

SUPERVISORY CONFERENCES FROM THE TEACHER'S PERSPECTIVE: A
COMPARATIVE ANALYSIS OF TEACHERS' INTERACTIVE RESPONSES
IN TWO DIFFERENT DYADS

by

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ABSTRACT

This study investigated the development of two high conceptual level (HCL) teachers in supervision conferences, by examining their responses. HCL teachers were studied because the behaviours associated with HCL functioning can be equated with those which research has identified as characteristic of effective teachers. Furthermore, because studies have found that conceptual level fluctuates easily, it seemed important to investigate the conditions under which supervision might be facilitative of high conceptual functioning.

Supervision was thought of as a special case of adult cognitive development. Findings of studies regarding both facilitation of adult cognitive development and supervision of instruction were combined to develop a conceptual model representing facilitation of HCL teacher development. Based on findings reported in the literature, the model postulated that under ideal developmental conditions, an HCL teacher will respond to supervision with comfort and confidence, with active involvement in problem solving, and with autonomous behaviour. The model was used to guide data collection and analysis. For each stage of the model indicators were chosen of teacher's responses and principal's behaviours that the research literature suggests would be apparent under supervisory conditions facilitative of HCL teacher development. These indicators were used to design instruments for the collection of frequency data regarding teacher's responses and principal's behaviours.

One of the HCL teachers was supervised by a low conceptual level (LCL) principal; the other, by a moderately high conceptual level (M/HCL) principal. The study attempted to ascertain whether the

responses of the teacher supervised by the M/HCL principal would indicate that teacher had the better opportunity for development, and whether HCL teacher development seemed to be associated with the supervisor's CL, as previous studies have indicated, or with other factors. Videotapes of supervisory conferences and transcripts of subjects' stimulated recall interviews provided the sources of data. During observation of the videotapes, frequency data were collected by using the instruments that were designed for the study and which asked the question "Are subjects doing this or that?" By contrast, the transcription data collection, which generated the greater amount of data, was more naturalistic and asked "What are the subjects doing?"

Unlike those of previous studies, the findings from this study suggested that the HCL teacher who was paired with the M/HCL principal had the lesser opportunity for development. Moreover, the teacher's development seemed to be associated with factors other than the principal's conceptual level, most notably the teacher's high conceptual level and the duration of the principal/teacher supervisory relationship. The findings also suggested that opportunity for development was associated with HCL teachers' comfort and confidence, active involvement, and autonomous behaviour and that the supervisor should facilitate these conditions. Based on the findings, the study concluded that the principal's conceptual level may not be an important factor in HCL teacher supervision, that further study is required to increase understanding of the conditions which nurture HCL teachers' development, that such study should include investigations of teacher/teacher supervision dyads, and that, with slight amendment, the conceptual model could be useful for these studies.

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Chapter 1

BACKGROUND, PURPOSE, AND RATIONALE

This study originated from a curiosity about whether supervisory conferences have value, and if so, what conditions might determine their value as learning experiences for superior or potentially superior teachers. Because this curiosity was evoked by an interest in the relationships between variations in supervising principals' characteristics and variations in teachers' learning, the supervisory conference was conceptualized as a special case of adult learning which could guide decisions about what to observe when exploring these relationships. The background for this conceptualization is drawn from theories of developmental learning and the supervision of teaching.

BACKGROUND TO THE STUDY

Individualization of learning experiences for adults has been recommended by researchers such as Rogers (1977) and Thornton (1986). The desirability of teacher educators mirroring, in their work with teachers, individualization similar to that which the teachers ideally employ with their pupils has been advocated by others such as McNergney (1980), Glickman (1985), and Glatthorn (1984). In a discussion of research results, Rogers (1977) revealed several individualization requirements for successful adult learning; for example, the invitation to learn should be geared to the adult's own particular characteristics and interests; the pace of learning should be individually adjusted; and

knowledge of the results of an adult's learning should be provided promptly. The results of Thibodeau's (1980) empirical study enabled her to suggest not only that instructional approach and content should have relevance to an adult's individual social and career goals, but also that course presentation should match the adult's individual cognitive level. Suggestions regarding the individualization of teacher education with respect to cognitive developmental levels have been based on Loevinger's model of ego development (Wetherell and Erickson, 1978) and (Sprinthall and Thies-Sprinthall, 1983), and on both Hunt's model of conceptual development and Kohlberg's model of moral reasoning development (Sprinthall and Thies-Sprinthall, 1983).

Hunt's conceptual level model seems to be useful in teacher education because it suggests not only the characteristics of teachers and pupils functioning at each level, but also the likelihood that teachers who function at high conceptual levels are more capable, in comparison to their low conceptual counterparts, of producing the behaviours that seem to characterize effective teaching. Glickman (1985) and Glatthorn (1984) have suggested instructional supervision models that attempt to accommodate the conceptual development levels of individual supervisees in supervision conferences. Other researchers, such as Grimmett and Housego (1983) and Sprinthall (1980), have incorporated Hunt's model of conceptual systems in the frameworks they used to study the relationships between supervisors' conceptual levels and their ability to provide individualized supervision for teachers. However, there seems to be little in the research to indicate specifically the relationship between supervising principals' conceptual levels and inservice teachers' learning, especially for those teachers

who are capable of functioning at a high conceptual level. The purpose of the present study addresses this lacuna.

PURPOSE OF THE STUDY

High conceptual level (HCL) teachers' responses during supervisory conferences were the main focus of investigation in this study. The intention was to examine whether the responses matched those which research literature suggests would be apparent under ideal conditions for HCL teachers to function at that level. The secondary focus of investigation was on the supervising principals' behaviours in order to facilitate examination of connections between these and the teachers' responses. More specifically, the study attempted to find evidence of: (1) whether high conceptual level teachers' responses during supervisory conferences appear to be differentially associated with the conceptual level of the supervising principal; and (2) whether high conceptual level teachers' responses during the supervisory conference appear to be associated with factors other than the principal's conceptual level.

In keeping with the purpose of this study, two HCL teachers were chosen as the supervised subjects. To facilitate investigation of whether or not the high conceptual level teachers' responses appeared to be differentially associated with the supervising principals' conceptual levels, one low conceptual level (LCL) principal and one moderately high level (M/HCL) principal were chosen as the supervisors. The M/HCL principal was chosen because no high conceptual level teacher/high conceptual level principal pairing was available for this study.

RATIONALE FOR THE STUDY

Conscientious teachers worry considerably about maintaining bright pupils' or identified high I.Q. pupils' abilities and become very concerned about those who seem to be performing below their potential in school. In such cases, the teachers give much attention to questions of how to adjust their teaching methods to improve the learning situation for these pupils. Teachers believe that when a talent for any area of learning is displayed by a pupil, that talent should be carefully nurtured. Such attention to the talented or gifted pupil has been only one of many kinds of attention to pupils' potential and to special individual learning requirements of children.

Most teachers of adults realize the importance of attending to adults' individual requirements, but, until recently, teacher educators recognized only the individual requirements that arise from teachers' content area specializations and ignored those individual requirements that arise from teachers' personal differences (McNergney, 1980). This implies that, in teacher education, superior or potentially superior teachers have been treated exactly like any others. McNergney (1980), Glickman (1985) and Glatthorn (1984) have suggested that individual educational approaches to inservice teacher education are long overdue.

It is apparent that conceptual level might be used as a criterion for judgement of a teacher's potential. According to Hunt's theory, high conceptual level teachers are those most likely to adapt readily and successfully to the multiplicity of events and pupil differences that are characteristic in the classroom environment. Thus, because this adaptive behaviour has been suggested as an important factor in

effective teaching, conscientious teacher educators might be persuaded of the importance of aiming to develop and/or maintain high levels of conceptual functioning in inservice teachers. Glickman (1985) points out that, unfortunately, the high conceptual level teacher is a rare species and that, also, if teachers who have the capability of functioning at a high conceptual level are not encouraged to do so, their high levels may not be maintained. It seems that teacher educators have the responsibility to save the high conceptual level teacher from becoming an endangered species.

In inservice teacher education, the supervision conference can offer the opportunity for a teacher to receive individualized help for learning. Because the adult learning literature has suggested that adults learn best in situations wherein attention is paid to the unique set of needs of the learner, it seems important to investigate whether or not teachers' responses and principals' behaviours indicate that the opportunity is being taken during supervision conferences to attend to teachers' individual requirements as adult learners.

The inclusion of adult learning theory specific to facilitation of adult cognitive development represents the major difference between the theoretical base and design of this supervision study and that of Thies-Sprinthall (1980). One of the purposes of the Thies-Sprinthall study, that is, "to investigate the impact of supervision upon the student teachers" (1980:17), is similar to the first purpose of this study. Thies-Sprinthall's results suggested that for a student teacher the availability of an opportunity to learn may be associated with the conceptual level of his/her supervising teacher, and that a high conceptual level student teacher may suffer a miseducative experience

when mismatched with a low conceptual level supervising teacher. Because Thies-Sprinthall (1980:19) also suggested that her results "indicate that student teacher and supervisor interaction may parallel the teacher-pupil interaction studies of Hunt (1971)", it seems important to investigate whether or not the same holds true for supervising principal and teacher interaction, especially in the case of the high conceptual level teacher. However, adult learning theory suggests that important differences may exist between the inservice teacher as an adult learner and both the student teacher and the school pupil, who as learners are still socialized to the conventions of formal learning situations. Thus, for this study, those aspects of adult learning theory which address facilitation of adult cognitive development were combined with Hunt's conceptual development theory to provide a theoretical base which differs from that of the Thies-Sprinthall (1980) study which combined Kohlberg's and Rest's moral judgement development theory with Hunt's theory.

Although Thies-Sprinthall did not do so, Grimmett and Housego (1983) did study principal/teacher dyads. Grimmett and Housego observed systematically the interactions of supervising principals and teachers in supervisory conferences and found evidence to suggest that "effective ... instructional supervision may require supervisors who are capable of functioning at a high conceptual level" (1983:5). However, in the Grimmett and Housego study, high conceptual level principals were paired only with high conceptual level teachers, and the researchers suggested that further investigation was needed to help determine how the conceptual levels of teacher supervisees themselves might influence the outcomes of supervision. Accordingly, this study will examine not only

whether high conceptual level teachers' responses are differentially associated with the supervising principal's conceptual level, but also whether they are associated with factors other than the principal's conceptual level.

Silver (1975:63) suggested that the findings of her study indicated that "principals with more complex cognitive structures would ... be capable ... of recognizing individual differences and acknowledging individual requirements despite highly diversified staff". This assertion implies that a high conceptual level principal would be more likely than a low conceptual level principal to perceive correctly and adapt to the particular requirements of individual teachers; i.e., to supervise teachers as adults. Thus, Silver's results seem to add support to the importance of exploring whether or not high conceptual level teacher supervisees' responses, during supervision conferences, seem to be associated with the conceptual level of the supervising principal.

LIMITATIONS OF THE STUDY

The major limitations of the study stem from the fact that the sample of supervisors, teachers, and conferences was small and not randomly selected. As is common in this type of research, the subjects were volunteers, and thus their attitudes and behaviours in the supervisory conference may not be completely typical of all those who might find themselves in similar circumstances. Furthermore, no attempt was made to control the contextual variables such as type of school and grade level in order to standardize the task environment in which the

supervision experience took place. Thus, without the confirmation of further research, the results of this study cannot be generalized with certainty to any population of principal/teacher dyads. For the same reason, and also because the hierarchical relationship in principal/teacher supervision differs from that in either preservice supervision or peer supervision, the results cannot be generalized with certainty to any population of preservice dyads or dyads involving peer-supervision.

OVERVIEW OF THE STUDY

A description of the study is presented in chapters two to nine. Chapter 2 contains a review of the research literature related to adult learning and to levels of conceptual development. The information contained in the review reveals definitions of terms to be used in the present study, and also serves as the basis for the formation of a conceptual framework that guides the methods of both data collection and analysis. The chapter concludes with the research questions.

Chapter 3 begins with a discussion of data sources and an explanation of the relationship between the conceptual framework and the data to be collected. This is followed by a description of the data collection methods. Finally, an explanation of five phases of data analysis is provided.

Discussion and findings of the five phases of the data analysis are presented in chapters four to eight. Chapter 9 begins with a summary, followed by some conclusions and implications of the present study for inservice education of high conceptual level teachers.

Chapter 2

REVIEW OF LITERATURE

This review will contain a discussion of research literature based on theories of adult learning and theories of conceptual development, the two topics that form the cornerstones of the conceptual model and research questions developed for the present study. To facilitate discussion of the literature, and of the development of the conceptual model and research questions, the contents of this chapter will be presented in seven sections: (1) a definition of adult learning; (2) development of theories of adult learning; (3) important factors in the facilitation of adult learning; (4) conceptual levels and their promotion and maintenance; (5) the relevance of conceptual levels to clinical supervision; (6) a conceptual model for the present study; and (7) the research questions.

TOWARD A DEFINITION OF ADULT LEARNING

Because the initial purpose of the literature review is to discuss the research which has indicated that adult learning is possible and under what conditions it is possible, it seems necessary at this point to describe and justify the definition of adult learning that will be used. For this purpose, two strands of theories that have guided adult learning studies will be compared to reveal which one has relevance for the present study and, therefore, can suggest a pertinent definition of adult learning.

Brabeck (1984:12) indicates that there are two sets of theories associated with studies of adult learning: (1) "theories of aging", i.e., theories about age-related changes in adults' capacity to learn; and (2) "theories of growth", i.e., theories about sequential changes in the development of adults' capacity to engage in more abstract reasoning. Long (1983) explains that early theories of aging suggested a negative relationship between age and adults' capacity to learn. He states that they prompted many studies and a long debate which seems to be concluding that the early theories were incorrect. Studies that caused them to doubt the theories of aging suggested to Baltes and Schaie a concept of "plasticity" in adult cognition; that is, a capability to develop new abilities and to improve old ones (Sprinthall and Thies-Sprinthall, 1983:23). Baltes and Schaie hypothesized that given appropriate learning conditions adults can increase their levels of cognitive functioning. Sprinthall and Thies-Sprinthall (1983) report also that whereas previous psychological theories such as those of Skinner have failed to provide theories of adult growth, the cognitive developmental theories have offered promise. Furthermore, cognitive developmental theories provide the advantage of offering descriptions of differential conditions under which individuals who function at the various levels may improve their levels of functioning.

Thus, because several characteristics of adult cognitive development theory suggest the usefulness of investigating adult learning as adult cognitive development, the type of adult learning that is of interest in this study is growth in an adult's level of cognitive functioning. On the basis of this definition, the purpose of the remainder of the adult learning literature review is to examine the

research studies which have suggested that adult learning as cognitive development can indeed occur. The terms "adult learning" and "adult cognitive development" will be used synonymously.

RESEARCH AND THEORIES OF ADULT LEARNING

Until the 1960s, studies of adult cognitive development were disappointing in that they were unable to offer evidence of its occurrence. Instead, they suggested that cognitive development was limited to progression during youth and adolescence and to regression during old age (Allman, 1980). However, during the 1960's, renewed interest in theories of cognitive developmental stages resulted in adaptations that offered more promising suggestions about adults' learning (Allman, 1980).

Toward Recognition of Adult Cognitive Development

Piaget's research on cognitive development in children prompted a considerable number of childhood cognition studies (Long, McCrary, and Ackermman, 1980). The results of Piaget's and his associates' extensive empirical research suggested that cognitive development involves progression through a hierarchy of stages, and that movement from one stage to the next represents a shift toward attainment of a more complex system for processing experience (Long et al., 1980). Piaget proposed that children progress through four hierarchical stages of cognitive development, and that the last of these stages is attained between the ages of 12 and 15 years. He thereby suggested early adolescence as the

final period of cognitive growth (Piaget and Inhelder, 1969). Piaget named this fourth stage the formal operations stage, and characterized it as involving the development of abstract thinking abilities. The formal operations stage was considered by Piaget to be not only a final stage, but also a stage that was maintained throughout adulthood (Long et al., 1980).

Interest in the relevance of Piaget's theory to adult cognitive development seems to have evolved for two separate reasons: first, many adult learning researchers had lost faith in the ability of other theories to provide a theory for adult learning and believed that Piaget's theory offered greater promise for this purpose (Long et al., 1980); and second, some Piagetian researchers' observations caused them to question whether the stage of formal operations was attained by all adolescents and whether or not this fourth stage remained stable throughout adulthood. However, according to Long (1980), it was not until 1972 that Piaget conceded that for some people the conditions for formal thought may not develop until 20 years of age, and that under disadvantaged conditions, they may never develop at all. Piaget also suggested that a person may reach the fourth stage in different areas of thinking at different times (Long et al., 1980).

Piaget advocated research into the formal operations stage in adulthood so that adult education could be designed to foster growth that would enable adults to function at this stage (Sprinthall and Sprinthall, 1983). Thibodeau's studies suggest that adults advance to the formal operations stage when the task is "relevant to the developmental needs of the learner" (1980:29). Some research studies

have found evidence of regression in adults toward the third Piagetian stage; that is, the stage of concrete operations (Long et al., 1980).

Theories of Adult Cognitive Development

This sub-section will include descriptions of two sets of suggestions that have resulted from research on the applicability of Piaget's theory to adult learning: (1) the necessity of increasing the number of stages in order to accommodate adequately description of adult cognitive development; and (2) the existence of several domains of cognitive development that extend into adulthood.

Increasing the number of stages. Long and Mirza (1980:21) suggest that continued studies along Piagetian lines have led researchers to suggest that the formal operations stage is "...overly gross and requires refinement." Long and Mirza propose that the formal operations stage should be conceived of as involving several levels of abstract thinking. They suggest that adult education should pay attention to the possibility of there being qualitatively different levels within the formal operations stage. In her studies, Mirza (1975) identified four such levels. She also suggested that although a minority of adults were found to be at either the concrete stages or the lower levels of the formal operations stages, the number contained in this minority was large enough to imply the desirability of careful investigation into how adults can be helped to attain and maintain the higher stages.

Both Brabeck (1984), and Long (1980) cite researchers who suggest that Piaget's theory should be expanded to include adult cognitive

developmental stages that are more complex than the formal operations stage. Brabeck (1984:13) cited researchers such as Arlin (1975), Fischer (1981), and Broughton (1980) who have proposed the existence of levels of functioning that are attainable by adults and are characterized by "mature thinking...includ[ing] reformulation of complex problems"; "synthesis of diverse and conflicting abstract systems"; and "complex views about the nature of knowing and of knowledge itself".

Cognitive developmental domains. In the tradition of Piaget, a number of sequential developmental hierarchies have been proposed in several domains of cognitive development. These theoretical models suggest that development within the various domains can take place during adulthood. Among the models are Kohlberg's (1969) theory of moral reasoning development; Loevinger's (1966) theory of ego development; and Hunt's (1974) theory of conceptual functioning development (cited in Sprinthall and Thies-Sprinthall, 1983). Brabeck (1984) describes Kitchener and King's (1981) model and instrument for measurement of reflective judgement developmental levels, which she employed in her study of adult cognitive development. She also refers to a number of other recent developmental theories and research models such as those of Perry (1970), Labouvie-Vief (1982) and Moshman and Timmons (1982).

Research studies employing Piaget's and others' theories of developmental stages extending into adulthood have provided evidence that adults can learn; that is, they can attain higher levels of cognitive functioning. However, the evidence suggests that the success of such adult learning is associated with the conditions under which it is attempted. A considerable amount of research on adult learning has

investigated the characteristics of environments that successfully facilitate adult learning.

THE FACILITATION OF ADULT LEARNING

The purpose of this section is to discuss the research literature on conditions found to be conducive to adult learning. These will be presented in three categories: (1) conditions which support the adult learners' feelings of comfort and confidence by ensuring security in the learning environment; (2) conditions which support the adult's learner's feelings of comfort and confidence by offering developmental opportunities that are relevant to the adult learner's individual stages of life, career, and experience; and (3) conditions which facilitate improvement in individual adult learners' levels of cognitive functioning.

Security in the Learning Environment

The literature to be discussed in this subsection will be that which has suggested how the learning environment can support the adult learner's feelings of comfort and confidence. The discussion will include explanations of the necessity of providing support for the learner's feelings of safety and trust in the learning environment; and the necessity of bolstering the learner's confidence not only by supplying frequent, immediate, and positive feedback, but also by assuring that the learning experience has personal relevance for the learner.

Safety and trust. Most educators recognize that for any learner to accept the challenge inherent in developmental change, interactions between teacher and learner should take place in an environment that provides a sense of security for the learner. However, this provision may be even more important for an adult learner than it is for a child. The basis of this suggestion is that under conditions of personal threat or stress, the learning performance of adults seems to be even more susceptible to the effects of anxiety than that of children (Long, 1983). Adults seem to find it harder to overcome feelings of past failure or to cope with test situations. Rogers (1977) states that adults have difficulty coping with the time limitations that younger learners can manage. She suggests this may be because adults are more concerned with accuracy, or because they like to take time to gather more information before making responses. Adults lose confidence if they are unable to cope with the pace, and they benefit when they are able to set their own pace for learning and when the length of training can be adjusted to suit their pacing requirements (Rogers, 1977).

There also seem to be characteristics of adulthood that do not apply to childhood but which have the potential to increase stress in learning situations. For instance, teachers probably view the learning of new ways to solve classroom problems as a threat to their current routines, and as Lieberman and Miller (1984:27) suggest "Changing a routine that has become comfortable over the years is incredibly complicated." Because conditions in the teacher's working environment may lower his/her morale (Lieberman and Miller, 1984), the teacher's stress level will possibly be increased in situations in which he/she is required to learn new skills for his/her career.

Long (1983) indicates that there are some factors in the instructor/learner relationship that are more pertinent for adult learners than for children. He states that adults need to be able to identify with their instructors and to find them competent in both subject matter and interpersonal skills. This seems to match the suggestion of Galloway, Seltzer, and Whitfield (1980) that the adult learner needs to be able to trust and find the instructor credible. Furthermore, Galloway et al. (1980:264) state that for the adult learner "Trust and credibility depend on [the instructor's] accurate responsiveness and acceptance." A trusting relationship between adult learner and instructor would seem to be a precondition of the instructor's opportunity to follow Roger's (1977) recommendation that the adult learner be encouraged to discuss and weigh his/her previous experience against new information.

Importance of feedback. Growth or maintenance of an adult learner's confidence is related to his/her perception of his/her previous performance and personal progress. Thornton (1986), Thibodeau (1980), and Rogers (1977) stress the importance of immediate feedback for adult learners. It is essential for adults to know immediately whether or not their answers are correct or their performances acceptable. Every opportunity to provide positive feedback should be utilized. If negative feedback is unavoidable, it should be associated with the importance of development rather than with the disgrace of deficit.

Security and Adults' Individual Stages of Life and Experience

Sprinthall and Thies-Sprinthall (1983:30) state that "Any effective instructional model must offer major personal support as a direct part of the instruction" because it is painful for adults to cope with the change that accompanies development. In order to minimize pain and maximize support, and thereby to promote security, it seems reasonable to suggest that the instructor should demonstrate awareness and respect for the adult learner's individual life stage, career stage, and experience by presenting a relevant developmental task for the learner. Rogers (1977) mentions that the teacher of adults should not merely dispense information but instead should respect the adult learner's own decisions, experiences, and participation.

Knowledge of the stage of an adult's experience may not be helpful for recognizing the adult's learning requirements because these will be dependent on how the adult has processed his/her experiences. However, knowledge of the adult's life stage and career stage and the typical accompanying attitudes may be much more helpful.

Piaget's later beliefs included the suggestion that formal operations may only be reached in areas pertaining to professional interests and specialization. Thibodeau (1980) found that task achievement is enhanced when adult education is based on career and developmental requirements. Consequently, she suggested that both individual stages of experience and of cognitive functioning have important implications for the planning of adult educational experiences (Thibodeau, 1980).

Stage of adulthood. Glickman (1985:48) discusses the successive concerns of adulthood. He suggests that the young adult is concerned with "occupation and life dreams"; the middle-aged adult, "creative expansion"; and the older adult, "establishment of inner order". He also suggests that interests at each stage differ: the young adult believes his/her dreams to be attainable and wishes to strive towards them; the middle-aged adult becomes more autonomous and concentrates on establishing priorities, re-examining self, and revising plans; and the older adult wishes to focus on concluding important activities.

Career stage. Thibodeau (1980) found that before planning development tasks for an adult, it was important to consider carefully both his/her stage of career development and level of cognitive functioning. Characteristics of career stages possibly have important implications for continuing career education. For instance, Glickman (1985:55) states that the first three years of teaching tend to be characterized by "high ideals and expectations", and after the first three years many, but not all, teachers settle into a routine of monotonous procedures. The final years of teaching continue in the same way for those who remain in the profession. Glickman points out that the characteristics of these stages are not congruent with the characteristics of life stages.

Glickman (1985) discusses the concerns of teachers at various career stages that he suggests parallel the ego development levels proposed by Loevinger and the moral reasoning levels proposed by Kohlberg. Thus, Glickman expresses a belief in the relevance of several domains of cognitive development to teacher education.

Attending to Requirements Associated with Individuals' Cognitive Developmental Levels

Piaget's theory of cognitive development suggests that at the beginning of a learning experience, materials and methods should be adapted to the learner's current level of cognitive functioning (Wadsworth, 1971). Thibodeau (1980) found that a match between an individual's cognitive level and course presentation were important for development. She also cautioned that adults operating at formal operational levels should be given opportunity to exercise this level if they are to avoid regression to the concrete stage (Thibodeau, 1980). However, Piaget's theory of equilibration, which complements his cognitive developmental theory, suggests that for growth in cognitive functioning, course presentation must be slightly more complex than that which matches the individual's current cognitive level. The theory of equilibration states that if gradual and sequential adjustments to educational materials and methods are designed to challenge the learner's current level of functioning, the learner's desire to recover equilibrium helps him/her to begin functioning at the next more advanced stage of cognitive development (Wadsworth, 1971). Suggestions about how developmental growth might be encouraged has also been included in the developmental models of several recent developmental theorists.

As discussed above, recent researchers have proposed models of hierarchical stages in a number of developmental domains such as ego development, moral reasoning development, reflective judgment development, and conceptual development. From among these, Hunt's Conceptual Level Theory seems to offer the clearest description of how

growth in a domain of developmental functioning can be helped. Hunt presents a Conceptual Level matching model wherein he suggests that an educator must take into account not only the environment that will be effective for a student's "contemporaneous" conceptual stage, but also the environment that will facilitate the student's progress toward a higher stage of functioning (Hunt and Sullivan, 1975:49). The developmental stages in Hunt's Conceptual Level theory "can be described in terms of increasing interpersonal maturity and increasing understanding of one's self and others" (Hunt and Sullivan 1974:209). Oja and Sprinthall (1978) note that, in addition, Hunt's conceptual stage theory suggests "more complexity in processing information ... and a learning style requiring less structure". Hunt suggests that with regard to students' long term requirements, teachers should direct their efforts towards enabling students to reach the highest stage of conceptual development.

Glickman's work on developmental supervision is an example of attending to the requirements associated with a teacher's current level of cognitive functioning in order to facilitate cognitive developmental growth. To help supervisors determine suitable approaches for individual supervisees, Glickman (1985) developed a typology that combined Hunt's conceptual level stages, Kohlberg's moral reasoning stages, and Loevinger's ego stages and thereby described some of the variability in the levels of cognitive functioning of teachers. Other researchers, including Sprinthall and Thies-Sprinthall (1983), have concentrated mainly on developmental requirements related to individuals' levels of conceptual functioning.

Implications for Adult Cognitive Development

Research results appear to have provided ample evidence that, given suitable conditions, adults can improve their individual levels of cognitive functioning. The conditions that support such improvement seem to be those which are congruent with the security requirements of adult learners and with the individual requirements connected to their life stages, career stages, and levels of cognitive functioning. When such conditions are met, it seems the adult learner is better prepared to cope with the challenges inherent in cognitive development.

Thornton (1986) states that the ultimate aim of adult education should be attainment of self-directedness, which is essential to achievement of full learning potential and self actualization. Adults will exhibit autonomous behaviour if learning helps them to advance through the levels of Hunt's developmental model to the highest stage, which he refers to as the independent stage, or if they have previously attained and maintained this stage (Hunt and Sullivan, 1974). Adults functioning at the independent stage should be encouraged to exercise this capability in order to maintain their high level of conceptual functioning.

Witherell and Erickson (1978) used Loevinger's ego developmental model in a study of inservice teacher education as adult development. However, Hunt's conceptual developmental model seems to have been used more often than any other developmental model in studies of teacher education. This is possibly because the theory offers not only descriptions of the course of ideal development and of a person's stage of development in contemporaneous terms, but also specifies the

environment that suits developmental progression (Hunt and Sullivan, 1974), and because "Research on CL [conceptual level] and teaching styles raises interesting implications for practice" (McNergney and Carrier 1981:138). The results of studies of the association of various conceptual level pairings (Grimmett and Housego, 1983; Grimmett and Crehan, 1988) and interactions within the pairs in supervision (Thies-Sprinthall, 1980; Grimmett and Crehan, 1987) have raised interesting implications. Thus, for purposes of the present study, the review of the developmental learning literature will focus on that which is concerned with conceptual development.

CONCEPTUAL DEVELOPMENTAL LEVELS AND THEIR PROMOTION

Conceptual development theory, along with related cognitive development theories, suggests that its stages are organized in a hierarchical sequence. Oja and Sprinthall (1978) imply that the levels in the sequence of conceptual development apply to both cognitive complexity and learning style. Conceptual theory also "specifies the environment most likely to produce developmental progression" (Hunt and Sullivan 1974:207). Thus, to illustrate the usefulness of conceptual levels theory for individualized approaches in adult education, it seems necessary to describe not only the characteristic behaviours of persons functioning at various levels in the sequence, but also what conditions the theory suggests will facilitate conceptual development for individuals functioning at the various levels.

Behaviours Characteristic of Levels of Functioning

Glickman (1985:51) states that "results of research on stages of ...conceptual...development of teachers are similar to findings of the population of all adults". When he qualifies this by claiming that most teachers were found to be functioning at low conceptual levels, he implies that this is also true of most adults. Thus, the levels of conceptual functioning that have relevance for individual approaches in adult education seem to be not only the higher levels, which are characterized by abstract thinking and autonomous behaviour, but also the lower levels, which are characterized by concrete thinking and dependence on authority.

Concrete level. An adult functioning at the concrete level is likely to be compliant, dependent on authority, and concerned with rules (Kidd, 1973). Hunt found that teachers functioning at a low conceptual stage were "rigid, inflexible, employed a limited repertoire of teaching modes and most of all could not 'read and flex' with pupils" (Sprinthall and Thies-Sprinthall, 1980:284). The lack of ability to "read and flex" suggests these teachers show little responsiveness to students' individual requirements and seem to be "immune to pupil impact" (Sprinthall and Thies-Sprinthall, 1980:284). Glickman (1985) states that teachers functioning at this level tend to blame classroom problems on the characteristics of students and are unable to attribute any blame to their own behaviour. Their concerns for self preservation contrast with the concerns of those who operate at more abstract levels of thought.

Abstract levels. An adult who functions at a higher conceptual level learns to empathize with others and may even have ability to envision the self both in relation to and apart from others (Glickman, 1985). Kidd (1973) lists the characteristics of these levels as independence, self assertiveness, and questioning. Sprinthall and Thies-Sprinthall (1980:284) state that a higher stage teacher "can provide for differential learning environments based on the requirements of the learner". Silver found that principals at higher levels of conceptual development were, as Sprinthall and Thies-Sprinthall (1983:19) cogently stated in reference to her work, "more flexible in problem solving, more responsive, less rigid, and less authoritarian."

Because adults functioning at the more complex levels seem to demonstrate more humane and democratic behaviours (Sprinthall and Thies-Sprinthall, 1983) and greater autonomy, it seems desirable for adult education, especially teacher education, to encourage development and maintenance of higher levels of conceptual functioning.

Promoting Higher Levels of Conceptual Functioning

There seem to be two major considerations for the promotion of adult conceptual functioning: the first is the necessity to help raise the conceptual levels of those functioning at lower levels; and the second is the necessity to maintain the conceptual level of those functioning at high levels.

Raising levels of conceptual functioning. A necessary beginning in developmental education is to present learning experiences that match

the learner's current level of conceptual functioning and, very gradually, to introduce interactions that will stimulate growth toward the next stage in the sequence (Sprinthall and Thies-Sprinthall, 1983). An example of a matched environment is provided by Kidd (1973) who states that persons functioning at lower conceptual levels require a highly structured educational environment wherein they are presented with a limited number of alternatives and some encouragement for independence. Glickman (1985) suggests that to increase abstraction for a person functioning at a low conceptual level, the person should initially be presented with familiar and concretely based experience and information, and later should be introduced gradually to novel experiences and information requiring retention of a mental image.

Glickman would probably use his "directive approach" (1985:142-145) to aid the task described above; that is, he would guide and control the process of development while helping the learner to feel secure. For an individual functioning above the concrete level but still at a lower level of abstract thinking, Glickman might introduce a more collaborative method whereby the learner would be given more opportunity to discuss and aid direction of his/her own learning.

Sprinthall and Thies-Sprinthall (1983) mention the usefulness of providing the low conceptual learner with a significant role-taking experience; that is, the person is required to perform an interpersonal task that is slightly more complex than his/her current style. For example, he/she might be invited to counsel, to supervise, or to try a new teaching model. Programs for these learners must be continuous and accompanied by guided reflection and integration.

The developmental environments suggested by Sprinthall and Thies-Sprinthall and by Glickman resemble the environment suggested in Hunt's Conceptual Level matching model because they take into account both the contemporaneous and the developmental requirements of the learner. Glickman (1985) refers to the "optimal mismatch"; i.e., Hunt's conception of the ideal relationship between learner and environment for the promotion of development. According to McNergney and Carrier (1981:202), Hunt suggests the developmental environment "should be slightly more challenging and more complex than the person's present level of development". They explain that in Hunt's theory the teacher's creation of an environment that is just beyond the capabilities manifested by the learner's conceptual level enables the teacher to encourage small increments in development. McKibbin and Joyce (1980:254) state that "If the optimal mismatch is achieved, the [learner] can function adequately but is 'pulled' toward greater development". McNergney and Carrier (1981) also allude to the importance of correct judgment for the "optimal mismatch". They explain that the learner might reject activities in too complex an environment and might find no stimulation for development in an environment that perfectly matches and therefore does not challenge his/her conceptual level.

Maintaining high levels of conceptual functioning. Kidd (1973) states that to maintain their high levels of conceptual functioning, individuals should be allowed to be highly autonomous, have the opportunity for numerous alternatives, and be subject to only low normative pressure. Glickman would probably suggest a non-directive approach for a supervisor working with a teacher functioning at this

level; that is, the supervisor would act mainly to stimulate and encourage the teacher's own thoughts, reflections, and decisions about his/her teaching.

LEVELS OF CONCEPTUAL FUNCTIONING AND CLINICAL SUPERVISORY SITUATIONS

Thies-Sprinthall (1980) investigated the effects of various combinations of conceptual levels in supervising teacher/student teacher pairings. Grimmett and Housego (1983) investigated which level of supervisor conceptual level tended to be associated with supervisee development in supervisor/teacher pairings. Following a discussion of the findings of these two studies, their implications for Glickman's framework of developmental supervision will be considered.

Results of Studies of Conceptual Level Pairings in Supervisory Situations

Based on Hunt's suggestion of the relevance of high teacher conceptual levels to conditions that seem to be conducive to pupils' learning, Thies-Sprinthall (1980) questioned whether supervisors having high conceptual levels would provide effective supervision while those with lower conceptual levels might provide ineffective or even negative supervision. She studied what she referred to as "matched" and "mismatched" supervisor and student teacher pairs. "Matched" indicated that the conceptual levels of both members of the pair were the same, and "mismatched" indicated that the conceptual levels were opposites. Thies-Sprinthall's results suggested that supervisors with high

conceptual level functioning were able to be effective when involved in either a matched or a mismatched pair.¹ This seemed to be because these supervisors were more responsive, able to adapt to the supervisees' requirements, and able to perceive accurately competence in teacher performance. In contrast, it seemed that supervisors with low conceptual level functioning were unable to be effective in either the matched or mismatched situations. They seemed unable to notice any differences in the quality of teaching in the two different groups of student teachers. They gave teachers in both groups average ratings, and tended to give greater recognition to the less flexible, more direct methods of teaching employed by the low conceptual level student teachers. They seemed unable to recognize good quality teaching methods and unable to adapt their supervisory style to the requirements of their supervisees.

In their study of a small sample of supervisory pairs, Grimmer and Housego (1983) found results similar to those of Thies-Sprinthall. They found that the abstract functioning supervisors tended to stimulate the teachers to analyse and make decisions about their own teaching. These supervisors seemed to be encouraging autonomy in their supervisees, and they employed direct feedback only if the supervisee had difficulty with analysis. In contrast, the researchers found that the concrete functioning supervisors seemed unable to "flex" to the "pull" manifested by their supervisees' requirements. Instead supervisees seemed to be required to respond to their supervisors' "pulls". Problems were observed in concrete functioning supervisors'

1. A recently completed study by Grimmer and Crehan (1988) casts doubt on the "effectiveness" of high CL principals' conferencing with low CL teachers; i.e., a mismatched pairing.

attempts to give feedback. Sometimes they used untrue statements to soften the impact of corrective feedback, and often preoccupation with irrelevant or immediate detail appeared to prevent their recognition of occasions when their supervisees appeared ready to receive feedback.

Implications of Conceptual Levels for Glickman's (1985) Developmental Approach to Supervision

The characteristics of low conceptual level supervisees suggest that, to begin with, they will respond best to direct methods of supervision, which will provide them with structure, direct guidance, and support. To facilitate their development, the supervisor would gradually introduce the collaborative style to encourage the supervisee to begin contributing to analysis and decision-making regarding his/her teaching. The characteristics of high conceptual level teachers suggest that usually they will respond most readily to Glickman's non-directive supervisory approach whereby they will be encouraged to be autonomous regarding decisions about their teaching. On occasions when a high conceptual level teacher recognizes that the principal has equal or greater expertise on an issue, the teacher may prefer the principal to employ Glickman's collaborative supervisory approach. Alternatively, if a high conceptual teacher is faced with a teaching situation wherein he/she possesses little expertise, initially the teacher may prefer Glickman's directive supervisory approach, especially if the teacher wants to acquire the new instructional knowledge quickly.

The high conceptual level supervisor seems to be able to recognize the appropriate supervisory style to be used for a variety of conceptual

levels of supervisees and in a variety of situations. Therefore, the supervisor who functions at abstract levels is able to use any of Glickman's three supervisory styles depending on the supervisee and the context. In contrast, it appears that the low conceptual supervisor will probably be limited to employing a direct style of supervision through which he/she may attempt to impose highly structured methods on the supervisee, in authoritarian fashion. The concrete functioning supervisor seems unlikely to be able to recognize the desirability of differentiating his/her supervisory style to meet supervisees' individual requirements and thus will probably apply direct methods regardless of supervisees' conceptual levels, and fail to advance to either collaborative methods or non-directive methods.

A CONCEPTUAL MODEL FOR FACILITATION OF DEVELOPMENT FOR HIGH CONCEPTUAL LEVEL TEACHER SUPERVISEES

Synthesis of the literature on adult learning and conceptual levels seems to suggest a three-dimensional, three stage model for the facilitation of growth in adults' conceptual development which could be applied in the context of the supervisory conference and be adapted to any conceptual level. The three stages in the model are not entirely distinct from one another. Figure 1 attempts to illustrate the three stages as three partially interlocking cubes. The cubes are depicted as having increasing size to indicate an association between the supervisee's improvement in conceptual functioning and the ideal progression in principal/teacher interactions. In the illustration of the second and third stages, the labels indicating the teacher's

responses represent theoretically ideal responses of a high conceptual level teacher. These responses are rated "ideal" because theory suggests that their presence indicates the teacher is receiving an opportunity to function at his/her high conceptual level. Thus, the labels transform this illustration of the model into a version that represents a theoretical ideal of the facilitation of development for only a high conceptual level teacher supervisee.

The Three Dimensions of the Conceptual Model

Because the conceptual model was developed to provide a framework to guide the planning of categories of behaviours to be observed in principal/teacher supervisory conferences, the three dimensions, as indicated in Figure 1, were labelled: (1) principal's behaviours, (2) teacher's characteristics, and (3) teacher's responses. Theories of adult learning suggest a relationship between and among these three dimensions: the teacher's responses will be dependent on the suitability of the principal's behaviours with regard to various characteristics of the teacher. If the principal, as supervisor, employs behaviours that accommodate the individual characteristics of the teacher, as adult learner, then the theories suggest that the teacher will respond in ways which indicate development is in progress. Three stages in this developmental progress are conceptualized in the model.

The First Stage of the Conceptual Model

The first stage of the model depicts the first component in the postulated process of facilitating the teacher's development; i.e., acquiring the confidence to accept the challenge and pain that will be encountered in the second and third stages. The literature suggests that to acquire confidence all teachers will need to feel secure in the learning environment, and that the principal can provide a secure environment by being supportive. The first cube illustrates that in the situation which the literature characterizes as ideal, the principal will read and flex to support the requirements of individual teachers and thereby create comfort and increase the teacher's confidence. According to the literature, the teacher who displays feelings of comfort and confidence should be able to cope with the second stage of the developmental process.

The Second Stage of the Conceptual Model

The second stage is depicted as partly overlapping the first to illustrate that the principal will continue "reading" and "flexing" to support the teacher's individual requirements including those associated with the teacher's conceptual level. While still continuing to support, the principal's main task in the second stage is to present a challenge, i.e., a problem that is slightly too difficult to solve at the teacher's current level of conceptual functioning. In the case of the high conceptual level teacher, the problem solving should require the teacher to function at his/her high level. The second cube illustrates that in

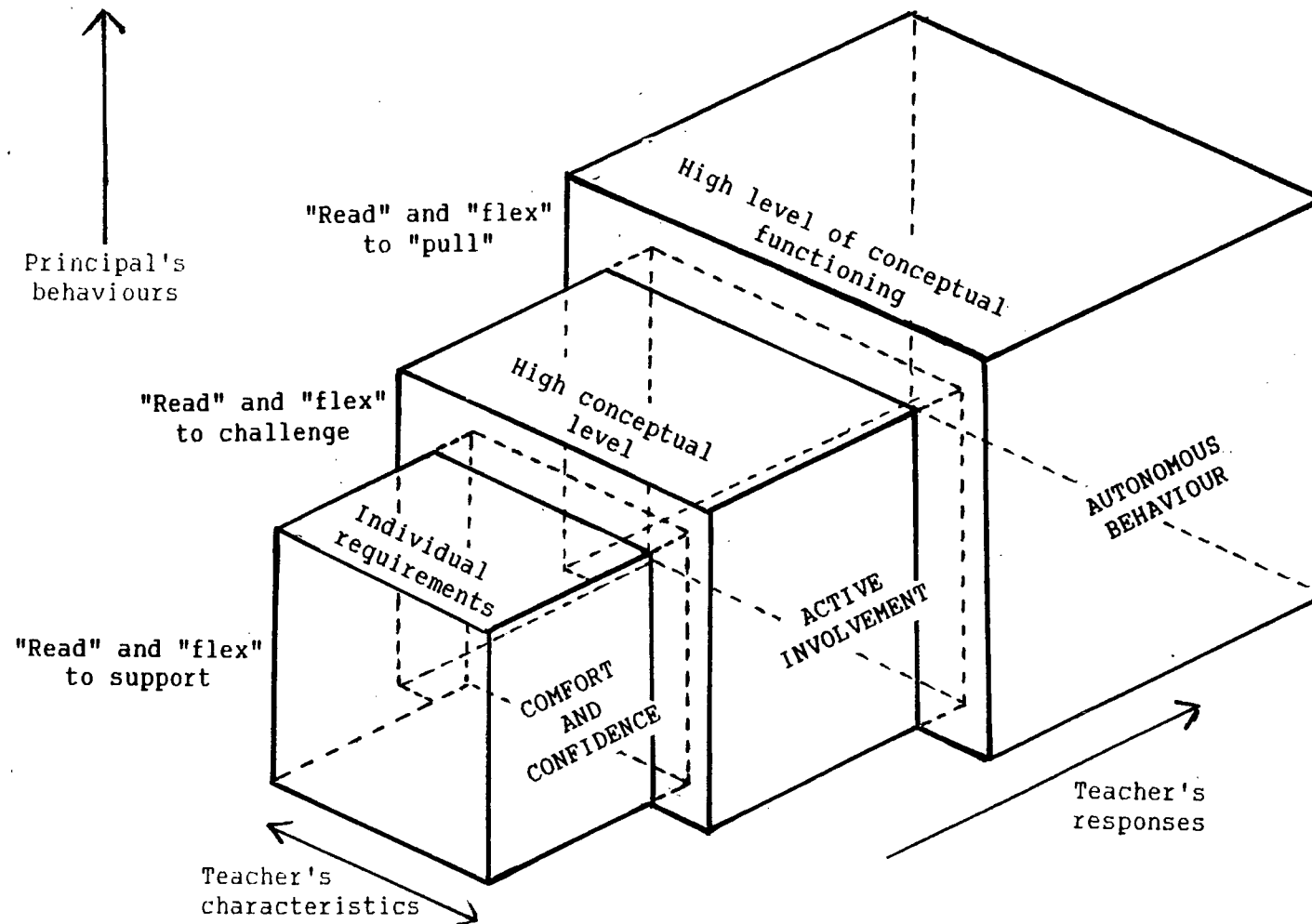


Figure 2.1. CONCEPTUAL MODEL FOR FACILITATION OF DEVELOPMENT FOR HIGH CONCEPTUAL LEVEL TEACHER SUPERVISEES

the second stage of the ideal developmental process, the principal will read and flex to challenge suitably the teacher's conceptual level, and, if he/she is correctly challenging the teacher to function at a high conceptual level, the teacher will become actively involved in the problem solving. However, a third stage in the process is required to encourage the teacher to function fully at his/her conceptual level.

The Third Stage of the Conceptual Model

According to the research literature, high conceptual level teachers are capable of more than active involvement in problem solving: they are capable of taking the responsibility for solving the problem independently. Thus, the principal's main task in the third stage of the developmental process is to "pull" the teacher's conceptual functioning until the teacher is functioning fully at a high conceptual level. The second and third cubes are depicted as overlapping because the teacher's active involvement does not end when independent problem solving begins, and because the principal's reading and flexing to challenge conceptual level does not end when attempts to "pull" the teacher's functioning begin. The principal also continues to be supportive because conceptual level is susceptible to regression under condition of stress. The third cube illustrates that in the third stage of the ideal developmental process, the principal will read and flex to "pull" the teacher's conceptual functioning until the teacher is functioning fully at the high conceptual level, and when the "pull" is successful the teacher will display autonomy in problem solving.

The Conceptual Model and Observable Behaviours

The conceptual model that arises from the literature suggests that even though "the learning processes themselves are not observable...." (Thornton, 1986:65), the outcome of learning, that is, behavioural changes characteristic of achieved developmental growth, can be observed. Furthermore, the model suggests that the teacher exhibits an ideal sequence of observable responses during the occurrence of development in the teacher's level of conceptual functioning. According to the model, the ideal responses will be evoked by a principal who is proficient at reading and flexing to support the teacher's requirements, to challenge the teacher's conceptual level, and to "pull" the teacher's conceptual functioning. The observable ideal sequence of responses for the high conceptual level teacher begins with comfort and confidence, proceeds to active involvement in problem solving, and culminates in autonomous behaviour. Observed occurrence of this sequence might suggest that the high conceptual level teacher is responding to an opportunity either to maintain his/her high level of conceptual functioning or to develop the high level of which he/she is capable.

To guide observation of this sequence of responses in the supervisory conferences which are the objects of this study, five research questions were posed initially.

RESEARCH QUESTIONS

Initially, the research questions included two main questions and three sub-questions. The three sub-questions were designed to help obtain an answer to the first main question.

The first main question was derived from the first stated purpose of the study, that is, to find evidence of whether high conceptual level teachers' responses during supervisory conferences appear to be differentially associated with the conceptual level of the supervising principal. Because the answer to the first main question could not be determined before answers to the sub-questions were obtained, the order in which the four questions were addressed in the study was slightly different from the order in which they are presented here:

Question 1

Will the responses of a high conceptual level (HCL) teacher who is paired with a moderate/high conceptual level (M/HCL) principal be indicative of his/her greater opportunity to function at a high conceptual level during the supervision conference than the HCL teacher who is paired with a low conceptual level (LCL) principal?

Sub-question 1.1. Will the responses of the HCL teacher who is paired with the M/HCL principal indicate more comfort and confidence during the supervision conference than those of the HCL teacher who is paired with the LCL principal?

Sub-question 1.2. Will the responses of the HCL teacher who is paired with the M/HCL principal indicate more active involvement during exploration of observations and in problem solving than those of the HCL teacher who is paired with the LCL principal?

Subquestion 1.3. Will the responses of the HCL teacher who is paired with the M/HCL principal indicate more autonomy and independent thinking than those of the HCL teacher who is paired with the LCL principal?

The second main question was derived from the second main purpose of the study, that is, to find evidence of whether high conceptual level teachers' responses during the supervisory conference appear to be associated with factors other than the principal's conceptual level.

Question 2

Will the responses of the HCL teachers appear to be associated with factors other than the principal's conceptual level?

During the course of data collection and analysis, some emerging information suggested the desirability of posing a third research question. It began to seem important to analyze teachers' comments to find information about the factors with which the teachers appeared to associate their responses during supervision. Accordingly, a third question was formulated.

Question 3

Did the teachers seem to associate their responses with behaviours of the principal that might be attributed to the principal's conceptual level or with behaviours that might be attributed to other factors?

SUMMARY

Research on adult cognitive development has found evidence that adults are capable of cognitive developmental growth. Thus, when adult learning is defined as adult cognitive development, it can be said that adults are able to learn. Furthermore, as the literature review attempts to demonstrate, the facilitation of adult learning can be conceived of as a different process from the teaching of younger pupils. It is essential for educators of adults to consider the generic and the individual requirements of adult learners.

There are claims in the research literature that developmental requirements of adults are not linked to age but to life stages, career stages, and stages of cognitive development. Conceptual level theory seems to be a useful guide for the facilitation of teachers' cognitive development in the individualized style of adult education. Results of studies using conceptual development theory have encouraged researchers to present suggestions for its continued use in studies of both pre-service and inservice teacher education. It appears essential for facilitators of teacher development to recognize the characteristics of adults functioning at various conceptual levels and to understand the environmental conditions that facilitate the growth of individuals who

function at the various levels. These requirements suggest the facilitator of teacher development needs to function at a high abstract level in order to be sensitive and able to adapt.

Synthesis of research findings on adult learning and on conceptual levels seems to enable the inservice supervisory conference to be conceived of as a special case of adult cognitive development and to be depicted in a conceptual model. The conceptual model has guided the formation of research questions for this study. The next chapter includes explanations of how the model is used to guide decisions about categories of behaviours to be recorded, to aid identification of specific behaviours to be recorded within each category, and to guide decisions about analysis of the recorded data.

Chapter 3

RESEARCH DESIGN

The research reported here is an exploratory study of data collected in an earlier, larger study (Grimmett and Crehan, 1987, 1988). In the present study, qualitative data were collected through an investigation of the original data. The study compares two principal/teacher supervision dyads with respect to teacher responses in supervisory conference interactions. The dyads are referred to as Dyad #1 and Dyad #2. The characteristics of the two dyads studied are shown below within the design of the original study.

	Principal CL	Teacher CL	Treatment (1)	Treatment (2)	Treatment (3)
Dyad #1	L	H	-	X	-
Dyad #2	M/H	H	-	X	-

Figure 2: Research Design

The conceptual level (CL) of the principal is the independent variable. In dyad #1, the principal has a low conceptual level (LCL); in dyad #2, the principal has a moderately high conceptual level (M/HCL). The two dyads are drawn from the larger study (Grimmett and Crehan, 1987, 1988), which involved a total of 15 dyads composed of volunteer subjects from elementary schools. In the larger study, three treatments

were employed as additional independent variables: (1) conferencing skills training for the principals; (2) classroom management workshops for the principals and teachers; and (3) the same classroom management workshops for the teachers only. In the present study, the treatments were employed as control variables: neither principal received conferencing skills training; both principals and teachers attended the classroom management workshops. The teacher's conceptual level became a fourth control variable in this study because in both dyads the teacher has a high conceptual level (HCL). The teachers' responses during the supervision conferences were the variable of main interest in this study. Explanations of the methods of data collection and analysis employed in the study are presented in the following two sections.

DATA COLLECTION

Three sources of data were used: (1) videotapes of two post-observation conferences for each dyad; (2) transcriptions of the audiotapes of the principal investigator's stimulated recall interviews with the research subjects; and (3) transcriptions of excerpts of conference dialogue associated with events identified during stimulated recall. The videotapes were used as the source of the frequency data. The transcriptions were used in two different ways: first, to check the validity of observations from the videotapes and; second, as a further source of qualitative data. The discussion of data collection methods will be presented in two subsections: (1) collection of frequency data using observation instruments designed for the present study; and (2) collection of transcription data.

Collection of Frequency Data

Frequency data of observed behaviours were collected by viewing the videotapes of the supervisory dyads' conferences. The conceptual model, presented in Chapter 2, was used to guide the development of three categories of behaviours to be observed. Each category represents a stage in the model and includes two subcategories that correspond with two of the model's dimensions; i.e., teacher's responses and principal's behaviours. Each of these subcategories contains a positive and a negative subdivision. The principal's behaviours and teacher's responses in the positive subdivisions are those which correspond to the ideal behaviours and responses represented in the conceptual model for the ideal facilitation of development for an HCL teacher.

The research literature suggests that the ideal situation, portrayed in the model, may be observed in dyad #2 wherein both the supervising principal and the teacher have high conceptual levels. The research literature also suggests that the ideal developmental situation may not be observed in dyad #1 because the principal has a low conceptual level and is more likely to exhibit the behaviours classified below as negative. The term "negative" is applied to these behaviours because the literature suggests they could be ineffectual or even miseducative for the HCL teacher's development in dyad #1.

To aid observation of whether the teacher in dyad #1 responds in ways that indicate miseducation, a set of teachers' "negative" responses which contrast with the teachers' "positive" responses have been described. Although the principal behaviours and teacher responses in

the negative subdivisions are in direct contradistinction to the behaviours and responses represented in the conceptual model for ideal facilitation of development for an HCL teacher, they have nevertheless been derived with the aid of the model. Thus, although the conceptual model illustrates a developmentally positive situation, it was used to guide the development of both the positive and negative behaviour categories that were needed to provide data for the investigation of the association between HCL teachers' conceptual development and both high and low conceptual level principals. A list of titles for the three categories, their respective sub-categories, and the positive and negative demensions of the sub-categories follows.

Category 1: Subjects' Behaviours in First Stage of Model

1.1: Teacher's responses

Positive: Indicators of comfort and confidence ,

Negative: Indicators of discomfort

1.2: Principal's behaviours

Positive: Indicators of "reading" and "flexing" to be supportive of teacher

Negative: Indicators of "non-reading", rigidity, and lack of support for the teacher

Category 2: Subjects' Behaviours in Second Stage of Model

2.1: Teacher's responses

Positive: Indicators of active and interested involvement

Negative: Indicators of passive or defensive involvement
 2.2: Principal's behaviours

Positive: Indicators of "reading" and "flexing" to provide challenge

Negative: Indicators of rigidity and lack of challenge for teacher

Category 3: Subjects' Behaviours in Third Stage of Model

3.1: Teacher's responses

Positive: Indicators of autonomy and independence

Negative: Indicators of reliance or compliance

3.2: Principal's behaviours

Positive: Indicators of "reading" and "flexing" to "pull" teacher's conceptual development

Negative: Indicators of potential to depress teacher's conceptual development

To aid observation of behaviours, an attempt was made to identify four specific behaviours that could be classified under each of the positive and negative subdivisions within each of the six subcategories. The review of literature was used to guide identification of four positive and four negative observable behaviours for each of the six sub-categories of behaviour. The behaviours selected for Category 1 were extracted mainly from three sources in the adult education literature (Thibodeau, 1980; Rogers, 1977; and Thornton, 1986) and from Sprinthall and Thies-Sprinthall's (1980) discussion of Hunt's terms "read" and "flex". Some of the behaviours selected for Category 2 and for Category 3 were extracted from Grimmett and Housego (1983), but most were

extracted from Glickman's (1985) descriptions of direct and indirect supervision. Lists of the specific behaviours to be observed within the positive and negative subdivisions of each of the three categories follow. The instruments designed to aid observation of the behaviours are displayed in Appendix A.

Category 1: Subjects' Behaviours in First Stage of Model

1.1: Teacher's responses

Positive: Indicators of comfort and confidence

- 1) Asks questions and/or reflects before making responses
- 2) Maintains positive and hopeful attitude
- 3) Responds openly and with trust
- 4) Displays interest

Negative: Indicators of discomfort

- 1) Interacts insecurely (flustered)
- 2) Develops negative and frustrated attitude, leading to despondency or compliance
- 3) Responds defensively or hesitantly
- 4) Displays physical signs of insecurity and/or disinterest

1.2: Principal's behaviours

Positive: Indicators of "reading" and "flexing" to be supportive of teacher

- 1) Allows time for teacher to question and/or reflect, before expecting teacher to respond
- 2) Is responsive to teacher's questions and statements
- 3) Provides accurate and positive feedback
- 4) Attempts to link presented problems with teacher's career stage and experience.

Negative: Indicators of "non-reading", rigidity, and lack of support for teacher

- 1) Dominates talk and time
- 2) Is non-responsive to teacher's questions and statements
- 3) Provides negative feedback
- 4) Displays physical indicators of authoritarian attitude

Category 2: Subjects' Behaviours in Second Stage of Model

2.1: Teacher's responses

Positive: Indicators of active and interested involvement

- 1) Explores principal's observations
- 2) Relates principal's observations to past experiences and notes implications
- 3) Asks questions to aid own clarification of new ideas
- 4) Applies own ideas positively and in relation to principal's ideas

Negative: Indicators of passive or defensive involvement

- 1) Does not explore and eventually appears to accept principal's observations
- 2) Abandons attempts to draw own inferences from principal's observations
- 3) Abandons use of questions for purposes of own clarification
- 4) Involvement becomes defensiveness of own beliefs and classroom behaviours

2.2: Principal's behaviours

Positive: Indicators of "reading" and "flexing" to provide challenge for teacher

- 1) Invites teacher's analysis and questioning of observations
- 2) Demonstrates interest and attentiveness to teacher's identification of problems
- 3) Reflects and probes to help teacher clarify thoughts about problem

- 4) Reflects and probes to encourage teacher to relate own ideas positively with principal's ideas about the problem

Negative: Indicators of rigidity and lack of challenge for teacher

- 1) Identifies and states problem
- 2) Is non-receptive to teacher's information or interpretation regarding problem
- 3) Presents own thoughts about problem
- 4) Makes suggestions regarding possible solutions

Category 3: Subjects' Behaviours in Third Stage of Model

3.1: Teacher's responses

Positive: Indicators of autonomy and independence

- 1) Proposes a set of alternative solutions to problem
- 2) Selects preferred solution and sets goals and objectives
- 3) Suggests plans for implementation
- 4) Suggests plans for evaluation

Negative: Indicators of reliance or compliance

- 1) Seeks or accepts principal's solution
- 2) Seeks or accepts principal's suggestions regarding goals and objectives
- 3) Seeks or accepts principal's implementation plans
- 4) Seeks or accepts principal's evaluation plans

3.2: Principal's behaviours

Positive: Indicators of 'reading' and 'flexing' to 'pull' teacher's conceptual functioning:

- 1) Probes and clarifies to encourage teacher to generate solutions and alternatives.
- 2) Encourages teacher to explore and to select from alternative solutions by considering their respective consequences
- 3) Encourages teacher through questioning to consolidate ideas in the setting of goals and objectives

- 4) Encourages teacher through questioning to plan implementation and evaluation and to make commitments to these

Negative: Indicators of potential to depress teacher's conceptual functioning:

- 1) Selects own solution
- 2) States the rationale for the solution
- 3) Sets goals and objectives
- 4) Imposes implementation plan and selects evaluation method

Collection of Transcription Data

Transcription data were collected through in-depth examination of the transcriptions of the dialogue from the subjects' stimulated recall interviews with the principal investigator and from the conference sections that were recalled. Detailed descriptions of, and direct quotations from, subjects' remarks about supervision conference interactions which they chose to recall were collected from the transcriptions of the stimulated recall interviews. Detailed descriptions of, and quotations from, the recalled interactions were collected from the transcriptions of the supervision conference dialogue. The stimulated recall interview data included subjects' own thoughts and opinions regarding the supervision conference, and their own interpretations of their responses and behaviours.

The transcription data were not collected according to predetermined categories or indicators as were the frequency data. Moreover, the transcription data were used for two purposes differing from that for which the frequency data were used. First, the transcription data were used to validate findings from the analysis of

the frequency data; and second, they were used to facilitate further qualitative analysis required for answering the second and third research questions.

DATA ANALYSIS

The data analysis was conducted in two main stages. The first stage involved a two-part preliminary analysis; and the second, a three-part analysis of transcription data.

Preliminary Analysis

The two parts of the preliminary analysis consisted of first, an analysis of the frequency data and, second, a preliminary analysis of the transcription data. The intention of the second part of this analysis was to find and extract sections of the transcriptions containing data that could overcome practical problems, caused by the large volume of the data that emerged, for analysis and for presentation of findings.

Analysis of Extracted Transcription Data

The transcription data extracted during the second part of the preliminary analysis were examined for evidence regarding teachers' comfort and confidence, active involvement, and autonomous behaviour. The analysis proceeded with the intent of allowing this evidence to emerge from the data, rather than with the purpose of searching the data

for predetermined indicators. In addition, the analysis sought for subjects' interpretations of conference interactions in order to find evidence regarding factors with which the teachers' responses may have been associated.

OVERVIEW OF PRESENTATION OF FINDINGS AND DISCUSSION

The discussion of the findings from the analyses will be presented in the next four chapters. Chapter 4 will contain discussion of the findings from the preliminary analysis. Chapters 5, 6, and 7 will contain, respectively, discussion of the findings from the analysis of the transcriptions for evidence of teachers' comfort and confidence, active involvement in problem solving, and autonomous behaviour. Chapter 8 will contain discussion of the findings from the analysis of the transcriptions for evidence that teachers' responses may have been differentially associated with factors other than the principal's conceptual level. Within these four chapters, the LCL principal in Dyad #1 will be referred to as Lorna and the HCL teacher in Dyad #2 as Luke. The M/HCL principal in Dyad #2 will be referred to as Hugh and the HCL teacher in Dyad #2 as Helen. Quotations from the transcripts of the subjects' dialogue will be referenced by line numbers in the transcripts. The line numbers will be preceded by a colon and the number one or two depending on whether the quotation applies to the subject's first or second conference.

Chapter 4

RESULTS OF PRELIMINARY ANALYSIS

The purpose of this chapter is to present and discuss the findings from the preliminary analysis. The chapter is divided into two main sections which correspond with the two parts of the preliminary analysis: (1) the analysis of the frequency data; and (2) a preliminary analysis of data from the transcriptions of the stimulated recall interview and conference dialogues.

ANALYSIS OF FREQUENCY DATA

The presentation and discussion of findings from the analysis of the frequency data are divided into three subsections. Each addresses one of the three categories of teacher's responses that are included in the three stages of the model: (1) teacher's comfort and confidence; (2) teacher's active involvement; and (3) teacher's autonomous behaviour.

Teacher's Comfort and Confidence

This first stage of the analysis addressed research sub-question 1.1 and the first stage of the conceptual model; that is, data were analyzed for evidence of whether the responses of the Dyad #2 HCL teacher, Helen, who was paired with the M/HCL principal, Hugh, indicated more comfort and confidence than those of the Dyad #1 HCL teacher, Luke, who was paired with the LCL principal, Lorna. The instruments for

recording the frequency of Category 1 behaviours and responses (see Appendices A-1 and A-2) enabled the collection of enough data to facilitate preliminary analysis of the teachers' comfort and confidence and the principals' supportive behaviours. The data were also analyzed for evidence of associations between the teachers' responses and the principals' behaviours to match those suggested in the research literature. Findings and discussion for this stage of the analysis are presented first for Dyad #1, and second for Dyad #2.

Dyad #1 teacher's comfort and confidence. The first frequency count reported for the Dyad #1 pre-conference is the number of interactions which took place between the two members of the dyad. This number, displayed in Table 4.1, indicates that 26 interactions occurred. For purposes of this count, for all four conferences, an interaction was

TABLE 4.1 NUMBER OF DYADIC INTERACTIONS IN
SUPERVISORY CONFERENCES

		Conference	
		Pre-	Post-
Dyad	#1	26	27
	#2	13	14

defined as either a single behaviour by one member of the dyad paired with a response from the other member, or an uninterrupted set of paired behaviours and responses which focussed on a single issue.

The number of interactions was recorded to aid interpretation of all other frequency data, including those displayed in Table 4.2 regarding the teacher's comfort and confidence during the Dyad #1 pre-conference. For instance, because 26 interactions were recorded, the report of 19 responses indicating that Luke "displays interest" means that in 19 out of a total of 26 interactions Luke displayed interest. Thus, the 19 can be interpreted as evidence to suggest that during most of the conference Luke displayed interest.

The total number of interactions reported for a conference does not equal the sum of the numbers displayed to report the frequency counts for the eight indicators of comfort and confidence. This is because a single response contained within a single interaction was often found to be describable in terms of more than one of the indicators of comfort and confidence. For example, a single response might involve questioning and/or reflecting, demonstrating openness and trust, and displaying interest.

For Dyad #1, two of the positive indicators of comfort and confidence were difficult to observe and/or record in the frequency count of the teacher's responses. First, the indicator "asks questions and/or reflects before making responses" caused difficulty because it did not seem to be applicable to almost half of the interactions, which the principal initiated by giving positive feedback. Second, observation and recording of "maintains a positive and hopeful attitude" was difficult because although, "a positive attitude" was usually observed, it could not be recorded when "a hopeful attitude" was not observed. Moreover, it was difficult to observe hopefulness during the many interactions wherein the principal seemed to be enquiring about the

TABLE 4.2 SUMMARY OF FREQUENCY DATA: CATEGORY 1 RESPONSES AND BEHAVIOURS IN DYAD #1 PRE-WORKSHOP CONFERENCE

TEACHER: COMFORT AND CONFIDENCE		PRINCIPAL: "READING AND FLEXING" TO SUPPORT	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Asks questions and/or reflects before making responses	15	1) Allows teacher time to reflect before expecting response	15
2) Maintains positive and hopeful attitude	15	2) Is responsive to teacher's questions and statements	20
3) Responds openly and with trust	19	3) Provides accurate and positive feedback	20
4) Displays interest	19	4) Links presented problems with teacher's career stage and experience	18
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Interacts insecurely	0	1) Dominates talk and time	6
2) Develops negative & frustrated attitude, maybe despondent or compliant	0	2) Is non-responsive to teacher's questions and statements	0
3) Responds defensively or hesitantly	0	3) Provides negative feedback	0
4) Displays physical signs of insecurity and/or disinterest	0	4) Displays physical indications of authoritarian attitude	0

teacher's past and current solutions for problems rather than addressing possible requirements for new solutions. Nevertheless, the frequency data displayed in Table 4.2 seem to be sufficient to suggest that Luke experienced comfort and confidence, and that Lorna frequently performed behaviours which the research literature suggests would be supportive. The distinct predominance of positive responses and behaviours, displayed in the table, suggests that Luke's responses indicating his comfort and confidence may have been associated with Lorna's positive, supportive behaviours. Although one negative behaviour is reported for Lorna (i.e., "dominates talk and time"), the absence of any negative responses for Luke suggests that he displayed no loss of comfort and confidence in association with this behaviour.

Table 4.3 displays frequency data collected during observation of the Dyad #1 post-workshop conference for indicators of Luke's comfort and confidence and Lorna's support. The frequencies displayed suggest that, although some of the counts are slightly lower, the pattern of interactions was similar to that in the first Dyad #1 conference. The data reveal that Luke maintained his comfort and confidence in this second conference and that his comfort and confidence again seemed to be associated with Lorna's positive, supportive behaviours.

Dyad #2 teacher's comfort and confidence. Data displayed in Table 4.1 indicate that there were only thirteen interactions during the Dyad #2 pre-workshop conference. The discrepancy between this number and that for the Dyad #1 pre-conference occurred partly because the Dyad #1 conference took 30 minutes, whereas the Dyad #2 conference lasted for slightly less than 20 minutes. The difference also occurred because the

TABLE 4.3 SUMMARY OF FREQUENCY DATA: CATEGORY 1 RESPONSES AND BEHAVIOURS IN DYAD #1 POST-WORKSHOP CONFERENCE

TEACHER: COMFORT AND CONFIDENCE		PRINCIPAL: "READING" AND "FLEXING" TO SUPPORT	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Asks questions and/or reflects before making responses	11	1) Allows teacher time to reflect before expecting response	10
2) Maintains positive and hopeful attitude	9	2) Is responsive to teacher's questions and statements	16
3) Responds openly and with trust	17	3) Provides accurate and positive feedback	18
4) Displays interest	17	4) Links presented problems with teacher's career stage and experience	15
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Interacts insecurely	0	1) Dominates talk and time	5
2) Develops negative & frustrated attitude, maybe despondent or compliant	0	2) Is non-responsive to teacher's questions and statements	0
3) Responds defensively or hesitantly	0	3) Provides negative feedback	0
4) Displays physical signs of insecurity and/or disinterest	0	4) Displays physical indications of authoritarian attitude	0

Dyad #2 M/HCL principal, Hugh, frequently prolonged his contributions to the dialogue. Hugh's share of one of the Dyad #2 interactions occupied four minutes; that is, one fifth of the whole conference.

In comparison to the number of interactions displayed in Table 4.1, the frequency data displayed in Table 4.4 suggest that Helen's responses demonstrated a fair amount of comfort and confidence, which may have been associated with Hugh's behaviours indicating supportiveness. However, Helen appears to have displayed a positive and hopeful attitude during only six of the thirteen observed interactions. During the collection of frequency data regarding the teacher's comfort and confidence, the difficulties that were encountered for Dyad #1 with two of the positive indicators, which included "maintains a positive and hopeful attitude", did not occur for Dyad #2. Thus, it seems possible to suggest that the infrequency with which Helen's responses demonstrated maintenance of "a positive and hopeful attitude" may have been associated with Hugh's negative behaviours, such as the infrequency with which he indicated responsiveness to Helen's questions and statements. Furthermore, the data indicate that Helen displayed a few negative responses which may have been associated with negative behaviours enacted by Hugh.

Helen's responses indicated compliance on three occasions and despondency on a fourth. These responses are reported in the frequency count displayed for the second negative indicator of comfort and confidence. Thus, the count of four includes only responses indicating compliance or despondency. Helen never responded in ways which indicated a negative or frustrated attitude.

With regard to the third negative indicator of comfort and

**TABLE 4.4 SUMMARY OF FREQUENCY DATA: CATEGORY 1 RESPONSES AND
BEHAVIOURS IN DYAD #2 PRE-WORKSHOP CONFERENCE**

TEACHER: COMFORT AND CONFIDENCE		PRINCIPAL: "READING" AND "FLEXING" TO SUPPORT	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Asks questions and/or reflects before making responses	7	1) Allows teacher time to reflect before expecting response	7
2) Maintains positive and hopeful attitude	6	2) Is responsive to teacher's questions and statements	6
3) Responds openly and with trust	7	3) Provides accurate and positive feedback	6
4) Displays interest	8	4) Links presented problems with teacher's career stage and experience	5
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Interacts insecurely	0	1) Dominates talk and time	8
2) Develops negative & frustrated attitude, maybe despondent or compliant	4	2) Is non-responsive to teacher's questions and statements	5
3) Responds defensively or hesitantly	2	3) Provides negative feedback	4
4) Displays physical signs of insecurity and/or disinterest	3	4) Displays physical indications of authoritarian attitude	1

confidence, two incidents of Helen responding hesitantly were counted. Helen never responded defensively. On three occasions, Helen responded with facial expressions suggestive of disappointment and possible disinterest. In Table 4.4, these responses are reported as physical signs of insecurity and/or disinterest. Analysis of the frequency data suggests that Helen's negative responses may have been associated with the frequency with which Hugh both dominated talk and time and appeared non-responsive to Helen's questions and statements. The absence of defensiveness in Helen's attitude suggests that she did not respond negatively to the four occasions when Hugh provided negative feedback.

The analysis of the frequency data for the Dyad #2 pre-workshop conference revealed evidence to suggest Helen mostly retained positive feelings of comfort and confidence. However, in comparison to eighteen indications of Hugh's non-supportive behaviours, the nine negative indications regarding Helen's comfort and confidence suggest that the amount of comfort and confidence retained by Helen may not have been entirely associated with Hugh's behaviours.

As was the case for the pre-workshop conferences, the frequency data displayed in Table 4.5 indicate that a lower total number of interactions occurred in the Dyad #2 post-conference than in the Dyad #1 post-conference; that is, fourteen interactions as opposed to twenty-seven. The difference in this number of interactions seemed to be mainly linked to the difference in length of the two conferences. The Dyad #2 post-workshop conference took only 14 minutes, whereas the Dyad #1 conference took 31 minutes. In the second Dyad #2 conference, the number of interactions was not connected, as it was in the first conference, with Hugh's behaviour. Hugh did not prolong his contributions to

TABLE 4.5 SUMMARY OF FREQUENCY DATA: CATEGORY 1 RESPONSES AND BEHAVIOURS IN DYAD #2 POST-WORKSHOP CONFERENCE

TEACHER: COMFORT AND CONFIDENCE		PRINCIPAL: "READING" AND "FLEXING" TO SUPPORT	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Asks questions and/or reflects before making responses	6	1) Allows teacher time to reflect before expecting response	6
2) Maintains positive and hopeful attitude	3	2) Is responsive to teacher's questions and statements	3
3) Responds openly and with trust	5	3) Provides accurate and positive feedback	8
4) Displays interest	3	4) Links presented problems with teacher's career stage and experience	2
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Interacts insecurely	0	1) Dominates talk and time	5
2) Develops negative & frustrated attitude, maybe despondent or compliant	2	2) Is non-responsive to teacher's questions and statements	3
3) Responds defensively or hesitantly	1	3) Provides negative feedback	1
4) Displays physical signs of insecurity and/or disinterest	1	4) Displays physical indications of authoritarian attitude	1

interactions in the second conference.

On the five occasions when Hugh dominated talk and time during the second Dyad #2 conference, his domination took the form of directing discussions toward what appeared to be his own interests. In the frequency data, this behaviour is also reflected in the reports that Hugh linked problems with Helen's career stage and experience in only two out of fourteen interactions, and that on three occasions he was unresponsive to Helen's questions and statements. Analysis of the frequency data suggests that the infrequency with which Helen's responses indicated maintenance of a positive and hopeful attitude, or displayed interest, may have been associated with the infrequency with which Hugh displayed regard for her statements, and for her career stage and experience.

The frequency data displayed in Table 4.5 for the Dyad #2 post-workshop conference report fewer negative and positive behaviours for Hugh than for the pre-workshop conference. Analysis of the data reveals evidence of a deterioration in Helen's comfort and confidence that may have been associated with a reduction in the frequency of Hugh's supportive behaviours.

Teachers' Active Involvement

This second stage of the analysis addressed research sub-question 1.2 and the second stage of the conceptual model; that is, data were analyzed for evidence of whether the responses of the Dyad #2 HCL teacher, Helen, who was paired with the M/HCL principal, Hugh, indicated more active involvement than those of the Dyad #1 HCL teacher, Luke, who

was paired with the LCL principal, Lorna. The frequency data for teachers' responses were analyzed for indications of active involvement, and the frequency data for principals' behaviours were analyzed for indications of "reading" and "flexing" to challenge the teacher. In addition, the observed teachers' responses and principals' behaviours were analyzed for evidence of associations matching those suggested in the research literature.

The indicators used in the instruments for recording the frequency of Category 2 behaviours and responses (see Appendices A-3 and A-4) were found to be inadequate for collecting data which were useful to the analysis of the teachers' active involvement in exploration of observations and in problem solving. Although evidence of the teacher's active involvement seemed apparent, the responses offering this evidence did not match the predetermined responses used as indicators in the recording instrument and therefore could not be included in the frequency count. The results of the analysis of these limited data are presented first for Dyad #1, and second for Dyad #2.

Dyad #1 teacher's active involvement. Frequency data, displayed in Table 4.6 regarding the teachers' active involvement, were sparse because many of the interactions contained the giving and receiving of positive feedback, and also because problem solving rarely progressed far enough during the conference to produce behaviours corresponding to those described in the recording instruments. Issues were rarely identified as problems and were usually approached not so much as challenges but more as issues which might have the potential to suggest challenges. Decisions about this potential were not usually made during

TABLE 4.6 SUMMARY OF FREQUENCY DATA: CATEGORY 2 RESPONSES AND BEHAVIOURS IN DYAD #1 PRE-WORKSHOP CONFERENCE

TEACHER: ACTIVE INVOLVEMENT		PRINCIPAL: "READING" AND "FLEXING" TO CHALLENGE	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Explores principal's observations	2	1) Invites teacher's analysis and questioning of observations	8
2) Relates principal's obs'v'ns to past experiences and notes implications	5	2) Demonstrates interest in teacher's identification of problems	5
3) Asks questions to aid own clarification of new ideas	0	3) Reflects and probes to help teacher clarify thoughts about problem	14
4) Applies own ideas positively and in relation to principal's ideas	2	4) Reflects and probes to encourage teacher to relate own ideas +vely with principal's ideas	2
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Does not explore & eventually seems to accept principal's observations	4	1) Identifies and states problem	1
2) Abandons attempts to draw own inferences from principal's obs'v'ns	0	2) Is non-receptive to teacher's information or interpret'n of problem	0
3) Abandons questioning used for own clarification	0	3) Presents own thoughts about problem	3
4) Involvement becomes defensiveness of own beliefs and behaviours	0	4) Makes suggestions regarding possible solutions	0

the conferences.

The pre-workshop conference frequency data in Table 4.6 indicate that, in five interactions out of twenty-six, Luke was observed to "relate the principal's observations to past experiences and note implications". The issues being discussed on these occasions were the only ones which both Luke and Lorna appeared to have already accepted as representing problems requiring solutions.

The data in Table 4.6 show that in fourteen out of twenty-six interactions Lorna used reflecting and probing to help Luke to clarify his thoughts about problems. To facilitate use of this indicator in frequency data collected for Dyad #1, "thoughts about problems" was conceived of as thoughts about potentially problematic issues rather than thoughts about identified problems and possible solutions. This definition was chosen as a means of adapting the indicator to what appeared to be Lorna's approach to "problems".

When the indicator "applies own ideas positively and in relation to principal's ideas" was used in the collection of frequency data, "ideas" was conceived of as new ideas proposed for solving problems of current concern. Therefore, the count did not include those ideas which during the conference were mentioned among explanations of rationales for currently applied methods. Two of the positive responses indicative of teacher's active involvement which are described in Table 4.6 refer to "ideas". The data displayed in Table 4.6 indicate that Luke exhibited one of these responses only twice and the other one never. The infrequency of these responses suggests that new ideas were rarely apparent during the conference, therefore the opportunities were equally

rare for Luke to apply "ideas positively and in relation to [Lorna's] ideas".

Analysis of the frequency data in Table 4.6 reveals evidence to suggest that Lorna more frequently displayed behaviours which were positive rather than negative indicators of "reading" and "flexing" to challenge Luke. However, the analysis suggests that Luke responded infrequently during the first Dyad #1 pre-conference in ways which indicated active involvement.

As was the case in the pre-workshop conference, many of the interactions in the post-workshop conference consisted of the giving and receiving of positive feedback. Again, this may partly account for the paucity of data displayed in Table 4.7 for behaviours and responses regarding active involvement. Lorna provided positive feedback even more frequently during this second conference than during the first. This may partly explain why she less frequently exhibited behaviours to challenge Luke to become actively involved in problem solving during the second conference. As was the case for the first conference, Luke rarely had reason to note implications during the second conference. This is reflected in the low frequency (i.e., six occurrences in twenty-seven interactions) displayed in Table 4.7 for the response that includes this behaviour.

Many of the Dyad #1 members' positive responses and behaviours included in the frequency counts displayed in Table 4.7, were observed during the latter part of the conference. During that time, Luke's candid disclosure of a time management problem that had occurred after Lorna had left his classroom seemed to initiate a set of interactions which incorporated all the positive indicators of active involvement

TABLE 4.7 SUMMARY OF FREQUENCY DATA: CATEGORY 2 RESPONSES AND BEHAVIOURS IN DYAD #1 POST-WORKSHOP CONFERENCE

TEACHER: ACTIVE INVOLVEMENT		PRINCIPAL: "READING" AND "FLEXING" TO CHALLENGE	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Explores principal's observations	2	1) Invites teacher's analysis and questioning of observations	5
2) Relates principal's obs'v'ns to past experiences and notes implications	6	2) Demonstrates interest in teacher's identification of problems	4
3) Asks questions to aid own clarification of new ideas	2	3) Reflects and probes to help teacher clarify thoughts about problem	13
4) Applies own ideas positively and in relation to principal's ideas	4	4) Reflects and probes to encourage teacher to relate own ideas +vely with principal's ideas	6
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Does not explore & eventually seems to accept principal's observations	6	1) Identifies and states problem	0
2) Abandons attempts to draw own inferences from principal's obs'v'ns	1	2) Is non-receptive to teacher's information or interpret'n of problem	0
3) Abandons questioning used for own clarification	0	3) Presents own thoughts about problem	3
4) Involvement becomes defensiveness of own beliefs and behaviours	0	4) Makes suggestions regarding possible solutions	1

described in Table 4.7. During the section of the conference wherein Lorna and Luke were attending to this problem, Luke responded not only by applying "his own ideas positively and in relation to the principal's" but also in ways corresponding to the other positive indicators of active involvement described in Table 4.7. However, during the remainder of the conference although Lorna displayed more positive than negative behaviours, only a few of Luke's responses matched the indicators of active involvement described in the Table 4.7.

Analysis of the frequency data for the Dyad #1 post-workshop conference revealed evidence to suggest that responses indicating Luke's active involvement occurred infrequently. There did not appear to be sufficient evidence from which to draw any inferences regarding an association between Luke's responses and Lorna's behaviours.

Dyad #2 teacher's active involvement. Frequency data regarding the teacher's active involvement were even more scarce for Dyad #2 than they were for Dyad #1. As was the case for Dyad #1, occasions for positive feedback reduced the number of interactions concerned with problem solving. However, other reasons for the scarcity of frequency data for the teacher's active involvement differed from those for Dyad #1. For Dyad #2, evidence suggested that behaviours and responses matching those described in Table 4.8 and Table 4.9 as positive indicators regarding active involvement occurred rarely because of two circumstances: (1) Hugh only attempted to introduce problem solving for one issue; and (2) Hugh refused to attend to a problem which Helen identified.

The frequency data in Tables 4.8 and 4.9 indicate that Helen had almost negligible active involvement in both of the Dyad #2 conferences.

TABLE 4.8 SUMMARY OF FREQUENCY DATA: CATEGORY 2 RESPONSES AND BEHAVIOURS IN DYAD #2 PRE-WORKSHOP CONFERENCE

TEACHER: ACTIVE INVOLVEMENT		PRINCIPAL: "READING" AND "FLEXING" TO CHALLENGE	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Explores principal's observations	0	1) Invites teacher's analysis and questioning of observations	1
2) Relates principal's obs'v'ns to past experiences and notes implications	0	2) Demonstrates interest in teacher's identification of problems	2
3) Asks questions to aid own clarification of new ideas	0	3) Reflects and probes to help teacher clarify thoughts about problem	0
4) Applies own ideas positively and in relation to principal's ideas	0	4) Reflects and probes to encourage teacher to relate own ideas +vely with principal's ideas	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Does not explore & eventually seems to accept principal's observations	3	1) Identifies and states problem	3
2) Abandons attempts to draw own inferences from principal's obs'v'ns	2	2) Is non-receptive to teacher's information or interpret'n of problem	4
3) Abandons questioning used for own clarification	0	3) Presents own thoughts about problem	6
4) Involvement becomes defensiveness of own beliefs and behaviours	0	4) Makes suggestions regarding possible solutions	3

TABLE 4.9 SUMMARY OF FREQUENCY DATA: CATEGORY 2 RESPONSES AND BEHAVIOURS IN DYAD #2 POST-WORKSHOP CONFERENCE

TEACHER: ACTIVE INVOLVEMENT		PRINCIPAL: "READING" AND "FLEXING" TO CHALLENGE	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Explores principal's observations	1	1) Invites teacher's analysis and questioning of observations	2
2) Relates principal's obs'v'ns to past experiences and notes implications	1	2) Demonstrates interest in teacher's identification of problems	2
3) Asks questions to aid own clarification of new ideas	0	3) Reflects and probes to help teacher clarify thoughts about problem	2
4) Applies own ideas positively and in relation to principal's ideas	0	4) Reflects and probes to encourage teacher to relate own ideas +vely with principal's ideas	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Does not explore & eventually seems to accept principal's observations	1	1) Identifies and states problem	1
2) Abandons attempts to draw own inferences from principal's obs'v'ns	1	2) Is non-receptive to teacher's information or interpret'n of problem	2
3) Abandons questioning used for own clarification	0	3) Presents own thoughts about problem	2
4) Involvement becomes defensiveness of own beliefs and behaviours	0	4) Makes suggestions regarding possible solutions	0

The data reveal that Helen occasionally responded in ways that were negative with regard to active involvement. In Table 4.8, five occurrences of negative responses are reported for the first Dyad #2 conference as opposed to no occurrences of positive responses. In Table 4.9, two occurrences of negative responses and two occurrences of positive responses are reported. Analysis of the data regarding Helen's negative responses suggests that Helen tended to forfeit active involvement in favour of accepting Hugh's observations and suggestions.

With regard to Hugh's behaviours in the pre-workshop conference, the data displayed in Table 4.8 suggest more negative than positive indications of "reading" and "flexing" to present a challenge for Helen to become actively involved in problem solving. This was most evident in the six occasions, among thirteen interactions, upon which Hugh "present[ed] his own thoughts about problem[s]". Analysis of the data suggests that Hugh was more interested in presenting his own ideas about problems and solutions than he was in either attending to Helen's ideas or encouraging her to clarify ideas. The evidence suggested that the infrequency of Helen's involvement in the first Dyad #2 conference may have been associated with Hugh's behaviours.

Data displayed in Table 4.9, suggest that, although rare, Hugh's behaviours more frequently displayed positive indications of challenging Helen's active involvement during the second conference than in the first. Comparative analysis of the data displayed in Tables 4.8 and 4.9 suggests a decrease in the frequency of Hugh's negative behaviours regarding supportiveness for Helen. For instance, the count displayed for "presents own thoughts about problems" dropped to two occurrences among fourteen interactions. This behaviour seemed to be accompanied by

a small increase in Helen's positive responses and a small decrease in her negative responses. However, despite the fact that analysis of the frequency data suggests the possibility of a slight improvement during the second Dyad #2 conference, evidence suggests a low incidence Helen's active involvement in both conferences. Furthermore, the infrequency with which Helen's responses indicated active involvement appeared to be associated with the infrequency with which Hugh's behaviours indicated "reading" and "flexing" to challenge Helen to become actively involved in problem solving.

Teachers' Autonomous Behaviours

This third stage of the analysis addressed research sub-question 1.3 and the third stage of the conceptual model; that is, data were analyzed for evidence of whether the responses of the Dyad #2 HCL teacher, Helen, who was paired with the M/HCL principal, Hugh, indicated more autonomous behaviour than those of the Dyad #1 HCL teacher, Luke, who was paired with the LCL principal, Lorna. Very few of either the Category 3 negative or positive behaviours, or responses indicating autonomous behaviour occurred during any of the conferences. Therefore, it was difficult to collect frequency data using the instruments designed for recording the Category 3 behaviours and responses (see Appendices A-5 and A-6). The data collected for teachers' responses were analyzed for indications of autonomous behaviour, and those collected for principals' behaviours were analyzed for indications of "reading" and "flexing" to "pull" the teacher towards functioning at his/her high conceptual level. In addition, the observed teachers' responses and

principals' behaviours were analyzed for evidence of associations matching those suggested in the research literature. The results of this stage of the analysis are presented first for Dyad #1, and second for Dyad #2.

Dyad #1 teacher's autonomous behaviour. Frequency data displayed in Table 4.10 suggest that Luke's responses did not demonstrate any autonomous behaviour during the Dyad #1 pre-workshop conference. Analysis of the data revealed evidence to suggest that although Lorna's behaviours did not display any negative indications regarding her "reading" and "flexing " to "pull" Luke towards functioning at his high conceptual level, they displayed very few positive indications. The evidence suggests that the absence of autonomous behaviour in Luke's responses may have been associated with the infrequency of Lorna's "pulling" behaviours.

Luke's responses and Lorna's behaviours recorded in Tables 4.10 and 4.11 were observed on the few occasions when problem solving was pursued during the Dyad #1 conferences. Analysis of the data suggests that only during the second conference did Luke respond to Lorna's positive behaviours by displaying autonomous behaviours. Analysis of the data also suggests that Luke's one negative response may have been associated with the few negative behaviours shown for Lorna. It appears that the paucity of Luke's responses indicative of autonomous behaviours may have been associated with the infrequency with which Lorna behaved in ways which indicated she was "reading" and flexing" to "pull" Luke toward functioning at his high conceptual level.

TABLE 4.10 SUMMARY OF FREQUENCY DATA: CATEGORY 3 RESPONSES AND BEHAVIOURS IN DYAD #1 PRE-WORKSHOP CONFERENCE

TEACHER: AUTONOMOUS BEHAVIOUR		PRINCIPAL: "READING" AND "FLEXING" TO "PULL"	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Proposes a set of alternative solutions to problem	0	1) Probes & clarifies to encourage teacher's generation of solutions and alternatives	1
2) Selects preferred solution and sets goals and objectives	0	2) Encourages teacher to explore and select from alternative solutions by considering consequences	1
3) Suggests plan for implementation	0	3) Encourages teacher by questioning to consolidate ideas in the setting of goals and objectives	1
4) Suggests plan for evaluation	0	4) Encourages teacher to plan implem't'n & eval'n and commit to these	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Seeks or accepts principal's solution	0	1) Selects own solution	0
2) Seeks or accepts principal's suggestions regarding goals & objectives	0	2) States the rationale for own solution	0
3) Seeks or accepts principal's implementation plan	0	3) Sets goals and objectives	0
4) Seeks or accepts principal's evaluation plan	0	4) Imposes implementation plan and selects evaluation method	0

TABLE 4.11 SUMMARY OF FREQUENCY DATA: CATEGORY 3 RESPONSES AND BEHAVIOURS IN DYAD #1 POST-WORKSHOP CONFERENCE

TEACHER: AUTONOMOUS BEHAVIOUR		PRINCIPAL: "READING" AND "FLEXING" TO "PULL"	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Proposes a set of alternative solutions to problem	1	1) Probes & clarifies to encourage teacher's generation of solutions and alternatives	1
2) Selects preferred solution and sets goals and objectives	1	2) Encourages teacher to explore and select from alternative solutions by considering consequences	1
3) Suggests plan for implementation	0	3) Encourages teacher by questioning to consolidate ideas in the setting of goals and objectives	0
4) Suggests plan for evaluation	0	4) Encourages teacher to plan implem't'n & eval'n and commit to these	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Seeks or accepts principal's solution	1	1) Selects own solution	2
2) Seeks or accepts principal's suggestions regarding goals & objectives	0	2) States the rationale for own solution	1
3) Seeks or accepts principal's implementation plan	0	3) Sets goals and objectives	0
4) Seeks or accepts principal's evaluation plan	0	4) Imposes implementation plan and selects evaluation method	0

Dyad #2 teacher's autonomous behaviour. The frequency data displayed in Table 4.12 reveal evidence to suggest that Helen's responses provided only negative indications regarding autonomous behaviours for problem solving. Analysis of the data revealed further evidence to suggest that Helen's responses may have been associated with Hugh's behaviours. The data show that Hugh performed only negative behaviours with regard to "reading" and "flexing" to "pull" Helen towards functioning at her high conceptual level. The analysis of the frequency data also suggest that the absence of responses indicating Helen's autonomous behaviour, shown in Tables 4.12 and 4.13, was associated with the absence of behaviours indicating Hugh's efforts to "pull" Helen's conceptual functioning toward the high level that would match her capability.

Concluding Comments Regarding the Analysis of Frequency Data

The instruments used for the collection of frequency data were not designed to collect data for which validity could be established, nor was there any intention in this study to claim reliability of the instruments. It was hoped that data collected with the instruments would provide a rough picture of patterns of subjects' interactions for each stage of the conceptual model - a picture that could be clarified and, if necessary, corrected by comparing it to the transcription data. However, it only seemed possible to collect sufficient data to form a rough picture regarding the teachers' comfort and confidence. Because the observed responses and behaviours rarely matched those predetermined as indicators regarding active involvement and autonomous behaviour, it

TABLE 4.12 SUMMARY OF FREQUENCY DATA: CATEGORY 3 RESPONSES AND BEHAVIOURS IN DYAD #2 PRE-WORKSHOP CONFERENCE

TEACHER: AUTONOMOUS BEHAVIOUR		PRINCIPAL: "READING" AND 'FLEXING" TO "PULL"	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Proposes a set of alternative solutions to problem	0	1) Probes & clarifies to encourage teacher's generation of solutions and alternatives	0
2) Selects preferred solution and sets goals and objectives	0	2) Encourages teacher to explore and select from alternative solutions by considering consequences	0
3) Suggests plan for implementation	0	3) Encourages teacher by questioning to consolidate ideas in the setting of goals and objectives	0
4) Suggests plan for evaluation	0	4) Encourages teacher to plan implem't'n & eval'n and commit to these	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Seeks or accepts principal's solution	2	1) Selects own solution	2
2) Seeks or accepts principal's suggestions regarding goals & objectives	0	2) States the rationale for own solution	2
3) Seeks or accepts principal's implementation plan	1	3) Sets goals and objectives	0
4) Seeks or accepts principal's evaluation plan	1	4) Imposes implementation plan and selects evaluation method	1

TABLE 4.13 SUMMARY OF FREQUENCY DATA: CATEGORY 3 RESPONSES AND BEHAVIOURS IN DYAD #2 POST-WORKSHOP CONFERENCE

TEACHER: AUTONOMOUS BEHAVIOUR		PRINCIPAL: "READING" AND "FLEXING" TO "PULL"	
RESPONSE	Total	BEHAVIOUR	Total
<u>POSITIVE</u>		<u>POSITIVE</u>	
1) Proposes a set of alternative solutions to problem	0	1) Probes & clarifies to encourage teacher's generation of solutions and alternatives	0
2) Selects preferred solution and sets goals and objectives	0	2) Encourages teacher to explore and select from alternative solutions by considering consequences	0
3) Suggests plan for implementation	0	3) Encourages teacher by questioning to consolidate ideas in the setting of goals and objectives	0
4) Suggests plan for evaluation	0	4) Encourages teacher to plan implem't'n & eval'n and commit to these	0
<u>NEGATIVE</u>		<u>NEGATIVE</u>	
1) Seeks or accepts principal's solution	0	1) Selects own solution	0
2) Seeks or accepts principal's suggestions regarding goals & objectives	0	2) States the rationale for own solution	0
3) Seeks or accepts principal's implementation plan	0	3) Sets goals and objectives	0
4) Seeks or accepts principal's evaluation plan	0	4) Imposes implementation plan and selects evaluation method	0

was difficult to form even a rough picture of these two stages. During observation of the videotapes, evidence regarding the teachers' active involvement and autonomous behaviours seemed to be present. However, the responses and behaviours that seemed to contain this evidence were different from those described by the indicators of active involvement and autonomous behaviour described in the data collection instruments. However, this evidence supported rather than refuted the existence of the second and third stages postulated in the conceptual model: the problem was not that the categories of active involvement and autonomous behaviour had been predetermined incorrectly; but rather that the sets of responses and behaviours which had been predetermined as indicators for these categories were not representative of all types of responses and behaviours that appeared to offer evidence of active involvement and autonomous behaviour.

Suggestions made on the basis of the small amounts of frequency data it was possible to collect, seemed to have little value even for the formation of rough pictures of the teachers' active involvement and autonomous behaviour. This problem with the frequency data seemed to increase the importance of the transcription data. Instead of being needed just as a validity check and source of further qualitative data as originally anticipated, the transcription data were now required to be the major source of information regarding the new evidence of active involvement and autonomous behaviour which could not be recorded on the basis of the predetermined indicators.

The transcription data were carefully examined for the new kinds of evidence. However, because of the large volume of both the transcription data and the emergent evidence, it appeared that analysis

of all the data and the presentation of findings would be impractical. Thus, to make these tasks more manageable, a preliminary analysis of the transcription data was performed in order to extract sets of data that could facilitate analysis for new evidence regarding teachers' active involvement and autonomous behaviour.

PRELIMINARY ANALYSIS OF TRANSCRIPTION DATA

During this analysis, it was found that both dyads addressed time management as a concern. Two aspects of time management were addressed by both Dyad #1 and Dyad #2: organizing time-efficient lesson openings; and organizing time-efficient performance of routine tasks. An additional concern for Dyad #1 was how to revitalize lesson endings when they appeared to be in danger of becoming wasted time. The interactions relevant to these concerns appeared to contain data that could be extracted and provide a basis for the analysis of transcription data. The time management concerns were selected for three reasons: (1) for both dyads, time management was a concern that evoked sufficient interaction to act as a rich source of data; (2) it seemed useful to compare data regarding a concern held in common by both dyads; and (3) for Dyad #2, time management was the only concern that arose in both conferences and involved more than one interaction.

In order to acquire data from the transcription excerpts that might eventually facilitate a comparison of new evidence regarding the teachers' responses and the three stages of the conceptual model, it seemed necessary first to gain a clearer understanding of the substantive content of the conference sections relevant to each dyad's

time management concerns. The purpose of the remainder of this section is to present the findings for the analysis of the substantive content of each dyad's time management concerns and sections of the conferences related to these concerns. The intention is for this information to be helpful as a source of reference, in forthcoming chapters, for presentation and discussion of the findings from the transcription data analysis regarding subjects' comfort and confidence, active involvement, and autonomous behaviour during conference sections related to time management concerns. The results of the analysis of the substantive content of their respective time management concerns are presented first for Dyad #1, and second for Dyad #2.

Dyad #1 Time Management Concerns

During her stimulated recall interview, Lorna, the LCL principal in dyad #1, mentioned that during their pre-observation conference she and Luke, the HCL teacher in dyad #1, had selected eight areas for observation. When Lorna named these areas, she did not mention time management. However, organization was one of the areas named, and it appeared that while observing Luke's lesson organization, Lorna had noted some details of his time management.

During the post-observation conferences, Lorna's references to time management issues were presented within two distinctly different types of feedback. The two types seemed distinguishable from one another according to differences in purpose. The purpose of the first type seemed to be restricted to the provision of positive, supportive feedback in the form of praise. The purpose of the second type seemed to

be investigative: Lorna seemed to be requesting Luke to clarify her understanding of events she had observed and of his related classroom behaviours.

Within the two conferences, Lorna referred to three specific time management issues. The interactions related to these issues occupied only small sections of the conferences. However, a fourth time management concern which was introduced by Luke occupied a fairly large section of the second conference. Luke revealed his own concern about a specific aspect of his time management, and he actively sought Lorna's guidance in solving the problem. Luke made a briefer reference to the same concern during the first Dyad #1 conference. The findings and discussion regarding the substantive content of the time management concerns and related conference sections will be addressed for the Dyad #1 pre-workshop and post-workshop conferences separately.

Dyad #1 pre-workshop conference. To begin the first conference, while praising the manner in which Luke's pupils entered the classroom and quickly settled down to work, Lorna seemed to be commending the time efficiency of Luke's lesson opening. Lorna enquired whether Luke always gave pupils an opening activity similar to the quick drill that he gave to begin the lesson she observed. In response, Luke described his regular opening activities and his rationale for their use. Luke's reply seemed to enable Lorna to ascertain that Luke consciously used the opening activity so that his pupils "can get right down, right into it" (1:95).

Lorna seemed to be at least partly concerned about time management when she enquired about Luke's system of organization whereby he

required his pupils to come up to him and collect their individual sheets. She said,

"it didn't seem to be a problem, um and I don't know why because it quite often can be sort of chaos when they've all got their sheets and everybody's looking for them and that sort of thing. Were they clearly labelled or ...?" (1:588-592).

Despite her concern, she appeared to accept Luke's explanation of his reasons for this procedure, and did not encourage him to continue thinking about the problem during the conference.

Toward the end of the conference, Luke's reflections on one of Lorna's observations seemed to arouse his own concern about an aspect of his time management. Lorna had remarked about Luke's reinforcement of his expectations for pupils' behaviour when they were given freer time during the latter part of the lesson. Among her remarks, Lorna included the observation that Luke had told pupils it would be pack-up time if they were not on task, and she enquired, "I just wondered have you ever had to do that?" (1:551-552). Luke replied, "Yes" (1:553) and proceeded to reflect on how he had needed to ask students to pack up early not only on occasions when they seemed to have lost interest, but also at times when he had completed his lesson plan before the lesson time expired. Luke followed this reply with further reflections that seemed to indicate that whereas he was unwilling to fill these empty times with unproductive activities, he was needing to find some ways of filling the times usefully. By verbalizing her understanding of his comments, Lorna seemed to encourage Luke to continue his thinking about the problem. However, she gave him no time to do so within the first conference. However, the problem emerged again among the time concerns that were discussed in the Dyad #1 post-workshop conference.

Dyad #1 post-workshop conference. Using an opening similar to that of their first conference, Lorna began the second Dyad #1 conference by praising Luke for his efficient preservation of time at the start of his lesson. She noted how he "proceeded very, very easily right into, right into the drill and ... [the students'] response was very, very task oriented" (2:23-25). She remarked on how Luke also saved time by not getting "into a state about the kids listening [to instructions]" (2:27-28). In response to this feedback, Luke explained in detail the methods whereby he believed he had impressed upon pupils the important message that when "instructions are being given you better [listen] first time round" (2:38-39).

Later in the conference, while describing her observations of Luke's handling of two transition times, the positive tone of Lorna's carefully detailed feedback suggested her approval. Lorna noted how Luke "laid out expectations for a change...told them what [he was] going to do and ... said 'two minutes and then we begin'" thereby giving them time "to get ... themselves organized" (2:772-776). Luke responded by explaining how he had developed his method of managing transition times. In his precise explanations, there seemed to be evidence that Luke had used thoughtful reflection to solve independently some problems that he had experienced previously during transition times. Luke mentioned how he had found that after his own transfer from secondary to elementary teaching,

"I was so often on the kids all the [time], like there's too much noise, too much commotion, and I was trying well how do you get this from one activity to the next ... I thought, well I won't worry about what they're doing in between the activities

essentially, in fact rustle all the papers you like, if you have to get out of your seat, but you better be ready" (2:137-144).

When Lorna had completed her feedback from the lesson observations, Luke volunteered some information about a time management problem he had experienced after Lorna had left his classroom. He admitted that his "lesson just fell apart in the last seven minutes" (2:612), because the students seemed to have "had it, the day was over!" (2:1280). Luke stated that the students' mood was not suited to what he had prepared for the last part of the lesson. Thus, he admitted to having had the same problem to which he had alluded in the first conference; i.e., the difficulty of transforming the end of a lesson into productive time when the original lesson plan has failed in this regard. By making comments that indicated she was attending to his information, Lorna seemed to encourage Luke to continue reflecting on the problem. When he did not appear to be nearing any solutions, Lorna made a tentative suggestion. Luke responded to Lorna's suggestion with interest and managed to convert it independently into a solution which could fit his own personality and teaching style.

Lorna and Luke made only the one attempt during either of their conferences to seek possible solutions for a time management problem. Even within this attempt, they did not progress beyond the stage of beginning to select a preferred solution to the problem from among alternatives. Lorna did not encourage Luke to plan either implementation or methods for evaluating the success of any his implementation efforts regarding his suggested solutions. Furthermore, Luke did not propose any such plans. In the Dyad #2 conferences, however, problem solving did not progress very far for any of the teacher's time management concerns.

Dyad #2 Time Management Concerns

The videotape dialogue indicates that during a pre-conference, Hugh, the M/HCL principal in Dyad #2, and Helen, the HCL teacher in Dyad #2, had decided they would concentrate on three objectives for teacher growth. None of these was time management. Nevertheless, during their first principal/teacher conference, Helen indicated that she had substantial concerns about her "sense of timing" (1:26.5-27). During both the pre-workshop and post-workshop conferences, Helen's statements implied that she was anxious to improve her management of lesson time.

Dyad #2 pre-workshop conference. As part of her response to Hugh's opening enquiry into how she felt about the lesson, Helen revealed her time management concerns. She expressed her dissatisfaction with several features of her lesson. Among these was her failure not only to find enough time during the observed poetry lesson to include all the activities that she had planned, but also to pull "the lesson to a proper conclusion" (1:30). Hugh responded with the recognition that "we just simply ran out of time" (1:40), and his tone suggested he saw little need for concern. Furthermore, Hugh implied that he believed the conference discussion should focus only on their previously identified objectives, and he stated "I don't want to talk about summarizing and those aspects...at the present moment" (1:40-43).

Although she had to bide her time, Helen seemed to seize the first possible opportunity to reinstate discussion of her time management concern. When Hugh seemed satisfied that discussion of their original objectives was complete, he asked Helen if there was anything else she

wanted to discuss. By responding with a resumption of her reflections upon possible causes of shortage of time in her lesson, Helen reminded Hugh immediately of her time management concerns. She speculated that her lesson might have begun more satisfactorily if she had "shut down the [noon hour] gym game, put the scores up and started the lesson with a little less haste" (1:249.5-251). Helen continued by explaining that her unsatisfactory lesson start was a common occurrence. She had not believed it appropriate to attempt to disguise this situation while being observed by her principal. Hugh responded by assuring Helen that "I appreciated that ... I didn't find you to be ... acting at all differently than what I thought you might normally do" (1:254-256). In addition, he implied again his preference for them to set aside Helen's time concerns and to concentrate on the selected objectives. Hugh said, "I think that it is easier for us to get at those things that you would like to see, um yourself improve in" (1:266-268) and that "sometimes we lose when we're not focused in on what we're trying to include" (1:266-268).

In his first stimulated recall interview, Hugh seemed to give further evidence of the importance he attached to concentrating on the agreed upon objectives during conferences. While implying his satisfaction with the conference, Hugh said, "I think that [Helen] and I were able to say exactly what we wanted to say to each other and we covered the ground that we decided...." (1:394-396).

Between the pre-workshop conference and the post-workshop conference, according to Hugh's statements in his second recall interview, he and Helen did not have any formal conferences. However, Hugh mentioned that "informally we have talked on many occasions because

she and I run in the endowment lands two or three times a week" (2:444-446). However, he did not indicate that Helen's time management concern was ever discussed during the informal talks. The issues which Luke said he had broached in these informal sessions seemed to have no connection to time management. Neither Hugh nor Helen indicated during their respective recall interviews that the time management problem was ever discussed again before their post-workshop conference.

Dyad #2 post-workshop conference. Hugh explained, in his second recall interview, that he envisaged the second conference as "the summation of the material" and "more of a congratulatory type" (2:436-437). Indeed, most of his comments during the second supervision conference were congratulatory. However, it was Hugh who raised Helen's time management problem in this second conference, and he did so by giving negative feedback. Hugh remarked to Helen that if he had any criticism of her lesson, it was

"that again you probably ran out of time and there was no pulling of the lesson together at the end where I think that, that's really a good quality in a lesson if it can be pulled together in the end because I think it helps solidify the learning that's taken place" (73-76).

In response, Helen immediately agreed with Hugh by saying:

"I quite agree...I did want to give them time to do this that and the other... and you're right it's not properly drawn to a close" (80-89).

Following this agreement with Hugh's observation, Helen continued by reflecting on some of the ways in which she had been attempting to find time in her lessons to include all the activities she planned. Twice

during Helen's reflections, Hugh appeared to persuade Helen that her time management problems were less serious than she thought. Once, Hugh seemed to imply that the length of the lesson was the problem. However, Helen persisted with her reflections. She began to contemplate methods for concluding noon hour gym activities more efficiently, so she could improve the starting of her lessons. Quite suddenly, a suggestion Helen made about noon hour team scoring seemed to prompt Hugh to ask her for a description of the scoring methods she used in a team system he had seen her employ for classroom management. Following this request, the conference discussion digressed from Helen's attempts to begin solving her time management problems. Helen did not appear to seek an opportunity to resume her efforts. One of Hugh's comments during his second stimulated recall interview implied that he did not pursue Helen's time management concern in this second conference because "immediately she agreed [that there was a problem] so there wasn't much debate...." (2:482-484).

Concluding Comments Regarding Time Management Concerns

The analysis of the substantive content of the time management concerns and of the conference sections related to the concerns revealed several variations in the ways in which these concerns were introduced and received in the conferences. For Dyad #1 most of the concerns were introduced by the principal, who seemed either to be searching for evidence that the teacher had thought out related procedures or to be intimating that the teacher should consider further problem solving. However, in neither case, did the principal seem to indicate that she

expected problem solving for these concerns to take place during the conference, nor did the teacher respond by pressing for opportunities to problem solve within the conference. The Dyad #1 teacher introduced one time management concern and implied that he needed some help to solve his problem. The Dyad #1 principal responded by helping the teacher to think of some alternative solutions for the problem. In contrast, when the Dyad #2 time management concerns were introduced by the teacher, the principal did not respond with behaviours that encouraged the teacher to problem solve. Even when the Dyad #2 teacher introduced the concern, the principal exhibited a preference for not addressing the concern as a problem requiring a solution.

Despite the disparate methods whereby time management concerns were introduced and received in the conferences, most of the sections of the conferences relevant to the concerns seemed to share an important characteristic: they often seemed to contain little evidence of dyad members' interactive behaviours suggesting the intention to proceed very far with problem solving within the conferences. This characteristic of the sections relevant to time management concerns was typical of other sections of the conferences.

SUMMARY

The two part preliminary analysis included first, an analysis of the frequency data and, second, a preliminary analysis of the transcription data. Analysis of the frequency data for the first stage of the conceptual model revealed evidence to suggest tentatively that each teacher's comfort and confidence were associated with his/her

principal's supportive behaviours. In contrast, the analyses for the second and third stages of the model were unable to reveal sufficient evidence for making even tentative suggestions of associations between teachers' responses and principal's behaviours. Moreover, these analyses revealed that the teachers' responses indicated little active involvement or autonomous behaviour. The analyses seemed unsatisfactory because of the sparse amounts of data collected by the instruments designed to record the frequency with which teachers' responses matched predetermined indicators of teachers' active involvement and autonomous behaviour, and with which principals' behaviours matched predetermined indicators of principals' challenging and "pulling" of the teachers' conceptual level, analysis of these data was difficult.

The sparsity of data seemed to be caused by the predetermined indicators, which appeared to inhibit rather than to help data collection. Although few of the teacher's responses and principals' behaviours that were observed in the supervision conference videotapings matched the predetermined indicators, many of the observed teachers' responses and principals' behaviours seemed to constitute other kinds of evidence regarding active involvement and autonomous behaviour. Because the responses and behaviours involved in this other evidence did not match the predetermined indicators, they could not be recorded among the frequency data. Thus, because of the predetermined indicators, the frequency data appeared to be an incomplete source of evidence regarding teachers' active involvement and autonomous behaviour.

As a result of the emergent need for new sets of data to help reveal the evidence that the frequency data analysis was unable to uncover regarding the second and third stages of the model, the

transcription data were required to fill a more important role in the study than had been anticipated. However, because the large amount of transcription data presented some practical problems for both data analysis and presentation of findings, a preliminary analysis of the transcription data was performed for purposes of identifying sections of the conference which contained rich sets of data and could be extracted for purposes of analysis. The sections of the transcriptions which contained dialogue regarding interactions relevant to the teachers' time management concerns were extracted as a result of the preliminary analysis. These sections were chosen mainly because they were rich sources of data, but also because time management was a concern held in common by both dyads and, thus, seemed to increase the chances of comparability between findings for Dyad #1 and Dyad #2. Presentation and discussion of the findings from the analysis of the transcription data for evidence regarding the teachers' comfort and confidence, active involvement, and autonomous behaviour will be presented in the next three chapters.

Chapter 5

TEACHERS' COMFORT AND CONFIDENCE

The purpose of this chapter is to present and discuss the findings from the first stage in the analysis of the transcription data. The first stage of this analysis and both the second and third stages, which are presented in Chapters 6 and 7, were unlike the three stages of the frequency data analysis because of three distinct differences between that analysis and the transcription analysis. The first difference was in the sources of data: the data for the frequency analysis were obtained only from observing videotapes of the supervision conferences, whereas the data for the transcription analysis were obtained from transcriptions of the dialogue contained in both the teachers' and principals' stimulated recall interviews with the principal investigator, and the sections of the supervision conferences that stimulated the recall. The second difference was in the data collection methods: frequency data were collected by means of predetermined indicators, that is, by questioning whether responses and behaviours appeared like the indicators and, if so, how frequently; but, in contrast, data from the transcriptions were allowed to emerge by asking "What do the teachers' responses and principals' behaviours look like?" rather than "do the responses and behaviours look like this or that?" The third difference involved the application of the three categories of teachers' responses and principals' behaviours from the three stages of the model: whereas analysis of the frequency data was guided by

predetermined categories, the analysis of the transcription data was not; the transcription data analysis sought to find whether the emerging information regarding the teachers' responses and the principals' behaviours suggested these could fit into the categories postulated by the model and, if so, whether or not the responses and behaviours suggested new evidence regarding the categories.

This first stage of the transcription data analysis, like that of the frequency data analysis, also addressed research sub-question 1.1 and the first stage of the conceptual model. That is, data were analyzed for evidence of whether the responses of Helen, the Dyad #2 HCL teacher, who was paired with Luke, the M/HCL principal, indicated that she experienced greater comfort and confidence while being supervised than did Luke, the Dyad #1 teacher, who was paired with Lorna, the LCL principal. For the most part, this analysis revealed evidence to support, clarify, and add to findings from the frequency data analysis; however, it also uncovered evidence to refute two of the previous findings. Despite these distinctions between the two sets of findings, similarities between them were sufficient to suggest that presentation and discussion of findings from the analysis of the transcription data for each supervision conference could be classified under two headings which reflect three of the indicators used for the collection of frequency data: (1) teacher's positive, hopeful, and interested attitude; and (2) teacher's open and trusting attitude.

The remainder of this chapter comprises the presentation and discussion of findings from the first stage of the transcription data analysis and is divided into three sections. The first two sections contain presentation and discussion of findings from the analysis

regarding the teacher's comfort and confidence for each dyad. The third section compares the two dyads in terms of the teachers' comfort and confidence.

DYAD #1: TEACHER'S COMFORT AND CONFIDENCE

As a result of asking the question, "What do the teachers' responses and principals' behaviours look like?" rather than, "Do they look like this or that?" the data which emerged from the Dyad #1 transcription revealed evidence distinct from that revealed by the frequency data. The transcription data supported and clarified the frequency data, and revealed new evidence regarding the second, third, and fourth indicators of Category 1 responses. The presentation and discussion of the findings from the transcription data are addressed for the Dyad #1 pre- and post-conferences separately.

Teacher's Comfort and Confidence in Pre-Workshop Conference

Most of the transcription data regarding the teacher's comfort and confidence in the Dyad #1 pre-conference supported, clarified, and added to frequency data regarding both the teacher's positive, hopeful, and interested attitude, and his open and trusting attitude. Thus, presentation and discussion of the findings are classified under the two headings which were described in the introduction to this chapter.

Positive, hopeful, and interested attitude. During his first stimulated recall interview, with reference to occasions such as that

when Lorna carefully described her observations of Luke's management of start-up time, Luke stated his belief that Lorna's attention to detail helped him to believe that she "may have some important things to tell me" (1:175-176). He revealed evidence of his positive reaction to the accuracy of Lorna's observations when he explained:

"you feel that she's very interested in what was going on in that room...just by the amount of detail...she can refer to and recall. You know she wasn't in just kind of glancing around....I think that's very important as far as I'm concerned then she may have some important things to tell me, either positive or negative...." (1:167-176)

This explanation suggests that Luke believed he had reason to be hopeful that Lorna's observations would provide useful information. These transcription data differ from the frequency data because they provide additional evidence that Luke was hopeful. Following Luke's explanation of Lorna's attention to detail, he mentioned that much of her feedback was positive, and he described two reasons why this was important to him:

"she's very quick to point out the positive things and you know most of I think what I recall were um fairly positive kind of things so you know it's always great to get those kinds of strokes. But I'm always more willing then to receive something like if she said 'There's this part that didn't seem ... to fit' or, 'Why did you do that?' I'd be much more willing to really have a hard look at that" (1:177-184).

These remarks about Lorna's feedback contain evidence which support and clarify the frequency data by suggesting that her behaviours may have been among reasons why Luke never responded negatively during the conference. Support for this suggestion seemed apparent in some of Luke's later, recall interview comments which implied that retention of

his positive attitude was associated with Lorna's methods of providing feedback.

Luke noted that when Lorna observed events that made her "confident [he's] done something with a particular positive purpose, and she's recognized that it worked well" (1:268-270), then she offered her feedback in a definitely positive way. However, he remarked that if Lorna is "not sure whether [Luke] is aware" of "something she's noticed" or "she is not sure whether [something she had observed] is purposeful" (1:273-278), then her feedback is "offered in a neutral way" (1:275). Luke's descriptions of the "neutral way" seemed to be exemplified in the feedback which Lorna gave when, in addition to providing descriptions of her observations, she probed for information about Luke's organization and time management for the distribution of pupils' worksheets. In his recall interview, Luke interpreted Lorna's behaviour in this incident by suggesting that she had "a little bit of concern ...for how it was done" (1:622-623) but "she hasn't been that strong to say 'you should have done it a different way'" (1:620-621). Luke stated that Lorna showed enough concern to make him think "perhaps I could have done it in an easier way" (1:624-625), but he believed that at the same time she seemed to be "respecting that, [he's] probably thought about how to do [it]" (1:628). Luke's reaction suggested that this "neutral" feedback provides him with comfort and confidence. He said:

"I left that conference [with the belief] that I don't have to change that. But that I will think about it and [if] that's the way [I] like to do it [I may] go ahead" (1:636-638).

The evidence revealed in these comments suggests that Luke derived comfort and confidence from his perception of Lorna's respect for his

ability to think for himself. Moreover, it suggests that Luke felt positive, hopeful, and interested in a situation which allowed him autonomy and thereby offered support for his high conceptual level. This evidence and that which follows adds new information that was not found in the frequency data.

During his recall interview, Luke's recognition of Lorna's habit of holding up a mirror so they could both give their "views of what was going on" and, therefore, both become "more aware of what's going on" (1:446), prompted him to pass remarks containing evidence to suggest that Lorna's offering of opportunities for him to become involved in analyzing issues was important to his comfort and confidence. In these remarks, Luke revealed that he regarded Lorna's use of the "mirror" as a sign that she was "respecting [his twenty years of] experience and saying well we're ... equals on this basis" (1:437-438). This evidence of both Luke's comfort and confidence in association with the "mirror" and his perception of the opportunities the "mirror" provided for him, suggests that he felt positive, hopeful, and interested in a situation which supported his high conceptual level by offering him an opportunity for active involvement. Luke's discernment of Lorna's respect for his abilities and experience may have been one of the factors with which his open and trusting attitude was associated.

Open and trusting attitude. Toward the end of the conference, in his reflections upon the endings of his lessons, Luke revealed that he was unsure of how to manage "dead" time which occurs when the activities planned fail to fill the whole lesson. His description of events to illustrate this problem, demonstrated Luke's open and trusting attitude:

"the lesson's over this is what I had planned, and I tell them ... 'Look this is all I have planned today and if you can't handle it I've got nothing else for you to do.' I don't pull out ... fifty-eight, you know, division questions. Forget it! It's done! ... I don't like to use what I'd like them to be working on as if it's like a punishment" (1:557-567).

In his stimulated recall interview, Luke's remarks included evidence which supported and clarified the suggestion derived from the frequency data that his openness may be associated with Lorna's behaviours. For instance, Luke stated that if Lorna "were to start telling me how to do something without me asking for it" (1:442-443) instead of offering "the mirror" for them both to look in together, "it would just close down the openness" (1:456-457). Luke explained that Lorna's neutral approach encouraged him to "remain open" because he was "not feeling that somebody's trying to lay some either small or big trip on [him]" (1:458-459).

Luke declared himself to be a person who is "generally pretty at ease anyway" (1:290), and implied that he is "assured of [himself]" (1:293). In these claims, Luke revealed evidence to suggest he was functioning at a high conceptual level, and that his openness and trust was associated with personal characteristics linked to his conceptual level. Nevertheless, by implying that, on occasions which did not merit positive feedback, he would have stopped being open and trusting if Lorna had used a "negative" tone, he seemed to suggest that in spite of his own confidence, Lorna's behaviours were important to his retention of openness and trust. Evidence of this was revealed when Luke explained that unless information is given back to the teacher in a "neutral" rather than a negative tone,

"the teacher ... is either going to try and defend something which they really aren't prepared to defend ... maybe they had no reason for doing it but they feel somehow that they better defend this ... or [they will agree] that something is negative when perhaps they don't really think that it is negative or an important thing, just to ... jump on side with the principal" (1:306-314).

Luke never responded defensively or compliantly in either his pre- or his post-workshop conference. During his first recall interview, when an event in which Luke perceived Lorna to be holding up the "mirror" for him apparently stimulated him to declare "you know at this point I'm pretty positive about what's happening" (1:463-464), Luke provided further evidence to suggest he associated his positivity with Lorna's behaviours.

Teacher's Comfort and Confidence in Post-Workshop Conference

Findings from the transcription data analysis for the Dyad #1 post-workshop conference revealed an increase of Luke's trust in Lorna. During his second stimulated recall interview, Luke's comments suggested that he had an even clearer perception of the factors which he associated with the retention of his comfort and confidence. Although most of the transcription data supported, clarified, or added to the frequency data, one of the additions suggested a point of disagreement. The findings and discussion for the analysis of Luke's responses indicating his comfort and confidence during the second Dyad #1 conference are presented under the same headings as those used for the first conference.

Positive, hopeful, and interested attitude. In his concluding remarks for his second recall interview, Luke seemed to imply that the interest he displayed in the supervision process was a response to the interest Lorna indicated through her detailed and positive feedback. He said:

"I think she looks on [supervision] as a chance to see some teaching. She tells me that she is excited by the kinds of things that she sees, not just in my room ... that she enjoys that opportunity, and I enjoy the opportunity to be able to talk to someone that I think is a professional about what I'm doing. [Someone] who is not testing me, testing in all sorts of ways. I've pretty short patience with somebody that's just doing their paper work. I'll let them record whatever they want to record and ... go away and be satisfied they've got enough paper" (2:672-683).

Lorna's own stimulated recall comments on the feedback she gave Luke about his efficient use of time in his opening activity, suggest that Luke's response was as she would have wished it to be, for she stated:

"in an interview you seem to be going over the obvious, but I think you always have to remember ... that the person who was doing the work is not in a position always to see some of those things.... I think most of us ... have teachers doing a really good job and they often don't know ... what's good about it. I think in an interview one of the things that you need to do is point out those very, very specific things" (2:1204-1221).

When combined, Lorna's and Luke's comments support and clarify the association between Luke's responses and Lorna's behaviours suggested by the frequency data. The comments seem to imply that there may be an association between Luke's feelings of comfort and confidence and Lorna's provision of an opportunity for them to clarify collaboratively their understanding of areas of concern. Analysis of the transcription data revealed evidence to suggest that supervision had become a collaborative activity for Luke and Lorna.

In Lorna's opening feedback regarding the efficient way in which Luke had proceeded into his lesson's opening activity, Lorna characteristically demonstrated accuracy in her descriptions by including specific details of observed events. In his response, Luke volunteered information about the rationale and the development of his time saving methods of giving instructions. By so doing, Luke seemed to be reacting to his inference of Lorna's interest not only by attempting to clarify her understanding of the situation, but also by displaying his own interest in the issue. The willingness displayed by Luke in this offer of extra information may also have been associated with Lorna's frequent habit of reflecting his comments, and thereby demonstrating her interest in his information. During the recall interview, on being reminded of Lorna's comments about his lesson opening, Luke reacted by pointing out another collaborative aspect of the Dyad #1 conferencing.

Lorna's comments about Luke's timing and the opening events of his lesson, stimulated Luke to reveal that he perceived Lorna to be reinforcing some of her own goals. He explained that

"probably for her a task oriented atmosphere is something that she wants to promote in this school. I'm doing it. Keep doing this - she made this point pretty clear. She likes that. You're well organized, the kids look well organized, they're getting on with the job. Keep doing that...Here are some agenda items that I have, that I want to make sure that you continue because I firmly agree with those things" (2:81-97)

Immediately afterwards, however, Luke also noted that his opening activity included a time management feature that Lorna "wouldn't allow" (2:91) in her own classroom, yet "she's letting me know very clearly that ... that's a difference we may have but I can see your point of view and it seems to work very well" (2:91-95). While Luke continued to

elaborate, he seemed to demonstrate comfortable feelings about this reciprocity; that is, his own and Lorna's willingness to accept each other's beliefs about teaching methods.

Luke also noted his appreciation of how Lorna gives praise whenever it is due. He stated that "She sees something good she says that it's good" (2:130-131), and this was evident when, during the conference, Lorna reported her observations of Luke's efficiency in managing time during transitions in his lesson. Luke responded to this occasion of Lorna's praise with openness and interest, which was shown in his explanation of how previous reflections had enabled him to develop his current system of managing lesson transitions.

The transcription data analysis revealed evidence to suggest not only that Luke's comfort and confidence were associated with Lorna's positively supportive behaviours, but also why Lorna's habit of prolonging her contributions to the dialogue did not elicit any form of negative response from Luke. The transcription data seemed to refute the frequency data that counted this behaviour as negative. When Lorna's share of an interaction was prolonged, the cause often seemed to be her habit of reporting in detail. This may partly account for why this "negative" behaviour did not appear to interfere with Luke's comfort and confidence. On the contrary, according to his own statement in his recall interview, Luke felt sufficiently comfortable and confident when Lorna had finished presenting her observations that he made a conscious effort to demonstrate his trust and his appreciation for her support.

Open and trusting attitude. Luke demonstrated extreme openness in his method of "trying to indicate to [Lorna] that [he] appreciate[d] her

very professional approach to observation" (2:601-602). Luke explained that he decided to admit to Lorna that the last seven minutes of his lesson were wasted, and to indicate to her that he needed to develop ideas on how to avoid "dead" time at the end of lessons. Evidence that Luke's openness was an intentional response to Lorna's support extended far beyond any evidence obtainable from the frequency data, and is shown clearly in his stimulated recall of the event:

"I'm going to reveal to her some weakness in what happened after she had left the room...I think it's important for her to know that I've got confidence in her. So alright I'm going to do that by laying myself open a bit here and say look the lesson just fell apart in the last seven minutes. now I'm going to give ... well I want some help for one thing, but I'm going to give her the opportunity to take that position of being someone that can provide me with some help" (2:603-616).

The principal investigator recollected that Luke had volunteered information similarly during an earlier incident in the conference, and asked whether this occasion was also an indication that Luke was feeling comfortable. Luke agreed that his response on that occasion did indicate his comfort. The reference to the occasion prompted Luke to recall, with regard to Lorna's observation of his lessons, that he had "confidence in what she was doing ... that she was [not] there because well you have to do these things every now and again ... and have to go check out the room" (2:658-662).

The openness in Luke's attitude during his demonstration of appreciation for Lorna's professional manner seemed to display not only his comfort and confidence, but also his desire to encourage Lorna to continue the behaviours which he found supportive. Further evidence of this desire seemed to be revealed by some of Lorna's statements. During her second stimulated recall interview, Lorna stated that, following

their conferences, Luke had given her positive and valuable feedback on her observation methods and her conference behaviours. She noted that she found it useful to have been told by Luke that he was "delighted with" how she "saw so many more things than he felt [anyone] has ever seen before" (2:1580-1581).

Summary of Dyad #1 Teacher's Comfort and Confidence

Evidence revealed by the transcription analysis mostly seemed to support, clarify, and add to findings of the frequency analysis. In one instance, however, the transcription data seemed to contradict the frequency data. Evidence suggested that the comfort and confidence displayed in Luke's responses were associated with certain of Lorna's behaviours which he regarded as supportive. The behaviours to which Luke responded positively included both Lorna's carefully detailed feedback and her tendency to accept his ideas instead of requiring him to accept her own. It appeared that, in addition, Luke associated his comfort and confidence with both the opportunity for active involvement, which was provided by Lorna's "mirror" pictures; and the opportunity Lorna gave him to behave autonomously, which he believed to result from Lorna's respect for his experience and ability. The transcription data analysis also revealed that Luke's comfort and confidence were associated with his regard for himself as an assured person.

Comparison of the transcription data from the first and second conferences suggested that a collaborative and mutually respectful relationship which existed between Luke and Lorna was being strengthened over time. Luke's open admission of his time management problem and the

ensuing interactions at the end of the second conference seemed to exemplify this development. The mutual respect and collaboration that seemed evident during the Dyad #1 conferences was not apparent during the Dyad #2 conferences.

DYAD #2: TEACHER'S COMFORT AND CONFIDENCE

As was the case for Dyad #1, asking the question, "What do the teachers' responses and principals' behaviours look like?" rather than, "Do they look like this or that?" helped data to emerge from the Dyad #1 transcription data and to reveal evidence distinct from that revealed by the frequency data. The transcription data mostly supported and clarified, or added to, the frequency data, but also conflicted on one point. The presentation and discussion of findings from the analysis of the transcription data address each Dyad #2 conference separately.

Teacher's Comfort and Confidence in Pre-Workshop Conference

For the pre-workshop conference, it was difficult to obtain a clear picture of Helen's comfort and confidence from her recall interview comments. This was because of the caution she exerted in what appeared to be an anxious attempt to sound supportive of her principal. Helen frequently implied her belief that maintenance of her comfort and confidence was helped by Hugh's supportive attitude. However, some of her comments suggested that there may have been some aspects of Hugh's

behaviour about which she either preferred to remain non-committal or felt unable to explain. For example, among her closing comments, Helen stated:

"I saw [the conference] as a positive thing and I find Hugh an unthreatening kind of person so from that point of view it was the interview was ok" (1:421-423).

Further evidence that emerged from the complete analysis of the transcription data helped to clarify Helen's comment. The findings and discussion for the analysis of Helen's responses indicating her comfort and confidence during the Dyad #2 pre-workshop conference are presented under the same headings as those used the Dyad #1 conferences.

Positive, hopeful, and interested attitude. After he had opened the conference by commenting on Helen's lesson in a way that seemed designed to put her at ease, Hugh said to Helen, "I'd ... like to ask you how you felt about the lesson" (1:17-18). In her reply, Helen gave an assessment of her performance that indicated she was worried about her lack of achievement regarding two of the three objectives which she and Hugh had agreed upon during their pre-observation conference. In connection with her perceived poor performance regarding one of the objectives, increased student participation, Helen implied that it had been exacerbated by her poor "sense of timing" (1:27). Helen's reflections appeared to prompt her to describe some of the problems she had observed in her time management, including her failure to pull "the lesson to a proper conclusion" (1:30).

The thoughts Helen revealed while identifying her time management concern implied that she was anxious to improve in this area.

Nevertheless, she did not show signs of either frustration or loss of hope when Hugh reacted by stating in a gentle tone, "I don't want to talk about [time management concerns] so we'll leave that" (1:40-41). Instead, by listening intently to Hugh's feedback and suggestions regarding the dyad's three previously chosen objectives, Helen appeared willing to comply with Hugh's decision to abandon discussion of time management. On the basis of videotape observation, this response was recorded as compliant and, therefore, as negative, in the frequency data. However, the transcription data seemed to suggest that this coding was incorrect. When Helen seized the first opportunity to resume discussion of her time management concerns, she revealed a lack of willingness to comply with Hugh's decision to abandon a dialogue around them. Moreover, the interest displayed by Helen's occasional interruptions of Hugh's lengthy monologues in order to add information to clarify or amend his understanding of an issue, seemed to refute frequency data suggestions of Helen's compliance. The transcription data revealed instances when Helen's responses displayed interest in spite of Hugh's negative behaviours. Because the interest seemed to be produced on her own initiative, it appeared that these responses were associated with Helen's high conceptual level. These findings supported those suggested by the frequency data.

Upon re-introducing her time management concerns, by carefully reflecting on possible causes of her problem and by tentatively suggesting some solutions, Helen appeared to have retained hope that Hugh would help her to solve them. However, Hugh reacted to only one of Helen's remarks, that is, her explanation that while observing the problem in her transition from ending noon hour games to starting her

lesson, Hugh had seen a typical occurrence. When Hugh reacted to the comment by claiming he "appreciated that ... [he] didn't find [Helen] to be orchestrating anything" (254-255), he may have been attempting to support Helen by putting her at ease, but instead, by ignoring Helen's intended focus, he failed to support her interest in solving that problem.

One of the conference events, in connection with which Helen's responses and recall interview comments revealed evidence regarding the association of her retention of positivity with her high conceptual level, was not relevant to her time management concerns. Nevertheless, because it was the only event for which Helen's recall comments revealed evidence regarding her responses, it was included in the transcription data analysis. The event involved Helen's apparent acceptance of Hugh's negative, though kindly expressed, opinions regarding an aspect of her subject matter presentation. Because Hugh's opinions remained entirely unchanged in spite of Helen's calm and articulate description of her own perspective of the events, Helen's eventual acceptance of his ideas was recorded in the frequency data as compliance. However, the transcription data revealed that this coding to be an error. In reply to the principal investigator's enquiry about whether she had felt uneasy at any time during the conference, Helen recalled the above events, but seemed anxious to explain that "No," Hugh's negative comments had not made her feel uneasy, and she continued:

" I guess perhaps some of the ... I didn't know that some, I won't say criticisms because that isn't the word ... I just realized there was a bit of a gap there ... I don't mean this to be defensive because ... I guess ... you never really communicate wholly with anybody at any time.... It didn't make me feel uncomfortable but I had a sense that we're really on different wave lengths. And that's not a criticism of him at all" (1:435-450).

Helen recalled that she made a "conscious decision to leave the gap alone" (1:455), and implied that she did so because she associated the gap with understandings of poetry (the subject matter) rather than with methodology, which she believed to be the pertinent focus of her supervision. The notion of "conscious decision" implies that Helen maintained sufficient confidence to believe she could exert some control over the direction of the conference. Her comment also implies that instead of being a sign of loss of confidence in her own beliefs and teaching decisions, Helen's "compliance" was a sign of retention of confidence, and also a tactic designed to close discussion of a discrepancy. Here the transcription data reveal evidence which re-interprets the findings from the frequency data. Because the tactic was Helen's own "conscious decision" and therefore an autonomous behaviour, this response appears to have been associated with Helen's high conceptual level. This also seemed to be the case for some of Helen's responses which indicated openness and trust.

Open and trusting attitude. While noting, in response to Hugh's enquiry into how she felt about the lesson, that she had failed to achieve some of her objectives and had mismanaged time, Helen's tone was very soft. This gave her responses a trusting sound which suggested Helen believed that Hugh would receive them kindly.

Hugh did seem anxious to reassure Helen, for he introduced his feedback by declaring: "as you laid out the objectives to me in our pre-conference I thought you achieved all of them" (2:33-35). Unfortunately, because Hugh's ensuing feedback was negative regarding two out of the

three pre-planned objectives, it contradicted his positive introductory declaration. The "re-assurance" thus seemed to have had the purpose of preparing Helen to receive both Hugh's ensuing negative feedback and his decision about the inappropriateness of attending to Helen's time management concern. This did not appear to damage Helen's trust which was still evident toward the end of the conference when Helen attempted to re-open discussion of her time management concerns. Helen's admission to Hugh that both her difficulty in managing time at the end of noon hour games and her consequential hasty lesson openings were "the way ... it really is ... whether or not you're here observing" (1:252-253) suggested both openness and a trust in Hugh.

In her closing comments to Hugh in their supervision conference, Helen passed a comment that supported the finding from the frequency data that she associated her feelings of comfort with Hugh's supportive behaviours. Helen announced,

"There's one other thing I'd like to say: it was a lot easier having you in the room than I guess I have occasionally experienced being observed. It's a credit to you that you do put teachers at ease here on staff. I thought it was ok, so I didn't mind the presence of you and the two people from the university" (1:274-277.5).

This statement, and Helen's accompanying tone, suggested that Helen was anxious to let Hugh know she valued his supportive attitude, and that she may have hoped her comments would encourage him to continue his supportive behaviours.

In her recall interview, Helen explained that she had established a favourable impression of Hugh during a previous working relationship with him. She stated that this impression had attracted her to her present school when Hugh became its principal. This transcription

information seems to add a new dimension to the frequency data finding of an association between Helen's comfort and confidence and Hugh's behaviours. The transcription data suggest that, because Hugh did not display real supportiveness during the conference, Helen's openness and trust may have been a response grounded in either her previously established impression of him or her own belief in his supportiveness. When Helen answered the principal investigator's final question,

"are there any other comments which you think would be useful for me to know in interpreting that conference and the observation data?" (1:492-494)

she may have been protecting her previous impression in her carefully guarded reply. Helen's hesitancy in expressing her feelings about the conference suggested that she was confused and may have had some slight doubts. She explained:

"I, I don't really know how to, I guess I haven't sort of sorted through my thoughts on [the conference] all that clearly, so I'll let that question go actually, I have a general sort of vague feeling, but I don't know how to describe it" (495-498).

Whether or not it can be inferred from this comment that Helen had developed some doubts by the end of the first conference, she did seem to provide clearer evidence, during her second recall interview, that she experienced some discomfort during her second conference.

Teacher's Comfort and Confidence in Post-Workshop Conference

This part of the transcription data analysis revealed evidence that Helen became increasingly less interested and hopeful in the second conference than she had been during the first. Although she did not

clearly articulate her reasons, in her second recall interview comments, Helen expressed disappointment with the post-workshop conference. She intimated that she felt deprived of support for some personal needs, which were probably connected with her high conceptual level. The transcription data supported, clarified, and added to the frequency data for indicators 2,3,and 4 for category 1.1. The nature of the evidence that emerged from the post-workshop conference transcription data fitted into two categories: (1) evidence of Helen's initial hopeful, interested, and open attitude; and (2) evidence of an eventual decline in Helen's hopefulness and interest.

Initial interested, hopeful, and open attitude. Following his highly congratulatory opening comments, Hugh asked Helen how she felt the lesson had gone. In her reply, she seemed to be hoping Luke would respond with a clear view of her lesson, for she revealed:

"I couldn't really tell.... I wasn't all that aware of how well it was going, because I was nervous to-day. I did feel that the children participated well. I feel confident of their keenness for the topic. In terms of how it appears to other people I can't, well I don't have a sense of that" (2:12-19).

Helen attended with interest to Hugh's observations which, although they were positive, lacked detail. That is, they did not include careful description of specific incidents to provide clarification of observed events. The data from the transcriptions added information overlooked by the frequency data.

Hugh continued his congratulatory feedback by declaring that "from a technical point of view ... I have no criticism whatsoever...." (2:60-

61). Despite the announcement that he had no criticism, Hugh followed his praise by noting:

"if I were to critique the lesson in one respect [it would be] that again you probably ran out of time and there was no pulling of the lesson together at the end ... I think that's a good quality in a lesson if it can be pulled together in the end ... I think it helps solidify the learning that's taken place. Everybody has a chance to reflect ... and I think that certainly adds to recall later" (2:584-590).

Although, during their previous conference, Hugh had deflected discussion away from Helen's attempts to address her time management concerns, Helen did not respond to Hugh's criticism with any signs of defensiveness or frustration. On the contrary, she responded immediately by saying "I quite agree" (2:592), and with apparent interest and hopefulness, Helen proceeded to reflect openly on how her poor timing spoiled her lesson, and how she might make corrections.

In response to Helen's agreement that she needed to deal with her problem, Hugh attempted to comfort her. He did so by suggesting that the activities which ran over time were worthwhile and compensated for those missed, and that Helen's time mismanagement was excusable. This type of comforting behaviour seemed to be inappropriate in view of Helen's acknowledged wish to develop better time management skills. Although the transcription data suggested this supervisory behaviour was inappropriate, it had been coded in the frequency data as negative.

Hugh's behaviour did not deter Helen, and thus, the transcription data seemed to support the findings from the frequency data that Helen's responses may not all be associated with Hugh's behaviours. By immediately resuming her reflections on time management problems and some possible solutions, Helen seemed hopeful about retaining a focus on

time management. As in the first conference, however, her efforts were thwarted because a reference she made to team scores for noon hour games deflected Hugh's interest. The reference reminded him about Helen's team system of classroom management, and he reacted by asking Helen to discuss that system. Helen seemed unaware, momentarily, and then surprised that Hugh's attention had swerved away from her time management concern, but although she appeared slightly taken aback, she showed no signs of frustration or annoyance. Instead, she complied with Hugh's request by describing her classroom team system. Helen made no further attempt to remind Hugh of her concern about time management.

Decline in interested and hopeful attitude. Although she did not appear to lose interest completely, Helen seemed less hopeful and interested after Hugh deflected her attempts to introduce problem solving for her time management. The issues discussed in the remaining portion of the conference had no connection to any of the dyad's pre-conference objectives.

Hugh's eagerness to be supportive appeared to be one of his reasons for diverting the conference away from Helen's time management concerns. Hugh seemed to offer Helen comfort by minimizing the relevance of her time management concerns to the quality of her lesson. He thereby provided a potentially false view of Helen's lesson. Hugh's behaviour was recorded in the frequency data as positive, but the transcription data suggested that instead of providing Helen with comfort, this type of behaviour may have caused Helen to develop some discomfort during the second conference. Towards the end of her recall interview, while remaining careful to stress her appreciation of Hugh's positive

attitude, Helen revealed evidence of her disappointment and its possible association with Hugh's behaviours:

"I feel that [Hugh] really does focus on the positive and I think that's really great. I don't know what I ... I guess what I'm saying is I wonder if in fact he, I won't say the word withholds, but I wonder if he almost in his always seeing the positive perhaps doesn't give back a clear picture of the lesson ... because he really doesn't focus on inadequacies or shortcomings within the lesson itself.... he is always very positive. I think that's really good and he points out, he adds to your sense of self-confidence but I don't know that I've heard all that needs to be said that could have been said about the lesson - I don't know" (2:227-248).

Helen continued by reiterating her praise for Hugh's positivity, and when the principal investigator asked, "You wouldn't want to take away the positive nurturing?" (2:267-268), Helen replied:

"No, I wouldn't want to take away the positive ... I would have thought there might have been something else to say about the lesson ... I don't know, you know, I'm very used to kids and I don't step back very often and look at things objectively I guess. You know I'm in the middle of it, so I guess I'm looking for more things to be made aware of that I can improve on ... because I feel confident that Hugh already is very supportive I guess I look also to him as an observer in my classroom to offer more suggestions" (2:269-279).

In both sets of comments, Helen appeared to suggest she would have liked Hugh to help her form an accurate picture of her lesson especially in areas requiring improvement. Helen's closing comments in her recall interview suggested that any discomfort she felt during the post-workshop conference was probably associated with her disappointment that she did not obtain any information that could help her to improve. Thus transcription data both supported and clarified the frequency data which suggested a decline in Helen's comfort and confidence. She said, "I want

to develop or grow more - improve, and you know I think that's what I had sort of thought might come about" (2:296-298).

Summary of Dyad #2 Teacher's Comfort and Confidence

The transcription data analysis revealed evidence to support some but not all of the findings for the analysis of frequency data. Evidence was found to support the findings regarding both Hugh's negative behaviours, and the association of the apparent decline in Helen's comfort and confidence with those behaviours. However, evidence was found to contest the findings from the analysis of frequency data which suggested that Helen was compliant. The transcription data analysis revealed evidence to suggest that responses identified in the analysis of frequency data as evidence of Helen's compliance were, on the contrary, positive behaviours associated with Helen's high conceptual level. The analysis revealed that many of Helen's positive responses were associated with her conceptual level; that Hugh's supportive behaviours were not congruent with Helen's comfort and confidence requirements; and that Helen eventually identified two forms of support that she needed.

High level of conceptual functioning. Evidence in Helen's responses that suggested she was functioning at a high conceptual level included displays of her adaptability, autonomous behaviour, and self-confidence. Further evidence included a conspicuous absence of frustration, compliance, or defensiveness among Helen's responses. Although she verbally associated her feelings of comfort and confidence

with Hugh's supportiveness, an analysis of her interactive thoughts suggested that most of these feelings were associated with a high level of conceptual functioning because the nature of Hugh's support often seemed inappropriate to her.

Some inappropriate support. Among Hugh's behaviours which appeared to demonstrate his intention to be supportive were: offering of praise; use of a gentle tone and other "comforters" to prepare Helen for the impact of negative feedback; and attempts to minimize or even deny the significance of problems identified by Helen. The transcription data suggested the latter two of these behaviours may be inappropriate with respect to Helen's high conceptual level, despite their surface appearance of supportiveness which enabled them to be recorded as positive in the frequency data. The transcription data clarified this discrepancy by suggesting that some of Helen's initial comfort and confidence may have been associated with her initial impression of these two behaviours as positive and supportive. Moreover, because Helen had a pre-formed opinion of Hugh's positivity, which she had gained during a previous working acquaintanceship with him, she may have been vulnerable to accepting the surface appearance of some of Hugh's "supportive" conference behaviours. By the end of the second conference, it appeared that Helen's impressions had changed.

Requirement for two forms of support. Evidence suggested that Helen eventually realized she needed two forms of support for her comfort and confidence: (1) environmental security, and (2) opportunity to function at a high conceptual level. Although Helen seemed satisfied

that she received the first form of support, she appeared disappointed that Hugh had failed to provide the second. Evidence of the second form of support was not available in the frequency data, but the transcription data suggested that Helen linked the missing support with Hugh's failure to provide complete and accurate pictures of her lesson. This suggested that she required the type of support that the third category of Hugh's "supportive" behaviours prevented her from receiving. Moreover, the requirement Helen recognized was one that may have had potential to support personal characteristics associated with her high conceptual level. That is, the candid picture could enable Helen to utilize her willingness to analyze negative aspects of her lesson, and could provide the complete set of information she needed in order to solve her problems in her reflective and analytic style.

BETWEEN DYAD COMPARISON OF TEACHERS' COMFORT AND CONFIDENCE

In their responses, both teachers demonstrated comfort and confidence. However, it appeared that by the end of the post-workshop conferences, Luke's comfort and confidence had increased, whereas Helen's had decreased. There was evidence to suggest that the two teachers' comfort and confidence was differentially associated with his/her principal's supportive behaviours, and that Luke and Helen recognized this association. However, for both teachers, there was also evidence to suggest that maintenance of their comfort and confidence may have been partly associated with their own high conceptual levels. Findings and discussion for this comparative analysis are presented in two sections which address: (1) evidence of teacher's comfort and

confidence which appeared to be associated with the teacher's high conceptual level; and (2) evidence of teacher's comfort and confidence which appeared to be associated with the principal's supportive behaviours.

High Level of Conceptual Functioning

Both teachers appeared to be functioning at their high conceptual levels. Characteristically, neither Luke nor Helen displayed any signs of frustration or defensiveness. When Lorna enquired about events in Luke's lessons, he responded confidently and openly even if he suspected Lorna had doubts about his handling of the events. When Hugh continually evaded discussion of Helen's time management problems, she did not appear to be frustrated, and until the latter half of the post-workshop conference, she seemed confidently determined to avoid compliance with Hugh's wish to abandon the topic. Both Helen and Luke demonstrated adaptability and self-confidence, and their comfort and confidence seemed to be associated with each of these qualities.

Adaptability. In their respective responses, both Helen and Luke seemed to demonstrate adaptability. Evidence suggested that both were able to support their own comfort by adapting to their principal's agendas. In Helen's case this ability may have saved her from becoming frustrated on those occasions when Hugh not only refused to pay attention to concerns she had identified herself, but also diverted discussion instead toward topics that suited his personal agenda. Even

when Helen's interest seemed to decline in the second conference, she did not demonstrate lack of interest in the topic that Hugh requested her to discuss.

Evidence suggested that Luke had developed the ability to capitalize on his adaptation to Lorna's agenda as a means of gaining her acceptance of his agenda, and thereby increasing his comfort. When Helen diverted her attention and interest to issues which Hugh wished to discuss, she may have been hoping that her action would encourage Hugh to reciprocate with regard to her own concerns. However, there was no evidence to support this suggestion.

Self-confidence. Neither Helen nor Luke ever attempted to blame their time management problems on factors outside themselves. There was evidence to suggest that both teachers had sufficient confidence to accept and even to admit that their problems were associated with their own behaviours. Furthermore, both Helen and Luke not only seemed anxious to receive an observer's view of events involving their problems, but also appeared willing to accept that to alleviate the problems some changes in their respective behaviours would be required. To feel comfortable in this approach to problem solving, despite their apparent self-confidence, both teachers suggested that they required their principals to provide support for their comfort and confidence.

Principal's Supportive Behaviours

Both teachers appeared to believe that support for their comfort and confidence was an important component in the principal's provision of an opportunity for development. In this regard, evidence suggested that the two teachers believed in the importance of the principal's support for both their security requirements and their high conceptual level requirements.

Environmental security. In their recall interviews, both Helen and Luke provided evidence that they associated their willingness to speak openly with the existence of a secure environment provided by their respective principals' supportive behaviours. Helen implied that her open and trusting attitude was associated with Hugh's positive and unthreatening manner. Luke implied that his openness was associated with not only Lorna's positive feedback, but also her "neutral" feedback. He suggested that if she had used a negative rather than a "neutral" tone to introduce her doubts about his behaviours, he would have "shut down the openness". Luke also appeared to feel secure in association with the respect he perceived Lorna to be showing for his ability and experience because she accepted his methods and rationales even when they did not fit her own, and she allowed him to make his own decisions regarding problems.

Evidence was found in Helen's second recall interview to suggest that she may have associated the decline in her comfort with specific behaviours performed by Hugh. Helen's discomfort involved disappointment because she had not received the opportunity to improve that she had

expected. The evidence suggested that Helen associated the missing opportunity with Hugh's habit of retaining positivity by never focussing on her shortcomings and thereby denying her a true picture of her lesson. Moreover, it appeared that Helen felt insecure in an environment wherein facts were withheld or distorted, and thereby denied her the opportunity to face and examine the truth. This behaviour of Hugh's also seemed to have the effect of denying Helen the opportunity to function at her high conceptual level in problem solving.

Support for HCL functioning. Evidence suggested that both Helen and Luke associated their feelings of comfort with their respective principal's efforts to provide them opportunities for active involvement in analysis or in problem solving; that is, with the amount of support provided for their high conceptual levels by their respective principals. In this regard, both Helen and Luke seemed to perceive importance in their respective principal's efforts to provide candid pictures of lesson events, and the availability of opportunity to become actively involved in clarifying these pictures. Evidence suggested that Luke associated his comfort with Lorna's presentation of accurately detailed pictures, and that Helen was disappointed because Hugh failed to provide her with clear pictures. In addition, Luke provided evidence that his comfort and confidence was associated with an opportunity to work collaboratively with Lorna in analyzing and clarifying the pictures, and with Lorna's assumption that following the dyad's collaborative clarification of pictures he would make decisions independently with regard to problem solving. These were opportunities which Helen did not receive from Hugh. Luke's comments about his

opportunity to make decisions independently revealed that he associated his comfort and confidence with the principal's respect for his need to behave autonomously.

Support for their stated beliefs in the importance of their respective principal's supportive behaviours was provided by what appeared to be Helen's and Luke's efforts to encourage continuance of the behaviours. Luke's encouragements continued throughout both conferences and culminated in the request for Lorna's help with his volunteered "dead" lesson endings problem. On the contrary, Helen's encouragements for Hugh were confined to the first conference wherein she seemed especially eager to provide him with positive feedback on his habit of putting "teachers at ease".

SUMMARY

Evidence suggested that whereas Helen, the HCL teacher who was supervised by the M/HCL principal, suffered a decline in one aspect of her comfort and confidence during the supervision period, Luke, the HCL teacher who was supervised by the LCL principal, experienced maintenance and possibly an increase in his comfort and confidence. Findings resulting from the analysis of the teachers' recall interviews seemed to offer a possible explanation for this difference. Both teachers provided evidence to suggest they believed there was an association between their feelings of comfort and confidence and their respective principal's behaviours. It appeared that both teachers attached notable importance to two sets of behaviours which they regarded as supportive: (1) behaviours which supported their requirements for environmental

security: and (2) behaviours which provided them opportunities to become actively involved in analysis or in problem solving, or to behave autonomously, i.e., to function at their high conceptual levels. Evidence revealed that in connection with these requirements, both teachers' wanted the principal to: (1) employ non-threatening methods and behaviours; and (2) present candid pictures of lesson events connected with the teachers' problems. The Dyad #1 LCL principal appeared to perform both these behaviours, whereas the Dyad #2 M/HCL principal appeared to use only non-threatening methods. The teachers' comfort and confidence also seemed to be associated with their high conceptual levels.

This section of the analysis of the transcription data revealed that each teacher believed that, in order to feel comfortable and confident during supervision, he/she needed the principal to provide opportunities both for active involvement in analysis and problem solving and for autonomous behaviour. Chapters 6 and 7 will report the findings of the transcription data analysis regarding evidence of whether or not the teachers' responses suggested that they received these opportunities.

Chapter 6

ACTIVE INVOLVEMENT

The purpose of this chapter is to present and discuss the findings for the second stage in the analysis of the transcription data. This analysis is unlike the second stage of the frequency data analysis in the three ways explained in the introduction to Chapter 5. However, the second stage of the transcription data analysis is like the corresponding stage of the frequency data analysis in that it addressed research sub-question 1.2 and the second stage of the conceptual model. That is, data were analyzed for evidence of whether the responses of Helen, the Dyad #2 HCL teacher, who was paired with Hugh, the M/HCL principal, indicated that she experienced more active involvement while being supervised than did Luke, the Dyad #1 teacher, who was paired with Lorna, the LCL principal.

The frequency data indicated that few of the teachers' responses and principals' behaviours matched the responses that were predetermined to be indicators of the teachers' active involvement and the principals' challenging of the teachers to become actively involved. Thus, the analysis of the frequency data was unable to find much evidence regarding the teachers' active involvement in their conferences. However, from the analysis of the transcription data new evidence emerged, some of which suggested that teachers could become actively involved in supervision conferences and that principals could challenge teachers to do so in ways that were different from those postulated by the predetermined indicators.

Some new evidence was found among data that emerged regarding teachers' responses. These data revealed a style of response that could be described as "relates principal's observations to own perspective of events". Although this descriptive statement appears similar to the predetermined indicator "relates principal's observation to previous experience and notes implications", there are three important differences between the two. First, the new evidence did not include "notes implications" because this was rarely apparent, during the conference. Second, the new evidence suggested that while "previous experience" was often a component of "own perspective", in the transcription data, it was not the only component. That is, "own perspective" was not limited to being only "previous experience". Third, the transcription data also suggested that the immediate purpose of the response was clarification of the principal's observations. This purpose differs from that in the predetermined indicator 2.1.3 which refers to asking questions for "clarification of new ideas".

Other new evidence emerged regarding principals' behaviours. The data suggested reasons why the teacher was observed rarely to "apply own ideas positively and in relation to the principal's"; for example, ways in which principals' behaviours can offer disincentives for teachers to apply their own new ideas during conferences. Moreover, the data revealed that the HCL teacher in Dyad #2 made strong attempts to apply her own ideas despite such disincentives and a resulting lack of opportunity. The presentation and discussion of the findings for the second stage of the transcription data analysis is divided into three main sections. The first two sections pertain to teacher's active

involvement for each dyad. The third section compares the two dyads in terms of the teachers' active involvement.

DYAD #1: TEACHER'S ACTIVE INVOLVEMENT

The transcription data analysis suggested that Luke was often actively involved during his supervision conferences, that this active involvement was in problem solving on one occasion, but in all other instances, comprised only analysis and clarification of issues referred to in Lorna's feedback. In this latter type of active involvement, Luke's responses seemed to be associated with the intention of Lorna's feedback. In her first recall interview, Lorna's closing comments included evidence to suggest that she did not intend to present her feedback as though she were addressing problems in need of a solution. Instead, Lorna's comments implied that the purpose of her feedback was to present Luke with a candid picture of events, and to challenge him to take a closer look at them himself. These transcription data refuted suggestions from the frequency data that Lorna rarely presented challenges for Luke. She explained:

"I think I look at the time ... as a time in which I'm observing certain things that I'm able to see in the classroom that the teacher's not able to see ... a large part of the time I'm really raising questions, I hope opening some doors that maybe [he/she hasn't] thought about, but really leaving it to [him/her] to make some decisions about the kind of strategy [he/she] uses to make the changes" (1:1491-1502).

Support for the notion of an association between his active involvement and Lorna's behaviours seemed to be evident in Luke's

comments suggesting that he interpreted her intentions as she would have wished. Luke surmised:

"[Lorna] is, I think, just trying to be a mirror, so I can see what's going on in the classroom better ... and now that [she's] held up the mirror ... maybe [I] can change some things or do things differently or do [them] better ... all we're doing is just, giving our views of what was going on so that we're more aware of [it] and then maybe ... I can go away and think about it and maybe improve what was going on or do nothing" (1:424-448).

A portion of this quotation was also used in Chapter 5 to show Luke's comfort and confidence in connection with Lorna's "mirror". It is used here because it provides useful insights into the nature of Luke's active involvement in the conference. Luke's comments suggest he inferred that Lorna did not intend that he should address the issues she presented as problems to be solved during the conference, but rather as issues requiring clarification to provide a basis for making decisions, after conferences, about whether the issues were problems and, if so, how they could be solved. Further findings and discussion of Luke's active involvement will be presented separately for the pre-workshop conference and the post-workshop conference.

Active Involvement in Dyad #1 Pre-Workshop Conference

In this first conference, time management concerns were addressed during three interactions. Each seemed to fit one of the three different types of interaction that occurred within the Dyad #1 conferences: (1) an interaction initiated by Lorna providing positive feedback; (2) an interaction initiated by Lorna providing "neutral" feedback; and (3) an interaction initiated by Luke identifying a problem he had perceived

himself. In the presentation and discussion of findings in this section, an attempt will be made to show evidence of whether, and if so how, Luke became actively involved in each of these three styles of interaction. The presentation and discussion of the findings is classified under headings which refer to two types of teacher response: (1) relates principal's observations to own perspective of events; and (2) applies own ideas.

Relates principal's observations to own perspective of events. In what seemed to be attempts to clarify both his own and Lorna's pictures of events that were relevant to issues she introduced, Luke related Lorna's observations to his own perspective. Because the transcription data revealed that Luke's responses frequently displayed this form of active involvement, they conflicted with the frequency data which suggested that Luke was rarely actively involved. The first feedback Lorna provided regarding time management involved positive observations of Luke's expectations of his pupils' entry and lesson commencement. On this occasion, Luke did not respond by relating Lorna's observations to his own perspective, but he appeared to do so as a result of the query which accompanied Lorna's next observation. After describing a picture of the lesson's opening activity, Lorna appeared to be either seeking clarification of her observations or challenging Luke to examine his own view of this activity when she enquired: "are (the pupils) used to nearly always doing a drill sort of thing?" (1:84).

The contents of Luke's reply suggested that in order to examine and clarify both the picture presented by Lorna and his own understanding, he was reflecting on both the reasoning behind his lesson

opening and its impact upon his students. Without further probing from Lorna, Luke explained:

"It's not always [a drill], but I guess they pick up on some clues ... because I try not to do all that many different things at the beginning of the class. I like them to be familiar with what they're going to do, so it is a routine thing ... it tends to be something that is independent, they can do it and they don't need help with it and they don't have to ask questions about it" (1:86-93).

Following Luke's reply, Lorna did not continue probing, which suggests that when she challenged Luke to analyze his own perspective of his opening activities, she was trying

"to get to know his procedures better ... and to be convinced that the things he is doing he has a reason for" (1:1475-1478).

The absence of further probing combined with the enthusiasm of Lorna's expression when she noted that Luke's plans enabled his pupils to "get right down, right into it" (1:95), suggested she was satisfied that the efficient start she saw did not happen by chance and would not expect Luke to identify the issue as a problem. However, when Lorna appeared to challenge Luke to relate his own perspective to the next set of observations that she presented in her "neutral" way, she did not indicate the same positivity following Luke's reflections. While giving feedback regarding Luke's management of a lesson transition wherein pupils' were collecting their worksheets, Lorna provided a candid picture of what she had observed, but while she reported her observations, she seemed to probe simultaneously. She said:

"I wondered, although it turned out to be fairly organized, but I had the feeling when you started in to taking out the sheets and you didn't have them in any sort of order and the kids all sort of got up from their desks and came to you and it didn't seem to be a

problem, and I don't know why because it quite often can be ... when they've all got out of their seats and everybody's looking for [their papers] ... were they clearly labelled ...? (1:583-592)

Evidence of Luke's attempts to relate Lorna's observations to his own perspective in order to clarify his view of events seemed to be revealed in some of his comments. Luke noted that the papers were named and he began to explain his procedure, but he seemed to interrupt himself by reflecting upon the fact that these procedures did not work at all well with another of his classes. His response suggested that this might be an issue, which, as a result of his active involvement in attempting to clarify the picture, he would identify as a problem to be solved after the conference.

In the last interaction, during this conference, regarding time management concerns, Luke appeared tentatively to identify a problem while he related Lorna's observations to his own perspective. In response to Lorna's probing into his procedure of telling students that if they were not on task during their freer time it would become pack-up time, Luke admitted that

" sometimes it's pack-up time means ... that's it. You know the lesson's over, this is what I had planned, and I tell them that. 'Look this is all I have planned today and if you can't handle it I've got nothing else for you to do, I don't pull out ... fifty eight, you know, division questions ... I don't like to use what I'd like them to be working on as if it's like a punishment" (1:555-567).

Although Lorna reflected some of Luke's thoughts by saying, "So you don't want to give division questions because that's [not something] you should [risk seeming like a punishment]" (1:572-573), she did not encourage him to do any further thinking about the problem during the

conference. Instead, Lorna returned to her observations of events during the free-time segment of Luke's lesson. However, during the second Dyad #1 conference, with stronger emphasis, Luke re-introduced his concern about having "dead" time at the end of some of his lessons, and together he and Lorna addressed the issue as a problem to be solved. On that occasion, Luke had the opportunity to apply his own ideas in relation to Lorna's ideas. However, there were few opportunities for him to respond in this way during the first conference.

Applies own ideas. The analysis of sections of the transcription data relevant to time management problems revealed that no new ideas were discussed in reference to these concerns. With regard to the non-occurrence of new ideas, the analysis of the transcription data seemed to validate the suggestions derived from the analysis of the frequency data displayed in Table 4.6. The absence of new ideas and of Luke's attempts to apply them may have been a result of Lorna's conferencing style. Because Lorna initiated most of the conference interactions, they tended to be dominated by her style of presenting issues as possible problems rather than as actual problems, and this appeared to provide a disincentive for Luke to suggest new ideas for the solution of problems. Thus, in their first conference, possibly because Lorna's conferencing behaviours did not encourage the identification of presented issues as problems, and because Luke only alluded to his "dead" time concern, few problem solving activities occurred. Thus, there seemed to be little incentive for Luke to present new ideas or to apply ideas positively and in relation to Lorna's. On the contrary, Luke did have an opportunity to

apply his own ideas in relation to Lorna's ideas during their second conference.

Active Involvement in Dyad #1 Post-workshop Conference

With the exception of the occasion when Luke disclosed his "dead" time problem, Lorna initiated most of the interactions. Thus, as was the case in the first conference, the style of most of the interactions was determined by Lorna's purposes. Again, on some occasions Lorna's purpose seemed to be to support Luke by providing not only positive feedback, but also a picture of events in his classroom; and on other occasions Lorna's purpose seemed to be challenge Luke to examine her picture of events, to analyze and compare his own picture with hers, and thereby clarify his own. In this second conference, an even higher proportion of Lorna's presentations of observations were positive as opposed to "neutral" than in the first conference. All of her feedback on time management concerns was positive.

In an attempt to explain to what extent Luke's active involvement seemed to be associated with Lorna's purposes and behaviours, the presentation and discussion of findings from the second Dyad #1 conference are presented in two subsections corresponding to those used for the first conference.

Relates principal's observations to own perspective of events.

When Lorna presented positive feedback on her observations by praising Luke's efficient time management during his lesson opening, his giving of instructions, and his lesson transitions, Luke responded on each

occasion by relating her observations to his own perspective. There was no evidence of reflecting or probing behaviours accompanying Lorna's positive feedback. Thus, because Lorna's behaviours on these occasions did not include provoking or encouraging Luke to analyze her observations, Luke's responses did not seem to be associated with her behaviours. This evidence from the transcription data, which suggests that occasionally Luke's reflective and analytic responses were independently initiated and therefore possibly associated with his high conceptual level, was not available from the frequency data. The predetermined indicators were unable to discern teachers' independently initiated behaviours.

The first evidence of Luke's independent initiation of active involvement emerged from his response to positive feedback provided by Lorna near the beginning of the conference. This occasion was the first involving a time management issue and seemed to provide a useful example of Luke's even more eager active involvement during the second conference, as compared to the first, in clarifying the dyad's pictures of events that were relevant to issues of concern. Following her opening congratulations on the quality of his lesson, Lorna gave clear and positive feedback on Luke's management of lesson start-up time. She commented:

"The quick drill that I know you do on a very regular basis I think went extremely well, and I guess because I've noted before, and as I saw today, you have little ways of making it different your instructions were really good. I thought there was really lots of good chitter, chatter but you proceeded very, very easily right into ... the drill and I thought .. their response was very, very task oriented.... One of the things that you do really well is that you never sort of get into a state about the fact of the kids listening. I sensed that they knew that those instructions that you [were about to] give were important and if they missed them tough luck! (2:16-25)

Without any probing from Lorna, Luke responded by openly relating Lorna's observations to his own perspective on his methods of coping with time taken for giving instructions. Luke stated:

"Yes, I do adopt that sort of attitude, and I must explain to you ... if there's too much noise in the room or something like that. Fine! I will say it again or do something to make sure that most have heard it, but if it's just routine stuff and they don't get it the lights aren't going to fall off. Nothing too serious! But I think they get an important message that when instructions are being given you better get them first time around." (2:31-39)

When Luke's comments seemed to remind Lorna of another of her observations for which she immediately proceeded to give further positive feedback. In connection with Luke's management of time during a transition, Lorna noted:

"you laid out expectations for a change, when you left the quiz. then you told them what you were going to do and you said ... 'Two minutes and then we begin!' which gave them time to get their things and get themselves organized and they're not upset" (2:772-776).

In response, Luke related Lorna's observation to his own perspective by presenting her with a picture of how attempts to solve previous problems had resulted in the transition time management she had observed. Again, Luke's active involvement appeared to be independently initiated because Lorna's feedback was not accompanied by behaviours that might have encouraged Luke to become actively involved. He reflected:

"I didn't do that kind of thing in secondary. But I found that in the elementary situation ... last year, I felt that I was so often on the kids all the time, like there's too much noise, too much commotion ... I was trying [to decide] how do you get ... from one activity to the next and that's what I thought, well I won't worry

about what they're doing in between the activities essentially, in fact rustle all the papers you like, if you have to get out of your seat do, but you better be ready." (2:777-786)

Because most of Lorna's feedback was positive during this conference and, consequently, she seemed to have little occasion to probe and encourage Luke to clarify her observations, Lorna did not provide Luke with many opportunities to display his reflectiveness and his analytic ability. However, in the execution and content of responses such as the two quoted above, it appears that Luke may have been intending to sustain Lorna's impression of his analytic abilities and, thereby, encourage her to continue allowing him opportunities to apply them.

Although the time management issues that were introduced by Lorna in this conference involved positive feedback, the issue introduced by Luke was one that he had identified for himself as problematic. In the interaction connected with this issue, Luke had the opportunity to apply his own ideas positively in relation to Lorna's ideas. The transcription data from this interaction supported and clarified the corresponding frequency data.

Applies own ideas. When Luke recounted how "dead" time had occurred during the last segment of his lesson, which Lorna had not observed, he explained that when he tried "to get [his pupils] redirected ... to begin on the problems There [was] no way, [they'd] had it, the day was over!" (2:1278-1280). By acknowledging Luke's concern in her comment, "You didn't feel too successful after that time" (2:1281), Lorna seemed to demonstrate interest in Luke's identification of a problem. She appeared anxious to help Luke to find

solutions when she began to probe for information on how Luke usually dealt with "dead" time. She asked, "Ok ... the ten minutes ... what sort of thing do you do there?" (2:1285-1286). In a spirited response, Luke declared,

"I, I boil ... I get mad at the situation. I don't mind if, maybe up to five minutes where alright, I've accomplished what I wanted ... and we happen to finish a bit early But [the time lost to-day] was just a couple of minutes longer than what I wanted..." (2:1287-1293).

Luke reflected that by allowing a casual discussion at the end of the previous activity, he may have interfered with his students' ability to settle down to the seatwork he had planned as a closing activity. This seemed to prompt Lorna to affirm the importance of solving the problem by implying that it was not unique to his classroom:

" maybe ... [it is a problem] to think about not just in your class but in all classes, because there are those sort of five to ten minute times when sometimes ... we just have to recognize the fact that as you have ... that in many of these cases that's it as far as the kids are concerned. You're not going to get more out of them and maybe ... although you had such a variation, maybe just for that time you need to be thinking of some very ... short productive kind of thing that can be done at these times It may be just a recognition of what's realistic, I suppose" (2: 1300-1311)

Lorna's tone suggested she was inviting Luke to propose some solutions, but his response did not contain any. This lack of ideas from Luke seemed to prompt Lorna to suggest a tentative solution. She said:

"you know ... maybe that's the time for teachers to maybe find something they're really comfortable with. I used to like reading poetry. Yet I didn't get comfortable with spending long periods on poetry, but I did find in a short few minutes that I could maybe do some [poetry reading]. The kids would often be quite willing to just sit and be read to" (2:1317-1324).

In his response, Luke attempted to clarify his thoughts about the idea. Lorna's reflection of Luke's comments appeared to help him to relate his ideas with hers, so that suddenly he proclaimed that he could "pick some things out of the newspaper, for instance" (2:1333-1334). In suggesting this activity, Luke was applying his own ideas positively in relation to Lorna's because he had used a newspaper during his lesson. For the lesson ending, he suggested that he could just read something from the newspaper that he found interesting and thereby provide a relaxing activity for his students. Luke suggested it would be useful to have some such activity "sort of on hand" that "he could just go to [and] relax for a minute" when his lesson "finished a few minutes early" (2:1335-1337). By drawing the conference to a close, at this point, Lorna appeared satisfied that she and Luke had given his "dead" time problem as much attention as she believed necessary during the conference. She appeared to assume that since Luke had begun to think of his own solutions, he would continue, after their conference, to make decisions regarding his "dead" time problem.

Summary of Dyad #1 Teacher's Active Involvement

Evidence from the frequency data suggested that, during both conferences, only a few of Luke's responses matched the indicators of active involvement described in Tables 4.6 and 4.7. The transcription data revealed evidence to suggest that this circumstance appeared to be associated with Lorna's style of presenting feedback. The new evidence revealed that Lorna presented her observations of events as issues for clarification and contemplation; she implied only tentatively that the

issues may represent problem areas requiring improvement. Yet, it appeared that these behaviours represented ways that were different from those postulated in the predetermined indicators and suggested new evidence of ways by which principals might challenge teachers to become actively involved in their conferences. Evidence suggested that Lorna intended the within-conference clarification of issues to provoke Luke to contemplate the clarified pictures of events, to discern after the conference whether they represented problems, and, if so, to decide independently about possible solutions. Because Lorna initiated most of the interactions, there was little incentive for Luke to become actively involved in problem solving during the conference in ways postulated by the predetermined indicators of teachers' active involvement. However, the analysis of the transcription data revealed evidence that during the conferences Luke was often actively involved in other ways; that is, he was involved in analysis for clarification of the dyad's combined pictures of events relevant to the issues presented by Lorna. Evidence suggested that Luke's active involvement in clarification of pictures was associated with three factors: (1) Lorna's "reading" and "flexing" to challenge Luke to clarify pictures of events; (2) Luke's high level of conceptual functioning; and (3) the dyad's collaborative relationship.

Principal's "reading" and "flexing" to challenge. Lorna frequently probed and reflected in connection with her presentation of "neutral" feedback. During her recall interviews, Lorna provided evidence of two purposes behind her attempts to encourage Luke to explain his perspective on events: (1) to clarify her own picture of the events; and

(2) to enable Luke to clarify his picture of events. With regard to Lorna's first purpose, she seemed to want to ascertain whether events she had observed had happened by chance or whether they had been planned by Luke. With regard to her second purpose, Lorna wanted to help Luke to clarify his picture of events so that it could provide a basis for his after-conference decisions about whether events represented problems and, if so, how they may be solved. Thus, the transcription data revealed that Lorna presented a challenge for Luke. However, the challenge was not presented in a way that could be discerned by the pre-determined indicators and thereby captured in the frequency data.

Teacher's high level of conceptual functioning. The extent of Luke's efforts during the conference to present his own perspective on events suggested that his active involvement in clarification of issues was also associated with his ability to analyze situations, which, in turn, seemed to be associated with his high conceptual level. When Lorna probed and reflected to encourage Luke to think about and to describe his own perspective of events, the extent of Luke's analysis sometimes seemed to exceed the extent of Lorna's probing. For instance, Luke occasionally gave a comprehensive and detailed analysis in response to a single and fairly simple enquiry from Lorna. Furthermore, in some instances, Luke provided a careful and useful analysis of his perspective on events without any previous prompting behaviour from Lorna. This was especially noticeable in the second conference as a response to Lorna's frequent positive feedback.

Collaborative supervisory relationship. Luke's active involvement in clarifying issues seemed also to be associated with the collaborative nature of the Dyad #1 supervisory relationship. In Chapter 5, the findings and discussion about Luke's comfort and confidence referred to the association of Luke's comfort with Lorna's habit of "holding up a mirror" to provide him with a picture of events. Much of Luke's active involvement was in collaborative clarification of the "mirrored" pictures. Collaboration was also evident in the dyad's interactions during their problem solving for Luke's "dead" time problem. The evidence which revealed this collaboration was available from the transcription data but not from the frequency data.

Although for most of the dyad's conferencing time Luke seemed prepared to adapt to the issues presented by Lorna, in the second conference, Lorna demonstrated that she was able to adapt when Luke presented an issue; i.e., his "dead" time concern. Although during the remainder of the time, it was not Lorna's intention to suggest solutions, she did so when it appeared that Luke had no ideas to help solve his problem. In her recall interview, Lorna noted that in cases like Luke's she will "throw in some suggestions" (2:1360) in the hope that they "will trigger (the teacher) to find something that [he/she is] really comfortable with" (2:1363-1364). This appears to be a further example of Lorna's "flexing" to accommodate Luke's high conceptual level. Lorna's correct "reading" of Luke's conceptual level was suggested by evidence presented in Chapter 5 of Lorna's recognition of Luke as a "thoughtful person" and "an analytical person" (2: 1463-1464).

Even though Lorna's behaviours did not often match those described as positive indicators of "reading" and "flexing" to challenge Luke's conceptual level, the evidence in the transcription data regarding Luke's active involvement in clarifying issues suggests that Lorna behaved in ways that presented a slightly different challenge for Luke. Lorna challenged Luke to decide first whether an issue represented a problem, and only after that to make decisions about solutions to the problem. In contrast evidence in Dyad #2 suggests that the teacher was not challenged.

DYAD #2: TEACHER'S ACTIVE INVOLVEMENT

In Dyad #2, evidence suggested that behaviours and responses to match those described in Tables 4.8 and 4.9, as indicators of active involvement, occurred rarely because of two circumstances: (1) the M/HCL principal, Hugh, only attempted to introduce problem solving for one issue; and (2) Hugh denied the need to attend to a problem which was first identified by the HCL teacher, Helen. The analysis of the transcription data revealed evidence to suggest explanations for the lack of active involvement and of Helen's attempts to become actively involved. Presentation and discussion of the findings are presented for each conference separately.

Active Involvement in Dyad #2 Pre-Workshop Conference

During their pre-workshop conference, Helen and Hugh addressed four issues. Three of these issues were the objectives they had agreed

upon during their pre-observation conference; (1) development of an anticipatory set; (2) congruence of subject matter and lesson events; and (3) student participation. The fourth issue was time management. Helen announced this concern during the conference. The analysis of transcription data concentrated primarily on data from the conference sections related to the time management issue. However, to provide sufficient data for analysis of active involvement in this conference, it seemed useful also to analyze transcription data from the conference sections relevant to the other three issues. The presentation and discussion of findings from the analysis of the teacher's active involvement in exploration of the principal's observations and in problem solving will be classified under the same headings as those used for the Dyad #1 conferences.

Relates principal's observations to own perspective of events.

When, following his opening comments, Hugh said to Helen "I'd just like to ask you how you felt about the lesson" (1:17-18), Helen responded by identifying the problems she perceived in her lesson. She noted:

"Well, I was aware that we got off track in the discussion of the metaphor and I was losing congruence I didn't think my sense of timing was very good. I should have had a double period, and get into a bit more choral work, and have the kids stand up and do the poem by themselves ... my timing [prevented] ... pulling the lesson to a proper conclusion" (1:19-30)

Hugh prevented Helen from continuing her apparent attempts to reflect upon the problems she perceived with her timing because he demonstrated interest only in those which matched the dyad's three pre-chosen objectives. For those, Hugh provided feedback on his

observations. However, with regard to the time management problems, Hugh said he wanted to "leave that" (1:41-42).

To begin his feedback, Hugh gave a carefully detailed, but somewhat negative, picture of his observation of Helen's loss of congruence during the class discussion of metaphor. When Hugh paused briefly during his feedback, Helen interrupted in order to relate Hugh's observations to her own perspective of events; but when Hugh resumed his feedback by ignoring Helen's perspective and continuing to present his own, she appeared to accept Hugh's observations. As was indicated in Chapter 5, it was this occasion which prompted Helen in her recall interview to note that she "made a conscious decision to leave the gap alone" (1:455). Following this interaction, in response to Hugh's positive feedback on her development of an anticipatory set, Helen tentatively expressed satisfaction with this part of her lesson but did not attempt to relate Hugh's observations to her own perspective. Upon completion of Hugh's observations for this issue, he asked Helen "How did you feel about ...your ability to actively involve the kids in the lesson ...? (1:125-126).

In her response, Helen stated " that was something that I was a bit disappointed in ... I felt it was rather teacher directed" (1:128-130). Helen began to try reflecting on events relevant to this aspect of her lesson, but she appeared to be having difficulty in clarifying her thoughts. Hugh did not reflect and probe to help Helen to clarify her thoughts. Instead, he stated that during the lesson Helen was "staging rather than really allowing [pupils] to really participate with their own notions and ideas" (1:138-139). Immediately, Hugh followed this comment by proceeding with a "directive informational

approach" (Glickman, 1985:169) to suggest how Helen could solve her problems, and thereby prevented Helen from having any active involvement in finding solutions. It was the giving of these suggestions that occupied one-fifth of the total conference time. In the positive feedback which Helen offered Hugh toward the end of the conference, she seemed to be referring to his suggestions for improvement of pupil participation when she said, "your suggestions, I guess, are the kinds of things I'm looking for" (1:225-226).

When Hugh had offered his ideas for improvement in her pupils' active participation, Helen did not ask any questions, nor did she apply any of her own ideas positively and in relation to Hugh's. The transcription data suggested that the absence of this response, which was also evident from the frequency data, may have been associated with the fact that, in his apparent determination to impress his own ideas, Hugh neglected to give Helen either opportunity or encouragement to express her ideas. However, Helen appeared to act more determinedly with regard to her time management problems, and for these she did suggest some of her own ideas.

Applies own ideas. When Hugh had completed his feedback on the dyad's pre-chosen objectives he asked Helen, "Anything else you want?" (1:242-243). Helen took the opportunity immediately to remind Hugh of her time management concerns. She referred to her specific concern with regard to her lesson openings. In her response, Helen appeared to be not only trying to convey to Hugh her picture of relevant events, but also to seek feedback on his observed picture. She explained:

"I don't know whether I seemed disorganized but I should have shut down the game in the gym a couple of minutes earlier. I lost a few minutes at the start of the lesson ... I perhaps should have, you know, shut down the gym game, put the scores up and started the lesson with a little less haste. I don't know if that came across to the observer ... but I mean however, that's the way it really is and whether or not you're here observing isn't really relevant" (1:244-253).

Hugh's reaction to Helen's comments contained neither a presentation of his own picture of these events, nor any reflecting and probing to encourage Helen to continue clarifying her own thoughts about the problem. Instead, Hugh's thoughts seemed to be stimulated only by Helen's last comment, for Hugh reacted by saying:

"I appreciated that, I mean I didn't find you to be orchestrating anything, or acting at all differently than what I thought you might normally do ... that's exactly what happens sometimes in the gym ... you can't artificially just cut them off and say 'Oh my goodness, I've got a performance in the classroom'. No I appreciated that, and I think that it is easier for us to get at those things that you would like to see yourself improve in." (1:254-268).

Hugh's comment seems to imply that he may not have fully recognized that Helen was anxious to improve her time management. During his recall interview, the same implication seemed to re-appear. In his final reply to the principal investigator, Hugh stated, "I think [Helen] and I were able to say exactly what we wanted to say to each other and we covered the ground that we decided" (1:394-396). However, these implications seem to be refuted by the fact that it was Hugh who re-introduced the problem during the second Dyad #2 conference. In her comments above, Helen seemed to be tentatively forming ideas for improving her time management. She repeated this behaviour in the second

conference, but, as in the first, she had no opportunity to apply her ideas in relation to Hugh's because he did not suggest any.

Dyad #2 Teacher's Active Involvement in Post-Workshop Conference

Evidence in Hugh's recall interview suggests that for this conference, Hugh had two purposes in mind: (1) to be "congratulatory" (2:438); and (2) in accordance with his own philosophy of teaching, to encourage Helen to reflect on "a particular slant [she has] on life and how it's reflected in the classroom" (2:653-654). With regard to the first purpose, Hugh praised both Helen's achievement of learning objectives for her pupils, her provision of an anticipatory set, and the increased pupil participation. With regard to Hugh's second purpose, he reflected and probed with respect to Helen's team system of classroom management and seemed thereby to be encouraging Helen to view her classroom in terms of his philosophy. These two activities occupied most of the time in the fifteen minute conference. In the remaining time, Helen's time problem was the subject of the interactions. For the second conference, the analysis of Helen's active involvement was concentrated only on the sections of the conference relevant to the time management concerns.

Presentation and discussion of the findings for Helen's active involvement in the Dyad #2 post-workshop conference are not classified under headings which match those used previously. Instead, findings from analysis of the interaction in the conference section that was relevant to the time management concerns are presented and discussed in order of

occurrence. The transcription data from these interactions support suggestions from the frequency data of an association between Helen's infrequent active involvement and Hugh's behaviours. However, the transcription data reveals new information regarding Helen's active involvement and also clarifies the association between its infrequency and Hugh's behaviours. When appropriate, reference is made during the discussion to responses that correspond to the sub-headings used in the previous presentations.

Following the many congratulatory comments in his introduction, Hugh announced his criticisms regarding Helen's use of time which were reported in Chapter 5. In response, for the first time in this conference, Helen displayed interest in becoming actively involved. Immediately, Helen began to relate Hugh's observation to her own perspective by saying:

"I quite agree ... I mean we will continue this tomorrow in the language period with ... the finishing up of the recordings and whatever else Perhaps you know comparing our previous readings to this, but time really is a factor and I don't know if you noticed but I was forever looking at my watch. I did want to give them time to ... for the drawing of the constellations. I did want to give them time to do this, that, and the other. It is a short period, and you're right it's not properly drawn to a close" (2:80-89).

Hugh did not "read" and "flex" to challenge Helen by reflecting and probing to encourage her to analyze her problem further. Nor did he offer her further observations with which she might have been able to relate her perspective. Instead, Hugh seemed to change his own view of the issue by implying that it did not represent a problem. He suggested to Helen:

"I guess you have to balance [the cost of missing out some activities] against the benefits of allowing all the kids to get an opportunity to practise their reading on the tape-recorder. And I wouldn't want to try and say this is more valuable and that's less ... it just would be nice if we had that longer period where all of the strings could be tied up in a package and everything emphasized (2:90-96).

Although Hugh seemed to suggest outside factors may account for Helen's problem, she appeared unwilling to deny her responsibility for the problem. Instead, Helen continued to reflect on a couple of solutions she had attempted, but about which she still felt unsure. Hugh seemed to block Helen's continued attempts to become actively involved in problem solving by remarking on how quickly the lesson time had passed. Hugh reacted to the closing remark only by saying, "Well [the time] did go very quickly because I think everybody was having fun" (2:105-106).

In her response, Helen seemed to ignore Hugh's reaction while undaunted she continued to pursue discussion of her concern. She did so by selecting and reflecting upon a specific time management problem. As she had done in the first conference, she referred to her difficulty in managing time during the transition from her noon hour gym activities to her lesson. She explained:

"Part of it is, too, we get off to a little bit of a late start. You know coming in from the gym, and I had kids scoring the team points and so on. I guess I could save time, you know I need more time at the beginning of the lesson I mean it could be timed down" (2:107-112).

Despite Helen's two attempts to begin tentatively to form some ideas about how to solve her problem, Hugh neither asked her any questions to help her to clarify her ideas, nor did he suggest any ideas

of his own. As a result, Helen received no suggestions to which she could attempt to relate her own ideas. Instead, upon Helen's mention of "scoring the team points", Hugh was apparently reminded of Helen's team system of classroom management, and he asked, "I wonder if you could comment on that, on the scoring of points for teams and so on. That's an interesting concept and I'm wondering" (2:113-115).

Helen interrupted. "Oh! I meant, I meant the house games", she said (2:116).

Hugh reflected, "Oh, the house games!" (2:117)

Helen continued by explaining, "G. was out scoring the games that had been played at noon hour. He's in charge of that" (2:118-119).

"But you do use the scoring system, the team approach in the classroom?" Hugh queried (2:120).

With a confused look on her face, and in a puzzled tone, Helen repeated "In the classroom?" (2:122)

"I wonder if you could comment on that?" Hugh requested (2:123).

At this point, Helen's confusion seemed to go away. She appeared to give up her attempts to pursue her time management problems, and instead began to explain how she used team scoring in part of her system of classroom management. It appeared that Hugh had been successful in steering the conference away from Helen's time management concern. Evidence in his recall interview suggests that Hugh had diverted the conference on to a topic that was useful in regard to the philosophy of teaching that Hugh was anxious for Helen to think about.

Helen made no further attempts to re-instate discussion of her time management problems. Thus, despite Helen's own attempts to clarify her own view of the problem, Hugh did not appear to "read" her desire to

be helped with further analysis. Nor did Hugh "flex" to help clarify the picture of events relevant to Helen's problems and, thus, help provide her with a foundation upon which to base decisions about changes. Instead of "reading" and "flexing" to challenge Helen's high conceptual level, Hugh seemed to be attempting to rescue her from any threats of challenge. Helen's comments in her recall interview, which were reported in Chapter 5, implied that Hugh's attempts to "rescue" Helen caused her discomfort.

Summary of Dyad #2 Teacher's Active Involvement

Analysis of the frequency data in Tables 4.8 and 4.9. indicated that Helen had almost negligible active involvement in both of the Dyad #2 conferences. Findings from the analysis of the transcription data supported this by revealing that Helen was rarely actively involved either in exploration of the principal's observations or in problem solving. Nevertheless, the transcription data analysis revealed evidence to suggest that Helen was involved in at least three other actions: she identified problems which she had observed in her lesson; she presented preliminary analyses of the problems she identified; and she tentatively attempted to form ideas for solutions of her problems. The latter two actions, which occurred mainly in connection with her time management concerns, seemed to be associated with her high conceptual level.

Teacher's high level of conceptual functioning. Helen's identification of problems was usually a response to Hugh's questions about her impressions regarding her lessons. However, Helen's attempts

to analyze events relevant to the problems and to suggest ideas for solutions did not occur in response to any behaviour enacted by Hugh. These actions seemed to be entirely independent. They revealed evidence not only of Helen's analytical approach to her problems, but also of her willingness to propose that changes in her own behaviours might solve her problems. This evidence suggested the actions were associated with Helen's high conceptual level. However, Hugh did not seem to "read" from these behaviours that Helen was capable of thinking independently about her problems and that she was equipped to face the challenge associated with change. It seems unlikely that Hugh recognized these qualities because evidence suggests that Hugh did not "flex" to challenge Helen's high conceptual level.

Principal's "reading" and 'flexing" to challenge. During the conference, Helen was neither able to continue her efforts to solve the problems she introduced nor to become actively involved in any other problem solving. In the first conference, Hugh demonstrated no interest in solving the time management problems which Helen introduced independently. In the second conference, although Hugh re-introduced the problems, when Helen concurred with Hugh's observations, again he seemed uninterested in solving them. Hugh did not acknowledge Helen's attempts to analyze her problem and to suggest solutions by reflecting and probing to encourage her to continue, nor did he acknowledge her attempts to clarify her picture of events by reflecting and probing to clarify his own picture of events.

Lack of collaboration. Hugh seemed determined to impress Helen that in his understanding of events, there were no time management problems. This behaviour seemed to be typical of other evidence suggesting that Hugh was more anxious to state which issues he believed represented problems and to convey his own thoughts about problems and possible solutions than he was to receive Helen's identification and analysis of problems or her suggestions for solutions. The lack of collaboration in problem solving attempts in the Dyad #2 conference seemed to be partly associated with this behaviour of Hugh's, and thereby contributed to one of the contrasting features of the teachers' active involvement.

BETWEEN-DYAD COMPARISON OF TEACHERS' ACTIVE INVOLVEMENT

Frequency data indicating the teacher's active involvement were scarce for both Helen and Luke. Evidence derived from the transcription data suggested this was not only because many interactions for both dyads involved the giving and receiving of positive feedback, but also because problem solving did not progress in ways that could be detected by the predetermined indicators used for the frequency count.

In Luke's case, the transcription data analysis revealed that the scarcity of frequency data was an inaccurate representation of the extent of his active involvement. The predetermined indicators were unable to detect that Luke was actively involved in collaboratively clarifying pictures of events relevant to issues of concern. Although involvement in this activity was preliminary to making decisions about whether issues represented problems and, if so, how to solve them, it

nevertheless seemed to represent positive participation and progress in problem solving. In Helen's case, also, the transcription data revealed more information than the frequency data. The predetermined indicators included only interactive behaviours, whereas Helen's attempts to initiate active involvement were usually independent. However, there appeared to be no further similarities between the two teacher's active involvement.

Helen attempted to become actively involved in analyzing events and tentatively suggesting solutions relevant to problems she observed in her lesson. Evidence suggested that Helen wanted Hugh to help her clarify her understanding of these events by presenting his observations. However, Hugh seemed unwilling to co-operate. For problems that Hugh was prepared to address, he suggested solutions himself. He did not encourage or provide the opportunity for Helen to become actively involved in examining his solutions. Therefore, unlike Luke, Helen was not actively involved in any positive progress toward problem solving.

The extent of both teachers' active involvement seemed to be partly associated with the extent of their respective principal's capacity to "read" and "flex" in order to offer challenge for the HCL teachers. There was evidence that Lorna could "read" that Luke was an analytical person; further evidence suggested that she "flexed" to provide him with not only opportunities to be analytical, but also to encounter challenge. On the contrary, evidence suggested that Hugh did not "read" Helen's tendency to analyze her problems; and that he not only omitted to "flex" to encourage Helen's analyses, but also inhibited her opportunities to encounter challenge.

Both teachers' analytical approach to issues or problems, and their acceptance of the necessity of changing their own behaviours to solve problems suggested that both teachers were functioning at a high conceptual level. Evidence suggested that positive indications of Luke's active involvement in problem solving were associated with his high conceptual level, with Lorna's "reading" and "flexing", and with the collaborative nature of the Dyad #1 relationship. Positive indications of Helen's active involvement, however, seemed to be associated only with her high conceptual level.

The only issues with which Hugh seemed to be comfortable were those for which he appeared sure that he had ideas. For the issues about which he had ideas, Hugh seemed anxious to impress those ideas upon Helen. It could also be speculated that for the issues which Hugh appeared to avoid, he may have had no ready solutions to present to Helen and thereby felt unprepared to address those issues as problems. This may have contributed to the lack of collaboration that seemed to exist between Hugh and Helen. The interactive behaviours observed in the conference while Luke and Lorna worked together at clarifying their pictures of events seemed to provide evidence of a collaborative relationship. Furthermore, Luke's and Lorna's recall interview comments provided evidence to suggest that each seemed to understand well the behaviours of the other. Neither of these two forms of evidence were apparent for Dyad #2, and observation of their interactions seemed to reveal a lack of collaboration with regard to problem solving. The evidence suggested that the opportunity for the teacher's active involvement may have been differentially associated with the collaborative strength in the dyad's supervisory relationship

SUMMARY

Evidence suggested that Luke had more opportunity than Helen to be actively involved in interactions wherein positive progress toward problem solving occurred. Transcription data regarding Luke's active involvement and Lorna's challenging behaviours provided evidence of responses and behaviours that were different from those described by the predetermined indicators. Lorna initiated most interactions and did so by providing candid pictures of events she had observed. Luke responded by becoming actively involved in comparing Lorna's picture to his own perspective. This collaborative type of interaction provided Luke with a picture of events that he could use as a foundation for decision making following his conferences. Support for the new evidence regarding the usefulness of the "picture" was provided by Helen, who implied she was disappointed that Hugh did not present her with candid pictures of her lesson. Luke's active involvement was usually observed in his responses to Lorna's presentation of observations, whereas Helen's was limited to her own attempts to initiate the application of new ideas to problems she had identified herself. Hugh's behaviours provided Helen with more disincentive than encouragement to respond in ways indicative of active involvement.

Because Luke, who was supervised by the LCL principal, demonstrated greater active involvement than Helen, who was supervised by the M/HCL principal, the active involvement of the teachers did not seem to be differentially associated with the principal's conceptual level in the direction suggested by the results of studies reported by Thies-Sprinthall (1980) and Grimmert and Housego (1983). Evidence in the

present study suggested that the teachers' active involvement was associated with their own high conceptual levels, and may have been differentially associated with the strength of the dyad's collaborative relationship.

Chapter 7

TEACHERS' AUTONOMOUS BEHAVIOUR

The purpose of this chapter is to present and discuss the findings from the third stage in the analysis of the transcription data. This analysis is unlike the third stage of the frequency data analysis in the three ways explained in the introduction to Chapter 5. However, like that analysis, this third stage of the transcription data also addressed research sub-question 1.3 and the third stage of the conceptual model. That is, data were analyzed for evidence of whether the responses of Helen, the Dyad #2 HCL teacher, who was paired with Luke, the M/HCL principal, indicated more autonomy than those of Luke, the Dyad #1 teacher, who was paired with Lorna, the LCL principal.

Although findings from the third stage of the frequency data analysis suggested that neither of the teachers observed in the study demonstrated much autonomous behaviour during his/her supervision conferences, the findings of the transcription data analysis revealed that one of the teachers was offered the opportunity to problem solve autonomously after the conference. This was new evidence regarding teachers' autonomous behaviour and could not be detected by the predetermined indicators used in the instruments for the collection of frequency data (see Appendices A-5 and A-6). The transcription data also revealed evidence in the teachers' responses of some of their previous applications of autonomous problem solving. This information seemed to be a useful indication that the teachers' were functioning at their high conceptual levels.

The presentation and discussion of the findings from this third stage of the transcription data analysis is divided into three main sections. The first two sections contain the findings and discussion regarding teacher's autonomous behaviour for each dyad. The third section compares the two dyads in terms of the teachers' autonomous behaviour.

DYAD #1: TEACHER'S AUTONOMOUS BEHAVIOUR

The analysis of frequency data, reported in Chapter 4, revealed a scarcity of autonomous behaviour among Luke's responses and suggested this may have been associated with an infrequency of Lorna's attempts to "pull" Luke toward high conceptual functioning. In contrast, the transcription data analysis revealed that Luke had little opportunity to display autonomous behaviours, and that this limited opportunity was associated with Lorna's behaviour, although her behaviour did not represent a failure to "read" and "flex" to "pull" Luke toward functioning at his high conceptual level.

Evidence found during the analysis of the transcription data revealed that for most issues addressed during their conferences, Lorna gave Luke the opportunity to behave autonomously at an earlier stage than suggested in the conceptual model. The conceptual model postulates that if the principal is "reading" and flexing" with regard to the teacher's high conceptual level, before "pulling" the teacher toward the making of autonomous problem-solving decisions, he/she will first challenge the teacher to become actively involved in the planning of alternative solutions. Moreover, the conceptual model postulates that

both of these stages will take place during the conference. This was not the case for the Dyad #1 conferences. Instead, Lorna seemed to "read" and "flex" to "pull" Luke's high level of conceptual functioning by "challenging" him to verify autonomously, after the conference, whether their collaboratively acquired pictures illustrated problems which required solutions, and, if so, to perform independently the complete process of problem solving. Luke's comments during his stimulated recall interviews suggested that Luke both understood Lorna's behaviours and appreciated the autonomy which they accorded him.

Responses and behaviours are recorded in Tables 4.10 and 4.11 for the few instances when problem solving proceeded, as postulated by the model, during the conference. These instances occurred in connection with the few occasions when Luke asked Lorna for suggestions. In the ensuing interactions, Luke responded by displaying autonomous behaviours. Although these were the only incidents which provided evidence of autonomous behaviour for solving problems identified during the conference, other incidents seemed to reveal useful information regarding Luke's autonomous behaviour. The transcription data analysis revealed that during the dyad's clarification of events, Luke often demonstrated in his responses how he had previously applied independent problem solving to the issue. The discussion of the evidence revealed by the analysis of the transcription data will be presented simultaneously for the two Dyad #1 conferences, and will be subdivided into two categories: (1) teacher's autonomous behaviour in problem solving during conference; and (2) evidence of previous autonomous problem solving application.

Teacher's Autonomous Behaviour in Problem Solving During Conferences

On one occasion in the first conference and on two during the second, Luke implied that he needed some information and/or advice from Lorna. The most salient of these occasions was when Luke disclosed his problem with "dead" time at the end of his lessons. Although he had hinted about this concern in the first conference, he was much more direct about presenting it in the second.

Most of the behaviours and responses reported in Table 4.11 for Luke were observed during the interactions concerned with Luke's problem with "dead" time. These interactions were explained in detail in Chapter 6, but are briefly outlined here: after Luke announced the problem, Lorna probed and assured Luke that other teachers shared his problem; she probed again but still Luke seemed to have few ideas of his own; and then Lorna made her suggestion of a useful closing activity, and she explained the rationale for this tentatively proposed solution.

Both Lorna's suggested solution and her explanation of its rationale were recorded as negative in the frequency data (see Table 4.11). However, Luke's ensuing response suggested that these behaviours did not seem to detract from his opportunity to problem solve autonomously: following a brief analysis of Lorna's idea, Luke quickly derived an alternative one of his own. Evidence found during the analysis of the transcription data suggested that Luke's positive responses during interactions relevant to the "dead" time problem were associated with Lorna's behaviours. However, problem-solving proceeded no further during the conference beyond Luke's suggestions of possible solutions. That is, Luke made no implementation plans nor evaluation

plans, and Lorna did not attempt to impose any. Evidence to suggest that this situation resulted from Lorna's "reading" and "flexing" with regard to Luke's high conceptual level was found in Lorna's second recall interview.

During her interview, Lorna commented, with regard to implementation of the ideas her suggestion triggered for Luke, that she did not think it "appropriate to try for a commitment" (2: 1359). Lorna's recall comments to the principal investigator provided evidence that Lorna might require a commitment from some teachers to try specific activities that she would observe later. That she did not require this implied Lorna's belief in Luke's ability to make autonomous decisions about implementation. Evidence to support this appeared when Lorna implied that she felt sure Luke would implement something in order to eliminate his "dead" time problem, and that regarding Luke's idea for eliminating dead time at the end of lessons she was "sure that he will pick that up" (2:1452-1453). Development of Lorna's confidence that Luke would "pick up" on his own idea may have been assisted by evidence such as that provided in some of Luke's responses to Lorna's positive feedback. This evidence suggested Luke had previously implemented successful ideas that had resulted from autonomous problem solving.

Evidence of Previous Autonomous Problem-Solving Application

When Luke responded to Lorna's positive feedback regarding his time-saving opening activities, he reflected on how the activities varied but were always "a routine thing" with which students were sufficiently familiar to get themselves started independently. Thus, he

implied that he had consciously and independently planned these activities. Luke was similarly informative during the second conference in his response to Lorna's positive feedback on his efficient handling of transition times. His reflections upon how he had solved previous problems with transition times provided evidence that revealed Luke's ability to independently identify problems, find solutions, and implement new ideas. These reflections were presented in full in Chapter 6, but because they contain some evidence regarding Luke's autonomy, a few excerpts are repeated here. Luke's comment that he had at one time been "trying how do you get this from one activity to the next" (2:139-141) suggested that Luke had independently planned and applied alternative solutions for the problem. His declared decision that "well I won't worry about what they're doing between the activities essentially ... but [they had] better be ready" (2:141-145), implied how he had independently selected and implemented his idea of imposing a two-minute time limit on transitions.

Regardless of whether an issue had been approached by Lorna in her "neutral" or her positive way, Luke responded often with information that indicated his autonomous behaviours. When this was a response to Lorna's "neutral" presentations and accompanying probing, Luke may have provided this information because he inferred that Lorna was searching for it. Often, however, as on the two occasions discussed above and without any prompting from Lorna, Luke volunteered this information as a response to Lorna's "positive" feedback. This suggests that on these occasions, Luke may have been taking additional opportunities to notify Lorna of his ability to cope with problems autonomously, and may have

been hoping that as a consequence Lorna might be encouraged to continue to provide him the opportunity for autonomy.

Summary of Dyad #1 Teacher's Autonomous Behaviour

Analysis of the frequency data suggested that Luke's responses rarely demonstrated autonomous behaviour and that this non-performance was associated with the low frequency with which Lorna behaved in ways which would "pull" Luke's level of conceptual functioning. However, the transcription data analysis revealed contrary evidence that suggested Lorna was providing Luke with an opportunity to make autonomous decisions about problem solving, after the conferences, and thereby to function at his high conceptual level.

On the rare occasion when an issue was addressed during the conference as an explicit problem, Luke displayed autonomous behaviours that seemed to be associated with Lorna's behaviours. However, even on these occasions, the process of problem solving was not completed during the conference. Instead, Lorna left Luke with the opportunity to make autonomous decisions regarding implementation after the conference.

Despite the fact that Luke's autonomous problem solving behaviours regarding issues addressed during the conference could not be observed, analysis of the conference interactions revealed evidence within many of Luke's responses that his current procedures resulted from the previous application of autonomous problem solving. Moreover, it appears that these previous applications of autonomous problem solving may have been associated only with Luke's high conceptual level, as there was no

evidence to suggest that they occurred in association with any interaction between himself and another person.

DYAD #2: TEACHER'S AUTONOMOUS BEHAVIOUR

The analysis of the transcription data revealed evidence to support the findings from the frequency data that the absence of Helen's autonomous behaviour may have been associated with Hugh's failure to "read" and "flex" to "pull" Helen's high conceptual functioning. In addition, the transcription data revealed evidence to suggest that Hugh often behaved in ways which impaired opportunities for Helen to behave autonomously.

The discussion and findings for the analysis of the transcription data regarding the Dyad #2 teacher's autonomous behaviours are presented in the same two subsections used in the presentation for the Dyad #1 teacher: (1) teacher's autonomous behaviour in problem solving during conferences; and (2) other within conference evidence of teacher's ability to solve problems independently.

Teacher's Autonomous Behaviour in Problem Solving During Conferences

In Chapter 6, the findings and discussion regarding Helen's active involvement indicated that during her identification of her problems with time management, she appeared to be tentatively forming ideas for improvements. Evidence suggested that Helen's tentative proposals for change were made without any encouragement from Hugh. The independence that Helen displayed through this behaviour suggests that she was

prepared and able to proceed with autonomous problem solving. Evidence presented in Chapter 6, however, revealed that, by refusing to discuss time management and by deflecting discussion away from the issue, Hugh impeded Helen's attempts to involve herself actively in suggesting solutions. Thereby, he appeared also to thwart any approaches Helen may have been making toward autonomous problem-solving for her time management concerns.

This evidence offers support for the suggestion derived from the analysis of the frequency data displayed in Table 4.12 that Hugh engaged in behaviours which seemed to have potential for discouraging Helen's attempts to behave autonomously. Although the frequency analysis was unable to detect the behaviours reported above regarding Helen's time management, in connection with other concerns it was able to find that: Hugh selected solutions; he stated the associated rationales; and he even suggested how, in one case, the solution might be implemented and evaluated.

Evidence suggested that Hugh failed both to "read" Helen's ability to problem solve and to "flex" to encourage her to do so. Furthermore, there was no evidence among Hugh's comments during his stimulated recall interviews to suggest that he expected Helen to problem solve independently outside of the conference time.

Evidence of Previous Autonomous Problem-Solving Application

The only sections of the conference which were relevant to time management concerns were those wherein Helen was attempting to initiate problem solving for current concerns. There were no occasions upon which

Helen referred to any of her current time management procedures as successful. Thus, the transcription data analysis was unable to reveal evidence of Helen's previous application of autonomous problem solving to issues which had been previously solved.

Summary of Dyad #2 Teacher's Autonomous Behaviour

Findings from the frequency data that Helen's responses provided no evidence of autonomous behaviour for problem solving were supported by the transcription data, which also added information that Helen was attempting to prepare herself to behave autonomously in problem solving. The transcription data both supported and clarified the suggestions from the frequency data that the absence of Helen's autonomous behaviour was associated with Hugh's failure to "read" and "flex" to "pull" Helen's level of conceptual functioning. The transcription data revealed that Hugh's behaviours not only failed to provide Helen with the opportunity to behave autonomously, but they also impeded Helen's attempts to proceed toward autonomous problem solving. Helen had no opportunity to demonstrate during the conference that she had solved previous problems independently.

BETWEEN-DYAD COMPARISON OF TEACHERS' AUTONOMOUS BEHAVIOUR

During their conferences, Luke demonstrated autonomous behaviour for solving one problem only, but Helen demonstrated none. Evidence suggested that factors which contributed to this scarcity were different for each teacher. The opportunities for the teachers to demonstrate any

previous, successful applications of autonomous behaviour in problem solving were also different. The findings and discussion for this comparative analysis is presented in two subsections, each of which addresses one of these differences.

Factors Associated with Scarcity of Autonomous Behaviour

Although both Luke and Helen identified time management problems, only Luke received the opportunity to behave autonomously with regard to solving his problem. Both the frequency data and the transcription data suggested that Luke's autonomous behaviour in problem solving for his "dead" time problem was associated with both Lorna's behaviours and his own high level of conceptual functioning. It was the only occasion upon which Luke demonstrated autonomous behaviour, during the conferences, for solving a problem. The transcription data added to the frequency data, however, by revealing that Hugh had made autonomous decisions about introducing his "dead" time problem into the conference.

Transcription data added to evidence revealed by the frequency data by suggesting that for the time management problems which Helen introduced, Hugh behaved in ways that obstructed what appeared to be Helen's attempts to initiate opportunities for autonomous problem solving. For problems that Hugh was willing to address, evidence suggested he either failed to provide encouragement and opportunity for Helen to problem solve autonomously, or he behaved in ways which were negative with regard to her opportunity to behave autonomously. Thus, the infrequency of Helen's autonomous behaviour during the conference seemed to be associated with not only Hugh's failure to "read" and

"flex" to "pull" her level of conceptual functioning, but also his actions to repress some of Helen's behaviours that appeared to be associated with her high conceptual level.

In Dyad #1, the transcription data added information that most of the issues addressed were introduced by Lorna, and that her way of addressing issues provided a different kind of opportunity to behave autonomously than that pre-determined by the indicators. Evidence suggested that Luke inferred from Lorna's style of introducing issues for collaborative analysis only, during the conferences, that he was expected to make autonomous problem solving decisions afterwards. Luke demonstrated no autonomous behaviour for problem solving in connection with these issues. Thus, most issues were not explicitly addressed as problems to be solved during the conference, and the resulting infrequency with which Luke demonstrated autonomous behaviour did, therefore, seem to be associated with Lorna's behaviour. Thus, unlike the absence of autonomous behaviours for Helen, the absence of autonomous behaviour during most of Luke's conference time was found to be associated with behaviours that were positive with regard to "pulling" his conceptual level; that is, Lorna's positive efforts to provide Luke with an opportunity to make autonomous decisions about problem solving after the conference.

Previous Application of Autonomous Behaviour for Problem Solving

Because the pre-determined indicators used for collection of the frequency data could not discern teachers' previous application of autonomous problem solving, the transcription data provided all the

information about this. In Luke's explanations of how he had planned and selected alternative solutions in order to develop procedures for which Lorna had given positive feedback, he was able to indicate the success of some of his previous autonomous efforts to solve problems. Because evidence suggested these efforts had been entirely independent, they appeared to be associated only with Luke's high conceptual level.

Similar evidence was not available for Helen. She seemed to have no opportunity to explain any previous, successful solutions for any of her time management problems, thus she seemed to have no opportunity to demonstrate that she was able to independently solve problems successfully.

SUMMARY

The frequency data displayed in Tables 4.10, 4.11, 4.12, and 4.13 indicate that Luke displayed autonomous behaviours very rarely, and Helen displayed none. Analysis of the frequency data suggested that this infrequent occurrence may have been associated with the principals' infrequent "pulling" behaviours. However, the transcription data revealed that much of the evidence regarding the teacher's autonomous behaviour could not be discerned by the predetermined indicators used for collection of the frequency data. The transcription data revealed evidence of the teachers' autonomous behaviours during the conference, and the teachers' previous applications of autonomous problem solving.

During their supervision conferences, an absence of autonomous behaviour was observed for Helen and a scarcity for Luke. For both teachers, absence of their behaviours appeared to be associated

differentially with the principal's behaviours. In Helen's case, it appeared to be associated with Hugh's failure to provide her with any opportunity to behave autonomously. In Luke's case, the absence appeared to be associated with not only Lorna's perception of Luke's capability for making independent decisions about problem solving, but also her provision of an opportunity for him to problem solve autonomously after the conference. Responses indicating autonomous behaviour for problem solving during the conference were observed for Luke.

In providing Luke an opportunity to behave autonomously, i.e., to function at his high conceptual level, Lorna's behaviours did not seem to typify "pulling" as postulated in the conceptual model. Lorna's behaviour seems to be best described as "reading" and "flexing" to enable Luke to acquire candid pictures that challenged him to verify autonomously whether or not the issues were problems which required solutions, and if so what those solutions should be. Thus, Luke's opportunity for autonomy appeared to be associated with this behaviour.

The scarcity of the teachers' demonstrations of autonomous behaviours makes it impossible to answer the question of an association between teachers' responses indicating autonomous behaviour and principals' conceptual level. However, because Luke, who was supervised by the LCL principal, Lorna, received an opportunity to behave autonomously, whereas Helen, who was supervised by the M/HCL principal, Hugh, received none, there was evidence to suggest that the teachers' opportunities to function at their high conceptual levels were not associated with the principal's conceptual level in the way that the research literature would suggest.

Chapter 8

ASSOCIATION OF TEACHERS' RESPONSES WITH FACTORS OTHER THAN THE PRINCIPAL'S CONCEPTUAL LEVEL

The fourth stage of the transcription data analysis addressed the second purpose of the study and the second research question; that is, data were analyzed for evidence of whether the responses of the two HCL teachers in the study seemed to be associated with factors other than the principal's conceptual level. The purpose of this chapter is to present the findings and discussion regarding five factors that were identified: (1) the principal's supervisory experience; (2) the principal's efforts to portray lesson events candidly; (3) measured conceptual level versus principal's functional conceptual level in supervisory role; (4) the duration of the dyad's supervisory relationship; and (5) the teacher's high level of conceptual functioning. The findings and discussion will be presented in five sections which respectively address each of the five factors. This artificial segregation of each factor is for purposes of organization only. It does not represent disregard for the possibility that the teachers' responses may be associated with various combinations of the factors, or that some factors may be associated with one another.

PRINCIPAL'S SUPERVISORY EXPERIENCE

The two principals had different amounts of supervisory experience. Lorna had been a school administrator for eight years, and a

principal for five of these eight years. In contrast, Hugh was only in his first year as a principal. Thus, Lorna had at least five years of supervisory experience, whereas, at the time of the Dyad #2 pre-workshop conference, Hugh had only two months of experience. Evidence suggested that the teachers' responses may have been differentially associated with two characteristics in the principals' behaviours that may have been linked to the principals' supervisory experience: (1) requirement of adherence to a structured conference plan; and (2) ability to observe and report specific details.

Principal's Requirement of Structured Conference Plan

Evidence suggested that the two principals in this study differed in their requirements regarding adherence to a structured conference plan. The discussion of these requirements and of how the teachers' responses may have been associated with them is presented first for Dyad #1 and second for Dyad #2.

Dyad #1 principal's requirements for structure. Evidence suggested that Luke's positive responses, including his development of ideas for solving his "dead" time problem, were associated with Lorna's amenability to making changes in the conferencing style that she customarily used with Luke. Behaviours which typified her customary style, noted in Chapters 5 and 6, included: Lorna's identification of issues to be discussed; her provision of detailed feedback on observations relevant to the issues; her encouragement of Luke's clarification of observations; and her allowance for Luke's autonomy in

problem solving. In her recall interviews, Lorna's articulate descriptions of this conferencing style suggested it was consciously planned. The interactions regarding Luke's "dead" time problems, however, gave evidence of Lorna's willingness to adapt her behaviours. Lorna's changed behaviours included: receptiveness of Luke's identification of problems; accommodation of discussion regarding an issue for which she had no observations; and willingness to present ideas when Luke implied he had none of his own.

Lorna appeared amenable to altering her conferencing behaviours according to both the situation and the characteristics of the teacher being supervised. Evidence suggested that Luke responded positively to behaviours that Lorna may not have employed while supervising some other teachers. Lorna's recall interview comments indicated her inclination to adapt her conferencing approach to suit teachers' requirements. The Dyad #2 principal's comments suggested that he did not have the same inclination.

Dyad #2 principal's requirements for structure. Hugh stated in his first recall interview that "with another teacher [he was] using the same format" (1:403-404) as he was using with Helen. Yet he appeared unsure about his "format". He stated that "I don't have a framework or an agenda" (1:401-402), and implied that he was searching for these. In Hugh's second recall interview, he seemed anxious about structure when he revealed his concern about having "limited strategies" in the second conference because of "not having a chance to prepare" (2:881-882). This evidence suggests that the reason for Hugh's insistence on addressing only the dyad's pre-chosen objectives was to retain a

structured agenda. The content of Hugh's feedback indicated he had limited his observations to events that were relevant to the objectives identified during the dyad's pre-observation conference. Because time management was not among those, Hugh's dismissal of Helen's attempts to address her time concerns suggested he did not want to interfere with his agenda either by adopting new goals, or by discussing events for which he had no recorded observations. The infrequency of responses indicative of Helen's active involvement seemed to be associated with Hugh's aversion to alterations in his "agenda".

It was noted in Chapter 5 that the decline in Helen's comfort and confidence seemed to be associated with Hugh's omission of comments about "things ... that aren't of a positive nature" (2:258-259). During the second Dyad #2 conference, Hugh's refusal to allow Helen to regard her time management as a problem may have been part of his attempt to achieve the goal implied in his recall interview, that is, to make the conference "a congratulatory type" (2:439). In connection with this, Hugh may have been fearful that acknowledgement of Helen's concerns might result in loss of positivity.

Comparison of principals' requirements for structure. Not only was Lorna better able than Hugh to describe the routine behaviours she used for supervision, but also she was more amenable to altering her routine to suit the situation and the supervisee. This suggested that Lorna did not require structure to help guide her supervisory behaviours, whereas Hugh did. This difference in their apparent requirements for structure may have been associated with the differences in the two principals' experience. Lorna's greater experience may have helped her to develop

sufficient confidence to change or to work without a plan if necessary. Because the teachers' responses seemed to be differentially associated with the principal's requirement for structure, they seemed to be indirectly associated with the principal's supervisory experience as did the principal's ability to observe and report on specific details.

Ability to Observe and Report Specific Details

It was noted in Chapters 5 and 6, and will be discussed in greater detail in the next section, that Luke responded positively to Lorna's presentation of detailed pictures of events, and that Helen seemed disappointed with Hugh's failure to present either detailed or true pictures. Hugh rarely reported specific events and when he did, as in the case of his report of an occasion when Helen failed to wait long enough for a student's response, he seemed to recall no clearer detail than that it occurred "right in the middle of the lesson" (214). Hugh thereby failed to enable Helen to recall the incident and reflect upon it. Although the incident was relevant to one of the dyad's objectives, Hugh's statement that "I wish I, I failed to write it down (1:214-216) suggested that, even for events relevant to the dyad's objectives, Hugh found difficulty in recording his observations in sufficient detail. Most of Hugh's observational feedback lacked the accuracy and detail that was displayed in Lorna's "mirror".

It seems reasonable to assume that, compared to Hugh, Lorna may have developed better skills in observing, recording, and reporting specific details because of her greater amount of experience and practice in classroom observation. This ability to observe and report

seemed to be of importance in another factor with which the teachers' responses seemed to be differentially associated; that is, the principal's presentation of candid pictures of events.

PRINCIPAL'S PRESENTATION OF CANDID PICTURES OF EVENTS

Both Luke's and Helen's recall interview comments gave evidence that their responses were differentially associated with their opportunity to acquire a clear picture of events relevant to issues of concern. The evidence suggested that both teachers associated this opportunity with their respective principal's efforts to present candid pictures of the events. Findings and discussion regarding the principal's presentation of a candid picture and the teachers' associated responses will be presented separately for each dyad.

Dyad #1: Principal's Presentation of Candid Pictures of Events

The findings and discussion presented in Chapters 5, 6, and 7 have respectively revealed that Luke's responses indicating comfort and confidence, active involvement, and opportunity to behave autonomously appeared to be associated with Lorna's presentation of candid pictures of events. It was noted that Luke repeatedly emphasized how "the amount of detail" in Lorna's feedback and "the many specific things that she can refer to and recall" enabled him to feel comfortable and confident that "she [was] very interested in what was going on in [his] room" (1:167-171) and "she may have some important things to tell [him], either positive or negative...."(1:175-176). Lorna's frank and detailed

observations provided Luke with a "mirror" image of his lesson. Moreover, evidence suggested that Luke's responses indicating active involvement were associated with his opportunity to view the image with Lorna and to join her in its examination and clarification. This collaborative activity seemed to provide Luke with sufficient preparation for autonomous behaviour in problem solving.

Whereas Luke's responses indicating a positive opportunity for development seemed to be associated with Lorna's presentation of candid pictures, Helen's comments suggested that candid pictures were the missing ingredient with which she associated her lack of opportunity for development.

Dyad #2: Principal's Non-Presentation of Candid Pictures of Events

In some of Helen's first recall interview comments, reported in Chapter 5, she expressed appreciation of Hugh's positive attitude. Although, at that time, Helen seemed unsure of how to describe her reaction to any other aspects of Hugh's behaviour, it was noted that she was able to do so more articulately in her second conference. Then she revealed her concern that Hugh was omitting information she required. Helen explained that, "[Hugh] perhaps doesn't give back a clear picture of the lesson ... because he really doesn't focus on inadequacies or shortcomings" (2:238-242), and that she did not know if she had "heard all that needs to be said" (2:246-247).

Helen's concern was possibly associated with Hugh's failure to help her to clarify her own non-positive view of events relevant to her time management problems. Perhaps because of his lesser experience, Hugh

avoided this issue because he had not developed the skill exhibited by Lorna for presenting non-positive feedback in a "neutral" way; i.e., with an unbiased attitude. Hugh seemed only to associate non-positive information with teacher discomfort, but, ironically, Helen's responses to Hugh's habit of avoiding or minimizing the non-positive seemed to be discomfort at not being able to acquire a candid picture.

Because Hugh's behaviours regarding non-positive feedback occurred in spite of Helen's demonstrated willingness to identify negative aspects of her teaching, it appeared that Hugh was neither "reading" nor "flexing" to the level of conceptual functioning being demonstrated by Helen. This was one of several behaviours which suggested that, while supervising Helen, Hugh was not functioning at the moderately high level suggested by his performance on Schroder et al. (1967) Paragraph Completion Test of Conceptual Level. Hugh's failure to present Helen with the candid pictures she desired seemed to be partly associated with his lowered level of conceptual functioning.

MEASURED CONCEPTUAL LEVEL VERSUS FUNCTIONAL CONCEPTUAL LEVEL IN THE SUPERVISORY ROLE

Evidence suggested that the teachers' responses may have been differentially associated with the principal's level of conceptual functioning in the supervisory role. Although Hugh's behaviours suggested that his level of conceptual functioning was low during his supervision of Helen, Lorna's behaviours, during her supervision of Luke, suggested that she was functioning at a higher level than the low one measured for her by the Schroder et al. (1967) Paragraph Completion

Test of Conceptual Level. The findings and discussion regarding the principal's levels of conceptual functioning as distinct from his/her test score will be presented separately for each dyad.

Dyad #1: Principal's Measured vs. Functional Conceptual Levels

Evidence suggested that Lorna was able both to "read" Luke's high conceptual level and to "flex" to his requirement to function at a high conceptual level. Evidence of Lorna's "flexing" suggested that she was not functioning at a low conceptual level while supervising Luke. Although Lorna wished occasionally to impose her own teaching philosophies, she was more often willing to allow Luke the autonomy of retaining his own; and although Lorna more often identified the issues to be discussed, she displayed equal interest in issues identified by Luke.

During her second recall interview, Lorna provided evidence that she realized Luke was "willing to be critical of himself" (2:1469). Lorna also noted that she could "ask any sort of critical question of him" without his interpreting it as "an attempt on [her] part to find something to criticize him [negatively] about" (2:1503-1506). Lorna demonstrated "flexing" to this characteristic when she probed to encourage Luke to reflect upon the "dead" time problem he revealed. Nevertheless, before probing, Lorna seemed to "read" and "flex" accurately Luke's requirement for support of his comfort and confidence during discussion the issue. Instead of trying to retain positivity by denying or minimizing Luke's problem, as Hugh did with regard to Helen's identified time problems, Lorna emphasized the importance of finding

solutions. She implied that these could be useful in other areas of the school where teachers were experiencing "dead" time problems.

It has been noted that evidence suggested Lorna recognized Luke's thoughtfulness and his analytic ability, and how accordingly she gave him the opportunity to both become actively involved in analyzing her feedback and to problem solve autonomously. Thus, Lorna seemed to give evidence of functioning above her measured low conceptual level by recognizing and responding when Luke required tentative suggestions regarding his "dead" time problem. The more positive nature of Luke's attitude during supervision, in comparison to Helen's, seemed to be associated with the higher conceptual level at which Lorna seemed to be functioning in the supervisory role, in comparison to Hugh.

Dyad #2: Principal's Measured vs. Functional Conceptual Levels

The decline in Helen's positivity appeared to be associated with Hugh's failure to "flex" to the requirements of her conceptual level. Previously discussed findings suggest that Hugh did not "read" the extent of either Helen's wish to solve her time management problems or her willingness to encounter relevant non-positive feedback, nor did he "flex" to help her find solutions. This evidence suggests that Hugh was functioning at a low conceptual level. Hugh's inflexibility seemed to be partly connected with his insistence that the dyad should concentrate on the objectives selected during their pre-conference. Because evidence suggests this insistence may have been associated with Luke's inexperience both in classroom observation and in conducting supervisory

conferences, it appears that his low level of conceptual functioning may have also been associated with his lack of experience.

Evidence of Hugh's low level of conceptual functioning appeared in his attempts not only to encourage Helen to blame her time management problems on factors other than her own behaviours, but also to blame factors outside himself for problems he encountered during the conference interactions. During his second stimulated recall interview, Hugh indicated feelings of dissatisfaction with the second conference. He implied that he believed he should have talked less, but he blamed Helen's shyness for his feeling "that I have to ask a million questions to get her to open up" (2:474-475). Hugh stated with regard to the discussion of Helen's team system of classroom management "the interchange ... [was] all very surface" and the topic was "really not the agenda" (732-734). Hugh blamed these defects on having insufficient time to plan for the conference, which was held immediately after the lesson. He complained that he had "limited strategies ... not having [had] a chance to prepare" (2:881-882). Hugh's concern that lack of preparation time interfered with his chance to think about "where I was going, what I was doing, how I was doing it" (2:890-891), seemed to provide additional evidence that, as a supervisor, he was less flexible than Lorna. Her opinion that "the hardest thing ... is to find time after the lesson, close to the lesson when I think it's really important to actually sit down with that interview" (2: 1518-1521) contrasted sharply with Hugh's complaint about too little time between lesson observations and supervisory conferences. In additional remarks, Lorna implied that she preferred holding a conference while details were fresh in participants' minds, whereas Hugh implied that he could not adapt

unless he had enough time between lesson and conference to think over lesson events and to plan suitable conference strategies.

Evidence suggested that contrary to "reading" and "flexing" to areas in which Helen desired development, Hugh redirected the conference towards instructional interests of his own. Hugh exhibited this style of behaviour when he evoked Helen's description of her team system of classroom management. In his second recall interview, Hugh explained the purpose of this diversion to the principal investigator: he wanted Helen to be able to reflect on how her own "slant ... on life ... is reflected in the classroom" (2:653-654), and thereby to adopt a philosophy of teaching which Hugh had accepted as important. Helen's lack of opportunity for active involvement and autonomous problem solving seemed to be associated with this additional behaviour of Hugh's demonstrating his failure to recognize or address the areas in which Helen was interested in developing.

During the second conference, when Helen agreed with Hugh's observations regarding her time management problems, he failed to recognize that Helen's agreement presented an opportunity for them to problem solve collaboratively. Instead, he immediately attempted to divert discussion away from the problem. During his recall interview, because the reason Hugh gave for this behaviour seemed to be linked to a rigid notion about problem solving, it provided further evidence to suggest Hugh was functioning at a low conceptual level. Hugh stated that Helen "agreed [with his observations] so there wasn't much [to] debate" (2:482-484). Thereby, he suggested that, because he envisioned conflict was a prerequisite, he could not entertain the idea of problem solving for an issue about which there was agreement at the start. The ensuing

conference interactions, wherein Hugh managed to avoid the problem while Helen attempted to pursue it, contrasted with the many collaborative interactions that occurred between Lorna and Luke. Evidence suggested that the difference in the collaborative nature of the principal/teacher relationships may have been associated with differences between the durations of the supervisory relationships.

THE DURATION OF THE DYAD'S SUPERVISORY RELATIONSHIP

The duration of a dyad's supervisory relationship might be measured either by years or by the number of formal supervision conferences the dyad has shared. According to either standard of measurement, the Dyad #1 relationship was of longer duration than that of Dyad #2. The Dyad #1 relationship was in its second year and the observed conferences were the dyad's fourth and fifth, whereas the dyad #2 relationship was only in its first year and the observed conferences were their first and second. Because, in this study, evidence suggested the frequency of the teachers' positive responses to supervision was associated with the collaborative presentation and analysis of detailed pictures of events, it seemed important to analyze the data for evidence of whether the difference in the collaborative nature of the dyads' interactions was linked to the differences between the lengths of the supervisory relationships.

Analysis of the transcription data revealed some evidence to suggest why a collaborative relationship may take time to develop. The findings and discussion will concentrate on two factors which seemed to be the most evident: (1) the requirement of time for dyad members to

clarify for themselves how their supervisory conferences can be made beneficial, and (2) the requirement of time for the development of mutual understanding between teacher and principal.

Time for Learning How Conferences Can Become Beneficial

Among the findings and discussion presented in Chapter 5, it was noted that Luke was aware that, between the first and second year's conferences, a change had occurred in Lorna's supervisory behaviours. Luke's recall interview comments about these changes revealed evidence of growth in his understanding about which of Lorna's behaviours provided him with an opportunity for development. In this regard, he was able to explain articulately why he believed Lorna's use of "neutral" feedback was more beneficial to him than negative feedback. Luke explained that over time Lorna retained positive and "neutral" feedback, whereas she eliminated negative feedback. These comments revealed evidence to suggest that not only Luke's, but also Lorna's understanding of which behaviours were beneficial for Luke's development had increased over time. During their recall interviews, whereas both Luke and Lorna displayed an understanding of how the behaviours enacted by Lorna were beneficial for Luke's development, this understanding was not evident between Hugh and Helen whose relationship was of shorter duration.

The Dyad #2 members' comments during their first stimulated recall interviews suggested they began their first conference without any clear ideas of what behaviours should be used by the principal to contribute to teacher development. Hugh's comments indicating he was unsure about how to behave have been previously discussed in connection with his

inexperience in the supervisory role. With regard to how he did behave, in response to questioning from the principal investigator, Hugh indicated that he was unaware that he interacted with Helen in two different ways. When the principal investigator observed that Hugh gave feedback when he appeared to have a supportive purpose and began questioning and probing when he appeared to think Helen could have behaved differently, Hugh stated "whether, I consciously did that or not ... I can't say" (1:308-310). Hugh continued by implying that he had not consciously planned these behaviours to elicit specific types of response from Helen.

In her first recall interview, evidence suggested that Helen sensed Hugh had not behaved exactly as she would have liked, and that she was unable to identify what was missing. Helen's comment that because of Hugh's unthreatening kind of behaviour she "saw the [conference] as a positive thing ... so from that point of view it was ... okay" (1:421-423) seemed to imply that she sensed a need for more than positivity. In response to the principal investigator's closing invitation to help him to interpret the conference and observation data, Helen's comment "I have a general sort of vague feeling, but I don't know how to describe it" (1:497-498) suggested her unsureness of the nature of her additional requirements. During her second recall interview, however, Helen's tentative identification of behaviours she would have liked Hugh to perform suggested that her increasing experience with supervision was helping her to understand how Hugh could aid her development. In addition to support for her feelings of security, the behaviours Helen identified were those that would help her to acquire a candid picture of her lesson.

Although, during Hugh's second recall interview, he assigned blame to factors other than himself, he did seem to be more aware of the inadequacies of the conference than he had been with regard to the first. For instance, Hugh's comment that "I try not to do as much talking but...." (2:475-476) suggests that he may have become aware of the undesirability of his tendency to dominate talk and time. However, his statement that to make a conference successful he needed "a while to go home and distill and get below the surface of the act [seen in the classroom]" (2:743-744), suggests Hugh felt required to draw inferences from his observations. This was incongruent with Helen's implied requirement for a candid picture formed from raw observations. Thus, Hugh's comment suggests that he had not developed an understanding of Helen's requirements.

Building Mutual Understanding

Evidence was presented in Chapters 6 and 7 to suggest Hugh did not recognize the characteristics indicating Helen's level of conceptual functioning and therefore did not understand her needs regarding opportunity for development. In addition, Hugh's statement, during his second recall interview, that "as I get to know [Helen] over time I'll be able to be more free about how I say things" (2:693-694) suggests that he felt he had not worked long enough with Helen to be sure of how to approach her.

Although Hugh's comments during his second recall interview and his behaviours during the second conference suggested there was no improvement in his understanding of Helen's requirements or her

responses, Helen's understanding of Hugh's behaviours did appear to improve. This understanding seemed evident in Helen's descriptions, during her second recall interview, not only of Hugh's preference for retaining positivity, but also of how she inferred an association between this preference and Hugh's failure to provide her with candid pictures of her lesson. However, it appeared that Hugh's failure to understand Helen's requirements and responses may have been partly responsible for the absence, during Dyad #2 conferences, of the collaborative interactions that were evident in the Dyad #1 conferences.

Lorna's understanding of Luke's requirements seemed evident not only in her enactment of behaviours that provided him with the opportunity to use the analytical ability which she recognized he possessed, but also in her recognition of occasions that warranted her suggesting ideas. Evidence suggested that in return, Luke understood how and when Lorna was offering him autonomy; that she would assist him to think of solutions if he indicated a requirement for help; and that it was prudent occasionally to implement methods preferred by Lorna. In addition, Luke appeared to understand that Lorna required support for her own development as a supervisor. Evidence which suggested that Luke was able to "read" and "flex" to encourage Lorna's development was among that which suggested that the responses of both teachers in the study may have been associated with their high levels of conceptual functioning.

THE TEACHER'S HIGH LEVEL OF CONCEPTUAL FUNCTIONING

The findings and discussion presented in Chapters 5 and 6 included evidence to suggest that both Helen and Luke were functioning at a high conceptual level. Neither teacher was reluctant to accept either explicit or implicit suggestions that changes in his/her classroom management may be required, and both teachers readily disclosed information regarding problems in their classroom management which they had recognized for themselves. Neither teacher made excuses for his or her problems by assigning blame to factors outside his or her control. Instead, each seemed to imply his/her conviction of having responsibility to alter his/her behaviours in order to solve problems. While presenting their perspective on issues discussed during conferences, both teachers demonstrated reflective and analytic styles of thinking. The evidence suggested that whereas some responses indicating the teachers' high level of conceptual functioning may have been associated with the principals' efforts to support comfort and confidence or to challenge active involvement, others appeared to be associated with the teachers' high conceptual level.

The transcription data analysis also revealed evidence of the teachers' "reading" and "flexing" in order to encourage the principal to maintain or develop supervisory behaviours that were supportive of the teachers' requirements for security, active involvement, and autonomy. Because this behaviour was autonomous and appeared to involve "reading" and "flexing" to the principal's requirements, it seemed to be associated with the teachers' high conceptual level. The purpose of this section is to present the findings and discussion regarding the

teachers' "reading" and "flexing" to "pull" their principals' development. Evidence revealed by the analysis of transcription data will be presented separately for each dyad.

Dyad #1: "Pulling" of Principal's Development in Supervisory Role

Evidence in Luke's recall interviews suggested that he associated his comfort and confidence with both the genuine interest Lorna demonstrated through her detailed and accurate feedback, and the respect he believed Lorna demonstrated for his capabilities and experience by trusting him to make his own decisions with regard to problem solving. In addition, the evidence suggested that Luke associated his opportunity for active involvement and autonomous behaviour with three factors: Lorna's habit of presenting feedback as though she were "holding up a mirror" to provide him with a detailed image of his lesson; Lorna's acceptance, in most instances, of his methods and accompanying rationales even when they did not match her own; and Lorna's "neutral" style of presenting feedback and of probing for clarification of issues for which she may have gained negative impressions during her observations. Evidence suggested that during the two observed Dyad #1 conferences Luke responded to these behaviours in ways that seemed intended to encourage Lorna to maintain her style of supervision with him.

In addition to exhibiting enthusiasm and interest, Luke displayed four types of responses whereby he appeared to be "reading" and "flexing" to encourage Lorna to continue her behaviors: (1) by providing detailed description of his own perspective, he demonstrated his own

interest in each issue raised by Lorna; (2) by conforming with Lorna's rationales and methods when she occasionally wanted these adopted school-wide, he displayed his appreciation of Lorna's allowance and acceptance of his autonomous decisions about most teaching matters; (3) by seeking Lorna's help with his "dead" time problem and thereby informing her of his belief in her ability to offer him valuable help, Luke attempted to reinforce Lorna's confidence in the potential usefulness of her supervision; and (4) by giving Lorna positive feedback, following conferences, on aspects of her behaviour which he found supportive. Lorna's own recall interview comments indicated that Luke's responses had the desired impact on Lorna.

In Lorna's second stimulated recall interview, she implied Luke's disclosure and request for help regarding his "dead" time problem had impressed her. Lorna stated that she regarded it a sign of a successful interview when Luke felt "free to be able to reflect on the fact that [something's not always good]" (2: 1272-1274). In addition, Lorna's comments provided evidence that following the second Dyad #2 conference Luke had continued to give her positive feedback. Lorna reported that:

"[Luke] commented that ... he was delighted with my skills ... of observation - that I saw so many more things than he felt anyone has ever seen before. I was really pleased about that because I've really wondered whether I was observing the things that were important to observe and whether I was able to ... record them and get them back to the teachers.... he thinks that one of the successes has been the fact that I have looked at my role ... as ... being an observer's role and it's after that then we begin to put the picture together and decide more what it means and ... he thought that was a more successful approach (2: 1578-1596).

These comments reveal that Luke attempted to provide Lorna with a detailed and accurate picture of her supervisory behaviour. In his feedback, Luke demonstrated to Lorna that he had analyzed her behaviours

with care, interest, and enthusiasm all of which lent credibility to his feedback. Thus, his style of feedback seems to reflect Lorna's, and thereby to offer her an opportunity to experience the value of her style of feedback to its receiver.

Lorna implied both her appreciation that she was able to "analyze [her approach] with [Luke]" and her recognition that as a principal "you don't always get a chance to analyze with somebody else" (2:1597-1598). Furthermore, Lorna mentioned throughout their supervisory relationship that Luke had given her "very positive and good feedback on what sort of things I've been doing" (2:1568-1569) and "so that's been gratifying" (2:1572).

Because evidence suggests that during the second year of Dyad #1 conferences, Lorna reacted positively to Luke's encouragement, it seems possible that a change in Lorna's feedback between the first and second years may have been associated with the feedback Luke gave regarding the dyad's first three conferences. Luke comments regarding his first year with Lorna suggested that Lorna's style had changed, in the second year, to one which provided less negative feedback, more "neutral" feedback, and thereby more autonomy for Luke. Although Luke referred to receiving negative feedback from Lorna in the first year, during the two videotaped conferences analyzed for this study there was no evidence of Lorna giving negative feedback to Luke. In his first recall interview, Luke mentioned that in their first year together, if Lorna had a negative feeling about something "she just said flat out that it should be done differently" (1:284-285). This statement implied that Luke perceived a change to have occurred in Lorna's style of supervising him. During the dyad's second year together, Lorna did not propose anything

Luke should do except when she tentatively offered suggestions following Luke's implicit or explicit request for ideas.

Some of Helen's responses resembled those whereby Luke attempted to influence Lorna's supervisory behaviour. Thus, although Helen seemed unsuccessful, it appears that she may have been attempting to "pull" the development of Hugh's conference behaviours.

Dyad #2: "Pulling" of Principal's Development in Supervisory Role

Although Helen's attempts to "pull" Hugh's behaviour seemed to show some results in the first conference, no results were evident in the second. Helen had less opportunity to "pull" Hugh's behaviours in the second conference, and her one attempt was unsuccessful. However, because Helen's comments in her second recall interview suggest she was beginning to understand how she would like Hugh to behave, if their conferences were to continue for a longer period, it seems possible that Helen might make a greater effort than she did in the observed conferences to "pull" Hugh's behaviours. While presenting some of her own thoughts and ideas about her problems, Helen's demonstration of her analytic abilities seemed to have the potential to encourage Hugh to provide her with opportunities to become actively involved and to behave autonomously in problem solving. With regard to her time management problems, when Helen accompanied her introductions and responses with tentative ideas for solving her problems, she may have been attempting not only to activate problem solving, but also to demonstrate her ability to think independently about her problems. Her valiant efforts suggested that Helen may have been striving to "pull" Hugh towards

providing her with his observations of events associated with her problems and thereby to provide her with more information on which to base decisions. When Helen responded by becoming actively involved in discussion of issues of interest to Hugh, she may have been hoping that he would reciprocate with respect to issues about which she had concerns.

Helen's comments toward the end of the conference suggested that Helen intended to encourage Hugh to continue those behaviours which she regarded as supportive of her feelings of security. Her praise for Hugh's supportive behaviour seemed also to suggest that Helen was "reading" and "flexing" to support Hugh's needs for security. Helen may also have been responding with consideration for his security when she co-operated in discussing issues of his choice and when she decided to appear to comply with some of his ideas to avoid continued discussion of a topic for which she believed agreement between herself and Hugh was unlikely.

Although there was some evidence to suggest Helen achieved slight success with her attempts during the first conference to "pull" Hugh's behaviours regarding his attempts to help her with her student participation problem, the results were not evident during the second Dyad #2 conference. Possibly because Hugh's objective was to make the conference "congratulatory", Helen seemed to have little opportunity to "pull" Hugh's behaviours during their second conference.

SUMMARY

Although the overall, more positive nature of Luke's responses as compared with Helen's, with respect to all three stages of the conceptual model, did not appear to be associated with the principal's conceptual level, evidence did suggest that Luke's positive responses may have been associated with behaviours which were enacted by Lorna that may have been linked to factors other than her conceptual level. Differences in the teachers' responses appeared to be connected with their principal's needs and abilities that seemed to be differentially associated with the extent of the principal's experience in the supervisory role. Evidence suggested that, because of inexperience, Hugh may have been more reliant on structure than Lorna and that this reliance seemed to interfere with Hugh's perception of Helen's needs. The greater positivity in Luke's responses, as compared to Helen's, seemed to be associated with Lorna's ability to observe and provide accurate, detailed reports. On the assumption that it takes time to develop observation and reporting skills, Helen's and Luke's positivity appeared also to be associated with the amount of the principal's experience.

The principals' efforts to present candid pictures of events seemed to be differentially associated with the development of their skills in observation and reporting. Evidence suggested that Luke perceived a strong association between his opportunity for development and Lorna's presentation of candid pictures of events. The analysis of his responses indicating opportunity for development provided evidence of this association. Helen's only implication of a reason for her

disappointing opportunity for development was her association of it with Hugh's presentation of distorted and incomplete pictures of events. Thus evidence suggested that the teacher's responses may have been importantly associated with their principal's differential efforts to present candid pictures of events.

The principals did not seem to be functioning at the conceptual levels suggested by their performances on the Paragraph Completion Test. On the contrary, Hugh seemed to be functioning at a low level, and Lorna seemed to be functioning at a level higher than that suggested by her performance on the test. Some of Hugh's behaviours, for instance those which implied his need for structure, suggested that the low level at which he was functioning in his supervisory role may have been associated with his inexperience. Analysis of the positive or negative qualities of the teacher's responses suggested that they were differentially associated with the principal's level of conceptual functioning.

Hugh's apparent pre-occupation with not only his search for structure, but also his own beliefs seemed to interfere with opportunities for collaboration between himself and Helen. In this regard, however, the short duration of the Dyad #2 supervisory relationship also seemed to be a factor. Because the teachers' responses seemed to be differentially associated with the extent of collaboration within the dyadic relationship, they seemed to be indirectly associated with the duration of the dyad's supervisory relationship. Evidence suggested that the greater length of the Dyad #1 relationship had enabled both Lorna and Luke not only to develop better individual realizations of what behaviours might be required of the principal to

make supervision beneficial for the teacher, but also to build mutual understanding of one another's requirements and characteristics.

Finally, evidence suggested that both Helen's and Luke's positive responses seemed to be associated with their own high levels of conceptual functioning. Although Helen's positive responses seemed to be associated only with her high level of conceptual functioning, Luke's positive responses seemed to be associated also with the other four factors discussed in this chapter. However, because Luke appeared to be exercising his high conceptual level to encourage Lorna to develop and maintain the behaviours to which he responded positively, it seemed possible that some of his responses which appeared to be associated with other factors may also have been indirectly associated with his high level of conceptual functioning. The evidence suggested that both Helen's and Luke's high level of conceptual functioning may have been an important factor in their opportunities for development during supervision.

Chapter 9

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The purpose of this chapter is to present a brief summary of the complete study, to draw conclusions about both findings of the study and the applicability of the model and instruments, and to derive implications of the study for further research and use of the model and for practice. The contents of the summary include brief descriptions of the rationale and purpose, the development of the conceptual model and the instruments, the data collection and analysis methods, and the main findings of the analysis. The conclusions about the findings compare and contrast them with those from previous studies. The conclusions about the model and instruments involve a critique of their usefulness in the study. The implications include three sets of suggestions: (1) for further study of supervision for high conceptual level (HCL) teachers both in principal/teacher dyads and in teacher/teacher dyads; (2) for a revised conceptual model for the facilitation of development for HCL teachers, and for future applications of both the revised and the original conceptual models; and (3) for the practice of HCL teacher supervision.

SUMMARY

This study sought to examine the value of supervisory conferences as learning experiences for expert or potentially expert teachers. Because the supervision conference was regarded as a special case of

adult learning and because high conceptual level (HCL) suggested a means of identifying potentially good teachers, a conceptual framework was developed from theories of adult learning and from Hunt's Conceptual Levels theory. As a result, the purpose of the study became twofold: (1) to ascertain whether or not high conceptual level teachers' responses during supervisory conferences appear to be differentially associated with the conceptual level of the supervising principal; and (2) to ascertain whether high conceptual level teachers' responses during the supervisory conference appear to be associated with factors other than the principal's conceptual level.

Literature on adult learning and conceptual development was reviewed, and from a synthesis of these two literatures, a three dimensional conceptual model was designed to represent the facilitation of development for an HCL teacher as consisting of three stages. The model postulated that if the teacher were being provided with ideal conditions for his/her development, certain categories of responses would be observable during each stage: in the first stage the teacher's responses would indicate comfort and confidence; in the second stage they would indicate active involvement in problem solving; and in the third stage they would indicate autonomous behaviour. Each stage of the model was used to identify from the research literature, indicators of the teacher's responses and the principal's behaviours that would be apparent under ideal conditions for the HCL teacher to function at his/her high conceptual level. These indicators were then used to design instruments for the collection of frequency data regarding teacher's responses and principal's behaviours.

The subjects of the study were two principals and two teachers who formed two separate supervisory dyads. Both of the teachers had high conceptual levels. One of the principals had a moderate/high conceptual level, whereas the other had a low conceptual level. The sources of data were videotapes of four supervision conferences, that is, two conferences for each dyad; the transcripts of the conference dialogues; and the transcripts of stimulated recall interviews that were held separately with teachers and principals following each of their supervision conferences.

Two distinctly different types of data were extracted from the above sources. The first were frequency data which were obtained by observing videotapes of two supervision conferences for each dyad. The data collection was facilitated by asking the question "Do the teachers' responses and principals' behaviours look like the predetermined indicators, and if so, with what frequency?" The second were data obtained from transcriptions of the dialogue in both the teachers' and the principals' stimulated recall interviews with the principal investigator, and the sections of the supervision conferences that stimulated the recall. Unlike the frequency data, the transcription data were not collected by using any predetermined indicators. Instead, the data were allowed to emerge from the transcriptions in response to the question "What do the teachers' responses and principals' behaviours look like?" The analysis then examined whether the evidence that was revealed about the responses and behaviours suggested they fitted the stages of the conceptual model, and if so, whether they validated or clarified suggestions provided by the frequency data analysis, or offered new evidence of responses and behaviours that should belong in

the categories. Both sets of data were analyzed for evidence of the teachers' comfort and confidence, active involvement in problem solving, and autonomous behaviour, and for evidence of principals' behaviours with which the teachers' responses might be associated. In addition, the transcription data were analyzed for evidence of factors, other than the principal's conceptual level, with which the teachers' responses appeared to be associated. The main findings of the data analyses follow.

Findings of Frequency Data Analysis

The small amount of frequency data collected for the second and third stages of the model meant that the analysis of these data produced very tentative findings. The main findings of the analysis follow.

Teacher's comfort and confidence.

- The Dyad #1 teacher displayed comfort and confidence which seemed to be associated with both his high conceptual level and the principal's supportive behaviours.
- The Dyad #2 teacher initially displayed comfort and confidence which seemed to be associated with both her high conceptual level and the principal's supportive behaviours. In the second conference, a decrease in the teacher's comfort and confidence seemed to be associated with a decrease in the principal's supportive behaviours.

Teacher's active involvement.

- The Dyad #1 teacher's active involvement was infrequent, but no association between this infrequency and the principal's behaviours was apparent.

- The Dyad #2 teacher's active involvement was infrequent. The infrequency appeared to be associated with the principal's infrequent enactment of challenging behaviours.

Teacher's autonomous behaviour.

- For Dyad #1, an infrequency of autonomous behaviour in the teacher's responses seemed to be associated with the principal's infrequent enactment of "pulling" behaviours.
- For Dyad #2, an absence of autonomous behaviour in the teacher's responses seemed to be associated with an absence of "pulling" among the principal's behaviours.

Overall, the frequency data analysis indicated that the Dyad #1 teacher displayed positive responses more frequently than the Dyad #2 teacher, and the Dyad #2 principal displayed negative behaviours more frequently than the Dyad #1 principal.

Findings of Transcription Data Analysis

The transcription data analysis uncovered more information than the frequency data analysis. The main findings follow.

Teacher's comfort and confidence.

- The Dyad #1 teacher experienced increasing comfort and confidence that seemed to be associated with both his own high conceptual and the principal's behaviours, which were supportive of the teacher's security, active involvement, and autonomous behaviour.
- The Dyad #2 teacher initially displayed comfort and confidence which may have been associated with her impression of the principal's supportiveness, but an eventual decline in her comfort and confidence seemed to be associated with her

principal's discouragement of her efforts to become actively involved.

Teacher's active involvement.

- The Dyad #1 teacher became actively involved in collaborative clarification of candid pictures of lesson events, which were presented in the principal's feedback.
- The Dyad #2 teacher was not encouraged by her principal to become actively involved, and her own attempts to initiate her active involvement were discouraged.

Teacher's autonomous behaviour.

- The Dyad #1 teacher was given the opportunity to use his clarified pictures for making autonomous problem solving decisions after his conferences.
- The Dyad #2 teacher displayed no autonomous behaviour, and the principal appeared to be unaware of the teacher's ability to behave autonomously.

Overall, the findings of the analysis suggested that the responses of the teacher who was paired with the LCL principal indicated he was provided with more suitable supervisory conditions for HCL teacher development than the teacher who was paired with the moderate/high conceptual level principal. The teachers' responses which provided positive evidence of their high conceptual level functioning during the supervision conferences did not appear to be differentially associated with the principal's conceptual level, but did appear to be associated with factors other than the principal's conceptual level.

CONCLUSIONS

The concluding comments are derived from two categories of information resulting from the study: (1) findings of the study in comparison to those of previous research; and (2) the applicability of the conceptual model and the data collection methods.

Findings of the Study in Comparison to Those of Previous Research

Because the interactions of only two supervisory dyads were examined for this study, it is not presumed that the conclusions derived from the findings apply necessarily to other dyads. However, because some interesting comparisons can be made between the findings of this study and those of previous research, it is proposed that the conclusions are worthy of presentation because they appear to have implications for further research. Both the comparison of findings with those of previous research and the resulting conclusions are presented in three subsections: (1) favourable conditions for HCL teacher development; (2) factors associated with favourable conditions for HCL development; and (3) beyond Glickman's developmental supervision.

Favourable conditions for HCL teacher development. Both teachers in this study demonstrated independence and assertiveness, that is, behaviours which Kidd (1973) listed as characteristics of adults functioning at a high conceptual level. Nevertheless, each teacher implied that, in order to feel comfortable and confident, he/she required the support of a secure environment with features matching

those described by several researchers of adult learning. The Dyad #2 teacher's remarks about the non-threatening nature of her conferences appeared to support Long's (1983) claims that adults require freedom from feelings of personal threat and stress in their learning environments. Evidence that the Dyad #1 teacher derived comfort from his principal's provision of positive feedback whenever due, and of non-positive feedback in a "neutral" way, supported the findings of Thornton (1986), Thibodeau (1980), and Rogers (1977) that all opportunities to provide positive feedback to adults should be utilized, and that unavoidable negative feedback should be presented in a way that emphasizes development as opposed to deficit. Galloway, Seltzer, and Whitfield (1980) found that adult learners require their instructors to be accurately responsive in order to find them credible and trustworthy. This requirement was evident in the Dyad #1 teacher's appreciation of his principal's accurate feedback and in not only the Dyad #2 teacher's disappointment in her principal's incomplete and inaccurate feedback, but also her implied concern about its lack of credibility.

Based on the findings for both dyads, it would appear that environmental security is an important component of supervision that aims to provide developmental opportunities to HCL teachers. Thus, it would appear that principals' supervisory behaviours need to offer support for the HCL teacher's feelings of security in ways which have been advocated as a result of studies of adult learners.

The findings suggested that the HCL teachers in the study did not feel comfortable and confident in a supervisory situation unless it challenged them to become actively involved and to behave autonomously in problem solving; that is, unless it provided them with an opportunity

to function at their high conceptual level. The Dyad #1 teacher appeared comfortable and confident that the pictures, presented in his principal's feedback, provided him the opportunity to become actively involved in the analysis of the events they illustrated, and to make problem solving decisions autonomously after the conference. The Dyad #2 teacher expressed disappointment in her principal's failure to present candid pictures of lesson events. She explicitly linked this failure with her principal's reluctance to discuss negative aspects of her lessons. The Dyad #2 teacher's references to this reluctance seemed to imply she was disappointed by her principal's discouragement of her attempts to initiate her own active involvement in problem solving for concerns which she had identified herself. From the findings, for both dyads, it would appear that while the HCL teacher needs environmental support in order to feel sufficiently comfortable and confident to become actively involved or to behave autonomously, he/she loses comfort or confidence in a situation which denies him/her opportunities to become actively involved and to behave autonomously. Thus, the findings suggest that to provide ideal developmental conditions for the HCL teacher, the principal needs to behave in ways which support both the security and the high conceptual level requirements of the teacher.

Factors associated with favourable conditions for HCL teachers' development. The results of previous studies (e.g., Thies-Sprinthall, 1980; Grimmett and Housego, 1983) indicated that HCL principals were able to be effective when matched with a teacher of any conceptual level, whereas LCL principals were effective with none. On the contrary, in this study, the responses of the HCL teacher, Luke, who was paired

with the LCL principal, Lorna, offered more evidence of supervisory conditions that were favourable for HCL teacher development than did those of the HCL teacher, Helen, who was paired with the M/HCL principal, Hugh. Helen's responses indicated less comfort and confidence, less active involvement, and less autonomous behaviour than did Luke's responses. Thus, from the findings of this study, it would appear that the principal's conceptual level, i.e., the paper and pencil measure, may not be an important factor in the facilitation of supervisory conditions which are conducive to HCL teachers' development.

Although the findings suggested the principal's conceptual level was not a factor with which the teachers' responses were associated, they did reveal five other factors with which it appeared possible to make such an association. One of these, the principal's efforts to present candid pictures, was discussed above. The other four factors were: the principal's level of conceptual functioning in the supervisory role; the principal's supervisory experience; the length of the supervisory relationship; and the teachers' high level of conceptual functioning. A recent study by Grimmer and Crehan (1988) has noted the possible importance of the last three of these factors.

Two of the factors seem to be especially important to the facilitation of supervisory conditions conducive to HCL teachers' development. The first is the duration of the supervisory relationship, an important product of which may be a collaborative relationship; the second is the teacher's own high conceptual level which seems to be an important factor in the development of the collaborative relationship. The principal's ability to present candid pictures is also revealed as an important factor, but it is listed in fourth place because a

collaborative relationship seems to be a pre-requisite for its usefulness. This ability may also have been associated with the conceptual level at which the principal was functioning in the supervisory role, and with the principal's supervisory experience. The more favourable supervisory conditions for HCL teacher development, which seemed to exist in the Dyad #1 conferences as compared to the Dyad #2 conferences, appeared to be associated with these other factors. The findings suggest these factors may be more important than the principal's conceptual level in the facilitation of supervisory conditions which can offer development for the HCL teacher.

Extending Glickman's model of developmental supervision. The principal's behaviours that seemed to facilitate the Dyad #1 teacher's opportunity for both active involvement and autonomous behaviour did not appear to match the "non-directive" style which Glickman (1985) implies is suitable for HCL teacher development. Rather, the Dyad #1 principal's behaviours seemed to fit into the category of behaviours which Glickman refers to as "directive informational". With the exception of one occasion when the teacher made an implicit request for help with a problem, the Dyad #1 principal merely presented her feedback and then probed and reflected to challenge the Dyad #1 teacher to analyze her observations and his own perspective. However, instead of continuing, as Glickman suggests, to probe and reflect in order to encourage the teacher to suggest ideas, to find alternative solutions, and to continue with the problem solving process, the Dyad #1 principal gave the teacher the opportunity to make all the problem solving decisions autonomously

after the conference. She even left it to the teacher to decide independently whether or not the issue represented a problem.

The Dyad #1 teacher appeared to attribute his opportunity for development to the autonomy that his principal's supervisory style accorded him. The principal's efforts to present candid pictures, that is, the behaviour that seemed to challenge the Dyad #1 teacher to become actively involved in analyzing issues and to problem solve autonomously, was identified in the study as one of the factors with which the two teachers' positive responses seemed to be differentially associated. These findings suggest that facilitation of development for HCL teachers does not automatically require a "non-directive" approach. Moreover, it would appear that it may be important for the principal as supervisor to be aware that alternative possibilities, such as that described above, may exist for the facilitation of development for HCL teachers. Moreover, it would appear that further exploration in order to find conditions which facilitate development for HCL teachers is desirable.

Summary of Substantive Conclusions

The findings of this study give rise to four important conclusions regarding supervisory conditions which facilitate the development of HCL teachers, namely:

- (1) to facilitate development of HCL teachers, supervision should offer a secure environment and both opportunity and encouragement for active involvement and autonomous behaviour in problem solving;
- (2) the existence of conditions which facilitate development of HCL teachers may not be associated with the supervisor's conceptual level;

- (3) the existence of conditions which facilitate development of HCL teachers may be associated with factors other than the principal's conceptual level, the most notable of which appear to be the teacher's HCL, and the duration of the supervisory dyad's relationship; and
- (4) there would appear to be models for the facilitation of development for HCL teachers that offer alternatives to Glickman's model of non-directive supervision.

Applicability of Conceptual Model and Data Collection Methods

The instruments designed for the collection of frequency data regarding the teachers' comfort and confidence were usable, but those designed for the collection of data regarding the teachers' active involvement and autonomous behaviour were inadequate. The inadequacy occurred mainly because the predetermined indicators of active involvement and autonomous behaviour did not match the responses and behaviours which were observed in the videotapes. The indicators in the instrument were mostly derived from Glickman's (1985) descriptions of behaviours that would occur during non-directive supervision (for the positive indicators) and directive supervision (for the negative indicators), but these supervisory styles were not employed by the principals in the study. Moreover, because the specificity in the descriptions of some of the behaviour indicators prevented similar, but not identical, behaviours from being recorded, the instruments did not seem to contain enough behaviour indicators. Despite the inadequacies of the instruments, the conceptual model from which the instruments were derived was found to be helpful.

The three dimensions of the conceptual model and the three stages it postulated for the facilitation of development for an HCL teacher

provided a useful guide for the analysis of the transcription data. However, the findings of this analysis indicate that to reflect more accurately the process that the two HCL teachers in the study would appear to regard as facilitative of an opportunity for development, the conceptual model for HCL teachers needs to be revised. As has been discussed above, the responses of both teachers indicated that to feel comfortable and confident they required not only a secure environment, but also the opportunity to become actively involved and to behave autonomously; that is, to function at their high conceptual levels. In Figure 9.1, the illustration of the revised model depicts this integration by nesting, inside the box containing the comfort and confidence dimension, both the box containing the active involvement dimension and the beginning of the open ended box containing the autonomous behaviour dimension.

In the revised model, the dimensions of the stage containing active involvement could easily be re-labelled to make the model representative of the Dyad #1 interactions. The principal's behaviour would be altered to "read" and "flex" to challenge with candid pictures of events, and the teacher's response would be altered to active involvement in analysis and clarification of the principal's candid picture. These behaviours are not described on the diagram of the revised model in order that it may be used to examine situations wherein the active involvement may not take the same form as it did for Dyad #1 in this study.

The new model is intended only to represent facilitation of development for an HCL teacher. Because this study did not investigate development for low conceptual level teachers, it is not possible to say

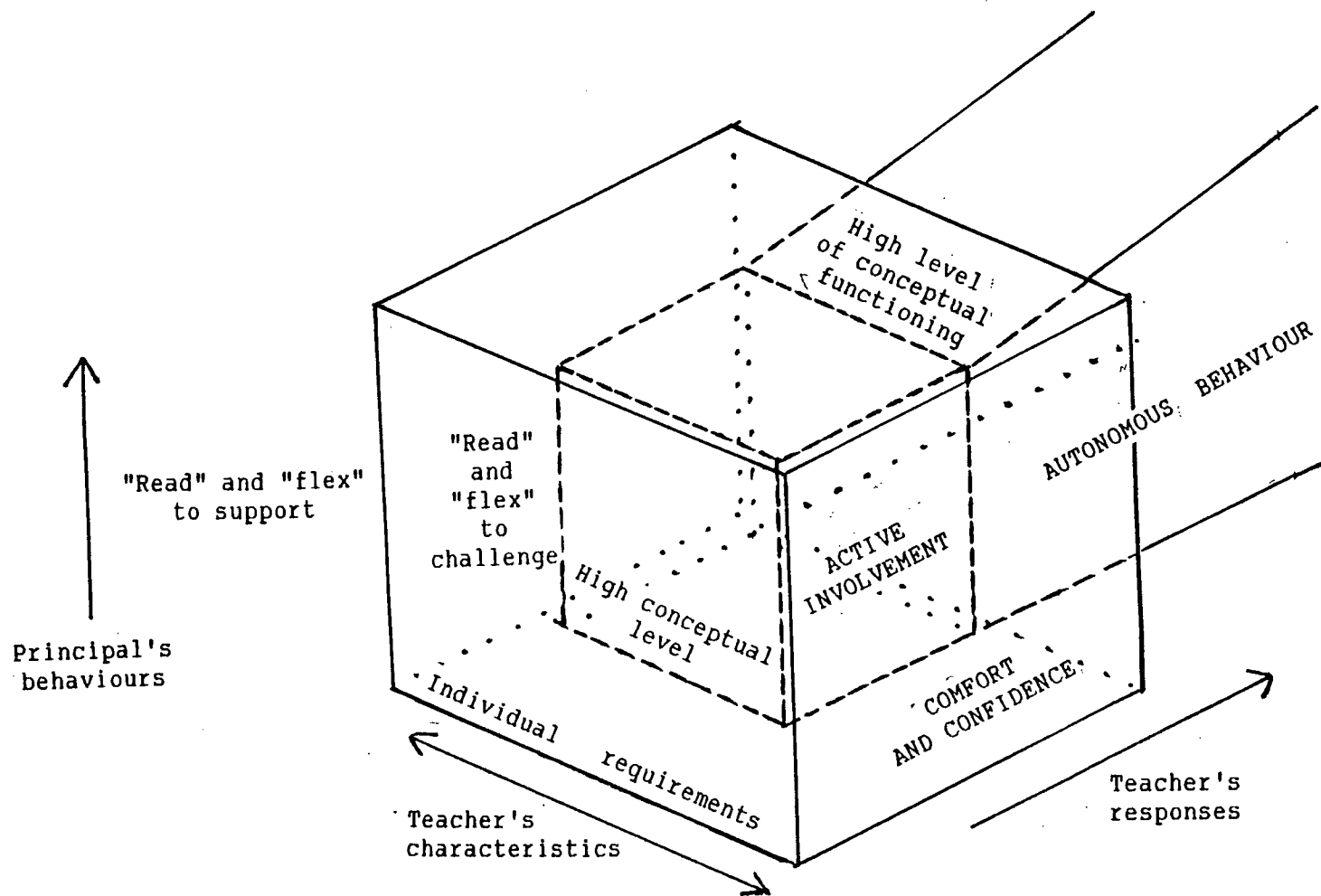


Figure 9.1. REVISED CONCEPTUAL MODEL FOR FACILITATION OF DEVELOPMENT FOR HIGH CONCEPTUAL LEVEL TEACHER SUPERVISEES

whether the new model could be adapted to represent facilitation of development for LCL teachers. However, the results of this study seem to indicate that the original model could be adapted for use in a study of LCL teacher development, and that such a study might result in the development of a new model for LCL teachers.

IMPLICATIONS

From the conclusions of this study, three sets of implications have been generated: (1) implications for the purposes of further research studies; (2) implications for continued use of the conceptual model; and (3) implications for practice.

Implications for Further Research

Because the findings of this study suggest that the opportunities for the two high conceptual level teachers in the study to function at their high conceptual level during supervision was not associated with the principal's conceptual level but rather with other factors, it appears that the purposes of further research must be to gain better understanding of which factors are the most important to HCL teachers' opportunities for development.

Principal's level of conceptual functioning. The need for further research, employing larger samples of supervisory dyads, seems to be implicated for investigating the association between high conceptual level teachers' opportunities for development and the conceptual level

of their principals and/or the conceptual level at which the principal is functioning, independent of the paper and pencil measure, in the supervisory role. The finding, from this study, that neither principal was functioning at his/her measured conceptual level, suggests the need for studies of whether principals necessarily function in the supervisory role at a level that is commensurate with their measured conceptual levels, and whether this varies with experience. Moreover, the findings suggest the need to investigate whether, in supervisory conferences, facilitation of conditions under which HCL teachers can function at their high levels is associated with factors other than the principal's conceptual level; for instance, the principal's supervisory experience.

Teacher's HCL and the duration of the supervisory relationship.

The findings from this study suggested that, in supervisory conferences for HCL teachers, both the teacher's and the principal's opportunities for development may be associated with the teacher's high conceptual level and the duration of the supervisory relationship. The evidence revealed about these two factors seems to suggest the need for further investigation of their importance in principal/teacher supervision. Moreover, it seems to point toward the need for investigation of teacher/teacher supervisory dyads, and the opportunity for development these may offer HCL teachers in comparison to the opportunity offered in principal/teacher dyads.

Teacher/teacher dyads. Part of the rationale for suggesting the value of investigating teacher/teacher supervisory dyads is that it is

more likely for a teacher/teacher supervisory relationship to be of long duration than a principal/teacher relationship. This would be true whether the duration of the relationship were to be measured in years or in number of conferences held. Given the time constraints placed upon the principal, it seems reasonable to assume that few principal/teacher supervisory relationships last for more than one year at a time, and that during that one year, only two, or possibly three observations and conferences take place. The greater ease with which a teacher/teacher pairing could extend their supervisory relationship and increase the number of their observations and conferences suggests the teacher/teacher relationship as possibly more advantageous than the principal/teacher relationship. This advantage might be increased if a collaborative relationship is an important factor as is suggested by this study. For a teacher/teacher dyad, a collaborative relationship might be built more quickly and easily than in the principal/teacher relationship not only because of the greater availability of time, but also because of the absence of hierarchical authority in the relationship. The absence of authority may also make it easier for the HCL teacher to exercise his/her high conceptual level in order to encourage the other member of the dyad to behave in ways that could be beneficial to both members' development.

The nature of HCL teachers' opportunities for active involvement and autonomous behaviours. The findings of this study regarding the difference between the nature of the active involvement and autonomous behaviour that was useful to the Dyad #1 teacher and the nature of the active involvement and autonomous behaviour, postulated on the basis of

Glickman's (1985) model, points to the need to investigate further how HCL teachers become actively involved and behave autonomously during conferences that succeed in offering them development. In such an investigation, the question to be asked would not be "do they do this or that?" but instead would be "what do they do?". Qualitative analysis would be appropriate for such an investigation because it might uncover important information about the facilitation of development for HCL teachers. The revised conceptual model could be used to generate data for further study, and it would be able to facilitate examination of data for evidence of whether, in common with the teachers in this study, comfort and confidence is not complete for HCL teachers unless they are being challenged to become actively involved and to behave autonomously.

Implications for Further Use of the Conceptual Model

The three dimensions and the three stages of the conceptual model for the facilitation of development for the high conceptual level teacher were found to be useful in the analysis of the qualitative data. With the guidance of the conceptual model, evidence was found regarding not only the association of the teachers' opportunities with the principal's conceptual level, but also the other five factors. The usefulness of the model in the qualitative analysis in this study implies that it would be equally useful in any study which employs a larger sample in attempts to find data to support or refute the findings of this study. The revised model does not change the three dimensions of the model or its three stages; it merely involves a re-arrangement of the stages in which the re-arrangement might more correctly be referred

to as components. The revision does not prevent the new model from being used as the original was in the transcription data analysis for this study.

The instruments which were derived from the conceptual model for the collection of frequency data were not adequate because the indicators used with regard to two stages of the model did not anticipate the behaviours performed by the subjects in this study. If a new instrument were designed to include both the old indicators and new ones which could be derived from this study, the instrument would become rather cumbersome and would probably still not anticipate the behaviours that might be observed among the interactions of other supervisory dyads involving HCL teachers.

The usefulness of the original conceptual model for guiding the analysis of data, and for developing a new model, seems to indicate its potential use for future studies of the interactions of supervisory dyads wherein the teachers have low or moderate conceptual levels. With adjustments, the model might be useful for attempting to ascertain whether the opportunities for development for these other types of teacher supervisees are associated with the conceptual level of the principal, or the teacher colleague in the case of teacher/teacher dyads, or with other factors. Such application of the adjusted models might enable the development of new models for investigating supervision of these other types of teacher supervisees. The first stage of the model would remain the same for all teachers in order to test whether support for comfort and confidence is important and takes the same form for all supervisees, and the second and third stages could be adjusted to reflect Glickman's (1985) directive style of supervision for low

conceptual level supervisees, and Glickman's (1985) collaborative style of supervision for moderate conceptual level supervisees. Accordingly, for the first of these models, the teacher's responses in the second stage might be described as "acceptance of solutions", and in the third stage "acceptance of implementation and evaluation plans". For the second model, the teacher's response in the second stage might be described as "open exchange of suggestions and differences", and in the third stage might be "negotiation behaviour".

Finally, the dimensions and components of the revised conceptual model make it applicable to the investigation of the interactions during both peer, i.e., teacher/teacher supervision, and principal/teacher supervision. Thus, the model could be usefully applied to studies of high conceptual level teachers in peer supervision dyads, and to studies which compare the opportunities for development of high conceptual level teachers in teacher/teacher dyads with their opportunities for development in principal/teacher dyads. The findings of this study suggest that investigation of these two types of dyads would be potentially useful to advance the knowledge base for inservice teacher development in general, and for HCL teachers in particular.

Implications for Practice

The findings of the study implicate that an HCL teacher's development may be facilitated by a principal whose behaviours are congruent with the teacher's need for comfort and confidence, active involvement, and autonomous behaviour. To help achieve this congruence,

according to the findings of the study, the five behaviours listed below should be employed by supervisors of HCL teachers.

1. Supervision should mirror the conditions which teachers believe enable them to deal effectively with pupils and pupils' learning in classrooms. That is, the supervisor should recognize and adapt to the individual needs of the teacher supervisee. The responses of the teachers in the study revealed that even in the case of the HCL teacher, who typically is confident, the supervisor should offer support by demonstrating respect and understanding of the teacher's personal characteristics such as his/her classroom teaching experience and his/her previous impressions of supervision.

2. The supervisor needs to be unthreatening but forthright in presenting feedback on his/her observations. The development of one of the HCL teachers in the study was repressed by supervisory feedback which, though intended as support, had the effect of dismissing the problem which the teacher had identified, was prepared to own, and wished to solve.

3. Supervisors should capitalize on the HCL teacher's willingness to identify his/her own problems. When one of the principals in the study responded to a problem identified by the teacher, teacher development resulted.

4. Any pre-observation conference agreement made by the supervisor and teacher should not be allowed to impede opportunities for teacher

development which arise in the post-observation conference. Through insistence on sticking rigidly with the pre-observation plan, one of the principals in the study forfeited an opportunity for the teacher to problem solve. The implication of this is that if a teacher identifies additional problems during the post-conference, opportunities for the teacher to address these problems should be provided.

5. Supervisors need to develop skill in observing detail and reporting accurately. These skills were found in the study to be beneficial to the teachers' faith that the principal is interested in the classroom events observed, and that the principal's feedback is credible and thereby forms a useful basis for analysis, problem solving, and teacher development.

That supervisors should attempt to facilitate conditions that offer the teacher comfort and confidence, active involvement, and autonomous behaviour seems to be accentuated by evidence suggesting that supervision that meets these criteria influences not only teacher development but also their pupils' learning. Because the findings of the study were partly derived from the teachers' own opinions of their supervisory conferences, on the assumption that teachers equate their own development with improvement in their ability to affect their pupils' learning, it would appear that teacher development through supervision may foreshadow pupil learning during classroom instruction and that, therefore, teacher supervision is indirectly associated with pupil progress.

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APPENDIX A**RECORDING INSTRUMENTS
FOR
TEACHER'S RESPONSES AND PRINCIPAL'S BEHAVIOURS**

APPENDIX A-1

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 1

1.1: Teacher's Responses

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Asks questions and/or reflects			Interacts insecurely (flustered)		
2) Maintains positive and hopeful attitude			Negative and/or frustated->dependent or compliant		
3) Responds openly and with trust			Responds defensively or hesitantly		
4) Displays interest			Physical signs of insecurity and/or disinterest		

APPENDIX A-2

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 1

1.2: Principal's Behaviours

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Allows time for teacher to question and/or reflect			Dominates talk and time		
2) Responsive to teacher's questions and statements			Non-responsive to teacher's questions and statements		
3) Provides accurate and positive feedback			Provides negative feedback		
4) Links problem with teacher's career stage and exp'ce			Physical signs of authorit'n attitude		

APPENDIX A-3

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 2

2.1: Teacher's Responses

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Explores principal's observations			Does not explore but instead accepts principal's observations		
2) Relates observations to past exp'ces and notes implications			Abandons attempts to draw own inferences from observations		
3) Questions to aid own clarification of new ideas			Abandons questioning for purposes of clarification		
4) Applies own ideas +vely & relation to principal's			Involvement becomes defensiveness of own beliefs & behaviours		

APPENDIX A-4

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 2

2.2: Principal's Behaviours

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Invites teacher's questioning and analysis of of obs'v'ns			Identifies and and states problem		
2) Interested and attentive to teacher's identific'n of problems			Non-receptive to t'ch'rs information or interpret'n. of problems		
3) Reflects and probes to help teacher clarify thoughts			Presents own thoughts about problem		
4)Encourages t'ch'r to relate own ideas +vely with prin'p'ls			Makes sugges-tions regard-ing possible solutions		

APPENDIX A-5

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 3

3.1: Teacher's Responses

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Proposes a set of alternative solutions to problem			Seeks or accepts principal's solution		
2) Selects preferred solution and sets goals and objectives			Seeks or accepts suggestions for goals & objectives		
3) Suggests plans for implementation			Seeks or accepts principal's implementation plans		
4) Suggests plans for evaluation			Seeks or accepts principal's evaluation plans		

APPENDIX A-6

Teacher CL _____

Conference # _____

Principal CL _____

RECORDING INSTRUMENT FOR CATEGORY 3

3.2: Principal's Behaviours

POSITIVE			NEGATIVE		
Behaviour	Frequency	Total	Behaviour	Frequency	Total
1) Probes and clarifies to encourage t'cher to generate solutions			Selects own solution		
2) Encourages teacher to explore solutions and consequences			States the rationale for the solution		
3) Encourages teacher to set own goals and objectives			Sets goals and objectives		
4) Encourages teacher to plan implementation and eval'n			Imposes implementation plan and selects eval'n method		