

    Association for Supervision and Curriculum
      Development
    Fairfax County Federation of Teachers
    Virginia Federation of Teachers
    American Federation of Teachers

Educational Honors:

    Kappa Delta Phi
    Who's Who Among Students in American Universities and
      Colleges
    Cum Laude Graduate (George Mason University)

                          Judith Bower Miller