A COMPARATIVE STUDY OF THE EFFECTS OF NON-RECIPROCAL AND RECIPROCAL INSTRUCTIONAL SUPERVISION DYADS ON ELEMENTARY AND SECONDARY TEACHERS' CLASSROOM MANAGEMENT PRACTICE

by

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ABSTRACT

Given the current teaching concerns regarding autonomy and evaluation, the need to investigate supervision of instruction is both timely and important. Therefore, the purpose of this study was to examine two approaches to instructional supervision. One supervisory approach was a reciprocal teacher-teacher dyadic relationship. The other supervisory approach was a non-reciprocal administrator-teacher dyadic relationship.

This study was part of the Grimmett and Crehan Teacher Development Study (in progress). A multidimensional design was used to analyze the quantitative data from that study. This present study used three statistical analyses (Microsoft Excel 3.0, Profile Analysis, and Systat 5.02) to determine the comparative effects of non-reciprocal and reciprocal supervision dyads on elementary and secondary teachers' classroom management practice (managing instruction, room arrangement, and pupil behaviour). Teachers' classroom management was the means by which the two types of instructional supervision were investigated.

The findings from all three analyses were consistent. The results suggested that there were no significant differences in teachers' classroom management practice between non-reciprocal supervision dyads and reciprocal supervision dyads. The sample selection and the Classroom Management Rating (CMR) scale may have contributed to the lack of differentiation between the two types of supervision dyads.

Furthermore, because the results indicated no significance difference, the study could not: (a) confirm nor disconfirm the Grimmett and Crehan Study (1988), (b) validate the literature pertaining to the differential effects of non-reciprocal and reciprocal instructional supervision, (c) speculate about the changing role of school administrators as instructional supervisors.

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The trials and tribulations of academic research have been filled with many moments of sheer delight as well as painful discovery. During these times, I have had support and encouragement from friends, family, and colleagues. At this time, I would like to honor those that have helped me on my scholarly journey.

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CHAPTER ONE

BACKGROUND, PURPOSE, AND RATIONALE

Researchers continue to ask the following question: "Can supervision and teaching evolve into disciplined fields of inquiry and professional practice?" (Sergiovanni, 1987, p. 221). One of the responses to that question has been the development of supervision frameworks which provide practitioners with an opportunity for inquiry into their own professional teaching practices. How these supervision models are utilized in an educational institution is largely dependent on the institution's supervision approach and the role occupied by the participants in the supervisory process.

One supervisory approach is a non-reciprocal administrator-teacher dyadic relationship. In this relationship, the roles are consistent; the administrator is always the observer and the teacher is always the observee. The other supervisory approach is a reciprocal teacher-teacher dyadic relationship. In this relationship, the roles of observer and observee are interchanged.

In the non-reciprocal supervisory approach, supervision is typically regarded as an evaluative, routine function in which a teacher's performance is assessed by an administrator to comply with bureaucratic regulations. Sergiovanni and Starratt (1988) assert that this evaluative function implies that "[t]eacher-evaluation systems tend to be perfunctory" and are characterized by an "overall complacency" towards the role and function of supervision (p. 1). Even more emphatically, Housego (1989) contends that this type of evaluation experience is "largely a waste of time" and "superficial" (p. 196). He states "it [is]

not a useful experience to [teachers] as practitioners interested in their 'professional development'" (Housego, 1989, p.196).

In the reciprocal supervisory approach, the roles of the participants in the supervisory process are not as consistent and rigid as suggested by the traditional evaluative approach. Teachers are given ownership of their own professional teacher development. Glickman (1990), who provides the foundation for understanding teacher development, suggests that "supervision must be viewed as developmental if schools are to become more successful" (p. 22). Glickman (1990) views a *successful school* as one in which:

> ...teachers see themselves as part of a larger enterprise of complementing and working with each other to educate students.... [whereby] education is a collective rather than an individual enterprise (p. 21).

Both approaches, whether non-reciprocal or reciprocal, are operant ways of implementing supervision of instruction. This study focused on both these approaches to instructional supervision.

PURPOSE

Since the late 1960's, most research concerned with instructional supervision has examined either a traditional approach to supervision which encourages a formal evaluative format (e.g., Goldhammer, 1969; Goldsberry, 1984; Grimmett & Crehan, 1988; Housego, 1989) or an alternative approach to traditional supervision which encourages teacher development (e.g., Sergiovanni & Starratt, 1988; Acheson & Gall, 1987; Glickman, 1990). On the one hand, a traditional evaluative supervisory approach is conducted by school administrators in hierarchical positions (e.g., Glickman, 1990; Showers, 1983). On the other hand, a teacher development supervisory approach encourages

teachers to take responsibility for their professional growth and to work together in observing and sharing concerns about their own classroom teaching practices (e.g., Acheson & Gall, 1987; Glatthorn, 1984; Grimmett et al., 1992; Little, 1985).

This study attempted to compare a traditional formal evaluative supervisory approach with a teacher development instructional supervision approach. Therefore, this study compared two types of instructional supervision dyads, namely *non-reciprocal* (administrator-teacher) and *reciprocal* (teacher-teacher). In order to do so, the data from the Grimmett and Crehan Teacher Development Study (in progress) were utilized.

The Teacher Development Study was based upon earlier research conducted by Grimmett and Crehan (1988), which sought to test the effects of supervisory intervention on teachers' classroom management performance. In their final report, Grimmett and Crehan (1988) concluded that positive effects on teachers' classroom management performance were associated more strongly with collegial supervision (teacher-teacher) than with hierarchical supervision (administrator-teacher). They suggested that:

> ...this conclusion must be held tentatively until further research confirms the stability of these effects *over time in a larger sample* and corroborates or disconfirms the current study's findings about principal-led hierarchical supervision (p. 110, emphasis in original).

The purpose of the present study was to address that tentative conclusion and to ascertain whether or not non-reciprocal (administrator-teacher) and reciprocal (teacher-teacher) instructional supervision have differential effects on elementary and secondary teachers' classroom management practice.

RESEARCH PROBLEM AND QUESTION

The major research problem was to determine the comparative effects of non-reciprocal and reciprocal supervision dyads on elementary and secondary teachers' classroom management practice (managing instruction, room arrangement, and pupil behavior). In an attempt to address this problem, this study addressed one major research question:

> Does one type of instructional supervision dyad reliably affect teachers' classroom management practice more than the other?

RATIONALE

Traditionally, supervision of instruction has been conducted by school administrators in hierarchical positions. Administrators were to monitor

> ...teacher's application of theory and research to practice and [find] ways to help them use research and theory to make their behavior in the classroom more effective and efficient (Nolan and Huber, 1989, p. 127).

Consequently, in this traditional summative evaluation approach to supervision, classroom teachers were viewed as technicians. As a result, supervision remained evaluative; teachers not only became accountable to administrators for their performance, but also susceptible to the administrator's perceptions of effective teaching behavior. In this traditional supervisory mode, teachers became "targeted' for treatment [as] the inexperienced, the weak, or the incompetent" (Smyth, 1986, p. 331) by administrators. Furthermore, as Sergiovanni and Starratt (1988) state, "much of what took place under the name of supervision was ritualistic" (p. 1) as the supervisor's time was spent on administrative issues, and summative teacher evaluation was considered a routine function .

In the past fifteen years, supervision of instruction with a summative evaluation format has been challenged. The focus is now shifting to supervision of instruction as teacher development (Grimmett et al., 1992). From this perspective, supervision of instruction is regarded as an experience through which teachers can observe each other and reflect on their own classroom practices. This experience is considered an interactive process that researchers have variously described as an encounter between teachers and district supervisors, school administrators, or teaching colleagues (Showers, 1983; Brandt, 1989; Grimmett, 1987; Lesnik, 1987).

This change of focus in instructional supervision is also noted by Lieberman (1988). She suggests that there is an alternate shift in educational reform in which the emphasis is no longer on adding courses or changing curriculum and instruction but in raising issues about how teachers are prepared for teaching, how they are supervised, and how they are encouraged to make decisions at the school level. She emphasizes that "teachers are assuming new roles with far more discretion, autonomy, and responsibility than they have ever had before" (Lieberman, 1988, p. 4).

Because the focus of instructional supervision is changing from a summative evaluation administrator-teacher format to an interactive teacher-teacher experience, the roles of teachers and administrators in the supervisory process are also changing (Lieberman, 1988; Blase & Kirby, 1992). Teachers and administrators need to prepare for their new roles during this supervisory transition. Therefore, the investigation of instructional supervision by comparing the administrator-teacher dyadic relationship with the teacher-teacher dyadic relationship is both timely and important.

SIGNIFICANCE OF THE STUDY

This study will contribute to the field of instructional supervision in two ways. First, it will contribute to the knowledge base for both non-reciprocal and reciprocal instructional supervision dyads. Second, it may provide insight into what appears to be a changing role for school administrators as instructional supervisors.

Contribution to the Knowledge Base

This study will shed some light on the recent thinking which argues in favor of a shift from a traditional evaluative supervision approach to an interactive teacher development supervision approach. It may confirm the findings of previous research which suggest that teachers are more apt to develop professionally through collegial teacher-teacher interactions than through hierarchical administrator-teacher interactions (i.e., Bussis et al., 1976; Darling-Hammond, 1986; Garman, 1986; Gersten et al., 1982; Grimmett, 1987; Grimmett & Crehan, 1988, 1990; Lieberman & Miller, 1979, 1981, 1984; Little, 1982; Nemser, 1983; Oja, 1980; Sparks, 1983; Zumwalt, 1986).

Changing Role for School Administrators and Teachers

This study may point to implications for changing the role of teachers and administrators in the supervision of instruction. On the one hand, administrators would have to be willing to accept that teachers are responsible for their own change. Such acceptance would require a shift in the administrative balance of power as administrators would invest power in teachers rather than exercising

control over them (Sergiovanni, 1987). On the other hand, teachers would have to be willing to be supervised in a new way. Teachers would have to accept the challenge about thinking "abstractly about their work" (Glickman, 1990, p. 22) and accept that they are indeed responsible for their own professional growth.

DELIMITATIONS OF THE STUDY

This study had at least two delimitations. The first delimitation was the administrator-teacher dyads. The Grimmett and Crehan Teacher Development Project had both non-reciprocal and reciprocal administrator-teacher and teacher-teacher dyads. This study focused only on the non-reciprocal administrator-teacher dyads and reciprocal teacher-teacher dyads.

The second delimitation is the data base. The data used in the study were only those collected for the Grimmett and Crehan Teacher Development Study. No new data were gathered for the current study.

LIMITATIONS OF THE STUDY

Because no new data were collected for this present study, there are two limitations. The first limitation concerns data issues. The second limitation concerns the conceptualization of reciprocal and non-reciprocal supervision.

Data Issues

When working with another study's data, the researcher inherits the problems of those data. There were three problems that had to be overcome in this study. First, because of the length of the study there were some participants

who withdrew before all data were collected. This was a potential problem for this study because the analysis was across all four observation rounds. Therefore, only the participants who took part in the whole study were considered in the present sample. Second, not all the items were completed on a number of Classroom Management Rating (CMR) Scales in the sample. Therefore, it was necessary to assign missing values to the data. This procedure was essential for Profile Analysis. Third, the difference in CMR Scales from 56 items (Rounds 1 and 2) to 51 items (Rounds 3 and 4) was a potential problem because the analysis was a MANOVA Repeated Measures design. Profile Analysis relied on the instrument remaining consistent.

Conceptualization

When another study is used, a researcher also inherits the conceptualization of that study. In the present study, reciprocal and non-reciprocal instructional supervision dyads were already conceptualized. As a result, the researcher had to adhere to the limits of the theoretical framework. For example, non-reciprocal supervision did not include administrator-teacher supervision dyads in which the role of observee and observer where interchanged. Because of this, not all the data from the Teacher Development Study concerning administrator-teacher relationships could be utilized.

OVERVIEW OF STUDY

The balance of this thesis is presented in four chapters. Chapter two provides a review of the research literature; chapter three outlines the methodology utilized in the study; chapter four indicates the findings; chapter five provides a discussion of the findings; and chapter six concludes with implications for future research.

Chapter two is divided into four main sections. First, supervision of instruction emphasizing evaluation is examined. Second, supervision of instruction emphasizing teacher development is examined. Third, supervision of instruction as collaboration is examined. Fourth, the Classroom Management Rating (CMR) scale, the instrument used to measure teachers' classroom management practice, will be reviewed.

Chapter three has three main sections. First, the research design of the study is presented and the sample, data collection, independent and independent variables, instrumentation, and data analysis are discussed. Second, the research problem and questions are restated. Third, the hypotheses are presented.

Chapter four has two main sections. First, the findings from the statistical analyses are reported. Second, the findings are discussed in relation to the two Grimmett and Crehan Supervision studies and the Classroom Management Rating (CMR) Scale.

Chapter five, the final chapter, has four main sections. First, the study is summarized. Second, the research problem and questions are answered. Third, conclusions are presented. Fourth, implications for theory, future research, and administrative practice are examined.

SUMMARY

This chapter provided an overview of the study. It indicated that one of the purposes of the study was to validate Grimmett and Crehan's Study (1988). The major problem of the present study was to determine the comparative effects of two types of supervision dyads (non-reciprocal and reciprocal) on teachers' classroom management practice. This study attempted to answer the following question:

Does one type of instructional supervision reliably affect teachers' classroom management practice more than the other?

The rationale suggests this study is not only important because of the shift in attitude concerning instructional supervision from an evaluative format to an interactive experience, but also because the roles for both teachers and administrators are changing. This study intends to contribute to the knowledge base for both non-reciprocal and reciprocal instructional supervision dyads and provide insight into what appears to be changing roles for both administrators and teachers in instructional supervision.

The study has two delimitations. First, the focus was only on non-reciprocal administrator-teacher dyads and reciprocal teacher-teacher dyads. Second, no new data were gathered for the study and only the data from the Grimmett and Crehan Teacher Development Project (in progress) were utilized. Also, this study has two limitations: data issues and conceptualization.

The next chapter reviews the literature in three parts. First, supervision of instruction emphasizing evaluation is presented. Second, supervision of instruction emphasizing teacher development is examined. Third, supervision as collaboration is reviewed. Fourth, the evolution of the Classroom Management Rating (CMR) Scale is discussed.

CHAPTER TWO

REVIEW OF THE LITERATURE

The purpose of this chapter is twofold. The first is to provide a foundation for understanding the two dyadic supervision approaches (non-reciprocal and reciprocal) studied. The second is to describe the Classroom Management Rating Scale, the instrument utilized in this study. In order to do so, this chapter is divided into four main sections: (1) supervision of instruction emphasizing evaluation, (2) supervision of instruction emphasizing teacher development, (3) supervision of instruction as collaboration, and (4) classroom management rating scale.

SUPERVISION OF INSTRUCTION EMPHASIZING EVALUATION

The purpose of this section is twofold. The first purpose is to understand the traditional approach to supervision which emphasizes evaluation. The second purpose is to provide a framework for understanding non-reciprocal dyadic supervision. This section is divided into two parts: (1) the nature of the school environment and (2) the dynamics of evaluative instructional supervision.

The Nature of The School Environment

The nature of the school environment is bureaucratic. Even though "[t]he extent to which schools follow the bureaucratic model varies, of course, from school to school ..." (Sergiovanni & Starratt, 1988, p. 57), a structure relies on

two features, authority and hierarchy. This section will identify how both authority and hierarchy are components of non-reciprocal supervision dyads.

Authority: a component of non-reciprocal supervision dyads. A bureaucratic structure relies on fairly exact hierarchical levels of authority. Hoy and Miskel (1991) believe that:

> Authority relations in school organizations, then, have three primary characteristics: (1) willingness of subordinates to comply; (2) a suspension of the subordinates' criteria for making a decision prior to a directive; and (3) a power relationship legitimized by the norms of the group (p. 77).

In a school setting, "formal authority is derived from the position held in a bureaucratic hierarchy" (Blase & Kirby, 1992, p. 89). Blase and Kirby (1992) believe that this type of authority is viewed by both teachers and principals "as degrading and condescending" (p. 89) and, therefore, clashes with teachers' need for professional autonomy. On the one hand, teachers view administrators' authority as a managerial function associated with the administrative position. On the other hand, teachers view the realm of instruction as their claim to authority and assert "that this authority supersedes the principal's positional authority" (Blase & Kirby, 1992, p. 56). This has been described in literature as the "authority paradox" (Donaldson, 1990). Because authority relies on the hierarchical nature of the relationship between the teacher and the administrator, the authority paradox continues to exist in non-reciprocal supervision.

Hierarchy: a component in non-reciprocal supervision dyads. In considering hierarchy as a component for administrator-teacher supervision, Hoy & Forsyth (1986) state:

Hierarchy is probably the most pervasive attribute of modern organizations. Almost without exception, large organizations develop a well-established system of superordination and the disciplined compliance to directives from superiors that is essential for implementing the various tasks and functions of an organization (p. 74-75).

Although hierarchy is effective in implementation and coordination of tasks, it inhibits communication (Hoy & Forsyth, 1986). Hoy and Forsyth (1986) state:

Every level in the hierarchy produces a potential communication block and an opportunity for distortion. Subordinates are reluctant to communicate to their superiors information that will make them look bad; in fact, their inclination is to communicate only good things or things they think the boss wants to hear (p. 77).

In this instance, the teachers are expected to comply with the directives of the administrators and discreetly communicate in their efforts to attain the tasks and the functions of the educational institution. As a result, hierarchy suggests "separating those who 'know about' teaching (supervisors) from those who do teaching (teachers) ..." (Smyth, 1989, p. 166).

The Dynamics of Evaluative Instructional Supervision

The literature suggests that supervision of instruction which emphasizes summative evaluation does not aid in teacher development (e.g., Housego, 1989; Hoy & Forsyth 1986; Smyth 1986, 1989). This section will identify two dynamics of evaluative instructional supervision which impede teacher development. They are: (1) professional evaluation vs. bureaucratic evaluation, and (2) misunderstood legacy of evaluation.

Professional evaluation vs. bureaucratic evaluation. The bureaucratic structure of the school allows for potential conflict between professional

evaluation and bureaucratic evaluation. Sergiovanni and Starratt (1988) state that:

> It seems inevitable that occasions will occur when professional and bureaucratic values confront each other and choices need to be made as to which of the two will prevail. Corwin believes that this conflict is institutionalized in the ways in which schools are organized and run. He observes, for example, that administrators typically hold bureaucratic expectations for teachers and students while teachers typically hold professional expectations (p. 65).

Housego (1989) argues that "it is important to draw this distinction between professional evaluation and bureaucratic evaluation" (p.197). He states that:

> Whereas bureaucratic evaluation is meant to serve the needs of the organization for monitoring how adequate the teacher's performance is, professional evaluation is meant to help teachers meet their needs for support and guidance relevant to improving classroom practice (p. 197).

Furthermore, Sergiovanni and Starratt (1988) assert that "the purpose of supervision and evaluation is to increase knowledge and understanding and thus enable the professional to make better practice decisions" (p. 315). They believe that:

> According to theory, it is possible to shift the emphasis from bureaucratic to professional or the other way around by manipulating various aspects of the school's structural-functional system....a bureaucratic system might be emphasized for the school's management-oriented concerns (i.e., record keeping, paperwork, scheduling, [and] ordering books and supplies) and a professional system for more direct teaching and learning concerns (i.e., classroom organization, curriculum, teaching [and] staff development) (Sergiovanni and Starratt, 1988, p. 64).

Even though the two types of evaluation can be categorized into two systems, professional and bureaucratic, the fact remains that, for the teacher, evaluation continues to be a threat within the administrator-teacher supervisory relationship.

Misunderstood legacy of evaluation. Because of the misunderstood legacy of evaluation and inspection, non-reciprocal supervision is difficult for teachers. Teachers remain convinced that administrator-teacher supervisory relationship is evaluative, judgmental, and not helpful for their own professional growth. Consequently, teachers are "reluctant to open their classrooms voluntarily to outside visitations no matter how benevolent the intent" (Smyth, 1986, p. 334). Smyth (1986) describes this experience and states:

> As teachers we all have vivid memories of having had our teaching observed in one way or another, usually for purposes of inspection or evaluation....The term 'evaluation' is one of the most loaded words in the language of teachers (p.333).

As a result, teachers are suspicious of an administrator's attempt to observe their teaching practices. Therefore, any opportunities for teacher development are thwarted.

SUPERVISION OF INSTRUCTION EMPHASIZING TEACHER DEVELOPMENT

Supervision of instruction for teacher development has been variously called peer coaching (Anastos & Ancowitz, 1987: Hannay, 1990; Showers, 1983), peer clinical supervision (Russell & Spafford, 1986), peer supervision (Chrisco, 1989; Garmston, 1987; Lesnik, 1987), reflective supervision (Grimmett, 1989; Grimmett & Erickson, 1988; Nolan, 1989), supervision interaction (Acheson & Gall, 1987), developmental supervision (Glickman, 1981, 1990), collegial consultation (Grimmett & Crehan, 1990), collaborative consultation (Crehan, 1990a; Crehan & Smoliak, 1992a), clinical supervision (Cogan, 1973; Goldhammer, 1969; Goldhammer et al., 1980; Holland, 1988), and human resources supervision (Sergiovanni & Starratt, 1988). Consequently, there is a

plethora of frameworks, definitions, and models, all of which purport to encourage teacher development.

The purpose of this section is to provide an understanding of supervision of instruction which emphasizes teacher development. To do so, this section is divided into two parts: (1) clinical supervision and (2) Glickman's (1987) foundation.

Clinical Supervision

Goldhammer (1969) introduced the concept of clinical supervision in the mid-1960's as an alternative to the traditional evaluative supervision approaches. In response to the traditional approach, clinical supervision was considered to be "interactive rather than directive, democratic rather than authoritarian, teacher-centered rather than supervisor-centered" (Acheson & Gall, 1987, p. 11) and its intent was to encourage teacher development.

In clinical supervision, the supervisor's role is paramount as the supervisor helps the teacher improve his/her "instructional performance" (Acheson & Gall, 1987, p. 11). Acheson and Gall (1987) believe that supervisors aid teachers in three ways. First, teachers are not solely dependent on their curriculum material and can rely on a supervisor's expertise. Second, supervisors promote teacher growth. Third, supervisors are useful with beginning teachers to help them overcome their feelings of insecurity and isolation (p. 20).

Goldhammer (1969) offers the supervisor a five stage clinical supervisory process, namely: (1) pre-observation conference, (2) classroom observation, (3) analysis and strategy, (4) supervision conference, and (5) post-conference analysis (p. 57). The pre-observation conference stage enables a supervisor to

establish communication with the teacher, understand the teacher's point of reference, give the teacher an opportunity to rehearse his/her teaching, allow the teacher opportunity for goal revision, and agree on an observation focus related to "specific problems with which the teacher is attempting to cope today" (Goldhammer, 1969, p. 61). During a classroom observation, the supervisor observes the teacher's lesson and gathers detailed observational data. In the analysis and strategy stage, the supervisor analyses the observational data gathered during the lesson, and s/he plans a strategy for presenting it to the teacher in the supervision conference. During the supervision conference, the teacher becomes an active participant in generating ideas about his/her teaching and the supervisor acknowledges and authenticates the teacher's work. In the post-conference stage, the supervisory process is assessed by the teacher to examine whether or not it was productive.

Contrary to Goldhammer's (1969) five stage process, Acheson and Gall (1987) suggest a three phase supervisory process; namely: (1) planning conference, (2) classroom observation, and (3) feedback conference. In the planning conference, the teacher has the opportunity to reflect on his/her teaching and state his/her concerns or aspirations. The supervisor's role is to clarify the issues and understand the teacher's perspective at his/her level of instruction. During this phase, the supervisor and teacher explore new techniques to encourage the teacher to "move the instruction to the ideal" (Acheson & Gall, 1987, p. 11) and to make a decision about what is to be observed and how the supervisor will collect the data. During classroom observation, the supervisor observes the teacher's instruction by utilizing a wide range of observation techniques and recording devices to collect valid data. In the feedback conference, the information recorded from the classroom observation is reviewed. During this phase, the supervisor's role is to

"encourage the teacher to make his or her own inferences about teaching effectiveness" (Acheson & Gall, 1987, p. 13). At this stage, the focus can return to a planning conference and the cycle continues.

Although clinical supervision was not intended for routine evaluative functions, it can be utilized in a traditional evaluative supervision approach. However, when the emphasis is on teacher development, the teacher "will want to be there... and will feel a strong and beautiful awareness of his [her] own individual identity and a community spirit and of enterprise with those beside him [her]" (Goldhammer, 1969, p.56).

Glickman's (1987) Foundation

Research continues to emphasize the positive effects of supervision as teacher development (e.g., Glickman, 1981; Glickman & Gordon, 1987; Hoy & Forsyth, 1986; Lesnik, 1987; Lieberman & Miller, 1984). Instructional supervision which encourages teacher development is considered more acceptable then evaluative instructional supervision because it adopts the belief that teachers are beginning to accept responsibility for their own professional growth. This section examines the importance of instructional supervision as teacher development using the foundation provided by Glickman (1987).

Glickman's (1987) platform is "based on the premise that human development is the aim of education" (p. 92). He believes that a "teacher's attitude, confidence, awareness, stimulation, and thoughtfulness can be promoted via supervision" (Glickman, 1990, p. 21). To support his belief, he provided five research-based proposals which indicate the importance of supervision for teachers (Glickman, 1990). They are:

1. supervision can enhance teacher belief in a cause beyond oneself;

2. supervision can promote teachers' sense of efficacy;

3. supervision can make teachers aware of how they complement each other in striving for common goals;

4. supervision can stimulate teachers to plan common purpose and actions; and

5. supervision can challenge teachers to think abstractly about their work (p. 22).

Furthermore, Glickman (1990) demonstrates that there are significant benefits for the teacher when supervision of instruction encourages teacher development. He suggests that supervision can nurture a school by: (1) reducing teacher isolation; (2) providing expertise in handling daily dilemmas, conflict, and decision making; (3) allowing teachers an opportunity to share knowledge about managing routines; (4) helping a new teacher with his/her first year's responsibilities; (5) facilitating an understanding of the characteristics of the profession, (6) providing teachers an opportunity to share information and concerns about curriculum and instruction; and (7) allowing teachers to contribute in the decision-making process (Glickman, 1990).

SUPERVISION OF INSTRUCTION AS COLLABORATION

The collaboration literature (e.g., Crehan. 1990a; Glatthorn, 1984; Grimmett, 1987; Hopfengardner & Walker, 1984; Lieberman, 1986, 1988; Little, 1982, 1985, 1987) continues to emphasize that through collaborative interaction teachers can learn from and with one another by observing actual classroom teaching practice and reflecting on crucial aspects of curriculum and instruction. With regard to collaboration, Grimmett et al. (1992) state that:

...teachers experience a heightened sense of teaching efficacy and professional empowerment. They become purposeful and enterprising in their actions. They take on authority that demonstrates they can lead students into new knowledge, skills, behaviors, and dispositions. They take risks on behalf of students and make commitments to their learning (p. 186).

Collaboration is important because it binds teachers together in a non-threatening environment in which they are free to attempt instructional change. Grimmett et al. (1992) state:

Collaborative group work enables teachers to attempt instructional innovations that they would probably not have tried by themselves. But it is not merely the teamwork that creates the willingness to try new things - it is the joint action that flows from the group as teachers shape the shared task and its outcomes. In short, a culture of professional interdependence emerges (p. 188).

Little (1985), who places emphasis on teacher-teacher (reciprocal) interactions, states:

Among the potentially most useful yet most demanding interactions among teachers are those that focus on actual classroom performance. Such interactions enable teachers to learn from and with one another, and to reflect on crucial aspects of curriculum and instruction (p. 34).

Little (1985) supports collegial interaction amongst teachers, not between teachers and administrators.

Although collaboration is based on the willingness of teachers to work together, Glatthorn (1984) suggests that the benefits of teachers working together are sometimes inhibited by two organizational barriers. First, the bureaucratic structure of the school does not allow for scheduled time for teacher-teacher interaction nor does the hierarchical format allow for adequate interaction amongst teacher colleagues. Second, the school environment encourages teacher independence and, in turn, teacher isolation is promoted in a non-interactive, non-cooperative setting. Furthermore, the physical structure of

the school does not allow for collegial interplay because teachers are separated by their classrooms.

Yet, despite the schools' organizational barriers to teachers working together, the effects of collaboration are clear. The literature (e.g., Lieberman, 1988; Little, 1987) proposes that working in collaboration is beneficial in many ways. However, Lieberman (1986) cautions that:

> ...these examples are not meant to describe collaborative work through rose-colored glasses....Those that have been involved in collaborative work know that while the idea of collaboration is very attractive, the reality is far more difficult and complex....But for those that have practiced and written about collaborative work, we can better understand its pitfalls, misconceptions, and conflicts (p. 8).

With the above in mind, the purpose of this section is to provide understanding about reciprocal instructional supervision and to identify the benefits for teachers working in a collaborative process. This section is divided into four parts, which are: (1) teacher benefits, (2) school benefits, (3) teacher isolation, and (4) professional teacher growth.

Teacher Benefits

Collaboration exposes teachers to new ideas, allows for collective problem-solving from colleagues who understand the complexities and issues of classroom teaching, and involves a nurturing environment for risk taking. Although Grimmett's (1987) emphasis is peer coaching, the following statement demonstrates how the environment plays a key role in teachers working together:

> It attempts to place teachers in control of their workplace through dyadic encounters with experienced yet sympathetic colleagues. The purpose is to provide for experimentation in the teaching process. Ultimately, peer

coaching is designed to release in teachers a dialogue around the rich knowledge they appear otherwise to withhold (Grimmett, 1987, p. 4).

Furthermore, Glatthorn (1984) suggests collaboration is beneficial to teachers for three reasons. First, teachers are more likely to turn to colleagues than to administrators for advice. Second, teachers can provide useful feedback and knowledge to each other without extensive training. Third, collaborative systems build and sustain collegial norms and values which "have been found to be a significant feature of successful schools" (Glatthorn, 1984, p. 43).

School Benefits

Lieberman (1986) believes that "schools can not improve without people working together" (p. 6). Furthermore, Little (1987) suggests that collaborative interactions benefit the school in three ways. First, teachers, students, and parents gain confidence in their knowledge and abilities as the curriculum is supported and teachers are better prepared to support one another. Second, schools that follow a collegial format tend to adapt to change and can make the necessary changes utilizing the teachers' resources. Third, there is less strain from staff turnover as a collaborative environment helps newcomers and beginning teachers.

Teacher Isolation

A collaborative environment reduces teacher isolation. Lieberman (1988) states that:

Teachers in a collaborative setting assist colleagues who need help; in isolated settings, teachers feel that they must learn everything on their own. Because 'isolated' teachers turn inward, they have little access to

knowledge of alternative ways of working and little peer support for trying to gain or apply such knowledge (pp. 6-7).

Furthermore, Little (1987) says that "the advantages of collegial work, as experienced teachers describe them, center around one theme: breaking the isolation of the classroom" (p. 494).

Professional Growth

Bang-Jensen (1986) submits that formal contractual supervision which takes place once or twice a year does not help teachers to develop professionally. However, she believes that "instructional improvement and teacher growth" can be promoted through collaboration (Bang-Jensen, 1986, p. 51). Through collaboration, teachers become responsible for taking the initiative towards their own professional development.

THE EVOLUTION OF THE CLASSROOM
MANAGEMENT RATING SCALE

The purpose of this section of the literature review is to describe the Classroom Management Rating (CMR) Scale used to determine the comparative effects of non-reciprocal and reciprocal supervision dyads on elementary and secondary teachers' classroom management practice. Because the instrument (CMR Scale) utilized in this study was derived from the Component Rating Scale (CR) Scale (Emmer et al., 1981), the first subsection reports on three applications of the CR Scale. The second subsection identifies the revisions made to the CR Scale. The third subsection introduces and examines the CMR Scale in the Grimmett and Crehan Teacher Development Study (in progress).

Component Rating Scale

The Component Rating (CR) Scale was derived from the results of two descriptive studies at the University of Texas at Austin (Evertson et al., 1980a; 1980b). Both studies, the Classroom Organization Study (COS) and the Junior High Classroom Organization Study (JHOS), were

> ...designed to find out what teachers do to establish good learning environments in their classes at the beginning of the school year and how they maintain good [classroom] management throughout the year (Sanford et al., 1983, p. 3).

Based on classroom observation data, the results revealed characteristics of "good classroom managers" (Sanford et al., 1983, p. 5). These results led to the development of research-based classroom management strategies and the CR Scale. This scale has since been applied in at least three studies.

Classroom Management Improvement Study (CMIS). The CR Scale (Appendix A) was first introduced in the CMI Study (Emmer et al., 1981). That study sought to test the "effectiveness of research-based classroom management principles and strategies for establishing and maintaining good learning environments in the elementary school classrooms" (Emmer et al., 1981, p. ii).

Emmer et al. (1981) view effective classroom management as a

> ...set of teacher behaviors and activities which bring about student cooperation and involvement. Thus when effective classroom management is operationalized, it will be done with measures of student cooperation and involvement; namely, by rates of on-task or engaged behavior and by minimization of disruptive and other inappropriate student behaviors (Emmer et al., 1981, pp. 3-4, emphasis in original).

Moreover, Emmer et al. (1981) suggest that research (e.g., Borg, 1980; Good, 1979; Medley, 1977) does "support the inference that classroom management effectiveness and student learning are linked" (p. 4). Therefore, the emphasis of their project was on providing some empirical evidence about classroom management that could be useful for teachers.

The CR Scale was used to determine the extent to which teachers had utilized the recommended classroom management strategies (CMIS Treatment). The CR Scale was used in part as a

> ...system to provide a comprehensive numerical profile of a classroom, in order to supplement other measures of classroom behavior, including the low-inference measures (Student Engagement Ratings [SER]) and classroom narrative records (Emmer et al., 1981, p. F-1).

The criteria (teacher behaviors) for the CR Scale were based on the work of several researchers (e.g., Doyle, 1979; Duke, 1979; Jackson, 1968; Kounin, 1970; Kounin & Doyle, 1975; Lortie, 1975). The CR Scale was composed of nine categories (instructional management, room arrangement, rules and procedures, meeting student concerns, managing pupil behavior, disruptive pupil behavior, inappropriate pupil behavior, classroom climate, and miscellaneous) with a total of 49 items. It was used after each observation by a research observer who assessed teacher and student behavior. A guide -- *Guidelines For Using the Component Ratings* -- provided the observers with numerical estimates for the items in the CR Scale. Each item on the scale was rated independently and based only on the observations made in the classroom on that specific day and not from prior observations.

Estimates for the reliability of the CR Scale (Appendix B) were derived by averaging the CR Scores across observers across observations. The averages were compared using intraclass correlations for each of the 49 variables (items)

represented in nine categories. With regard to reliability, Emmer et al., (1981) state that:

> these coefficients are probably lower than would have been obtained had observer pairs been in the teachers' classrooms at the same time. The reported coefficients are a better estimate of the actual generalizability of the variables because they are also influenced by whatever instability exists across observations. The reliability data indicate that most of the CR variables are reliable (p. 41-42).

Overall, the reliability coefficients range from .2 to .8 with a significance level from $p < .001$ to $p < .05$. Emmer et al. (1981) did not discuss the validity of the CR Scale in their report.

Two applications of the CR scale. There have been at least two applications of the CR Scale since the Classroom Management Improvement Study. The first application was in a study by Stallion (1987); the second in the Grimmett and Crehan Supervision Project (1988).

Stallion (1987) used the CR Scale to "assess the effects of the classroom management intervention training on the classroom management behaviors of the inductee teachers" (p. 111). However, Stallion (1987) did make categoric and item changes to the CR Scale (Appendix C). Instead of nine categories and 49 items, Stallion's (1987) version of the scale contained five categories and 22 items. Her revisions included: (a) deleting three categories (room arrangement, classroom climate, and miscellaneous), (b) combining two categories (disruptive pupil behavior and inappropriate student behavior) and renaming the category "student misbehavior," and (c) deleting 27 items. Because of these revisions, Stallion (1987) changed the name of the instrument from "Component Rating Scale" to "Classroom Rating Scale." In conversation with Stallion (1987), Crehan (1987) was told that these revisions had been discussed and confirmed

with Evertson who was one of the originators of the CR Scale (Emmer et al., 1981).

The Grimmett and Crehan Supervision Project (1988) investigated the effects of supervisors' intervention on teachers' classroom management performance. The project used the CR Scale in its original form.

Changes in Component Rating Scale

As stated above, the Grimmett and Crehan Supervision Project (1988) used the original nine category, 49 item CR Scale (Emmer et al., 1981). However, for purposes of the Grimmett and Crehan Teacher Development Project (in progress), revisions were made to the CR Scale. The revisions were developed from two sources: use of the scale in the 1988 Grimmett and Crehan Study and extensive collaboration with members of the research team.

This section examines the specific changes made to the CR Scale which later evolved into the CMR Scale. The section is divided into five parts, which are: (1) non-applicable categories, (2) reverse scoring items, (3) global items, (4) high-order inference items, and (5) scale point distinction items.

Non-applicable categories. The categories on the CR Scale, "inappropriate student behavior" and "disruptive pupil behavior" were deleted. The behaviors listed within these categories rarely occurred during the classroom observations in the 1988 study. These exclusions were also based on the absence of any significant differences between the performance of teachers in the treatment and control groups in the 1988 study.

Reverse scoring items. A number of items on the CR Scale required reverse scoring; for example, 7a (amount [of inappropriate student behavior]) and 7g (punishment [and] criticism). Crehan (1990) suggests that reverse scoring assumes that "the rater would have given the reverse of that score..." (p. 7) and that the observer would have assigned a "1", not a "2", in place of a "5". Removing the reverse scored items allowed the scale to remain consistent with the upper values representing "more competent managers" and the lower values representing "less competent managers." This assumption may not be a valid one; therefore, reverse scoring items were deleted.

Global items. The global nature of the items allowed for "too many descriptors or criteria" (Crehan, 1990b, p. 7). For example, items 2a (suitable traffic patterns) and 2b (degree of visibility) lacked specificity; that is, some traffic patterns were suitable while others were not, and visibility did not allow for a distinction between students and teacher. Therefore, all items that were global in focus were either discarded or reconstructed in such a way as to represent more precisely the reality of the classroom.

High-order inference items. A number of the items required high inference on part of the observer. For example, the teacher "ignores" a behavior (items 6h an 7h) within the categories "disruptive pupil behavior" and "inappropriate student behavior." In the 1988 Study, it was difficult for observers to assess whether or not the teacher was ignoring the behavior or whether the teacher simply had not seen it.

Another example of high-order inference items, within the category meeting student concerns, is item 4c (student success). In this instance, the observers were left to their own discretion to judge a student's success; what

constitutes student success for one observer may be different from another. These high inference items were abandoned in order that the items on the scale represented low inference behaviors.

Scale point distinction items. There was difficulty in the scale point distinctions. Crehan (1990) states: "in our opinion [the CR Scale guidelines] were very vague on the distinctions between a four or five, a four and a three, a three and a two, [and] a two and one" (p. 9). As a result of this scale point distinction problem, there was a need to revise the items and the Observer's Manual. These revisions made explicit what specifically was represented by a given scale value and helped to clarify the distinction between more and less effective classroom management practices.

Classroom Management Rating Scale

The revising of the CR Scale resulted in renaming the instrument the Classroom Management Rating (CMR) Scale (Appendix D). There are three overall differences between it and its predecessor. First, the CMR Scale has three categories compared to nine on the original scale. Second, the CMR Scale has 51 items whereas the CR Scale has 49 items. Third, the CMR Scale has a 85 page Observer's Manual (Crehan, 1989) whereas the CR Scale has a 12 page set of guidelines. This manual provides conceptually rigorous definitions for the terminology and illustrates each item with specific classroom-based examples. The CMR Scale was utilized in the Grimmett and Crehan Teacher Development Study (in progress).

Four basic assumptions underlie the use of the CMR Scale in the Grimmett and Crehan Teacher Development Study. The first assumption rests

on the premise that the CMR Scale reflects classroom reality. Crehan (1990b) indicates that the contents of the Observer's Manual (Crehan, 1989) was shared with classroom teachers and that there had been no negative feedback. She states that:

> At no time have the teachers suggested to us that there were items on the scale that just simply were never part of the reality of their classrooms..... on the basis of the information which we have, the classroom management rating scale appears to depict the reality of teachers' classrooms (Crehan, 1990b, p. 1-2).

The second assumption is that the CMR Scale was never intended to be used as an instrument for judging teacher competence or performance. Crehan (1990b) states that:

> It is true that the observer is required ultimately to assign a numerical value between one and five and in that sense a judgment is being made, but I think what's important here is the use to which the judgment is put. The intent of [the CMR] is not to show teachers how good or bad they are...rather...from our point of view, we would never want to see this used in any other way than a guide...(p. 2).

In this instance, Crehan (1990b) explains the usefulness of the CMR Scale "as a self-check for teachers" (p. 11). Teachers can examine the items on the CMR Scale and reflect on their own teaching practices in the classroom or use the items as a guideline for observing classroom management behaviors. The CMR Scale was intended to be a guide for classroom management practice as distinct from an instrument used for the summative judgment of competence.

The third assumption is that the CMR Scale is not behavioristic. Although some of the items on the scale appear to have a behaviorist focus, for example, "uses alerting cues" and "responds to auditory cues," the reality is that the items recognize what it is that the teachers actually do in the classroom.

The fourth assumption is that the CMR Scale is not intended to be prescriptive. Crehan (1990b) states that:

It should not be regarded as a template. Madeline Hunter refers to her list of things that effective managers do as a template for good teaching and we do not intend that this be a template....[For example,] if a teacher were do to all the items on the scale at a level four or five then that teacher is a 'good effective classroom manager' is not what we are saying....There is no way of knowing how many of those items a teacher needs to do at, say level three, on a five point scale, in order to manage a classroom well (p. 3-4).

With some understanding of the four basic assumptions, the next subsection introduces and describes the CMR Scale in its present form. In order to do so, this section is divided into three parts: (1) data collection, (2) revisions, and (3) validity and reliability of the CMR Scale in the Grimmett and Crehan Teacher Development Study (in progress).

Data collection. In the Grimmett and Crehan Teacher Development Project, the CMR Scale was used as a quantitative measure to "confirm or disconfirm our qualitative information" (Crehan, 1990b, p. 3). It was considered a "quantitative complement to the fieldnotes" (Crehan, 1990b, p. 11). Based on their extensive fieldnotes, observers completed the CMR Scale after each classroom observation. The Observer's Manual (Crehan, 1989) was used as a guide for scale completion by identifying the conceptual distinctions and by interpreting each of the five scale values as precisely as possible.

Revisions. The CMR Scale utilized in the Grimmett and Crehan Teacher Development Study was revised once during the data collection phase and again following completion of all data collection. The first revisions followed the completion of rounds one and two of classroom observations (1989-90). The second revisions followed the completion of rounds three and four of classroom observations (1990-91).

After the end of the first round of observations (1989-90), it was necessary to revise the parts of the Observer's Manual because of the difficulties the observers had as a result of incomplete or unclear explanations. However, there were no changes made to the 56 items in the CMR Scale. After the end of round two (1989-90), there were several changes made not only to the Observer's Manual (Crehan, 1989), but also to the CMR Scale. The CMR Scale was reduced from 56 items to 51 items (Appendix E). The CMR Scale retained the same three categories but some items were reworded or combined. The following three examples are typical of the revisions:

> Example 1: (Combining Items) Items 12 (signals beginning of transitions) and 13 (signals end of transitions) on the 56 item scale were combined as item 4 (signals beginning and end of transitions and lesson segments) on the 51 item scale.

> Example 2: (Combining Items) Items 45 (efficient routines or procedures for exchanging papers and checking pupil work) and 51 (efficient routines or procedures for assigning or collecting or returning pupil work) on the 56 item scale were combined as item 47 (efficient routines or procedures for assigning or checking or collecting or returning pupil work) on the 51 item scale.

> Example 3: (Rewording) Item 16 (checks for pupil understanding of procedural directions and instructions) on the 56 item scale was reworded to read "checks for pupil understanding of directions and instructions for organizational procedures" and numbered as item 15 on the 51 item scale.

In addition, the descriptions for these items in the Observer's Manual were revised to reflect these changes.

After observation rounds three and four (1990-91), the CMR Scale was again revised. This revision converted the 56 item scale from rounds one and two to a 51 item scale. This "conversion" allowed the scale used for observation rounds three and four to become congruent with the scale used for observation rounds one and two. This conversion was necessary for statistical analysis

purposes and allowed for comparability across the four rounds of classroom observations. The following example denotes a revision:

> Example: (Note Example 1 above) The raw scores from items 12 and 13 on the 56 item scale were averaged and became item 4 for rounds 1 and 2 thus becoming synonymous with item 4 for rounds 3 and 4 on the 51 item scale.

Validity and reliability. The face validity, in terms of whether the CMR Scale measures what it was intended to measure, was not indicated for the Grimmett and Crehan Teacher Development Project. However, Crehan (1990b) suggests validity when examining the content of the items on the CMR Scale. With regard to the content of the Classroom Management Workshops, she states that:

> Although we didn't talk about the scale and we didn't talk about rating [during the workshop treatments], we did talk about the categories and much of what was said was relevant to the items themselves on the scale. At no time did the teachers say [the categories on the CMR were] not representative of the realities of their classroom. Quite the contrary was the case. We kept getting positive feedback... I repeat because it's important, at no time were we told that any of our ideas [about classroom management] did not represent the realities in the classroom (Crehan, 1990, pp. 13-14).

The LERTAP Program, on the U.B.C. Mainframe computer, established the reliability coefficients of the items on the CMR Scale used in the Grimmett and Crehan Teacher Development Study (in progress). As a result of the Hoyt's Estimate, the reliability ratings for the CMR Scale are as follows: Round 1: 0.89, Round 2: 0.87, Round 3: 0.94, and Round 4: 0.95.

The LERTAP Program also revealed the variability of the ratings on the CMR Scale. The results of the analysis are shown in Table 2.1. The values represent the variability; the higher the number, the higher the variance

Table 2.1: Source of Variance for the CMR Scale

ROUNDS	INDIVIDUALS	ITEMS	RESIDUAL
ROUND 1	15.90	89.36	1.61
ROUND 2	16.11	85.67	1.82
ROUND 3	21.41	26.84	1.28
ROUND 4	23.29	22.02	1.11

attributed to either the individuals rating the CMR Scale or each of the 51 items on the CMR Scale. Table 2.1 reveals that for Rounds 1 and 2 the variability of the CMR Scale was attributable to the items. However, for Rounds 3 and 4 the variability was less indicating that there was homogeneity across both individuals and items. In essence, the revisions to the CMR Scale after Rounds 1 and 2, made the scale more homogeneous with roughly equal variability attributed to both individuals and items.

SUMMARY

In this chapter, two approaches to instructional supervision were examined. The first approach was a non-reciprocal administrator-teacher relationship which represents the traditional, hierarchical, evaluative approach to supervision. This approach is viewed as difficult for teachers because they remain convinced that non-reciprocal supervision is evaluative and judgmental. Therefore, teachers are suspicious of an administrator's attempt to observe their teaching practices.

The second approach was a reciprocal teacher-teacher relationship which represents a collaborative approach to teacher development. It reflects a recent shift of thinking about instructional supervision which encourages teachers to work together towards their own professional growth and strive towards professional autonomy.

This chapter indicated that the CMR Scale was the means by which these two approaches to instructional supervision were investigated. The CMR Scale evolved from the CR Scale and it appears to be a reliable and homogeneous instrument.

The next chapter discusses the research method utilized in the present study. It is organized into three main parts. First the research design is presented which includes: sample, data collection, independent and dependent variables, instrumentation, and statistical analyses. Second, the research problem and questions are restated. Third, the hypotheses are stated.

CHAPTER THREE

RESEARCH METHOD

This study was based on the quantitative data from the Grimmett and Crehan Teacher Development Study. The major strength of utilizing those data lies in the continuity of instructional supervision research. The present study was based on the Teacher Development Study which, in turn, was based on the Grimmett and Crehan Supervision Project (1988).

This identified linkage is important in two ways. First, it provides a comprehensive understanding and contribution of knowledge to instructional supervision based on a linear progression of research. Second, it illustrates the importance of continuing research in the same domain. This is necessary especially if the findings of a study are not what were expected.

The purpose of this chapter is to outline the research methodology of the study. The chapter is divided into three main sections, namely: (1) research design, (2) research problem and questions, and (3) hypotheses.

RESEARCH DESIGN

This study was part of the Grimmett and Crehan Teacher Development Study (in progress). That larger project sought to examine the effects of hierarchical (administrator-teacher) and collegial (teacher-teacher) supervision on teachers' classroom management performance. The project examined four treatment groups and a control group over a two year interval.

The purpose of this section is to outline the research design for the present study, which used a multidimensional design to analyze the quantitative

data from the Grimmett and Crehan Teacher Development Project. The section is subdivided into five parts, (1) sample, (2) data collection, (3) variables, (4) instrumentation, and (5) statistical analyses.

Sample

The Grimmett and Crehan Teacher Development Project sample contained approximately 60 supervisory dyads (teacher-teacher and administrator-teacher) from two school districts in the B.C. Lower mainland. One of these districts had, through contractual negotiations, replaced traditional summative evaluation with a program of teacher professional growth.

The sample for the present study was drawn from that larger study. In order to keep the sub-sample as "clean" as possible, two criteria were applied initially. First, only teacher-teacher reciprocal dyads were chosen. Even though the Teacher Development Study (Grimmett & Crehan, in progress) had administrator-teacher reciprocal dyads, they were excluded from this study. Second, only the participants who could be compared across all four observation rounds were chosen. Therefore, participants were excluded if they had not taken part in all four observation rounds across two years, even though they fell within the parameter of either non-reciprocal or reciprocal dyads. This parameter was necessary for the statistical analyses. It allowed for comparison of the two groups across all four observation rounds.

This application of these two criteria yielded a total of 22 elementary and secondary school dyads. Of these 22, 10 were teacher-teacher dyads and 12 were administrator-teacher dyads. This sub-sample was organized into two groups.

The first group (T1, n=20 teachers) had three characteristics. First, it represented teachers in a reciprocal relationship in which the role of observer and observee were interchanged. Second, it represented an equal number of teachers from both elementary and secondary school levels. Third, it represented teachers (n=16) who were actively engaged in a professional growth plan, implemented by one school district, which allowed them to take responsibility for their own teacher development.

The second group (T2, n=12 teachers) also had three characteristics. First, it represented teachers in a non-reciprocal relationship with an administrator. Second, it represented an equal number of teachers from both elementary and secondary school levels. Third, it represented teachers (n=9) who were actively engaged in a professional growth plan, implemented by one school district, which allowed them to take responsibility for their own teacher development.

Data Collection

The Grimmett and Crehan Teacher Development Project collected quantitative and qualitative data on teachers' classroom management practice across four observations over two years. The data collection for that study included demographic questionnaires, conceptual level tests, classroom fieldnotes, audio-taped stimulated recall interviews, video-taped post-observation conferences, and Classroom Management Rating (CMR) scales.

For the purposes of the present study, only the quantitative data yielded by the CMR Scale were utilized. The scale was completed after each observation round by each member of the research team.

Variables

In the present study, the independent variable was the type of supervision dyad (non-reciprocal or reciprocal). The dependent variable was the Classroom Management Rating Scale (CMR). Mean scores from each of the 51 items on the scale were considered as the criterion measures. "Mean scores" refers to the combined rating of the individual items on the CMR Scale from two different observers because, as indicated by the lack of variability in the assigned values, the ratings between them were not significantly different.

Instrumentation

The instrument utilized in the present study was the Classroom Management Rating (CMR) Scale. It contains 51 items across three categories of teachers' classroom management practice (managing instruction, room arrangement, and pupil behavior). It was the means by which the two supervision dyads were investigated. The reliability and the face validity of the CMR Scale are discussed in the following subsections.

Reliability. As indicated in the previous chapter, the CMR Scale appears to be reliable. Hoyt's Estimate yielded reliability coefficients of 0.89, 0.87, 0.94, and 0.95 for Rounds 1 to 4, respectively.

Face validity. In this study, face validity refers to what extent the CMR Scale measured what it was intended to measure, i.e., teachers' classroom management practice. To determine the face validity of the CMR Scale, two professors and a graduate student, were asked to assess the face validity of the CMR Scale. All three members agreed that the CMR Scale appeared to

measure classroom management practice. One of the faculty members suggested that the CMR Scale was more suitable for measuring classroom management practice in traditional classrooms with desk work versus other classroom experiences such as drama, science, small group work, and special projects.

Statistical Analyses

Three procedures were utilized in the current study. Therefore, the purpose of this sub-section is to outline the preliminary procedures, Profile Analysis procedures, and the confirmatory procedures.

Preliminary procedure. In the first procedure, the item mean scores on the CMR Scale for each teacher in each of the two groups were plotted across all four rounds for groups one and two using Microsoft Excel 3.0. The Microsoft Excel 3.0 Program was utilized for three reasons. First, most of the data from the Teacher Development Study had already been arranged in this format. Second, this procedure provided a graphic interpretation of the distribution of data. Third, Excel was used to compute the CMR mean scores (item, category, and overall).

Profile Analysis procedure. In the second procedure, the Profile Analysis Program (SPSS Inc., 1985) was utilized. This subsection attempts to provide understanding of a fairly new Multivariate Analysis of Variance (MANOVA) Repeated Measures procedure which has never been used before in an instructional supervision study.

Profile Analysis, an application of MANOVA, is suitable when all participants are measured repeatedly on commensurate scales (Tabachnick &

Fidell, 1989). There are two basic and sequential concerns in Profile Analysis, namely parallelism and coincidence.

First, in testing for parallelism, Profile Analysis addresses the question: Are the two mean profiles of reciprocal and non-reciprocal dyads similar; that is, are the line segments of adjacent items (1-2,2-3, etc.) parallel? The test for parallelism identifies the slope of each adjacent line segment. It corresponds to group and item interaction. The null hypothesis assumes there is no significant interaction between the responses of the two groups (non-reciprocal and reciprocal instructional supervision dyads) on the 51 item CMR Scale. Hotelling's T^2 tests the statistical significance of the F ratio to indicate if the null hypothesis is tenable.

Second, in testing for coincidence, Profile Analysis addresses the question: If and only if, the two means are parallel, are they also at the same level? The test for coincidence identifies the height of each mean group profile and identifies any significant group differences. The null hypothesis assumes that the responses of the two groups on the 51 item scale do not differ significantly.

Initially, the intent was to use Profile Analysis across all four rounds. However, the findings from the preliminary procedure suggested that there were few differences between the two types of supervision dyads. Therefore, it was no longer necessary to utilize Profile Analysis across all four observation rounds, but only to investigate the lack of differentiation between the two supervision dyads indicated in the preliminary findings. In order to do so, Profile Analysis was utilized first in Round 1 and then in Round 4. Round 1 was chosen because it represented the first observation phase of the four phase, two year cycle. Round 4 was chosen because it represented a duplicate analysis (test-retest) to confirm the accuracy of Round 1 findings, and also to indicate any changes in

group profiles that may have occurred during the two year, four round observation cycle.

It was also originally planned to use Profile Analysis across all 51 items. However, Profile Analysis could not accommodate all 51 items simultaneously; therefore, the data were grouped according to the three classroom management categories (managing instruction, room arrangement, and pupil behavior).

In addition, the Profile Analysis Program (SPSS Inc., 1985) would not accommodate any missing values for an item on the CMR Scale. For this reason, any missing values were replaced with the mean group score for that item (Zar, 1984). For example, if a participant from group one was not rated on a specific item on the CMR Scale, then the mean score of the item for that group would be assigned for the missing value.

Confirmatory procedure. In the third procedure, the group mean scores on the CMR Scale were plotted using Systat 5.02 across Rounds 1 and 4. The data for Systat was "imported" from Microsoft Excel. Again, it was not necessary to plot the mean scores across all four observation rounds as this procedure was one of confirmation. This procedure thus provided additional graphics for interpreting the data and allowed for comparison of the findings from both the preliminary procedures and the Profile Analysis procedures.

RESEARCH PROBLEM AND QUESTIONS

The major research problem was to determine the comparative effects of non-reciprocal and reciprocal instructional supervision dyads on elementary and secondary teachers' classroom management practice (managing instruction,

room arrangement, and pupil behavior). In an attempt to address this problem, the study had one general research question, which asked:

> Does one type of instructional supervision reliably affect teachers' classroom management practice more than the other?

With an understanding of Profile Analysis, two specific research questions were added to the study.

1. Are the profiles of the mean scores on the Classroom Management Rating (CMR) Scales for non-reciprocal and reciprocal supervision dyads parallel?

2. If and only if the profiles are parallel, are the profiles of the mean scores on the Classroom Management Rating (CMR) Scales for non-reciprocal and reciprocal supervision dyads coincident?

HYPOTHESES

In order to address both the general and the specific research questions, substantive and statistical hypotheses were formulated. These are stated below.

Substantive Hypotheses

There were two substantive hypotheses. The first substantive hypothesis was to determine if there was any significant interaction between the two groups (non-reciprocal and reciprocal instructional supervision dyads) and their mean scores on the CMR scale. The second substantive hypothesis was to determine if there would be any statistically significant difference between the non-reciprocal supervision dyads and the reciprocal supervision dyads on each of the mean scores on the Classroom Management Rating (CMR) Scale.

Statistical Hypotheses

The following statistical hypotheses were tested at the $\alpha = .05$ level. The meaning of the notation used in the hypotheses follows.

C_1 Bold face letters are used as matrix or vector notations. C denotes a transformation matrix and $_1$ refers to a mean vector on P variables for Group One. Subscript denotes group (Johnson & Wichern, 1988, pp. 244-249).

$1'_1$ 1' denotes the transpose of a unit vector. Bold face is used as a matrix notation. Subscript denotes group (Johnson & Wichern, 1988, pp. 244-249).

Statistical Hypothesis 1:

(a) Null Hypothesis

$$H_0: \quad C_1 = C_2$$

This was a test of whether or not the mean profiles of the two groups were parallel.

(b) Alternate Hypothesis

$$H_1: \quad C_1 \neq C_2$$

This was a test of whether or not the mean profiles of the two groups were *not* parallel.

Statistical Hypothesis 2:

(a) Null Hypothesis

$$H_0: \quad 1'_1 = 1'_2$$

Given the profiles were parallel, this was a test of whether or not the profiles of the two groups were coincident.

(b) Alternate Hypothesis

$$H_1: \quad 1'_1 \neq 1'_2$$

Given the profiles were parallel, this was a test of whether or not the profiles of the two groups were *not* coincident.

If Statistical Hypothesis 1a was rejected, that is, if a significant interaction between the means on the CMR Scale and the type of instructional supervision was indicated, then an item by item analysis of the interaction would be carried out and Statistical Hypothesis 2b would not be tested. If Statistical Hypothesis 1a was tenable, then Statistical Hypothesis 2a would be tested to determine whether the parallel profiles were also coincident.

SUMMARY

This chapter has provided a description of the research method used in the present study. The sample, drawn from the Grimmett and Crehan Teacher Development Study, consisted of 22 elementary and secondary non-reciprocal and reciprocal dyads from two school districts. The independent variable was the type of supervisory dyad and the dependent variable was the 51 items on the classroom management rating (CMR) scale. The mean scores of the two types of dyads on the CMR scale, the instrument utilized in the Grimmett and Crehan Teacher Development Study, served as the criterion measure for the three statistical analyses procedures. This study had a major research problem, a general research question, and two specific research questions. The null and alternate hypotheses were stated.

The next chapter is divided into two main parts. The first part presents the findings from the three analyses. The second part discusses the findings in terms of the two Grimmett and Crehan projects and the CMR Scale.

CHAPTER FOUR

FINDINGS AND DISCUSSION OF FINDINGS

The purpose of this chapter is twofold. The first purpose is to present the findings from the statistical analyses. The second purpose is to discuss the findings in relation to the two Grimmett and Crehan projects and the CMR Scale.

FINDINGS

This section examines the findings from the statistical analyses. It is divided into three subsections: (1) preliminary findings, (2) Profile Analysis findings, and (3) confirmatory findings.

Preliminary Findings

The graphic analysis revealed few differences across all four rounds between the reciprocal (R) and the non-reciprocal (NR) instructional supervision dyads. On the one hand, the graphs revealed that group one (R) sometimes scored higher than group two (NR) on the 51 item scale. On the other hand, the graphs revealed that the opposite was also true; group two (NR) sometimes scored higher than group one (R) on the 51 item scale. Furthermore, the four graphs indicated that the line segments were either parallel or resting on top of one another.

The data distribution for Rounds 1 and 4 are displayed in Figures 4.1 and 4.2, respectively. The data distribution for Rounds 2 and 3 are indicated in Appendix F (Figures F.1 and F.2, respectively). The graphic representation in Figure 4.1 suggests that on the average, group two (NR) scored slightly higher
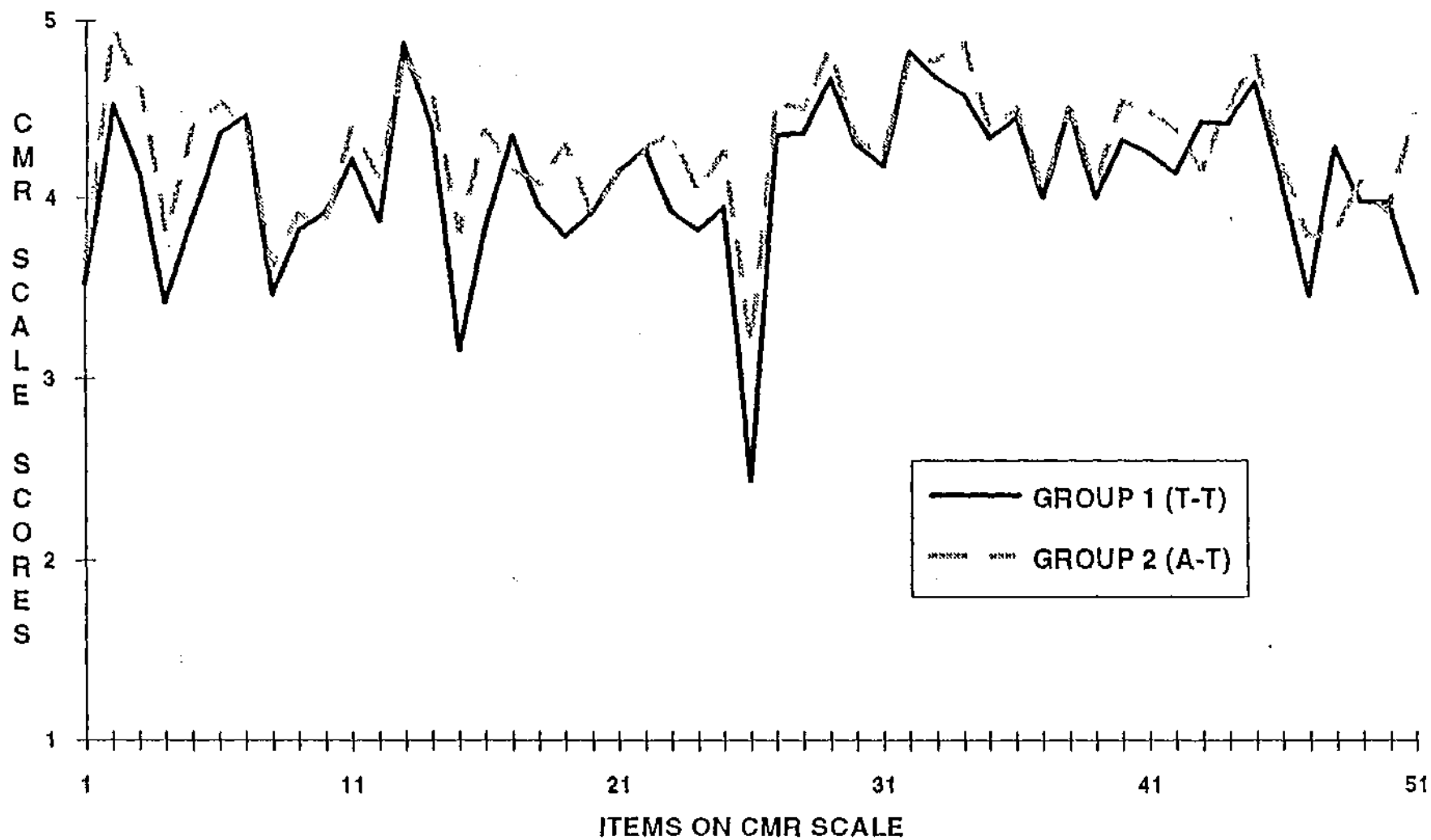
Figure 4.1: (Microsoft Excel) Round 1- CMR Scale Item Means
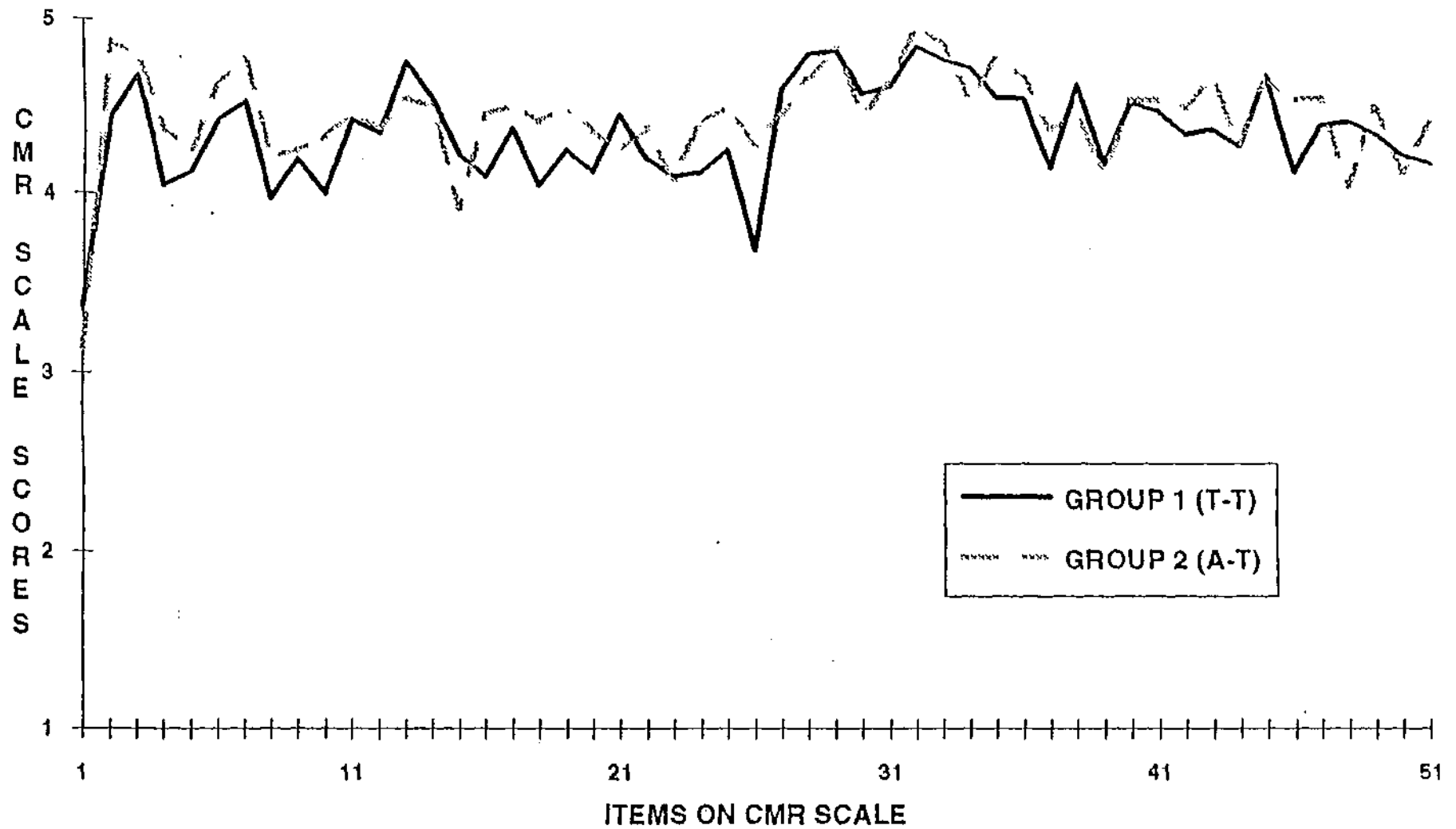
Figure 4.2: (Microsoft Excel) Round 4 - CMR Scale Item Means

than group one (R) on the 51 item scale, that the means for the two groups ranged from 2.7 to 4.7, and that when one group scored high or low on a particular item, the other group followed the same pattern. The graphic representation in Figure 4.2 suggests that there is less demarcation between the two groups, that the scores are more evenly distributed ranging from 3.7 to 4.7, and that there is an uneven pattern indicating either a continuous intersection of the two lines, lines resting on top of one another, or lines which are parallel.

Overall, the analysis of Microsoft Excel 3.0 revealed that there were very few differences between group one (reciprocal teacher-teacher supervision dyads) and group two (non-reciprocal administrator-teacher supervision dyads). Because the graphic representation represented only a preliminary view of the data, Profile Analysis was utilized. The findings are indicated in the next section.

Profile Analysis Findings

Profile Analysis, an application of MANOVA, was useful in this study as all participants were repeatedly measured on the CMR Scale. Profile Analysis has two basic and sequential concerns, namely parallelism and coincidence. Profile Analysis does not generate a graph for either of these two concerns.

Parallelism. The first hypothesis tested for parallelism. It determined if there was any significant interaction between the two groups (non-reciprocal and reciprocal supervisory dyads) and their mean scores on the CMR Scale. The null hypothesis reflected no significant interaction between the responses of the two groups on the 51 item CMR Scale.

The results of the test for parallelism are indicated in Table 4.1. Hotelling's T^2 was used to test the statistical significance levels of the F ratios and indicated that the null hypothesis was tenable.

Table 4.1: Parallelism - Statistical Significance Levels (p values) of the F Ratios for Rounds 1 and 4

CATEGORY	ROUND 1	ROUND 4
Managing Instruction	.183	.636
Managing Room Arrangement	.520	.599
Managing Pupil Behavior	.662	.324

Table 4.1 displays the statistical significance levels of the F ratios for parallelism, grouped categorically (managing instruction, managing room arrangement, and managing pupil behavior) for rounds 1 and 4. The significance levels of the F ratios ranged from .183 to .662; therefore, at the alpha level 0.05, the null hypothesis was tenable. Even when the findings were examined with the alpha level at 0.10, none of the F ratios was significant. The test for parallelism for both rounds 1 and 4 revealed that there was no significant interaction between the mean scores of the items within each category on the CMR Scale and the type of instructional supervision.

Coincidence. Because the first null hypothesis was tenable, indicating no significant interaction between the means for the CMR Scale and instructional supervision groups, it was not necessary to implement the item by item analysis suggested in chapter three. However, it was necessary to address the second sequential concern of Profile Analysis, namely coincidence.

Hypothesis two asked if the mean item scores of the non-reciprocal and reciprocal supervision dyads on the CMR Scale were coincident. The test for coincidence identifies the height of each mean group profile and any significant differences. The null hypothesis for coincidence reflected that the responses of the two groups on the 51 item scale did not differ significantly.

The results of the test for coincidence are indicated in Table 4.2. The statistical significance levels of the F ratios indicated the null hypothesis was tenable.

Table 4.2: Coincidence - Statistical Significance Levels (p values)
of the F Ratios for Rounds 1 and 4

CATEGORY	ROUND 1	ROUND 4
Managing Instruction	.264	.487
Managing Room Arrangement	.401	.677
Managing Pupil Behavior	.573	.706

Table 4.2 displays the statistical significance levels of the F ratios for coincidence, grouped categorically (managing instruction, managing room arrangement, and managing pupil behavior) for rounds 1 and 4. The significance levels of the F ratios ranged from .264 to .706; therefore, at the alpha level 0.05, the null hypothesis was tenable. Even when the findings were examined with the alpha level at 0.10, none of the F ratios was significant. The test for coincidence for both rounds 1 and 4 revealed that not only were the two groups parallel, but they were also at the same level; that is, coincident. This indicated that most of the item scores were the same regardless of which group (non-reciprocal or reciprocal) was scored.

Confirmatory Findings

Systat (Version 5.02) was used as a confirmatory measure. Its purpose was twofold. The first purpose was to provide additional graphic interpretation of the data. The second purpose was to compare the confirmatory findings with those from the preliminary findings and the Profile Analysis findings.

When the Systat graphs were compared with the graphs generated by Microsoft Excel for both Rounds 1 and 4, the results, as expected, revealed the same distribution of the data. The graphic patterns for Rounds 1 and 4 are indicated in Figures 4.3 and 4.4, respectively. Overall, Figures 4.3 and 4.4 indicate that there are very few differences between the two types of instructional supervision dyads because the pattern suggests that the line segments were either parallel or resting on top of one another.

Furthermore, Systat verified the results of Profile Analysis in two ways. First, it provided a graphic representation of parallel line segments, indicating parallelism. Second, it provided a graphic representation of line segments resting on top of one another, indicating coincidence.

Overall, Systat confirmed the findings which suggested that there were no significant differences between non-reciprocal instructional supervision dyads and reciprocal instructional supervision dyads. It demonstrated that sometimes reciprocal dyads scored higher on the CMR Scale, but it also demonstrated that the reverse was true; sometimes non-reciprocal dyads scored higher on the CMR Scale.
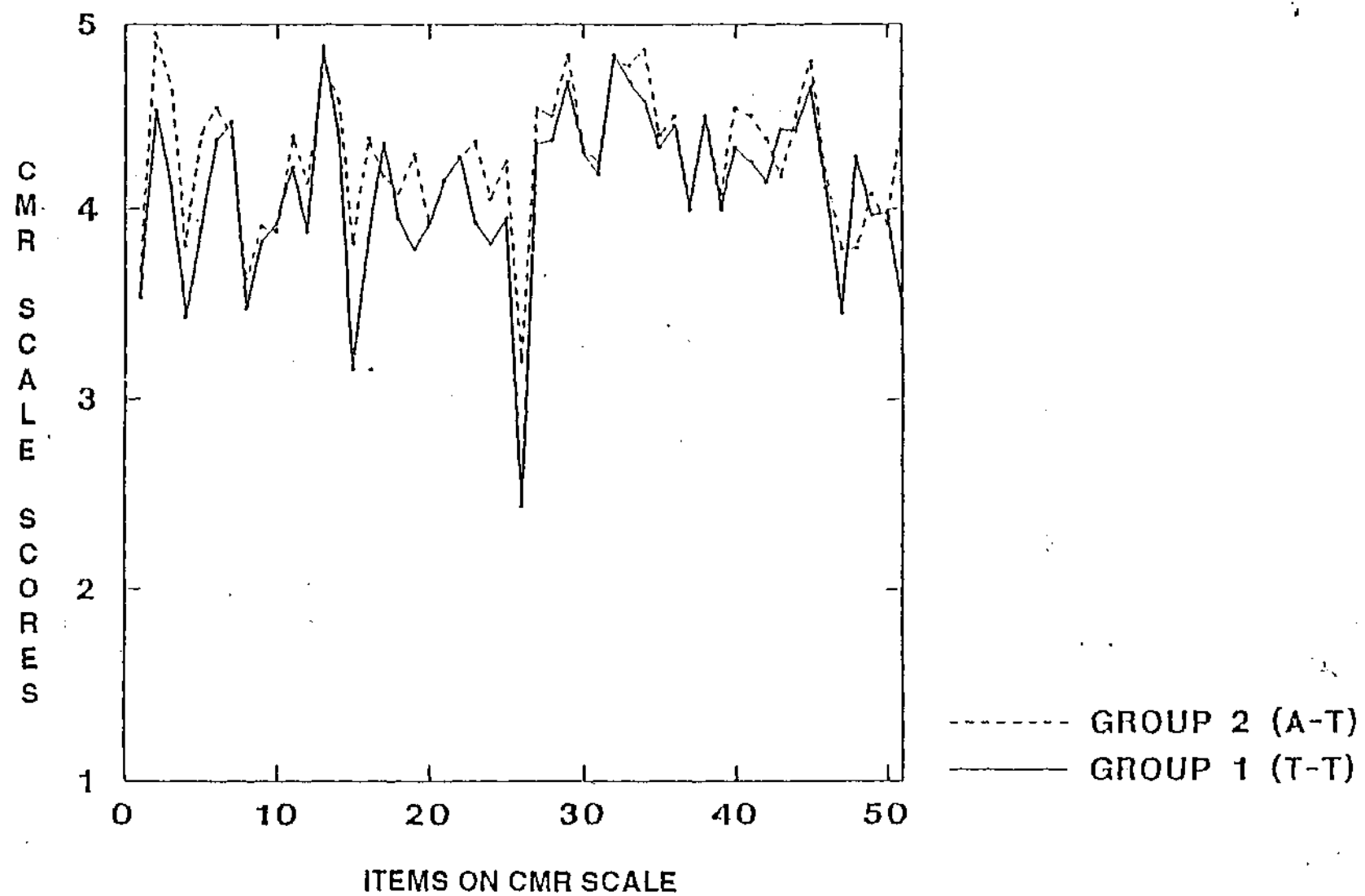
Figure 4.3: (Systat) Round 1- CMR Scale Item Means
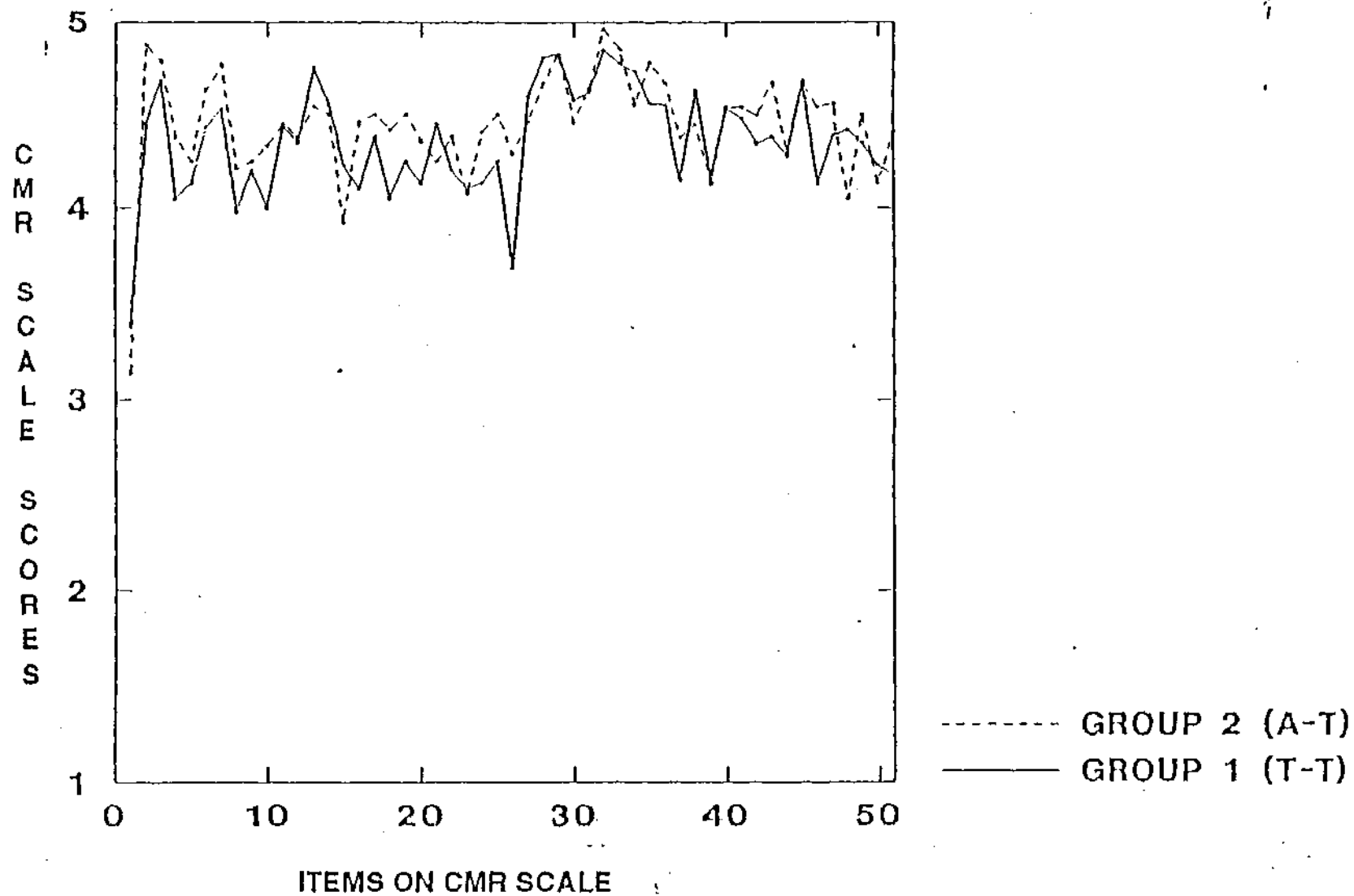
Figure 4.4: (Systat) Round 4 - CMR Scale Item Means

DISCUSSION OF FINDINGS

The purpose of this section is to discuss the findings from the analyses. This section is divided into two parts. In the first part, the results are examined in terms of the lack of confirmation for the Grimmett and Crehan Supervision Project (1988). In the second part, the instrumentation (CMR Scale) is reviewed with regard to this study's findings.

Lack of Confirmation of 1988 Finding

One of the purposes of the present study was to confirm or disconfirm Grimmett and Crehan's (1988) finding about principal-led supervision. Contrary to their tentative conclusion, the present study found that positive effects on teachers' classroom management practice were *not* more strongly associated with collegial (teacher-teacher) than with hierarchical supervision (administrator-teacher). A review of both the Grimmett and Crehan (1988) Project and the Grimmett and the current Grimmett and Crehan Teacher Development Study revealed two distinct differences which help to explain why the present study did not confirm their earlier findings. These differences are district context and sample variation.

District context. There were distinct differences in the district context of the Grimmett and Crehan Supervision Project (1988) and the Grimmett and Crehan Teacher Development Study (in progress). This subsection examines those distinctions.

In the Supervision Project, the sample was drawn from one school district. The district context was a traditional one, in which every teacher was

summatively evaluated every five years. This approach to supervision represented a more traditional hierarchical evaluation format. In fact, all the teachers involved in the project were all formally evaluated that year.

In the Teacher Development Study, the sample was drawn from two school districts. One school district had a formal traditional evaluative approach with the teachers being evaluated every five years; however, none of the teachers was formally evaluated during the Teacher Development Study.

The second school district had no formal evaluative approach to supervision. It had implemented a professional growth plan in which teachers were made responsible for their own professional development; 17 of the 22 dyads used in this study came from this school district. Therefore, many of the participants within this school district were already actively involved in a professional teacher development and actively making decisions which affected their own professional growth.

The differences in the district context between the Supervision Project and the Teacher Development Study could help to explain in two ways why the present study did not find any significant differences between non-reciprocal and reciprocal supervisory dyads. First, in the 1988 Supervision Project, the district emphasis was on evaluation. Research (e.g., Housego, 1989; Sergiovanni & Starratt, 1988; Smyth, 1989) confirms that non-reciprocal instructional supervision which emphasizes evaluation is not perceived by teachers as aiding teacher development. Therefore, the 1988 findings demonstrated that principal-led supervision was not conducive to teacher development.

Second, unlike the formal evaluative supervisory approach emphasized in the Supervision Project, the Teacher Development Study was *not* emphasizing evaluation but professional teacher growth. Because there was no threat of formal evaluation from either school district, it can be suggested that the

teachers in the Teacher Development Study were less suspicious of administrators observing their teaching practices. In fact, 9 of the 12 administrator-teacher dyads were from the school district which had implemented a professional growth plan. In this type of environment, teachers could have perceived their supervisory interaction with their administrator as collaborative. If this is so, then teachers where free to make instructional change regardless of the non-reciprocal supervisory approach.

Sample variation. There were six differences between the Grimmett and Crehan Supervision Project (1988) sample and the Grimmett and Crehan Teacher Development Study (in progress) sample. Because the sample for the present study was drawn from the Teacher Development Study, these differences could help to explain why the present study did not find any significant difference between non-reciprocal and reciprocal supervision dyads. This subsection examines those distinctions.

First, the Supervision Project's sample included only elementary teachers and administrators whereas the Teacher Development Study's sample included both elementary and secondary teachers and administrators. The Supervision Project's conclusions were based on non-reciprocal principal-led interactions in elementary settings. Because little is known about administrator-teacher interactions in a secondary school setting, it is possible that the inclusion of administrator-teacher dyads and teacher-teacher dyads from a secondary school environment may have nullified any differences in both reciprocal and non-reciprocal dyads. If this possibility is accepted as having any merit, then it can be argued that whatever differences might exist between reciprocal and non-reciprocal dyads disappear when elementary and secondary dyads are analyzed as one group, either reciprocal or non-reciprocal.

Second, the Supervision Project's sample represented non-reciprocal dyads only whereas the Teacher Development Study's sample represented non-reciprocal and reciprocal dyads. The Supervision Project's conclusions were based on non-reciprocal dyads in which the focus of the supervision process was formal evaluation. However, this was not the case in the Teacher Development Study. In that study, both non-reciprocal and reciprocal dyads focused on professional growth in the supervisory process. Therefore, this may be one further distinction which suggests why the present study did not confirm Grimmett and Crehan's (1988) findings.

Third, the Supervision Project's sample was drawn from one school district whereas the Teacher Development Study's sample was drawn from two school districts. Every teacher who participated in the Supervision Project was to be formally evaluated that year. Contrary to the formal evaluative approach, none of the teachers in the Teacher Development Study was to be formally evaluated. In fact, one of the school districts in that study, had, through contractual negotiations, replaced traditional summative evaluation with a program of teacher professional growth. Therefore, the present study's findings of no significant difference could be because the two districts studied did not have a strict evaluative approach to supervision.

Fourth, the Supervision Project's sample represented teachers who agreed to participate in the study at the request of their administrator whereas the Teacher Development Study's sample represented teachers and administrators who volunteered for the study on their own volition. In the Teacher Development Study, the teachers and administrators showed a willingness to participate in a supervisory process which encouraged professional growth. However, in the Supervision Project, teachers may have agreed to participate in the study because of the hierarchical component in the

administrator-teacher relationship. As a result, teachers may have complied with the directives of the administrators. This distinction in voluntarism further demonstrates why the present study could not confirm Grimmett and Crehan's (1988) findings about principal-led supervision.

Fifth, the Supervision Project's sample was a small one (n=15) whereas the Teacher Development Study's sample was a much larger one (n=60). Because the sample size for that study is larger, it also represents a high percentage of voluntarism. Therefore, a larger sample with willing administrators and teachers who are ready to pursue teacher development may account for why there were no significant differences between reciprocal and non-reciprocal dyads in the present study. This distinction is important because it was from that study that the sub-sample (n=22) for the present study was derived.

Sixth, the Supervision Project's sample included only principals whereas the Teacher Development Study's sample included principals, vice-principals, and department heads. These distinctions in the Teacher Development Study helped to define precisely the relationship between administrators and teachers. In the present study, there were 6 principal/teacher dyads, 4 vice-principal/teacher dyads, and 2 department-head/teacher dyads. Furthermore, 9 of the 12 administrator-teacher dyads were from the school district which had implemented a professional growth plan. Therefore, this distinction may account for the lack of significant difference in this study between administrator-teacher dyads and teacher-teacher dyads.

Instrumentation

The findings of the present study suggest that there are no significant differences between the two types of instructional supervision dyads. The

instrument (CMR Scale) utilized in this study could have contributed to those results in two ways. First, the scale could not discriminate among teachers who scored in the "higher-end." Second, the homogeneity of the items on the CMR scale proved to be detrimental to Profile Analysis.

Lack of discrimination of "higher end" teachers. The CMR Scale does not seem to discriminate among "higher-end" teachers. The scale can not indicate what it is that competent teachers do beyond their exemplary use of the basic skills of classroom management represented by the scale items. This lack of discrimination is important in understanding what it is that competent teachers do or do not do to maintain well managed classrooms.

Homogeneity of the items. The LERTAP Program, on the U.B.C. Mainframe computer, established the homogeneity of the items on the CMR Scale. The confirmation of homogeneity proved to be detrimental to Profile Analysis. Profile Analysis, a multivariate statistical procedure, relies on the variability of the 51 items on the CMR Scale because each item is viewed as a dependent variable. Therefore, the homogeneity of the CMR Scale could have contributed to the lack of significant differences between reciprocal and non-reciprocal supervision dyads in this study.

SUMMARY

The study's findings (preliminary, Profile Analysis, and confirmatory) were threefold. First, both Systat and Excel showed graphic patterns which indicated that: (a) line segments were parallel, (b) line segments were resting on top of one another, (c) sometimes reciprocal supervision dyads scored higher than

non-reciprocal supervision dyads on the CMR Scale, and (d) sometimes non-reciprocal supervision dyads scored higher than the reciprocal supervision dyads on the CMR Scale.

Second, Profile Analysis demonstrated that both groups (reciprocal and non-reciprocal instructional supervision dyads) were parallel and coincident for rounds 1 and 4. This indicated that there was no interaction between the groups and that most of the item scores on the CMR Scale were the same regardless of which group was scored.

Third, all three analyses yielded results which were congruent with one another. Overall, they revealed that there were no significant differences between non-reciprocal and reciprocal supervision dyads on elementary and secondary teachers' classroom management practice.

The findings were discussed in two ways. First, this study's findings did not confirm Grimmett and Crehan's (1988) tentative conclusion. Therefore, the Supervision Project was compared with the Teacher Development Study in terms of district context and sample variation.

Second, the Classroom Management Rating (CMR) Scale was investigated. The findings suggested two things with regard to the instrument. First, the instrument could not discriminate among "high-end" teachers on the scale. Second, the homogeneity of the instrument proved to be a detriment to Profile Analysis.

The next chapter is presented in four parts. It will summarize the present study, answer the research problem and questions, address three conclusions, and discuss implications for theory, future research, and administrative practice.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this chapter is fourfold. First, the study will be summarized. Second, the research problem and questions will be answered. Third, the conclusions will be presented. Fourth, the implications for theory, future research, and administrative practice will be discussed.

SUMMARY

In this study, two approaches to instructional supervision were compared. The first was a non-reciprocal administrator-teacher relationship which represented a traditional, hierarchical approach to supervision. The second was a reciprocal teacher-teacher relationship which represented a collaborative approach to teacher development. Because the focus of instructional supervision is changing from an evaluative administrator-teacher format to an interactive teacher-teacher experience, it was necessary to investigate these two types of supervision approaches.

This study, part of the Grimmett and Crehan Teacher Development Study, used 22 elementary and secondary school dyads from that study. A multidimensional design was used in the present study to analyze the quantitative data from that study. The independent variable was the type of supervision dyad (non-reciprocal and reciprocal) and the dependent variable was the Classroom Management Rating (CMR) Scale. There were three statistical procedures used in determining the comparative effects of non-

reciprocal and reciprocal supervision dyads on elementary and secondary teachers' classroom management practice.

The three statistical procedures yielded the same results. First, the preliminary findings, using Microsoft Excel, indicated that there were few differences between non-reciprocal and reciprocal supervision dyads. Second, the Profile Analysis findings demonstrated that the two types of supervision approaches were parallel and coincident. These findings suggested that there was no significant interaction between the two groups and that most of the item scores on the CMR Scale were the same regardless of which group (reciprocal or non-reciprocal) scored. Third, the confirmatory findings, using Systat, verified the preliminary findings and the Profile Analysis. Overall, Systat confirmed the findings which suggested that there are no significant differences between non-reciprocal instructional supervision dyads and reciprocal instructional dyads.

The findings were discussed in two ways. First, the findings were reviewed with regard to both the current Grimmett and Crehan Teacher Development Study and the Grimmett and Crehan (1988) Project. This demonstrated that the district context and the sample variation could have accounted for the lack of significant difference between the two types of supervision approaches. Second, the findings were discussed with regard to the instrument. The non-significance of the findings may be attributed to the CMR Scale's homogeneity and the lack of discrimination in the scale items for "higher-end" teachers.

RESEARCH PROBLEM AND QUESTIONS

The major research problem was to determine the comparative effects of non-reciprocal and reciprocal supervision dyads on elementary and secondary

teachers' classroom management practice (managing instruction, room arrangement, and pupil behavior). In response to this research problem, the results of all three analyses suggested, in one way or another, that there were no significant differences between non-reciprocal and reciprocal supervision dyads in elementary and secondary teachers' classroom management practice.

This study addressed three research questions, one major and two specific. The major research question asked:

> Does one type of instructional supervision dyad reliably affect teachers' classroom management practice more than the other?

In response to this question, Profile Analysis revealed that the answer is *no;* that is, one type of instructional supervision dyad does not reliably affect teachers' classroom management practice more than the other.

The first specific research question asked:

> Are the profiles of the mean scores on the Classroom Management Rating (CMR) Scales for non-reciprocal and reciprocal supervision dyads parallel?

In response to the first specific question, Profile Analysis revealed that the profiles of the mean scores on the CMR Scale for both reciprocal and non-reciprocal dyads were parallel.

The second specific research question asked:

> If and only if the profiles are parallel, are the profiles of the mean scores on the Classroom Management Rating (CMR) Scales for non-reciprocal and reciprocal supervision dyads coincident?

In response to the second specific question, Profile Analysis revealed not only were the profiles of the mean scores of the CMR Scale for non-reciprocal and reciprocal supervision dyads parallel, but also coincident.

CONCLUSIONS

The present study has three conclusions. First, the findings could not confirm nor disconfirm Grimmett and Crehan's (1988) tentative conclusion. Second, collaboration can occur amongst teacher-administrator dyads as well as teacher-teacher dyads. Third, teacher development can occur amongst teachers in teacher-administrator supervisory dyads.

Confirm Nor Disconfirm Grimmett and Crehan Study (1988)

The purpose of this study was to compare two types of instructional supervision dyads, namely *non-reciprocal* (administrator-teacher) and *reciprocal* (teacher-teacher). Part of the purpose of this study was to confirm or disconfirm the tentative conclusion of the Grimmett and Crehan Supervision Project (1988) which suggested that positive effects on teachers' classroom management performance were associated more strongly with a teacher-teacher supervisory relationship rather than an administrator-teacher supervisory relationship.

This study could not confirm nor disconfirm Grimmett and Crehan's (1988) findings. If their tentative conclusion had been confirmed, this study would have suggested that positive growth in teachers' classroom management practice was more strongly associated with teacher-teacher supervision rather than principal-led supervision. Because of this lack of empirical evidence, it must be concluded that, at least for teachers with strong classroom management skills, there is no reason to believe that teachers develop better working with other teachers than with other administrators. That conclusion must, however, be viewed with caution because of the unique district context of the majority of the dyads.

Collaboration Amongst Supervisory Dyads

Given the non-significant differences in classroom management practice between reciprocal and non-reciprocal supervision, this study suggests that collaboration can occur amongst teachers in both administrator-teacher dyads and teacher-teacher dyads. It demonstrates that through working together, whether in reciprocal or non-reciprocal dyads, teachers can take responsibility and initiative for their own professional growth.

In this study, professional growth happened regardless of the type of supervisory dyad. Moreover, the teachers were able to learn, incorporate new ideas, and reflect on crucial aspects of classroom management practice.

Therefore, this study concludes that it does not matter, at least with "high-end" teachers, whether they interact reciprocally or non-reciprocally. What appears to be important is the provision for "another set of eyes" (Acheson et al., 1987) which affords the already competent teacher the opportunity to see his or her classroom in a new or different light.

Teacher Development Amongst Teacher-Administrator Dyads

The study's findings indicate that teacher development can occur amongst teacher-administrator supervisory dyads. It suggests that when formal evaluation is not involved, the type of supervision dyad may not be an important factor in teacher development. By reducing the threat of evaluation, teachers are less suspicious of administrators observing their classroom practice.

Because formal evaluation was not relevant in this study, the distinction in the hierarchical levels of authority was lessened. With the constraints of formal evaluation lifted, there were benefits to both teachers and administrators. First,

teachers were free to collaborate with administrators and receive guidance and support about their classroom management practice. Second, administrators were free to communicate freely without the bureaucratic function of formal evaluation.

Therefore, without authority and hierarchy constraints, both teachers and administrators were comfortable with the non-reciprocal supervisory process. In this instance, bureaucratic formality was no longer necessary and teachers were able to develop professionally.

IMPLICATIONS FOR THEORY, FUTURE RESEARCH, AND ADMINISTRATIVE PRACTICE

The overall findings suggested that there were no significant differences between the non-reciprocal supervision dyads and the reciprocal supervision dyads on classroom management practice. Therefore, the findings could not confirm that teachers are more apt to develop professionally through teacher-teacher interactions rather than administrator-teacher interactions (Lieberman & Miller, 1984; Little, 1982; 1987). Despite these findings, this section examines this study's implications for theory, future research, and administrative practice.

Implications for Theory

The purpose of this section is to outline the implications of the findings for theory. In order to achieve this purpose, this section is divided into three parts: (1) non-reciprocal instructional supervision, (2) reciprocal instructional supervision, and (3) teacher development.

Non-reciprocal instructional supervision. In this study, there was no significant difference between non-reciprocal and reciprocal supervision dyads on classroom management practice. Because of this finding, research in the areas of non-reciprocal supervision could not be validated (Blase & Kirby, 1992: Donaldson, 1990; Housego, 1989; Hoy & Forsyth, 1986; Hoy & Miskel, 1991; Sergiovanni & Starratt, 1988; Smyth, 1986, 1989).

The non-reciprocal administrator-teacher dyads studied were not similar to the traditional evaluative administrator-teacher supervisory relationships discussed in the literature. In fact, one of the districts had already implemented a professional growth plan in which formal evaluation was abolished whereas the other school district had retained traditional evaluation but the focus of the supervisory process was teacher development. As a result, the administrator-teacher relationship was only non-reciprocal from the perspective that the roles of observee and observer were not interchanged.

Because the majority of the non-reciprocal dyads in this study did not have a traditional formal evaluative approach, it is difficult to confirm the literature which suggests that evaluative instructional supervision impedes teacher development. Therefore, the following research literature which suggests that formal evaluation is not conducive to professional growth can not be empirically validated in this study.

This study could not validate the literature which suggests that the components of authority and hierarchy are detrimental to the non-reciprocal supervisory process (Hoy & Miskel, 1991; Sergiovanni & Starratt 1988). Blase and Kirby (1992) suggest that authority is viewed by teachers as "degrading and condescending" (p. 89). Donaldson (1990) describes an "authority paradox" in which the teachers' authority lies in the realm of instruction and the administrators' authority lies in the managerial function associated with the

administrative position. This study did not substantiate Blase & Kirby's (1992) nor Donaldson's (1990) claim. Because the scores on the CMR Scale for the non-reciprocal supervision dyads were similar to or the same as those for the reciprocal supervision dyads, it is difficult to assert, in this study, that: (a) teachers' authority lay in the realm of instruction and that administrator's authority lay in the managerial function associated with the administrative position and (b) formal authority was perceived as being detrimental to the supervision process. Furthermore, because there were no significant differences between non-reciprocal and reciprocal supervision dyads, this study can not confirm Smyth's (1989:166) assertion that hierarchy "separat[es] those who 'know about' teaching (supervisors) from those who do teaching (teachers)."

This study could not validate the research literature which suggests that a conflict between professional evaluation and bureaucratic evaluation exists in an administrator-teacher supervisory relationship (Housego, 1989; Sergiovanni & Starratt, 1988). Therefore, without empirical evidence, the study can not claim that the administrators and teachers in the non-reciprocal supervision process were able to make the necessary distinctions between professional and bureaucratic evaluation. However, if this distinction were made between the two systems (bureaucratic and professional), it is possible that the threat of bureaucratic evaluation, at least in this study, did not exist in the administrator-teacher supervisory relationship. This is plausible because the focus of the non-reciprocal supervision process in this study was not formal evaluation. One could speculate, however, that the administrators in this study were not assessing the teachers' performance but rather enabling the teachers to make informed decisions about their teaching practices (Housego, 1989).

This study could not validate the research literature which suggests that teachers remain convinced that administrator-teacher supervisory relationships

are evaluative, judgmental and not helpful to their own professional development (Smyth, 1986). The empirical evidence did not suggest that the administrator-teacher relationship was not helpful to professional development. What it did suggest was that competency in classroom management practice was not more strongly associated with teacher-teacher relationships than administrator-teacher relationships. Furthermore, with regard to evaluation, Smyth (1986) suggests that teachers are "reluctant to open their classrooms voluntarily to outside visitations no matter how benevolent the intent" (p.334). This may be true when the intent is evaluation. However, the teachers in this sample were less reluctant to have their classrooms observed by administrators because they had volunteered for the sample. Also, the majority of the teachers were already actively involved in a school district which encouraged teacher professional growth. A volunteer commitment and a plan for professional growth appears not to have validated the literature which suggests that the threat of evaluation remains in the administrator-teacher supervisory relationship.

Even though this study's findings yielded no significant differences between non-reciprocal and reciprocal instructional supervision dyads and therefore, could not confirm nor disconfirm the research literature on non-reciprocal supervision, it serves to add further inquiry into the nature of the dyadic relationship between an administrator and a teacher. At best, the findings from this study suggest that without formal evaluation, the administrator-teacher relationship is changed. More inquiry into the administrator-teacher relationship which has less emphasis on formal evaluation is needed to support this argument.

Reciprocal instructional supervision. In this study, there was no significant difference between non-reciprocal and reciprocal supervision dyads

on classroom management practice. Because of this finding, research in the areas of reciprocal supervision could not be validated nor invalidated (Crehan, 1990a; Glatthorn, 1984; Grimmett, 1987; Hopfengardner & Walker, 1984; Lieberman, 1986, 1988; Little, 1982, 1985, 1987).

Reciprocal instructional supervision was defined in this study as a teacher-teacher approach to instructional supervision in which the roles of observer and observee are interchanged. Without any empirical evidence, this study can only speculate about the teacher-teacher relationship and the benefits of such a collaborative interaction.

The literature suggests that collaboration among teachers is beneficial to teacher development and through collaboration, teachers become responsible for taking initiative towards there own professional development (Bang-Jensen, 1986; Grimmett et al., 1992; Lieberman, 1988; Little, 1987). Although both assertions apply to the teacher-teacher dyads in this study, they negate collaboration amongst administrator-teacher dyads as also being beneficial to professional teacher development. In this study, teacher development may have occurred in both supervision dyads. This assumption can be made because in the present study there was no significant difference between the two types of supervision dyads and their scores on the CMR Scale.

Little (1985) emphasizes teacher-teacher interactions and Grimmett et al. (1992) suggest that "collaborative group work enables teachers to attempt instructional innovations" (p. 19). While this assertion may be true for the teacher-teacher dyads, it may also be so for the administrator-teacher dyads. In fact, if the Round 1 and Round 4 CMR Scale item mean scores were compared (Figures 4.1 and 4.2, respectively), the results would indicate an increase in scores for both types of supervision groups. This demonstrates that most of the teachers, whether in a reciprocal or non-reciprocal dyad, had gained more

competency in classroom management practice during the duration of the supervision process. Therefore, it was not only the teacher-teacher supervision dyads that appeared to have been able to learn and reflect on crucial aspects of curriculum and instruction.

Little (1987), Glickman (1990), and Lieberman (1988) believe that a collaborative environment reduces teacher isolation. In this study, teachers, whether in reciprocal or non-reciprocal dyads, were exposed to new ideas, and/or prompted to recall forgotten ones, and given an opportunity to exchange ideas in a collaborative environment. Therefore, teachers were released from the isolation of their regular classrooms (Glatthorn, 1984). A reduction in teacher isolation can only be speculative as the quantitative findings did not provide empirical evidence to suggest differently.

Grimmett (1987) and Glatthorn (1984) believe that collaborative interactions benefit the teachers. Glatthorn (1984) suggests that collaboration is beneficial because teachers can talk to other teachers rather than their administrator, teachers can acquire knowledge without extensive training, and collegial norms and values are established. The quantitative data could not confirm that teachers preferred to talk to other teachers before sharing with their administrator (Glatthorn, 1984).

However, one of this study's benefits was that teachers in both types of supervision dyads became increasingly competent in classroom management practice as the supervision process continued. With regard to administrator-teacher and teacher-teacher collaboration, two other qualitative studies (Bader, 1992; Varah, 1990) connected with the Grimmett and Crehan Teacher Development Study suggest that teachers benefit from collaborative interaction with both other teachers and administrators.

Furthermore, this study seems to have added to the collaborative literature in two ways. First, the present study suggests that the absence of formal evaluation seems to make administrator-teacher dyads much more similar to, than dissimilar from, the teacher-teacher dyads. Second, the present study suggests administrator-teacher dyads are conducive to a collaborative relationship when both members in the supervisory process focus on professional teacher development. More inquiry about the administrator-teacher and teacher-teacher collaborative relationship is needed to support these suggestions.

Teacher development. Despite the fact that this study could neither validate nor invalidate the research on reciprocal and non-reciprocal supervision dyads, the results are congruent with some of the literature on teacher development (Acheson & Gall, 1987; Glickman, 1981; Glickman & Gordon, 1987; Goldhammer, 1969). Acheson and Gall (1987) consider teacher development as "interactive rather then directive, democratic rather than authoritarian, teacher-centered rather than supervisor-centered (p. 11)." The few differences in the CMR Scale scores between the two groups supports Acheson and Gall's (1987) beliefs and suggests that the two supervisory approaches utilized in this study were interactive, democratic, and teacher-centered.

Glickman (1987) provides five research-based proposals which indicate the importance of supervision of instruction as teacher development. His proposals can not be validated by this study because there is no empirical evidence to suggest that supervision can enhance teacher belief in a cause beyond oneself, promote teacher's sense of efficacy, make teachers aware of how they complement each other in striving for common goals, stimulate

teachers to plan common purpose and actions, and challenge teachers to think abstractly about their work. At best, Glickman's (1987) proposals may suggest that much more happens in the supervision process than can be captured by the quantitative data used in this study.

Implications for Future Research

The study's findings indicate a need for future research. To address this need, this section is divided into three subsections: (1) quantitative perspective, (2) qualitative perspective, and (3) re-conceptualization.

Quantitative perspective. This study could lead to at least three subsequent studies with a quantitative perspective. First, additional data from the Grimmett and Crehan Teacher Development Study could be utilized. Second, a factor analysis of the CMR Scale could be conducted. Third, this study's data could be examined from a classroom management practice perspective.

First, the Grimmett and Crehan Teacher Development Study has more quantitative information regarding the sample utilized in this study. Other quantitative data include: (a) conceptual level pairings, (b) teacher efficacy scores, (c) study groupings, and (d) demographic information. Subsequent studies could be initiated by cross-tabulating any of the above quantitative information with the observers' ratings on the CMR Scale. These data could be utilized within reciprocal and non-reciprocal dyads and across reciprocal and non-reciprocal dyads. This could possibly yield interesting results as well as provide further quantitative information about the nature of reciprocal or non-reciprocal supervision dyads.

Second, in addition to the studies suggested above, a Factor Analysis, more specifically a Factorial MANOVA, could be conducted on the 51 item Classroom Management Rating (CMR) Scale. "Factorial MANOVA is the extension of MANOVA to designs with more than one IV [independent variable] and multiple DVs [dependent variables]" (Tabachnick & Fidell, 1989, p. 25). For a Factorial MANOVA, the 51 items on the CMR Scale would be considered the dependent variables. This procedure could prove useful as "comparisons can be made among margins or cells in the design, and influence on combined or individual DVs can be assessed" (Tabachnick & Fidell, 1989, p. 25). This type of Factor Analysis could assess whether the items on the CMR Scale are actually assessing the categories of classroom management (managing instruction, room arrangement, and pupil behavior). A Factor Analysis may also reduce the number of items on the CMR Scale.

Third, the data from this study can be utilized from a classroom management perspective. The purpose of the present study was to compare two types of instructional supervision dyads. In this case, classroom management was the means by which instructional supervision was investigated. Overall, the CMR Scale revealed that the teachers scored at the upper end of the scale. Inquiry into the CMR Scale, from a classroom management perspective, may yield interesting results. For example, the two groups' classroom management scores could be analyzed from a categorical viewpoint or an item-by-item perspective. This analysis could provide more information about the basic classroom management skills indicated on the CMR Scale. It may be the case that the CMR Scale represents a complete list of management skills, which, if practiced at a superior level (i.e., scale value 4 or 5), results in competency in classroom management. However, it may also be the case that these classroom managers do things in addition to or different

from, the scale items. If this is so, then a new scale, which would capture those differences, needs to be developed. This development could be combined with a qualitative approach, for example interviews, to identify what it is that competent classroom managers do beyond what is suggested by the scale.

Qualitative perspective. Although the present study used only quantitative data for a sample of 22 dyads drawn from the Grimmett and Crehan Teacher Development Study, there is also qualitative data for this sample. These data include post-conference video-tapes and stimulated recall audio tapes. In a subsequent study, the qualitative data could be utilized to ascertain whether or not there is a differential nature in the relationship between non-reciprocal (administrator-teacher) and reciprocal (teacher-teacher) instructional supervision dyads. The qualitative information may demonstrate that the interactive process, whether it be between two teachers or a teacher and an administrator is important. It could also suggest what other factors beside the type of dyad influence the interactive dynamics. The qualitative data from the post-observation conferences might reveal, for example, that the nature of the interactive supervisory process is distinct from those suggested by other supervision frameworks which encourage teacher development. It may support the development of a different theoretical framework.

Re-conceptualization. Although reciprocal and non-reciprocal instructional supervision had already been conceptualized in the Teacher Development Study, the reciprocal and non-reciprocal dyads could be examined from a different theoretical perspective. Perhaps the definitions of reciprocal and non-reciprocal supervision do not accurately describe the interactive experience in both types of dyads. Crehan (1990a) has suggested that this type of

interactive supervisory process be called "*collaborative consultation.*" Collaborative consultation appears to describe more precisely the type of interaction that the instructional supervision dyads experienced in the Teacher Development Study. With regard to this format, Crehan and Smoliak (1992a) state that:

> In the Grimmett and Crehan Teacher Development Project (in progress), the teachers' [teacher-teacher and teacher-administrator] interactions are characterized by their willingness to work together (collaborate) and discuss (consult about) their own teaching practices (p. 8).

The literature emphasizes and encourages this type of collaborative approach to teacher development (Grimmett et al., 1992; Lieberman, 1986, 1988; Little, 1985, 1987). Moreover, Lieberman (1986) suggests that the idea of collaboration is both old and new, but that the scope and variety of the collaborative ideal continues to change. Because there are many forms of collaboration, "as varied as the numbers and the kinds of people involved" (Lieberman, 1986, p.6), there may be a need to re-define conceptually the interactive process experienced by the participants in the Teacher Development Project. In support of collaborative consultation, Crehan and Smoliak (1992a) suggest that it "may be a supervision format through which teachers could develop professionally to their full potential at their own speed and within their own levels of confidence" (p. 1).

Implications for Administrative Practice

The literature suggests that since the focus of instructional supervision is changing from that of a traditional evaluative approach to a teacher development approach, the roles of teachers and administrators in the supervisory process are also changing (Lieberman, 1988; Blase & Kirby, 1992). This study's findings

suggest that the role of administrator in the supervisory process should remain the same. However, if these findings had confirmed that teachers are more apt to develop professionally through teacher-teacher supervisory interactions rather than administrator-teacher supervisory interactions, then there would have been clear implications for the changing role of administrators as instructional supervisors. This logical argument would have suggested at least three changes for administrators.

First, administrators would have to be willing to assume that teachers are responsible for their own professional growth. Administrators would have to accept that teachers can make their own decisions and be accorded control of the supervisory process.

Second, administrators would have to examine their traditional role as evaluator and be willing to re-define their supervision responsibilities. Their role may shift from evaluator of teaching to facilitator of teacher development. This might include such actions as providing release time for teacher-teacher observation and collaboration, and building a timetable which allow teachers an opportunity to consult with one another about professional talk about classroom events. With regard to this time commitment, Varah (1990) states:

> Time is the scarcest resource for teachers and building in time for observations and consultation made collegial consultation a priority in the school day. Release time appeared to be critical if teachers were to be expected to participate in the program and practice together on an ongoing basis. Thus, it can be concluded that without structured-in time at the school level, it is possible that the collegial consultation process would not be implemented by the teachers (pp. 173-174).

Third, administrators would have to recognize an administrative shift of power. As teachers become more and more responsible for their own professional teaching practice, administrators would need to invest power in teachers rather than exercising control over them.

A FINAL COMMENT

The present study suggested collaboration beyond the scope of the literature which encourages teacher-teacher interaction. It demonstrated that collaboration could occur and be beneficial to teachers working in an interactive process with not only teachers, but also administrators. These benefits were indicated by the positive changes in teachers' classroom management practice.

This collaborative interaction allows for both teacher and administrator to partake and interact in a learning experience which encourages their professional growth. Both participants in this interactive experience would collaborate voluntarily and cooperatively. They would be willing to take a risk toward their own professional development.

This type of willingness amongst both teachers and administrators would bridge the gap in the hierarchical structure and lessen the threat that authority tends to bring to the supervisory process. This is called "collaboration at its best."

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APPENDIX A: COMPONENT RATING (CR) SCALE

(Emmer et al., 1981)

Teacher # _____   School # _____   Observer # _____   Date _____ AM PM

# of Students _____   Grade _____

I. INSTRUCTIONAL MANAGEMENT

5 4 3 2 1   a. Describes objectives clearly

5 4 3 2 1   b. Variety of materials

5 4 3 2 1   c. Materials are ready

5 4 3 2 1   d. Clear directions

5 4 3 2 1   e. Waits for attention

5 4 3 2 1   f. Encourages analysis, builds reasoning skills

5 4 3 2 1   g. Assignments or activities for different students

5 4 3 2 1   h. Appropriate pacing of lesson

5 4 3 2 1   i. Clear explanations and presentations

5 4 3 2 1   j. Monitors student understanding

5 4 3 2 1   k. Consistently enforces work standards

2. ROOM ARRANGEMENT

5 4 3 2 1   a. Suitable traffic patterns

5 4 3 2 1   b. Degree of visibility

3. RULES AND PROCEDURES

5 4 3 2 1   a. Efficient administrative routines

5 4 3 2 1   b. Appropriate general procedures

5 4 3 2 1   c. Efficient small group procedures

5 4 3 2 1   d. Suitable routines for assigning checking, and collecting work

5 4 3 2 1   *e. Uses warm-up or wind-down activities

4 MEETING STUDENT CONCERNS

5 4 3 2 1   *a. Student aggression

5 4 3 2 1   b. Attention spans considered in lesson

5 4 3 2 1   *c. Student success

5 4 3 2 1   d. Activities related to student interests or backgrounds

5. MANAGING PUPIL BEHAVIOR

5 4 3 2 1   *a. Rewards appropriate performance

5 4 3 2 1   b.. Signals appropriate behavior

5 4 3 2 1   c. Consistency in managing behavior

5 4 3 2 1   d. Effective monitoring

6. DISRUPTIVE PUPIL BEHAVIOR

5 4 3 2 1   *a. Amount of disruption

5 4 3 2 1   *b. Source of disruption

5 4 3 2 1   c. Stops quickly

5 4 3 2 1   d. Cites rules of procedures.

5 4 3 2 1   e. Non-verbal contact

5 4 3 2 1   f. Desist statement

5 4 3 2 1   g. Punishment, criticism

5 4 3 2 1   h. Ignores

7. INAPPROPRIATE STUDENT BEHAVIOR

5 4 3 2 1   a. Amount

5 4 3 2 1   *b. Source

5 4 3 2 1   c. Stops quickly

5 4 3 2 1   d. Cites rules or procedures

5 4 3 2 1   e. Non-verbal contact

5 4 3 2 1   f. Desist statement

5 4 3 2 1   g. Punishment, criticism

5 4 3 2 1   h. Ignores

8. CLASSROOM CLIMATE

5 4 3 2 1   a. Task-oriented focus

5 4 3 2 1   b. Relaxed, pleasant atmosphere

9. MISCELLANEOUS

5 4 3 2 1   a. Distracting mannerisms

5 4 3 2 1   b. Listening skills

5 4 3 2 1   c. Expresses feelings

5 4 3 2 1   *d. Externally imposed interruptions

5 4 3 2 1   e. Manages interruptions

APPENDIX B: RELIABILITY ESTIMATES FOR THE COMPONENT RATING (CR) SCALE

(Emmer et al., 1981)

Table 5

Reliability Estimates of Component Ratings

Variable	Reliability	Significance Level $p <$
Describes objective clearly	.55	.001
Variety of materials	.00	ns
Materials are ready	.56	.001
Clear directions	.74	.001
Waits for attention	.79	.001
Encourages analysis/building reasoning skills	.29	ns
Assignments and activities for different students	.00	ns
Appropriate pacing of lessons	.58	.001
Clear explanations and presentations	.73	.001
Monitors student understanding	.69	.001
Consistently enforces work standards	.71	.001
Suitable traffic patterns	.37	.05
Degree of visibility	.45	.01
Efficient administrative routines	.55	.001
Appropriate general procedures	.82	.001
Efficient small group procedures	.77	.001
Suitable routines for assigning, checking, collecting work	.64	.001
Uses warm-up or wind-down activities	.56	.001
Student aggression	.63	.001
Attention spans considered in lesson	.72	.001
Student success	.54	.01

Variable	Reliability	Significance Level $p <$
Activities related to student interests/backgrounds	.04	ns
Rewards appropriate performance	.64	.001
Signals appropriate behavior	.69	.001
Consistency in managing behavior	.73	.001
Effective monitoring	.68	.001
Amount of disruption	.65	.001
Source of disruption	.31	ns
Stops disruption quickly	.49	.05
Cites rules or procedures to stop disruption	.55	.01
Uses nonverbal contact to stop disruption	.25	ns
Uses desist statements to stop disruption	.00	ns
Punishes or criticizes to stop disruption	.41	.05
Ignores disruption	.50	.01
Amount of inappropriate behavior	.79	.001
Source of inappropriate behavior	.71	.001
Stops inappropriate behavior quickly	.63	.001
Cites rules of procedures to stop inappropriate behavior	.58	.001
Uses nonverbal contact to stop inappropriate behavior	.40	.05
Uses desist statement to stop inappropriate behavior	.25	ns
Punishes or criticizes to stop inappropriate behavior	.76	.001

Variable	Reliability	Significance Level $p <$
Ignores inappropriate behavior	.62	.001
Class has task-oriented focus	.79	.001
Class has relaxed, pleasant atmosphere	.61	.001
Teacher has distracting mannerisms	.27	ns
Teacher displays listening skills	.61	.001
Teacher expresses feelings	.42	.05
Externally imposed interruptions	.17	ns
Manages interruptions	.47	.01

APPENDIX C: CLASSROOM RATING (CR) SCALE

(Stallion, 1987)

Teacher _____ School _____ Date _____ AM PM

Number of Students _____ Observer _____

1. Instructional Management

5 4 3 2 1   a. Describes objectives clearly

5 4 3 2 1   b. Materials are ready

5 4 3 2 1   c. Clear directions for assignments

5 4 3 2 1   d. Assignments for different students

5 4 3 2 1   e. Provides or seeks rationales/analysis

5 4 3 2 1   f. Appropriate pacing of lesson

5 4 3 2 1   g. Clear explanations and presentations

5 4 3 2 1   h. Monitors student understanding

5 4 3 2 1   i. Clear work standards

5 4 3 2 1   j. Consistently enforces work standards

2. Rules and Procedures

5 4 3 2 1   a. Appropriate general procedures

5 4 3 2 1   b. Efficient small group procedures

5 4 3 2 1   c. Suitable routines for assigning, checking, and collecting work

3. Meeting Student Concerns

5 4 3 2 1   a. Attention spans considered in lessons

5 4 3 2 1   b. Degree of student success

5 4 3 2 1   c. Activities related to students backgrounds and interests

4. Managing Pupil Behavior

5 4 3 2 1   a. Rewards appropriate performance

5 4 3 2 1   b. Consistency in managing behavior

5 4 3 2 1   c. Effective monitoring

5 4 3 2 1   d. Efficient transition between activities

5. Student Misbehavior

5 4 3 2 1   a.*Disruptive pupil behavior

5 4 3 2 1   b.*Inappropriate pupil behavior

(*5 = A lot, 1 = None)

**APPENDIX D: 56 ITEM CLASSROOM MANAGEMENT RATING
(CMR) SCALE FOR ROUNDS ONE AND TWO OF
CLASSROOM OBSERVATIONS**

Grimmett & Crehan Teacher Development Study (in progress)

CLASSROOM MANAGEMENT RATING SCALE

eacher #____ School #____ Observer #____ Date:_____ Start time:_____ Finish time:_____

rade:____ Total number in class:____ Number present today:____ Subject(s):_____

ANAGING INSTRUCTION

1. describes objectives clearly   1 2 3 4 5

2. materials are ready   1 2 3 4 5

3. builds on previous work and prior knowledge   1 2 3 4 5

4. definite demarcation between lesson segments and transitions   1 2 3 4 5

5. clear procedural directions and instructions   1 2 3 4 5

6. identifiable lesson segments   1 2 3 4 5

7. supplies are ready and available 1 2 3 4 5

8. variety of different activities 1 2 3 4 5

9. clear, concise, and specific pre-transition directions and instructions   1 2 3 4 5

0. adherence by pupils to work and performance standards   1 2 3 4 5

1. clear explanation and presentation of content   · 1 2 3 4 5

2. signals beginning of transitions   1 2 3 4 5

3. signals end of transitions   1 2 3 4 5

4. proportion of instructional time used for transitions   1 2 3 4 5

5. continuity of lesson segments   1 2 3 4 5

6. checks for pupil understanding of procedural directions and instructions   1 2 3 4 5

7. avoids "dead time"   1 2 3 4 5

8. monitors during transitions   1 2 3 4 5

19. generates pupil interest and enthusiasm   1 2 3 4 5

20. appropriate timing within lesson segments   1 2 3 4 5

21. signals beginning of content-based lesson segments   1 2 3 4 5

22. signals end of content-based lesson segments   1 2 3 4 5

23. avoids few working actively and many watching passively   1 2 3 4 5

24. ensures that pupils follow procedural directions and instructions   1 2 3 4 5

25. encouragement by T of adherence to work and performance standards   1 2 3 4 5

26. avoids interrupting pupil activities ("thrusts")   1 2 3 4 5

27. checks for pupil understanding of content explanation and presentation   1 2 3 4 5

28. appropriate timing across lesson segments   1 2 3 4 5

29. "back-up" activities for early finishers   1 2 3 4 5

MANAGING ROOM ARRANGEMENT

30. T can circulate freely and easily   1 2 3 4 5

31. congestion-free access to materials and supplies   1 2 3 4 5

32. T can see all pupils from anywhere in classroom   1 2 3 4 5

MANAGING ROOM ARRANGEMENT (cont'd)

33. pupils can move without
    jostling one another   1 2 3 4 5

34. congestion-free access to
    major work and small group
    activity areas   1 2 3 4 5

35. pupils' view of T and
    and instructional displays
    is unobstructed   1 2 3 4 5

36. instructional displays placed
    so pupils can make use of them   1 2 3 4 5

37. congestion-free access to
    pencil sharpener, waste basket   1 2 3 4 5

MANAGING PUPIL BEHAVIOUR

38. efficient small group
    routines or procedures   1 2 3 4 5

39. avoids engrossment   1 2 3 4 5

40. adherence by pupils to rules
    and behavioural expectations   1 2 3 4 5

41. efficient routine(s) or
    procedure(s) for collection
    of materials   1 2 3 4 5

42. waits for attention   1 2 3 4 5

43. efficient general routines
    or procedures   1 2 3 4 5

44. adherence by pupils to
    routines and procedures   1 2 3 4 5

45. efficient routines or
    procedures for exchanging
    papers and checking
    pupil work   1 2 3 4 5

46. responds to auditory cues   1 2 3 4 5

MANAGING PUPIL BEHAVIOUR (cont'd)

47. enforcement by T of
    routines and procedures   1 2 3 4 5

48. efficient routine(s) or
    procedure(s) for distribution
    of materials   1 2 3 4 5

49. avoids overdwelling   1 2 3 4 5

50. takes prompt, corrective action   1 2 3 4 5

51. efficient routines or
    procedures for assigning or
    or collecting or returning
    pupil work   1 2 3 4 5

52. uses active, purposeful
    circulation   1 2 3 4 5

53. enforcement by T of rules
    and behavioural expectations   1 2 3 4 5

54. uses full range visual scanning   1 2 3 4 5

55. uses alerting cues   1 2 3 4 5

56. uses selective pausing   1 2 3 4 5

APPENDIX E: 51 ITEM CLASSROOM MANAGEMENT RATING (CMR) SCALE FOR ROUNDS THREE AND FOUR OF CLASSROOM OBSERVATIONS

Grimmett & Crehan Teacher Development Study (In progress)

CLASSROOM MANAGEMENT RATING SCALE

'eacher #_____ School #_____ Observer #_____ Date:_____ Start time:_____ Finish time:_____

;rade:_____ Total number in class:_____ Number present today:_____ Subject(s):_____

1ANAGING INSTRUCTION

)1. describes objectives clearly   1 2 3 4 5

)2. materials are ready   1 2 3 4 5

)3. builds on previous work
and prior knowledge   1 2 3 4 5

)4. signals beginning and end of
transitions and lesson segments   1 2 3 4 5

)5. clear directions and
and instructions for
organizational procedures   1 2 3 4 5

)6. identifiable lesson segments   1 2 3 4 5

)7. supplies are ready and available   1 2 3 4 5

)8. variety of different activities   1 2 3 4 5

)9. clear, concise, and specific
directions and instructions
for transitions   1 2 3 4 5

10. adherence by pupils to work and
performance standards   1 2 3 4 5

11. clear explanation and
presentation of content   1 2 3 4 5

12. definite demarcation between
lesson segments and transitions   1 2 3 4 5

13. proportion of instructional
time used for transitions   1 2 3 4 5

14. continuity of lesson segments   1 2 3 4 5

15. checks for pupil understanding
of directions and instructions
for organizational procedures   1 2 3 4 5

16. avoids "dead time"   1 2 3 4 5

17. monitors during transitions   1 2 3 4 5

8. generates pupil interest and
enthusiasm   1 2 3 4 5

19. appropriate use of time within
lesson segments   1 2 3 4 5

20. avoids few working actively
and many watching passively   1 2 3 4 5

21. ensures that pupils follow
directions and instructions for
organizational procedures   1 2 3 4 5

22. encouragement by T of
adherence to work and
performance standards   1 2 3 4 5

23. avoids interrupting pupil
activities ("thrusts")   1 2 3 4 5

24. checks for pupil understanding
of content explanation
and presentation   1 2 3 4 5

25. appropriate pacing across
lesson segments   1 2 3 4 5

26. "back-up" activities for
early finishers   1 2 3 4 5

MANAGING ROOM ARRANGEMENT

27. T can circulate freely
and easily   1 2 3 4 5

28. congestion-free access to
materials and supplies   1 2 3 4 5

29. T can see all pupils from
anywhere in the classroom   1 2 3 4 5

30. pupils can move without
jostling one another   1 2 3 4 5

31. congestion-free access to
major work and small group
activity areas   1 2 3 4 5

32. pupils' view of T and
instructional displays is
unobstructed   1 2 3 4 5

MANAGING ROOM ARRANGEMENT (cont'd)

33. instructional displays placed so
    that pupils can make use of them   1 2 3 4 5

34. congestion-free access to
    pencil sharpener, waste basket   1 2 3 4 5

MANAGING PUPIL BEHAVIOUR

35. efficient small group
    routines and procedures   1 2 3 4 5

36. avoids engrossment   1 2 3 4 5

37. adherence by pupils to rules
    and behavioural expectations   1 2 3 4 5

38. efficient routine(s) or
    procedure(s) for collection
    of materials   1 2 3 4 5

39. waits for attention   1 2 3 4 5

40. efficient general routines
    or procedures   1 2 3 4 5

41. adherence by pupils to
    routines and procedures   1 2 3 4 5

42. responds to auditory cues   1 2 3 4 5

43. enforcement by T of
    routines and procedures   1 2 3 4 5

44. efficient routine(s) or
    procedure(s) for distribution
    of materials   1 2 3 4 5

45. avoids overdwelling   1 2 3 4 5

46. takes prompt corrective action   1 2 3 4 5

47. efficient routines or procedures
    for assigning or checking or
    collecting or returning pupil work   1 2 3 4 5

48. uses active, purposeful
    circulation with selective pauses   1 2 3 4 5

49. enforcement by T of rules and
    behavioural expectations   1 2 3 4 5

50. uses full range visual scanning   1 2 3 4 5

51. uses alerting cues   1 2 3 4 5

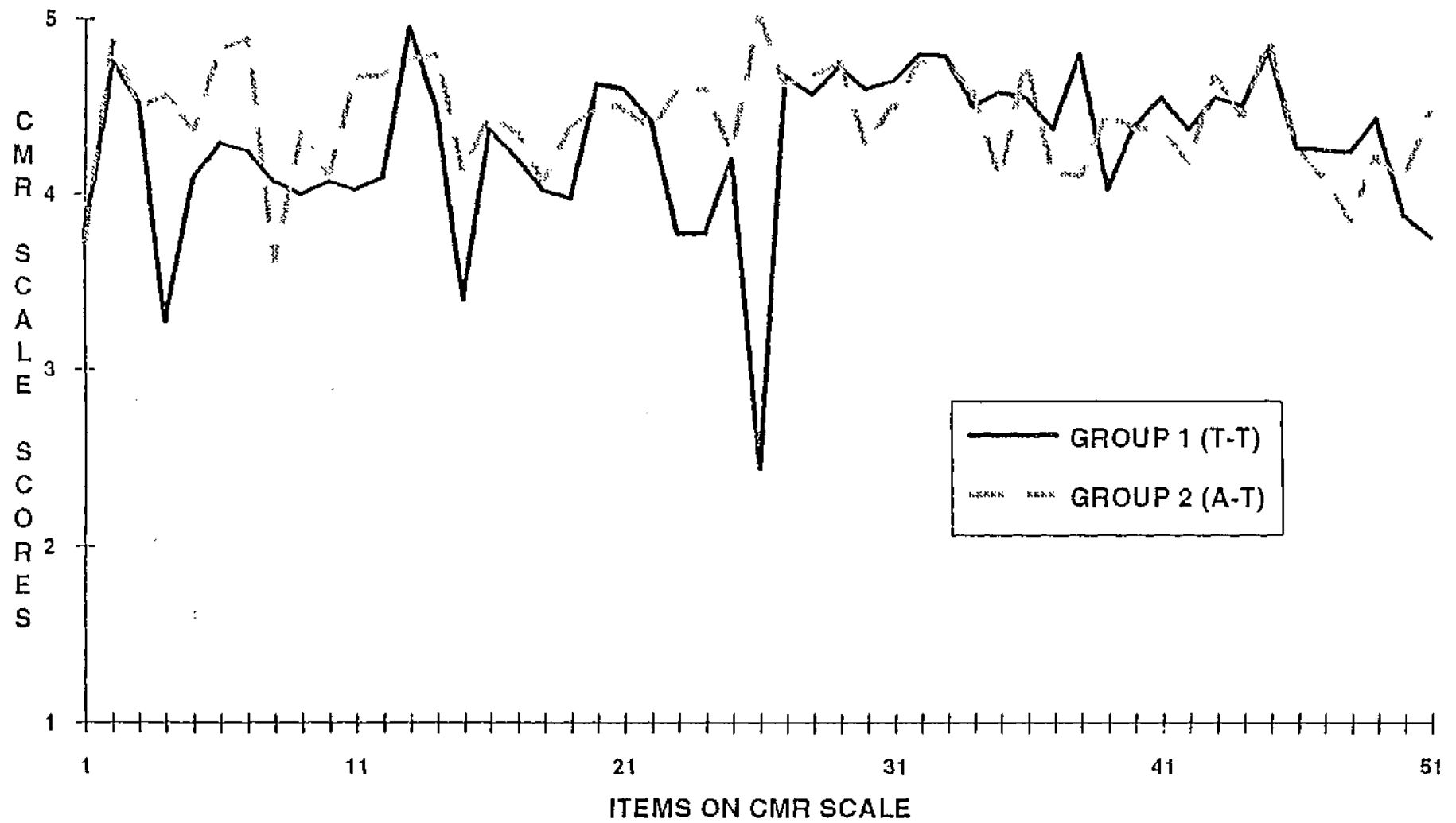**APPENDIX F: RESULTS FROM MICROSOFT EXCEL 3.0 ANALYSIS
(ROUNDS TWO AND THREE)**

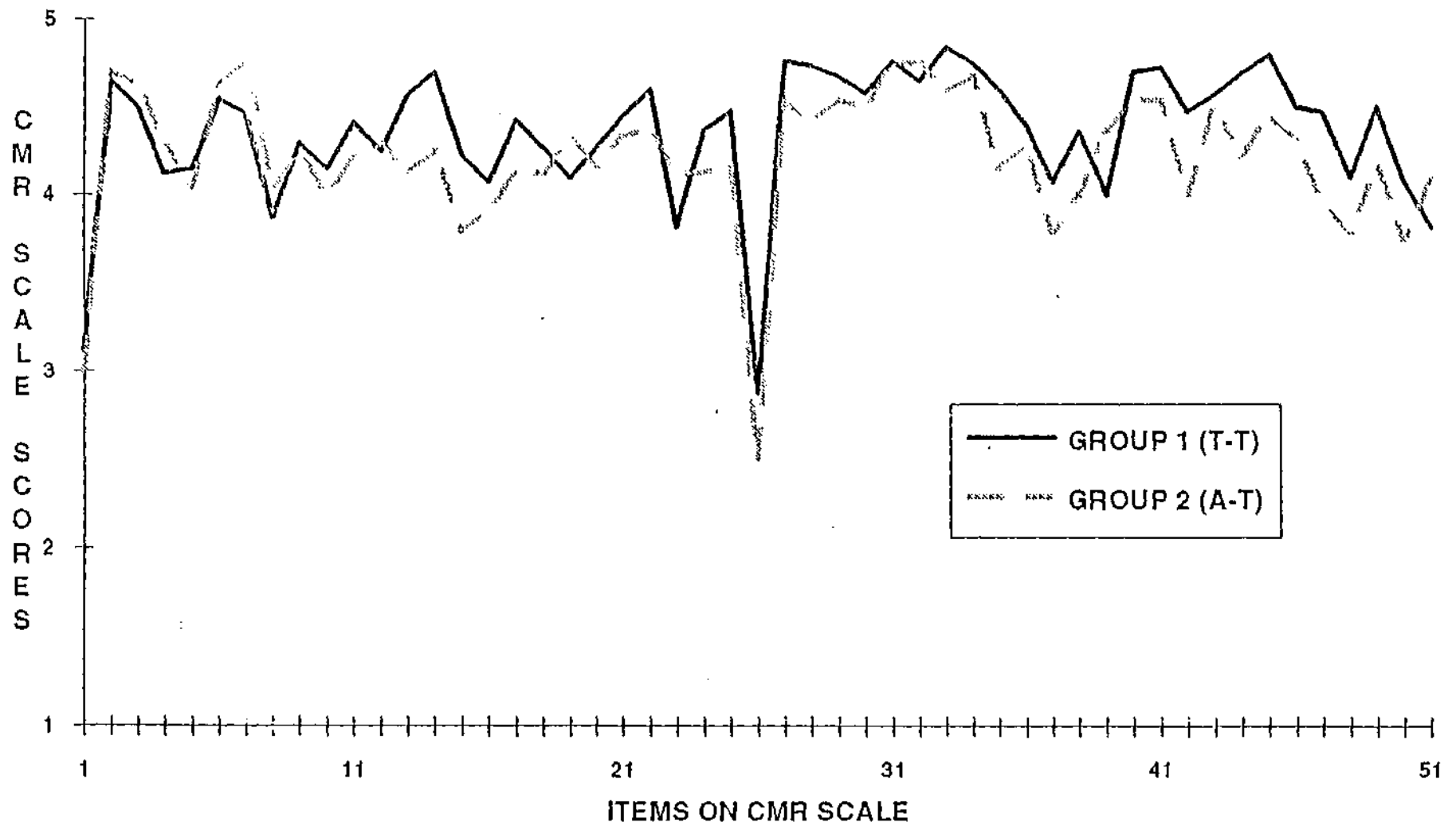Figure F.1: (Microsoft Excel) Round 2 - CMR Scale Item Means

Figure F.2: (Microsoft Excel) Round 3 - CMR Scale Item Means