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## Analysis of the effect of a professional development paradigm on the implementation of cooperative learning

by

#### Linda Kay Munger

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education Major: Education (Educational Administration)

#### Approved:

Signature was redacted for privacy.

In Charge of Major Work

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Ames, Iowa
1990

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#### CHAPTER I. INTRODUCTION

The concern for changes in education as stated in the 1983 report, <u>A</u>

Nation at Risk, by the National Commission on Excellence in Education, continues today in the 1990s as educational changes focus on the restructuring and integration of teacher development and school improvement. The question is not that changes need to be made, but how can these changes be achieved. Cooperative learning is one of the most promising developments (Brandt, 1990).

Considerable research has produced substantial evidence that various models of cooperative learning (e.g., Johnsons' model, <u>Learning Together</u>, Slavin's model, <u>Student Team Learning</u>, and Sharan's model, <u>Group Investigation</u>) increase student learning in the academic, personal, and social domains at the classroom level (Joyce and Showers, 1988; Joyce, Bennett, and Rolheiser-Bennett, 1990). A study of the implementation of cooperative learning (i.e., <u>Group Investigation</u> model) "documented the need for extensive training and for the formation of a community of teachers who could help one another perfect their use of this complex model" (Joyce and Showers, 1988, p. 34; Sharan and Hertz-Lazarowitz, 1982). It has been noted that through "experimentation, fine-tuning, and overcoming roadblocks," an average of two years would be required to become skilled in using a cooperative learning model (i.e., Johnsons' <u>Learning Together</u> model) (Johnson, Johnson, and Holubec, 1988c, p. 7:6).

"Real and lasting success with the approach [e.g., cooperative learning] requires in-class follow-up over time from peer coaches or expert coaches, unambiguous administrative support" (Slavin, 1989, p.

- 3). Research on such approaches provides three guidelines:
  - 1. Teachers need to have an opportunity to develop a skill through training that can be transferred into practice in the classroom.
  - 2. Extensive training is necessary for new skill development.
  - Follow-up to training (e.g., coaching) in the workplace will probably be necessary for transfer of training (Joyce and Showers, 1988).

Joyce and Showers staff development paradigm provides a vehicle for providing these components. It has these components: theory, presentation, demonstration of new skills or strategies, practice, feedback, and coaching. According to Joyce and Showers (1988), when skill attainment of a strategy is the desired outcome of the training, then a combination of all five training components increase the effect size significantly for transfer of training. They contend that transfer of training occurs more rapidly and is more effective when all five components are used.

Joyce, Showers, and their colleagues have applied the "theory-demonstration-practice-self-feedback paradigm to complex teaching strategies with success and attacked the problem of transfer to regular and appropriate use in the classroom." (Joyce et al., 1990, p. 31). Teams of teachers provided

support for sharing ideas and learned by peer observation until implementation was achieved.

#### Statement of the Problem

The important components of the training design that provide effective transfer of training are practice, feedback, and coaching. We know that the components of Joyce and Showers' training design (1988) influence the transfer of training. We also know that Johnson and Johnson model of cooperative learning can take up to two years to reach routine level of use. What needs to be determined is if implementation of Joyce and Showers' model in the implementation process has a positive effect on cooperative learning. Practice, feedback, and coaching provide a systematic way as part of the training design to implement cooperative learning. We also need to know more about the components of the support structure of the training design model.

#### Purposes of the Study

The primary purpose of this study was to determine if the support structure (i.e., study group team, peer coaching team, and staff development team) of a professional development paradigm enhanced the implementation of a cooperative learning staff development program.

Its more specific purposes were:

1. To determine the Levels of Use and Stages of Concern of the participating teachers and to what extent the support

- structure influenced the Levels of Use and Stages of Concern.
- 2. To determine the key elements within the support structure that enhanced the implementation of cooperative learning.
- To identify the deficiencies in the support structure of the professional development paradigm that related to the impact of implementation of cooperative learning.

#### Research Questions

The study was designed to research answers to questions related to what happened in the implementation of cooperative learning and the effectiveness of the components of the support structure in the implementation process:

- 1. What are the Levels of Use and Stages of Concern of the participating teachers and schools?
- 2. What influence did each of the three components of the support structure have on the implementation of cooperative learning?
- 3. What within the support structure needs to be strengthened to have a more positive impact on the Levels of Use of cooperative learning?

#### Basic Assumptions

The following were assumed in conducting the study:

1. Weekly study group logs reflected what actually occurred in the

- process of implementation of cooperative learning in the teachers' classrooms and during the study group discussions.
- 2. The staff development team objectively completed the monthly staff development team survey.
- 3. The teachers completed the Stages of Concern (SoC) Questionnaire independently.
- 4. The teachers answered the interview questions candidly.

#### Delimitations of the Study

The scope of the investigation was limited to the four elementary schools in one Iowa suburban school district. Therefore, the following delimitations apply:

- 1. Only elementary teachers implementing cooperative learning were involved in the study.
- 2. All subjects interviewed were members of one school organization trained in the same cooperative learning model.
- 3. There was a limited sample size of teachers interviewed from only four elementary buildings.
- 4. Only study group logs kept for a relatively short time were analyzed.
- 5. Some monthly staff development team surveys from the elementary buildings were examined.
- 6. Outcomes of the study reflect the teachers' perceptions of the implementation of cooperative learning and their participation in the support structure of the professional development paradigm.

7. The research was designed to gain information for further research rather than test hypotheses.

#### Definitions of Terms

These definitions are presented to provide clarity and understanding of their use in this investigation:

Cooperative learning - referred to in the literature as a research-based instructional strategy or a social model of teaching. The cooperative learning model used in the training design of the school district in this study was the Johnson and Johnson Learning Together model using the textbook, Cooperation in the Classroom

Executive Control - master the skills of a new strategy plus have the ability to choose appropriate objectives for the strategy and teach students how to respond to the new strategy (Showers, 1987)

Innovation - introduction of a new practice

Implementation - process or means of introducing an innovation

Paradigm (synonymous with model) - components of the professional development framework

<u>Process</u> - procedure, technique, or method of change

<u>Professional development</u> (synonymous with staff development) process of providing opportunities for teachers to learn and improve
not only "what" to teach but "how" to teach

<u>Professional development paradigm</u> - training design, support structure, and innovation

#### Support Structure of the professional development paradigm -

- Study group team group of teachers that meet regularly to offer support, assistance, and encouragement to each other
- Peer coaching team teacher partners that coach and observe each other within each other's classrooms
- Staff development team principal and staff development specialist (classroom teacher in the designated building)

<u>Stages of Concern</u> - seven specific stages identified as feelings of concern that teachers have about an innovation

<u>Levels of Use</u> - determination between a non-user and a user of an innovation and levels of implementation of an innovation

<u>B.I.T.</u> - building improvement team

S.D.S. - staff development specialist

#### Summary

The purpose of this study was to investigate the three components of a support structure (i.e., study group team, peer coaching team, and staff development team) of a professional development paradigm in four elementary schools in a suburban district in Iowa and the effect each component had on the implementation of cooperative learning. Each component was implemented as part of a professional development process to meet the individual, school, and district initiatives for the school year 1989 - 90.

Chapter 2 presents a review of literature in five sections: educational change, training design, support structure of a professional development paradigm, cooperative learning, and Concerns-Based Adoption Model (CBAM).

Chapter 3 presents the methodology used in the data collection. This chapter explains the background of the district, sample, research questions, collection of data, and data analysis.

Chapter 4 presents a discussion of the findings of the study and interpretation of the data collection. The summary, discussion, limitations, recommendations for practice, and recommendations for future study from the results of the study are outlined in Chapter 5.

#### CHAPTER II. REVIEW OF LITERATURE

#### Introduction

The study investigated the effect of the support structure (i.e., study group team, peer coaching team, and staff development team) of a professional development paradigm on the implementation of cooperative learning (see Figure 1).

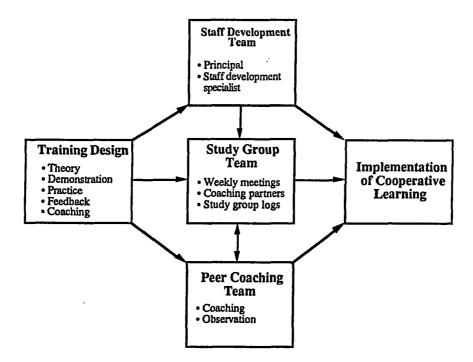


Figure 1. Professional development paradigm (design adapted from Bruce Joyce and Beverly Showers' training design, Joyce and Showers, 1988)

The review of literature in this chapter provides further explanation of the concepts examined in the study. It is presented in five sections:

- 1. Educational change
- 2. Training design
- 3. Support structure of the professional development paradigm
- 4. Cooperative learning
- 5. Concerns-based adoption model (CBAM)

#### Educational Change

The emphasis on the change literature since the early 1970s has been on the implementation process. Some broad factors of an educational change influencing the implementation process are "the characteristics of the change, the strategies used to implement the change, the characteristics of the teachers who will implement the change, the school environment where the change is implemented, and the outside environment that encroaches on school decisions" (Waugh and Punch, 1987, p. 242).

Change in the process is presumably the means to other outcomes (i.e., student achievement). Fullan (1982b) stated five kinds of outcomes that can be identified and measured: degree of implementation - degree of teacher change; attitude toward innovation - perception of strengths and weaknesses of the change; impact on students by assessment of learning, on teachers' benefits by professional development and growth, and on organizational change by increased peer collegiality; continuation - site-based management

(e.g., budget); and attitude toward school improvement - attitude toward making changes.

Fullan (1985) cited four case studies by Showers, Huberman, Stallings, and Little and summarized the results by inferring these key factors:

- 1. Change is a process not an event, happening over time.
- 2. Anxiety and uncertainty are common in initial stages of change.
- 3. Assistance is needed.
- 4. Change occurs through practice and feedback.
- 5. Teacher needs to understand the rationale and reason for implementing the new strategy.
- 6. Organizational conditions of administrative support and peer norms help toward successful implementation.
- 7. Successful change occurs through interaction with peers and administration.

Schools are loosely coupled organizations in which teachers and administrators tend to work in isolation. Change needs to occur in the workplace where there are norms of collegiality and experimentation (Joyce and Showers, 1988; Little, 1981). Professional development training programs that involve the teachers and administrators can be part of an organizational change in the workplace.

#### Training Design

Joyce, Hersh, and McKibbin (1983) and Joyce (1986) cited that research has shown five major components (i.e., theory, demonstration, practice, feedback,

and coaching) contribute to the impact of the training.

- Presentation of theory journal articles, lectures, videos, and discussions provide "the rationale, conceptual base, and verbal description of an approach" (Joyce et al., 1983, p. 139)
   Level of impact of theory "raise awareness and increase conceptual control" (p. 140)
- Modeling or demonstration enactment of the strategy
  through live demonstration with children or adults, or through
  media (e.g., videos)
   Level of impact of modeling "considerable effect on awareness and
  - some effect on knowledge" (p. 140)

    <u>Level of impact of demonstration</u> increase the mastery of theory
- 3. <u>Practice</u> simulated activities with small groups to practice the strategy

  <u>Level of impact of practice</u> efficient way to apply prior awareness

  and knowledge levels of the strategy
- 4. <u>Feedback</u> a structured system for observation and opportunity for reflection of the observation
  <u>Level of impact of feedback</u> regular and consistent feedback necessary to make and maintain change in the approach
- 5. Coaching analysis the content and approach to be taught and plans to help students adapt to the approach

Sparks and Loucks-Horsley (1989), Joyce and Showers (1988), Joyce (1986), and Joyce et al. (1983) stated the content and training design of staff development programs need to be research based with these components:

presentation of theory or description of the new skill or strategy, modeling or demonstrations of the skills or strategies, models via video tapes, role play, or simulations, practice in simulated and real settings, structured and openended feedback to provide information about performance, and coaching with follow-up work to ensure effective implementation.

Showers, Joyce, and Bennett (1987) summarized the investigation of the effectiveness of training methods in a meta-analysis of approximately 200 research studies:

- 1. What the teacher *thinks* about teaching determines what the teacher *does* when teaching . . .
- 2. Almost all teachers can take useful information back to their classrooms when training includes four parts: (1) presentation theory, (2) demonstration of the new strategy, (3) initial practice in the workshop, and (4) prompt feedback about their efforts.
- 3. Teachers are likely to keep and use new strategies and concepts if they receive coaching (either expert or peer) while they are trying the new ideas in their classrooms.
- 4. Competent teachers with high self-esteem usually benefit more from training than their less competent, less confident colleagues.
- Flexibility in thinking helps teachers learn new skills and incorporate them into their repertoires of tried and true methods.
- 6. Individual teaching styles and value orientations do not

- often affect teachers' abilities to learn from staff development.
- 7. A basic level of knowledge or skill in a new approach is necessary before teachers can "buy in" to it.
- 8. Initial enthusiasm for training is reassuring to the organizers but has relatively little influence upon learning.
- 9. It doesn't seem to matter where or when training is held, and it doesn't really matter what the role of the trainer is (administrator, teacher, or professor). What does matter is the training design.
- 10. Similarly, the effects of training do not depend on whether teachers organize and direct the program, although social cohesion and shared understandings do facilitate teachers' willingness to try new ideas.

Guidelines for the training design of staff development programs provide opportunities for teachers to increase their repertoire of teaching skills and use them effectively in their own classrooms. Joyce and Showers (1980) specify four levels of training impact and five training components to reach the impact, as shown in Figures 2 and 3 (as cited in Servatius, 1980).

There are several types of learning that must occur in the transfer process. The five elements outlined by Joyce and Showers (1983) are:

- 1. to forecast the transfer process throughout the training cycle
- 2. to reach the highest possible level of skill development during training

Training Outcomes:	Training Outcomes: Levels of Impact				
1. Awareness	Realizing an area exists and being able to focus on it				
2. Concept Understanding	Internalizing the concept				
3. Skill attainment	Possession of the skill to act on the new knowledge				
4. Applications/ problem solving	Using the skill, adapting and refining it				

Figure 2. Four levels of training impact

Components of Training	
1. Presentation of theory	Description of skill
2. Modeling	Demonstration of skill
3. Practice	Simulation of use of skill
4. Feedback	Structured or open-minded information provided about practice performance
5. Coaching	Assistance in transforming the skill to classroom use

Figure 3. Five training components to reach impact

- 3. to develop what we term "executive control," that is, an understanding of the appropriate content for the model and how to adapt it to different types of students a "meta understanding" about how the model works, how it can be fitted into the instructional repertoire, and how it can be adapted to students
- 4. to practice in the workplace
- 5. to institute a process of coaching during practice in the work setting (pp. 21-22).

Skill attainment of a new strategy does not ensure transfer of the skills back to the classroom. An important part of the transfer process is reinforcing and reassuring teachers there will be feelings of frustrations and uneasiness as they begin to implement the new strategy. According to Johnson, Johnson, and Holubec (1990), implementing a new instructional strategy (i.e., cooperative learning) requires a teacher to (1) take risks by a willingness to experiment, (2) accept failures as a part of experimentation and as a source of learning, and (3) reflect with colleagues about successes and failures of the implementation efforts.

Skill development is essential in the transfer process. Showers (1984) and Joyce et al. (1983) stated that skill development (i.e., model of teaching - cooperative learning) assumptions are that (1) the study of theory has occurred from at least twenty to thirty hours of training and (2) at least fifteen to twenty demonstrations have been observed and included in the development of use of the model for the first time. Competency attainment of the skill comes with at least ten to fifteen tries for productivity.

design. Executive control is developed through practice in the classroom. Joyce and Showers (1988) reported that a teacher needs to continue long enough with the process (i.e., 20 to 25 trials) and to have someone analyze the students' responses in order to obtain executive control and to have the approach become part of the teacher's repertoire.

Support Structure for the Professional Development Paradigm

A major change in the social system of the school must occur if these effective methods for staff development programs will exist and become implemented (Joyce et al., 1983 and Joyce, 1986). Joyce and Showers (1988) recommend building a community of learners by establishing a district staff development governance structure. The structure is established so that each teacher and administrator belong to a team for study and support. Each member of a study group belongs to a coaching team of two or three. These coaching teams are linked to two other teams to form a study group of no more than six members. The leaders of the study group and the building principal form a staff development/school improvement council for that particular school. A representative from the school belongs on the district cluster committee. This ties the local schools with the district and a representative from the central administration (i.e., associate superintendent), as shown in Figure 4.

District Office for Educational Programs and Staff Development (Director is Associate Superintendent)

Cluster Network Committees
(Each of the clusters has representatives from a high school and its feeder schools)

Staff Development/School Improvement Council (School principal and study group leaders)

Study Group (Three coaching teams)

Coaching Team (Two teachers)

Figure 4. A district staff development governance structure (Joyce and Showers, 1988, p. 9)

#### Study group

In the review of literature, it was determined there was a difference between the composition and expectations of a support/study group. McREL (Coaching, 1983) defined a support group as a group of six to twelve teachers (preferably less than nine) organized into three or four coaching teams. The support groups met regularly to provide help and support in improvement in instruction. Regularly was defined as every two or four weeks for the support group meeting with peer observations by coaching teams in between meetings. The support group meeting had a mutually agreed agenda, review of progress being made in the classroom, identification of problems to be worked by next

time, and closure. A facilitator and recorder were designated for more effectiveness in the organization of the support group meetings. Such a support system with peer observations based on the work of Joyce (1986) was successfully implemented in a four year Follow-Through Project with school districts of Cotopaxi and Westcliffe, Colorado (Blackadar and Nachtigal, 1986).

Johnson et al. (1988a, 1988b, 1990) recommended development of professional study groups within school buildings as a means of helping colleagues implement cooperative learning. The study group was defined as a small group of two to five members working together until the members reached a routine-level of implementation of cooperative learning. The members would vary in expertise and degrees of training in cooperative learning. The study group met regularly (i.e., once every two weeks). Reciprocal observation was used instead of the term peer observation/coaching. A recommendation by the Johnsons was to include the administrator as part of the study group or, at least, keep him/her informed of what was happening in the study groups as a reflection of the implementation that was occurring in the classroom.

In contrast to both models of support/study groups, Joyce and Showers (1988) recommended the establishment of a study group of no more than six members with coaching teams consisting of only two members each within the study group. The building administrator and study group leaders would form a staff development/school improvement council at the school. The purpose of the study group and peer coaching teams was to provide assistance during implementation of an innovation.

McReL's (Coaching, 1983) recommendation of the principal not being included in a support group meeting is in direct contrast to Joyce and Showers' (1988) and Johnson et al.'s (1988 a, b, c, and 1990) recommendations that the principal be a part of the support/study group process. The distinction was made because of the concern that the administrator needed to keep teachers' evaluations separate from teachers' performance during the coaching process.

Zahorik (1987) conducted a multi-case study by interviewing 52 teachers from six different elementary schools with results clarifying that collegiality exchange is an essential element in any staff development program. The implication of this study suggests that collegial exchange about teaching tends to increase by provision of time to do so; by establishment of grade-level teams with emphasis on planning, providing feedback, and decision making; and by the removal of teachers from isolation. Teachers must "see that knowledge of their classroom behavior by others as well as by themselves is essential to improvement" (p. 395).

Little (1982) did an extensive year-long study of three elementary schools, two junior high schools, and one high school. The purpose of the study was to disseminate the collegial practices within the schools varying in achievement and staff development. Little found that four collegial practices were characteristic of schools with high achievement and extensive staff development: teachers frequently talked about their teaching, teachers observed and provided feedback to each other, teachers planned and designed teaching materials together, and teachers tended to teach each other in various ways.

A collegial support group can be formed with a group teachers with the goal of improving each other's competence in teaching and providing opportunities for professional growth. Some of the activities that can occur within a support group are: co-planning, co-teaching, peer observation conferencing, and sharing of successes and concerns with fellow teachers (Joyce et al., 1989; Showers et al., 1987; Johnson et al., 1987, 1988a, 1990; and Little, 1981). The key point of collegiality within the support group is to build trust in order to observe and provide feedback to help each other to grow and understand.

Zins, Murphy, Maher, Wess (1988) established ten key elements of an effective peer support group. Most of these elements are continuous throughout the literature as important elements in peer support groups.

- Establish non-threatening, supportive environment and norms that encourage participation and openness
- Involve all participants in agenda-setting
- Identify highly relevant, broad range of topics for meetings
- Build commitment and enthusiasm of members
- Maintain group camaraderie, trust, and support
- Facilitate networking process that continues outside of group meetings
- Vary learning formats
- Select members who share common professional goals
- Rotate leadership<sup>1</sup>
- Include participants who are diverse in terms of employment settings, educational backgrounds, and professional experiences<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Also a potential barrier (p. 144).

#### Peer coaching

Coaching is a means of providing support and encouragement to colleagues as a new teaching strategy is being implemented. McREL (Coaching, 1983) and Blackadar and Nachtigal (1986) stated that there are two elements to coaching: (1) establishment of a support group and (2) peer observation. The coach making the peer observation can be a peer, principal, consultant, or others, who are knowledgeable about the strategy being implemented and have developed a level of trust (Showers, 1987 and Coaching, 1983). In the classroom, the coach assists and supports the teacher as he/she first begins to utilize the new strategy in teaching students how to respond to the new model.

According to Joyce and Showers (1988), "the major purpose of peer coaching programs is implementation of innovations to the extent that determination of effects on students is possible" (p. 83). Other purposes of coaching are to build a community of teachers working together to share their craft and to develop a common terminology of terms for further understanding of collegial study of new knowledge and skills.

Glatthorn (1987), Showers (1984, 1987), and Joyce et al. (1983) identified five major functions involved in the process of coaching: (1) provision for companionship to talk about successes and frustrations with a new model of teaching, (2) provision for objective, non-evaluative feedback during the practice period of learning the new model of teaching, (3) analysis of the application of the new model of teaching to reach executive control so that the use of the model is internalized to become spontaneous and flexible, (4) adaptation of the teaching model to

the special needs of students, and (5) analysis of student responses by the coach in assisting the teacher in modification of the model, and facilitation of support by the coach as the teacher begins early trials of the model.

Garmston (1987) referred to this coaching model based on Joyce and Showers (1983) work as technical coaching. The major goals were to "accomplish transfer of training, establish a common vocabulary, and increase collegiality and professional dialogue" (p. 25). Joyce et al. (1983) defined technical feedback as the means of perfecting and refining the skills and working out any problem areas. The teachers can help each other through technical feedback to "point out omissions, examine how materials are arranged, check to see whether all the parts of the teaching strategy have been brought together, and so on" (p. 147).

Results of a study by Showers (1984) advocated that students of coached teachers had greater achievement than did students of uncoached teachers in reference to a model-relevant test. Also a study by Sharan and Hertz-Lazarowitz (1982) reported a fairly high level of transfer of training after 52 hours of initial training in a teaching strategy (small group teaching) and follow-up with peer observations and feedback by teams of teachers working together.

Sparks (1983a) conducted a study involving nineteen junior high school teachers of English, social studies, and math for low-achieving students. The three groups were divided into Group I having workshops only, Group II having workshops with peer observations on two occasions, and Group III

having workshops plus coaching from the workshop leader. Through teacher interviews and observations, it was determined that Group II had greater transfer of the skills taught in the workshops. The study provided, through teacher interviews, a better understanding of teachers' reasons for changing or not changing their behavior, attitudes toward training, and data on the process of teacher change.

The simplicity of coaching lies in the provision of time for teachers as peers to watch each other teach and then to talk about what they saw. Time is needed for the extension of the training process. Frequency and duration are the key components of time. Frequency includes the number of opportunities that teachers have to do collaborative work on ideas and plans and to apply the ideas and lesson plans in their own classrooms. Duration includes the expectations set for "progressive gains in competence and confidence."

Mastering the practice of teaching "takes time, practice, some tolerance for mistakes along the way, and some way of marking progress" (Little, 1981, p. 33).

Joyce, Murphy, Showers, and Murphy (1989), Sharan and Hertz-Lazarowitz (1982), and Little (1981) claimed that the focus of a professional development program (i.e., cooperative learning) requires teachers to examine their own practices and share observations with others through discussion. Throughout the literature a variance of the required observations ranged from ten to thirty. However, the consensus was approximately twenty observations to transfer training into the daily

teaching repertoire (Joyce et al., 1989; Joyce and Showers, 1981, 1988; and Glatthorn, 1987).

LeBlanc and Zide (1987) conducted three, long-term, staff development programs. From these studies a checklist identifying key elements of program design and implementation were developed into a matrix to provide replication opportunities for program design and implementation in identifying administrative support and teacher involvement - growth (see Figures 5 and 6).

# **Administrative Support**

- Identify need/goal collaboratively:
  - administration, teachers, consultants
- Define instructional area tied to goal
- Provide incentives, space, release time
- Delegate responsibility/authority for coordination to program directors
- Attend collaborative planning and training sessions
- Express value of and commitment to program

Figure 5. Key factors of administrative support in program design and implementation (LeBlanc and Zide, 1987, Appendix A)

# Teacher Involvement - Growth

- Support experimentation and problem solving
- Collaborate in goal setting, program implementation, monitoring, and evaluation
- Choose incentive option:
  - graduate credit
  - in-service credit
  - open session participation
- Participate in staff development program process:
  - Information
  - Demonstration
  - Critique and selection of techniques
  - Practice
  - Peer Observation
  - Feedback
  - Peer Coaching
  - Team Work
  - Product Development

Figure 6. Key factors of teacher involvement - growth in program design and implementation (LeBlanc and Zide, 1987, Appendix A)

### Staff development team

Building administrator To have successful change effort, it is critical for the administrator to be actively supportive of the staff development programs. (McLaughlin and Marsh, 1978). The principal can be seen as the change agent within the school by recognizing and encouraging teachers to adapt to the change process. Key factors that affect change are related to the climate of the school: provision for individual differences, provision for a secure environment, acceptance of the influence of past behaviors, introduction of new practices carefully, expectations of some resistance, avoidance of misunderstandings during the beginning stages, acceptance of change as a process that is not easy, tolerance of controversy through philosophical conflicts, establishment of ways to provide approval and recognize the need for accomplishments, and intuitiveness to positive and/or negative discontent (Aquila and Galovic, 1988).

The principal must work to create an environment in which the norm of the staff is that of working cooperatively together by exchanging information and supporting each other through improvement of instruction. Four key instructional leadership practices that help the principal to create a collegial environment are: (1) announcement of the building principal's expectations that collegiality and coaching are part of the school's values, (2) modeling the processes him/herself through discussion, suggestions, and demonstration, (3) provision for incentives and recognition of efforts by the building principal, and (4) encouragement of risk taking by experimentation (Coaching, 1983).

Time is essential for planning, collegial interaction, and professional development. The administrator can show his/her support by providing time for the teachers to plan, observe, and provide feedback to each other through the coaching process. Some ways of doing this are scheduling part time teachers to reduce the load of teachers engage in professional development activities, hiring substitute teachers to provide teachers time to peer observe and coach in each other's classroom, and paying stipends for participation in afterwork or weekend workshops (Showers, 1985).

In the Follow-Through Project in two school districts in Colorado, Blackadar and Nachtigal (1986) stated that the most critical role of the administrator is "regular monitoring of the coaching process, visitations to classrooms, availability to staff . . . providing classroom coverage for the peer observation program, facilitating common time for staff to meet . . . " for success of the program.

Fullan (1982b) reported that Hall, Loucks, and others completed a three-year study in Jefferson County, Colorado with 80 elementary schools. They found "the degree of implementation by teachers in a school was a direct function of what the principal did" (Loucks and Melle, 1982, p. 136).

Joyce and Showers (1988) clearly defined specific duties that the administrator must perform to lead to faculty cohesion and development of study groups:

- Organize study groups and coaching teams;
   meeting and facilitating their activities
- 2. Organize a staff-development/school-

improvement council for coordination of activities, select priorities, and facilitate the components of study groups and coaching teams

- 3. Arrange time for collaborative study and implementation of the innovation
- 4. Be knowledgeable about training and options for school improvement as well as ensure staff is knowledgeable
- 5. Participate in training and implementation
- 6. Continue assessment of school climate, provide for giving information to faculty for decision making of further study and improvement

Research on the Improvement Process (RIP) staff at the University of Texas at Austin studied nine elementary school principals implementing an innovation. Stiegelbauer (1984) identified four major functions as necessary in implementing an innovation: (1) developing supportive organizational arrangements, (2) training, (3) consulting and reinforcing, and (4) monitoring and evaluating.

In this study (as cited in Stiegelbauer, 1984), the change facilitating style of the principal was the variable that most significantly affected the overall success of the implementation. The four styles identified in the study were:

(1) Manager style - principal worked with teachers implementing the innovation and were concerned with overload, (2) Initiator style - principal had a vision and decisions were made in direct relationship to the school goals

and the needs of the teachers and students, (3) Responder style - principal allowed the teachers to take the lead and dealt with decisions on a daily basis.

Bauchner and Loucks (1982) reported a study of building administrators from 146 school districts that indicated specific variables that influence implementation of a new practice: (1) management style - open and responsive to the teachers and provides feedback, (2) commitment - affects both the individual and the school, and (3) organizational change - facilitating change will increase chance for institutionalization.

Hord (1987) identified the role of the principal as a change facilitator who constantly surveys and gathers information about the school, the faculty, and the students; processes and generates ideas to meet the needs and problems observed; and delegates responsibility and leadership with the staff. The principals identified as the most effective were those that were "team-oriented, working collegially with their second CFs" (i.e., CF - change facilitator) (Hord, Rutherford, Huling-Austin, Hall, 1987, p. 84).

Staff development specialist Joyce and Showers (1988) refer to personnel in the building that provide instruction and support to other teachers as staff development specialists. "These persons need to develop a very high level of competence in an area to the point where they can deal with its theory, demonstrate it, organize practice with it, and help coaching teams and study groups sustain its use in the instructional setting" (p. 13).

The second change facilitator, as termed by Hord et al. (1987), is someone at the school site that has a leadership role. Because this person is building-based, the second change facilitator "is likely to be more efficient, effective, and

well received by teachers" (p. 84). Stiegelbauer (1984) stated that the second change facilitator often was responsible for the training, provided more consultation to individual teachers, and monitored the teachers in an effect to provide corrective feedback and assistance in implementing the innovation.

# Cooperative Learning

Cooperative learning is a model of teaching that incorporates methods of helping students to learn academic content and skills while meeting social goals and objectives. Slavin (1990) reported that "cooperative learning is one of the most extensively evaluated of all instructional innovations" (p. 17). Research in the last ten years has shown evidence that cooperative learning, as a social model of teaching, yields effect sizes from modest to high.

Slavin (1990) completed a comparison of sixty studies with specific inclusion criteria to compute effects of cooperative learning on achievement. Forty-nine of sixty-eight comparisons of cooperative learning and control methods produced 72 percent positive results. Only 12 percent favored control groups. Slavin (1990) stated that "although not every study has found positive effects on every noncognitive outcome, the overall effects of cooperative learning on student self-esteem, peer support for achievement, internal locus of control, time on-task, liking of class and of classmates, cooperativeness, and other variables are positive and robust" (p. 53).

Slavin's (1987) projection for a cooperative school would include: cooperative learning in the classroom, integration of special education and remedial services with the regular program, peer coaching, cooperative

planning, building-level steering committee, and cooperation with parents and community members (pp. 73-74).

Sharan (1988) expressed the necessity for cooperative learning to be mastered through study and practice of the process:

Co-operative Learning is not widely practised in schools today because is requires basic changes in teachers' behaviour and attitudes. Moreover, the existing patterns of teachers instructional behaviour are strongly sanctioned and sustained by the expectations and organizational norms prevailing in schools (Sarason, 1982). Nor will Co-operative Learning, or any other approach to teaching that entails similar changes in current practice, be adopted by large numbers of teachers until the proper institutional legitimization support their adoption and implementation.

# CBAM: Concerns-Based Adoption Model

The Research and Development Center for Teacher Education (R&DCTE), at the University of Texas at Austin developed the Concerns-Base Adoption Model (CBAM) as a means to learn more about change in the school improvement process. Hord et al. (1987) state that the model based its research on the assumptions about change:

- 1. Change is a process, not an event.
- 2. Change is accomplished by individuals.
- 3. Change is a highly personal experience.
- 4. Change involves developmental growth.
- 5. Change is best understood in operational terms.
- 6. The focus of facilitation should be on individuals, innovations, and the context (pp. 5-6).

The CBAM tools are Stages of Concern (SoC), Levels of Use (LoU), and Innovation Configuration (IC). These tools can be used to clarify and provide information for interventions of the change process of an innovation.

# Stages of concern (SoC)

The Stages of Concern (SoC) dimension of CBAM is a way of identifying seven kinds of concerns that users, or potential users, might have about the innovation. The seven stages are grouped into three dimensions - self, task, and impact. Stage 0 (Awareness), Stage 1 (Informational), and Stage 2 (Personal) are part of the "self" dimension; Stage 3 (Management) is part of the "task" dimension; and Stage 4 (Consequence), Stage 5 (Collaboration), and Stage 6 (Refocusing) are part of the "impact" dimension (Hord et al., 1987; Loucks and Hall, 1977).

During the early stages of implementation, teachers are likely to be at the stages of "self". Teachers might be at the "personal" stage as they are concerned with their ability to implement a new program and concerned about failures through experimentation. Task concerns (Stage 3, Management) are prevalent during the early use of the innovation. These concerns center on time to complete everything required, organization, and management of students. Once the concerns begin to focus on the effects of the innovation on students and effectiveness of the implementation, the level of impact has been reached.

Personal concerns (Stage 3) can be defined into three clusters: (1) organization/political/professional; (2) decision-making/commitment; and (3)

self-task (Marsh and Jordan-Marsh, 1986). Strategies can be developed to address these personal concerns.

The purpose of identifying the stages of concerns for individuals is to assist in providing assistance and support. Hord et al. (1987) stated that "concerns do not exist in a vacuum. Concerns are influenced by participants' feelings about an innovation, by their perception of their ability to use it, by the number of support and assistance they receive as they attempt to implement change" (p. 43). Loucks and Hall (1977) stated that "one possible reason why so many inservice workshops are seen as irrelevant is that they are not targeted toward the Stage of Concern or Level of Use of the participants" (p. 20).

In a study conducted in Jefferson County, Colorado, Loucks and Melle (1982) used the Stages of Concern questionnaire to receive data that were used for several purposes. As a formative evaluation tool, the data identified teachers' needs to retarget resources, reformulate training designs, and provide assistance based on individual teacher profiles. The data for each school provided clues of the influences at the school level. A district-wide concerns profile provide information to assess the over-all effect of the innovation.

#### Levels of use (LoU)

Levels of Use (LoU) is another tool of CBAM. This monitoring tool determines how the teacher is using the innovation and how comfortable and skilled the teacher is in getting the students to respond to the innovation. The Levels of Use provide a means of determining if the effort of the

implementation of the innovation has been successful (Loucks and Melle, 1982). There are eight levels to the Levels of Use: (1) LoU 0 - Nonuse, (2) LoU I - Orientation, (3) LoU II - Preparation, (4) LoU III - Mechanical Use, (5) LoU IVA - Routine, (6) LoU IVB - Refinement, (7) LoU V - Integration, and (8) LoU VI - Renewal.

The first three levels deal with nonusers so the focus of the review of literature was on the levels for users. The user levels can be defined as (1) Mechanical - tends to stay ahead in planning and has difficulty with students and management due to the change, (2) Routine - tends not to seek assistance and is comfortable with the ways things are going, (3) Refinement - makes changes in the innovation and helpful to others, and (4) Integration - reaches out to others beyond the immediate group of teachers collaboratively working with during the initial implementation.

The outcomes from interview data from a study in Springdale School District on an effective teaching program for users were: 65% (LoU III), 20% (LoU IVA), and 5% (LoU IVB). This supports the probability that usually "sixty to seventy percent of the first-year users of an innovation will be at the mechanical level (LoU III)" (Hord et al., 1987, p. 66). Few teachers will reach LoU V (integration) unless part of the innovation requires collaboration.

#### Summary

The review of literature was on five areas: (1) educational change, (2) training design, (3) support structure of a professional development paradigm, (4) cooperative learning, and (5) Concerns-Based Adoption Model (CBAM).

The utilization of the support structure of the professional development paradigm served as the basis for the research problem. The literature provided evidence that follow-up to training is essential to transfer skill development from the training to the classroom setting. Collegial support and encouragement as well as guidance and instructional leadership from the building administrator are necessary components for follow-up to training.

Showers (1987) posed the important question: "Why is it so difficult for teachers to transfer newly learned teaching skills and strategies into successful classroom practice" (p. 59)? She stated that "teachers' cognitions surround the entire process from initial training to exemplary and integrated use of new knowledge and skills. Our task is to understand what is involved if we are to design training conditions that will increase the probability of transfer of training" (p. 69).

This study examined what happened when a support structure was used as the follow-up to training and what effect did each one of the components of the support structure have on the implementation of cooperative learning.

#### CHAPTER III. METHODOLOGY

This chapter describes the methods and procedures used to investigate the effect of the support structure of the professional development paradigm on the implementation of cooperative learning. The chapter is divided into five sections: (1) background of the district, (2) sample, (3) research questions, (4) collection of data, and (5) data analysis.

### Background of the District

Urbandale Community School District, an Iowa suburban district with 3055 students, was chosen for the study. The teachers and administrators at all four K-5 elementary schools were involved in a staff development program for implementing cooperative learning. The training design of the staff development program was based on the work of Bruce Joyce and Beverly Showers. The training design included theory, demonstration, practice, feedback, and coaching (Joyce and Showers, 1988). The support structure (i.e., study group teams, peer coaching teams, and staff development teams) of the professional development paradigm was used to provide training, support, and peer observations as the research-based strategy (i.e., cooperative learning) was implemented during the school year of 1989 - 90. The district worked directly with Bruce Joyce in designing and implementing the staff development program which included the model of teaching, cooperative learning. Bruce Joyce consulted, trained, and monitored implementation in the district for three days in 1988 - 89 and seven days in 1989 - 90.

In the summer of 1988, the assistant superintendent and six teachers (i.e., one from each of the four elementary schools, one from the middle school, and one from the high school) went for cooperative learning training (i.e., Johnsons' Learning Together model). These teachers and assistant superintendent became a support group and implemented cooperative learning during the school year 1988 - 89. In the summer of 1989, three of the elementary teachers went for further training with the Johnsons and two of the elementary principals went for administrators' training with the Johnsons. Four other elementary teachers and the assistant superintendent went for training in models of teaching with Bruce Joyce. Eight elementary teachers (i.e., two per building - one trained in cooperative learning and one trained in models of teaching) became the staff development specialists in the four elementary buildings for the school year 1989 - 90. This training provided the foundation for the establishment of the staff development team for each building (i.e., one administrator and two staff development specialists).

In the spring of 1989, the faculty of four elementary schools of Urbandale, Iowa, were involved in determining the focus of their school improvement initiative and the district initiative for the 1989-90 school year. The focus of the district initiative chosen was the use of the research-based teaching strategy, cooperative learning. Each building decided on a subject area in which cooperative learning was used to meet a school improvement goal:

School A: Improvement in reading comprehension

School B: Improvement in writing skills

School C: Expansion of reading experiences and increase in

# appreciation for literature

# School D: Improvement in math

Each building developed a cooperative learning implementation plan for the school year of 1989-90. Although the plans varied to some extent, all included the building goal and strategy, objectives, and time lines. Joyce and Showers' training design was used to implement cooperative learning at each building. The training and follow-up to the training consisted of a support structure which included a staff development team, study group teams, and peer coaching teams (see Appendix J for implementation plans).

Each building was allotted two staff development specialists (SDS). These specialists were regular classroom teachers in the building. Joyce and Showers (1988) defined the staff development specialists as persons with "a high level of competence in an area to the point they can deal with its theory, demonstrate it, organize practice with it, and help coaching teams and study groups sustain its use in the instructional setting" (p. 13). The role of the staff development specialist(s) in each building was to provide training sessions that included theory, demonstration and practice opportunities for cooperative learning.

The training in the Johnson and Johnson's <u>Learning Together</u> model of cooperative learning (Johnson et al., 1988c) was begun in August of 1989. The training was an ongoing process with support and assistance provided throughout the school year through in-service released time and before and after school meetings. Three in-service workshop days were allocated in the months of August, October, and January. Every Tuesday (8:00 - 8:45 a.m.) was

allocated for weekly study group meetings. The time frame for training was designated as: August - November, staff training; September - May, weekly study group meetings; and October/November - May - peer coaching.

Based on the five components of Joyce's model:

- 1. Study groups consisted of four to six teachers with coaching teams within each group.
- 2. Teachers applied the cooperative learning strategy in the subject area of the building school improvement goal on an average of three times weekly.
- Teachers participated in and provided feedback from peer coaching/ observation at least twenty times.
- 4. Peer coaching/observations were 15 20 minutes in length.
- 5. Study groups kept weekly logs.
- Individuals kept logs of cooperative learning lessons taught and peer observations.

#### Sample

To provide for anonymity, the four elementary schools will be referred to in this study as Schools A, B, C, and D. All teachers - full time for all subjects, part time (i.e., core teachers), and specialist teachers were included in the study except for all the kindergarten teachers and the first grade teachers in one building who were implementing a different staff development program. A total of seventy-three teachers were involved in the study.

School A This school, grades 1 - 5, consisted of a faculty of nineteen teachers involved in the support structure of the professional development paradigm. The current enrollment was 275 students. The building shared the administrator, serving as an instructional leader with another elementary school, and had an intern assisting the administrator full time.

School B This school, grades 1 - 5, consisted of a faculty of thirteen teachers involved in the support structure of the professional development paradigm. The current enrollment was 234 students. The building shared the administrator with another elementary school and had an intern assisting the administrator full time.

School C This school, grades K - 5, consisted of a faculty of thirty-three teachers. Seventeen of these teachers were involved in the support structure of the professional development paradigm implementing cooperative learning. The kindergarten and first grade teachers were excluded from the study because at this building these teachers were involved in the support structure of the professional development paradigm implementing a different innovation. This school was the location of the kindergarten center so that all kindergarten teachers from the district were excluded from the study. The current enrollment was 582 students. This school had a full time administrator serving as an instructional leader.

School D This school, grades 1 - 5, consisted of a faculty of twenty-four teachers involved in the support structure of the professional development paradigm. The current enrollment was 416 students. This school had a full time administrator serving as an instructional leader.

# Research Questions

The study was designed to gather data to examine the following research questions:

- 1. What are the Levels of Use and Stages of Concern of the participating teachers and schools?
- 2. What influence did each of the three components of the support structure have on the implementation of cooperative learning?
- 3. What within the support structure needs to be strengthened to have a more positive impact on the Levels of Use of cooperative learning?

#### Collection of Data

#### **Procedures**

The investigation began with written communication from the principal investigator to the assistant superintendent outlining the study proposal and asking for permission to conduct the study in the district (see Appendix A).

A meeting was held December, 1989, with the principal investigator, the assistant superintendent, the staff development specialists from each building. The purpose of this meeting was to outline the proposal to the staff development specialists and answer any questions that they had regarding the study.

Following this meeting, the principal investigator sent a letter to the assistant superintendent to present to the district's Board of Education at the

January meeting as shown in Appendix A. On January 25, 1990, the Board of Education granted permission to begin the study.

A meeting with the assistant superintendent in February provided written information to clarify the goals and objectives of the staff development program in the elementary schools of this district (see Appendix J). The administrators were designated as the contact persons for the four elementary buildings. One administrator had two schools; therefore, the administrators involved in the study were only three. Each building administrator was contacted by phone to notify them of the intent of the study and to set a time to pick up the study group logs from each building. A meeting date for the three building administrators with the principal investigator was set for February 23, 1990. A follow-up letter was sent.

The data were triangulated (Merriam, 1988) by means of documents (i.e., study group logs and self-assessment surveys), questionnaires (SoCQ), and interviews.

# Study group logs

The study group logs were picked up from three buildings on Friday, February 8, copied, and the originals returned on Monday, February 12. The other school study group logs were copied on site on Monday, February 12. The date for the last entrance in the logs for the study was February 6 (i.e., a little longer than one semester of work with cooperative learning). Sample of the study group log formats are shown in Appendix D. Three schools (i.e.,

Schools A, B and C) used one form and School D used a similar but different form.

### Staff development team self-assessment surveys

In the notebook for study group logs from School C, the staff development team self-assessments were found. At this time, the principal investigator realized the opportunity for additional data that included input from the staff development specialists and the building administrators. Each building administrator was contacted for the principal investigator to obtain available copies of the monthly staff development team self-assessments at the February meeting with the administrators. The self-assessment had a Likert scale of four points (i.e., 1 - never, 2 - sometimes, 3 - usually and 4 - always). Eight statements were assessed and provisions for comments were made. A sample of the staff development team self-assessment survey is shown in Appendix I.

# Stages of concern questionnaires

The Stages of Concern Questionnaire was obtained and permission for use was granted (see Appendix A) following the recommendation of Shirley Hord (personal communication, January 10, 1990, Austin, Texas: Southwest Educational Development Laboratory).

The concern of the assistant superintendent and the principal investigator was the interpretation of the word "innovation" on the generic questionnaire. Dave Wilson of Southwest Laboratory (personal

communication, February 5, 1990, Austin, Texas: CBAM Project) stated the validity and reliability of the questionnaire would not be changed by just changing the word "innovation" throughout the questionnaire to "cooperative learning" (see Appendix A). A cover page was added to the questionnaire (i.e., sample introductory page from the manual) to provide clarification how to fill out the questionnaire. Clarification was made so the teachers realized that some items on the questionnaire might appear to be of little relevance or irrelevant to the innovation at the time of completing the questionnaire. Also underlined for emphasis was the notification that the items on the questionnaire pertained to the present concerns about involvement in cooperative learning and individual perception. A personal letter was attached to give further directions and appreciation to the teachers. A demographic page was attached at the end of the questionnaire. The last four digits of the teacher's social security number were used for identification. The cover page, questionnaire (35-items), and demographic page were stapled together and color coded per school (see Appendix B). Each personal letter and questionnaire packet were enclosed in a manilla, unmarked envelope.

The questionnaires were given personally by the investigator to the building administrators at a meeting held on Thursday, February 22, 1990, and questions were answered then.

The building administrators held a meeting with the B.I.T. teachers in each building to explain the procedure and answer any questions. The S.D.S. and B.I.T. gave the questionnaires to the teachers on Tuesday, February 27, 1990, at the study group meetings. The approximate time to complete the

questionnaires was fifteen minutes. The teachers were given the questionnaire in an unmarked envelope, asked to return the questionnaire in the unmarked envelope to the group leader of the study group, and the group leader then handed in the packets to the office.

The investigator picked up the questionnaires from each building on Wednesday, February 28. Any teachers who were absent were allowed to fill out the questionnaire and return the questionnaire by mail to the investigator within the week. Those not wishing to participate did not fill out the questionnaire and return it. Four questionnaires were handed in late due to teacher absenteeism the day of study group meeting. A total of seventy out of seventy-three questionnaires were returned.

#### **Interviews**

Each building administrator provided the principal investigator with a list of all the teachers in each study group in the elementary buildings. Although the administrators' names were included on the study group list, their names were excluded from the random sample pool of names. School C listed their building administrator, staff development specialists, and group leaders as ad hoc group members rather than part of the study group. For this reason, their names were excluded from the list for random selection.

The principal investigator placed the names of all teachers in a bowl and randomly selected the names of the teachers to participate in the interview.

After the original proposal meeting and a meeting with the building principals, the original number of five teachers per building was changed to a

random selection of one-third of the total number of teachers involved at each building level. The main concern voiced by a principal and earlier by staff development specialists was the size variance in each building. School A had seven teachers selected, School B had four teachers selected, School C had six teachers selected, and School D had eight teachers selected.

The building administrator was notified in writing as well as verbally which teachers had been selected for the interviews. A letter asking permission of the teacher to participate in an audio-taped interview and a consent form were sealed in an envelope with the person's name on the outside according to the way it was provided to the principal investigator on the study group lists. Some study group members were listed by first and last names, others by last names only, and others by first names only. The letters were given to the school secretary to put in each individual's mailbox. A selfaddressed stamped envelope was provided for the return of the consent form to the principal investigator. The letter and consent form samples are provided in Appendix E. The consent form provided an opportunity for the selected teacher to demur from participating in the interview. Teachers could have the interview before or after school or have a substitute provided during school time. Several time choices were available to the teacher. The time frame for the interviews was March 29 through April 13. Two considerations affected these date choices. The first consideration was a desire to have the teachers complete the interviews as close as possible to the required twenty peer coaching/ observations. The second consideration revolved around the need to wait until after the visit by consultant Bruce Joyce and spring break for

the Urbandale Schools. The consent forms were requested to be returned as soon as possible.

Due to the lack of enough teachers (i.e., only fifteen out of twenty-five teachers) choosing to participate in the interviews, a second letter asking for volunteers was personally delivered to each building on Monday, March 12. One administrator delegated the responsibility to one of the staff development specialist to hand out the forms, one administrator was in a meeting and the procedure was discussed with the new building intern for School C, and the school secretary at School A discussed the procedures because the administrator was in a meeting with the staff development specialists.

Twenty-five out of seventy-three teachers were interviewed. This represented one-third of the teachers from each elementary building implementing cooperative learning.

The semi-structured interviews (Merriam, 1988; Hitchcock, 1989; Miles and Huberman, 1984) were conducted on site at each building level.

Guidelines for Levels of Use interviews were provided in Hord and Loucks (1980). The interview questions continued to be developed and revised as the study evolved. A specific list of interview questions was designed (see Appendix F). A list of the interview questions was given to the administrators to review at the February 22 meeting and have input by the March 29 meeting. A group of six teachers involved in cooperative learning study groups at a different building in a different district were given the interview questions to provide feedback on any questions that needed clarification, any questions that might be threatening to a teacher, or any

additional questions they felt were pertinent. Two graduate students also provided input and clarification for revisions of the interview questions. Bruce Joyce was sent a letter asking for additional input (see Appendix A).

The semi-structured interviews were scheduled to last approximately one hour in length. Each interview actually took approximately thirty minutes. The interviews were held at the building site and audio-taped. All teachers were given enough time to answer the same twenty-five questions. A written copy of the questions were not provided ahead of time to the interviewees to allow more probing and clarification as deemed appropriate during the interview.

The teachers were identified on the tape only by the last four digits of their social security number as used on the questionnaires. These numbers helped for cross referencing in determining the Stages of Concern and the Levels of Use from the same teachers.

The tapes were transcribed and used by the principal investigator for data analysis. The principal investigator participated in certification of Levels of Use interviews with the CBAM model. This provided the investigator with training to analyze the interviews and determine the Levels of Use of the participants. Training in and suggestions for using interview transcripts for identifying Levels of Use was provided by Suzanne Stiegelbauer.

### Use of human subjects

The Iowa State University Committee on the Use of Human Subjects in Research reviewed this project and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighed by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured, and that informed consent was obtained by appropriate procedures (see Appendix L).

### Data Analysis

Qualitative data (Miles and Huberman, 1984) provided descriptions and explanations for the implementation process that occurred at the four elementary schools in the study. The data were collected by means of documents, questionnaires, and interviews.

# Study group logs

Study group logs were analyzed by reducing the information to phrases and organizing the information into categories of stages of concern (see Appendix D). The concerns listed in the study group logs were formatted under the categories of Stages of Concern: informational, personal, management, consequences, collaboration, and refocusing.

### Staff development self-assessment surveys

The few surveys were used as another means of verifying the concerns by the staff development team about the teachers implementing cooperative learning.

# Stages of concern questionnaires

The questionnaires were hand scored and profiles were plotted for each teacher to determine individual stages of concern. Each of the seven stages is represented by five specific statements on the SoC questionnaire. The raw scores from the sum of the responses for each section of five statements on a scale of 0 to 7 are converted to percentile scores for interpretation (see Appendix Table C 1 - 4). Scoring and interpretation guidelines were provided Measuring Stages of Concern About the Innovation: A Manual for Use of the SoC Questionnaire by Hall et al. (1986). The percentage composite for each teacher and the group mean for each school were completed (see Appendix C). This information was aggregated by number and percent per building per stage of concern and dimension (see Tables 2 and 4). The questions receiving a high concern rate of 6 or 7 were identified and organized according to percent stage of concern (see Table C - 5) (Hall et al., 1986). Further analysis was completed by using the documents and the interviews to determine the relationship of frequency of the specific questions in each stage of concern and the influence the concerns had on the implementation of cooperative learning (see Figure 8).

#### **Interviews**

The audio-taped interviews were transcribed, reduced in size for cutting and pasting the responses for coding. Paraphrases and direct quotes were organized and labeled under categories in tables (see Appendix G). The titles

and descriptive analysis are categorized under these table headings in Appendix G:

- 1. Peer coaching Tables 1 4
- 2. Study group team Tables 5 8
- 3. Support Tables 9 12
- 4. Influence on use Tables 13 16
- 5. Effect of cooperative learning Tables 17 20
- 6. Reflection Tables 21 24

Each interview transcript was used to analyze and determine their Levels of Use of cooperative learning (see Figure 7). The LoU chart (pp. 8-9) provided in Measuring Levels of Use of the Innovation: A Manual for Trainers, Interviewers, and Raters by Loucks et al. (1975) was used as a scale point to define the levels of use. Eight categories were used in interpretation of Levels of Use: knowledge, acquiring information, sharing, assessing, planning, status reporting, and performing (see Appendix F).

The percent of teachers from the district that were interviewed were compiled according to Stages of Concern and Levels of Use (see Table 5). An analysis was completed to show the relationship of the Stages of Concern (i.e., district responses) and Levels of Use (i.e., interviewee responses) (see Table 6). This information was used with an implementation guide (Stiegelbauer, 1990) to show the role of the administrator in promoting higher levels of implementation by noting the Levels of Use, Stages of Concern, teacher's behavior, and administrator's influence (see Appendix H). Two tables were compiled from Levels of Use and Stages of Concern for first/second year

teachers and specialist teachers with descriptive analysis of the support structure (see Appendix H).

LeBlanc and Zide (1987) researched coaching as a successful component in a staff development program. Six key factors for administrative support and four key factors for teacher involvement and growth were identified and a matrix with a checklist was designed by the authors. These factors were used for the same purpose in this study (see Appendix H).

Tables of aggregated information for individual teachers and for each school are included in Chapter four and in Appendices C, D, G, and H.

#### CHAPTER IV. FINDINGS

#### Introduction

The purpose of this chapter is to present the results of the investigation of the effect of a support structure of a professional development paradigm on the implementation of cooperative learning. The three components of the support structure were peer coaching team, study group team, and staff development team.

The data were gathered from (1) analysis of sixty-nine questionnaires (see Appendix C) given to seventy-three teachers in four elementary schools to determine teachers' Stages of Concern, (2) descriptive analysis of the study group logs (see Appendix D) from each of the four elementary buildings obtained in mid-February and the staff development team self-assessment surveys, and (3) descriptive analysis of twenty-five semi-structured interviews (see Appendix G) conducted at each of four elementary sites the end of March and first part of April.

The data were aggregated for each school from study group logs, SoC questionnaires, and transcripts of the semi-structured, audio-taped interviews. The data were collected, coded, and frequencies counted in making comparisons between schools. Stages of Concern and Levels of Use were determined using the CBAM model (Hall et al., 1986; Loucks et al., 1975).

# Analysis of Data

The data triangulated by means of documents, questionnaires, and interviews are presented through tables and discussion in answer to the research questions in this study as presented in Chapter 1.

<u>Ouestion One</u>: What are the Levels of Use and Stages of Concern of the participating teachers and schools?

### Levels of use and stages of concern

Figure 7 provides Levels of Use and the behavioral definitions used in identifying and clarifying eight levels of use. Data for Levels of Use were gathered from the interviews using Levels of Use interview analysis. The scale point of the definition was interpreted from the LoU chart (Loucks et al., 1975) (see Appendix F). The analysis of the interview transcripts (Table 1) showed that all teachers were users of cooperative learning at mechanical, routine, refinement, or integration level.

Table 1 provides a composite of the data analysis of the Levels of Use of the interviewed teachers and information provided by the teachers about frequency of use of cooperative learning in the classroom. Sixteen of 25 (64%) interviewed teachers were at the routine level of use which indicates stable use of cooperative learning. Five teachers were at mechanical level which indicates a step-by-step attempt to use cooperative learning and to meet teachers' needs. Four were at refinement and integration levels which indicates working on improvement of the process and with other colleagues to meet students' needs. Twenty of 25 teachers interviewed were at routine or higher levels of use implementing cooperative learning using the support

Level of Use		Behavioral Definitions of Use
0	Nonuse	Has little or no knowledge of cooperative learning and no involvement
I	Orientation	in the support structure.  Recently acquired information about cooperative learning from support structure
П	Preparation	Prepares for the first time to become involved in using cooperative learning with assistance from the support structure.
ш	Mechanical Use	Focuses short term use of cooperative learning with little reflection. Changes in use are made to meet user needs. User is engaged in a step-by-step attempt to use cooperative learning with use of the support structure. Use is often disjointed and superficial.
IV	Routine Use	Stables the use of cooperative learning by making few changes in the process. Little thought has been given to improving cooperative learning through the assistance of the support structure or the consequences of using cooperative learning.
V	Refinement Use	Varies the use of cooperative learning through the assistance of the support structure to increase impact on students.  Variations are based on knowledge of both long and short-term consequences on students.
VI	Integration Use	Combines own efforts to use cooperative learning with activities of other colleagues to achieve a collective impact on students.
VII	Renewal	Reevaluates the quality of cooperative learning and support structure, seeks major modifications or alternatives to current reports to increase student impact, examines new developments, and sets new goals.

Figure 7. Levels of use and behavioral definitions of using cooperative learning with utilization of support structure

structure of the professional development paradigm. All 25 interviewed teachers indicated being users of cooperative learning in many subject areas including subject area chosen for the building level goal.

Table 1. Levels of use, information about use, N = 25

Levels of Use	Frequency of Use Per Week
Mechanical <sup>a</sup>	more than 3
Routine	up to 3
Routine	more than 3
Refinement	more than 3
Integration	more than 3
	Mechanical <sup>a</sup> Routine Routine Refinement

<sup>&</sup>lt;sup>a</sup>Four teachers at this level did not complete an information sheet about frequency of use or use in other subject areas.

Individuals move through the various stages of concern at a different pace and intensity. SELF concerns will be the most intense at the beginning of a change process, TASK concerns will develop next, and finally IMPACT concerns develop after the task or management concerns have subsided. The pattern and intensity of the stages of concern will greatly be affected by the kind and amount of assistance provided (Hord et al., 1987).

The seven developmental stages of concern are labeled and described as may fit under each of the three dimensions (i.e., SELF, TASK, and IMPACT) (Figure 8).

Dimension	Sta	ges of Concern	Expression of Concern
I M	6	Refocusing	I have some ideas about something that would work even better.
P A C	5	Collaboration	I am concerned about relating what I am doing with what other instructors are doing.
T	4	Consequence	How is my use affecting kids?
T A S K	3	Management	I seem to be spending all my time getting material ready.
S E	2	Personal	How will using it affect me?
L L F	1	Informational	I would like to know more about it.
T'	0	Awareness	I am not concerned about it (the innovation).

Figure 8. Stages of concern: typical expressions of concern about the innovation (Hord et al., 1987, p. 31)

Each of the seven stages is represented by five specific statements on the SoC questionnaire (Hall et al., 1986). The raw scores from the sum of the responses for each section of five statements on a scale of 0 to 7 are converted to percentile scores for interpretation (see Appendix Table C 1 - 4).

Table 2 shows the aggregate analysis for Stages of Concern of 69 teachers in the four schools. Twenty-two percent of the teachers were at the awareness stage of concern indicating they had moved through the six stages and were

prepared to address different concerns, possibly about another innovation. Forty percent of the teachers in the four schools were at the Impact dimension (i.e., Stages 4, 5, and 6). Therefore, sixty-two percent of the teachers were beyond concerns about Self (13%) and Task (26%).

Table 2. Number and percent of teachers per stages of concern and per dimension (N = 69)

	Self - 13%		Self - 13% Task - 26%			Impact - 40%		
Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6		
Awareness	Informational	Personal	Management	Consequence	Collaboration	Refocusing		
%	%	%	%	%	%	%		
15	4a	5	18a	8a	<sub>15</sub> aa	4aa		
22%	6%	7%	26%	12%	22%	6%		

aSeven teachers indicated movement through more than one stage of concern. The teachers were within one percentile score of two or three stages. The highest percentile score of the stages was used and is marked by the letter.

Table 3 shows a breakdown of the Levels of Use of teachers at the various Stages of Concern. Twenty-five of the sixty-nine teachers who completed the SoC questionnaire were interviewed to determine Levels of Use. The four teachers interviewed who were at the Awareness stage were at routine or higher level of use. There were no teachers who were interviewed at mechanical level of use at the Impact dimension (i.e., Stages 4, 5, and 6). Refinement occurred at the highest Stages of Concern indicating working with

others to refine the process. Routine level of use was shown in all Stages of Concern.

Table 3. Stages of concern and levels of use of teachers

Stages of Concern	Teachers Surveyed N = 69	Levels of Use	Teachers Interviewed N = 25
Stage 0 - Awareness	15	Routine Refinement Integration	2 1 1
Stage 1 - Informational	4	Routine	1
Stage 2 - Personal	5	Mechanical Routine	1 1
Stage 3 - Management	18	Mechanical Routine	1 7a
Stage 4 - Consequences	8	Routine	2
Stage 5 - Collaboration	15	Routine Refinement Integration	3 1 <sup>a</sup>
Stage 6 - Refocusing	4		

<sup>&</sup>lt;sup>a</sup>One person identified in Stages 2 and 3, counted in Stage 3. One person identified in Stages 4 and 5 and 6, counted in Stage 5.

Table 4 shows Stages of Concern of teachers by school. Forty-three percent of the teachers of School C were at the Awareness Stage and 29% of the teachers were at the Impact dimension. Together, 72% of the teachers in School C were at the Stages of Concern indicating that they had either reached the Impact dimension or had moved beyond that dimension to the Awareness stage. These teachers were apparently beyond concern about Self and Task and more concerned about the Impact of cooperative learning on the students. This is a good indicator of readiness for utilizing cooperative learning as an instructional tool. Sixty-nine percent of the teachers in School A were also either at the Impact dimension (53%) or Awareness Stage (16%). School A exceeded the other schools in the number of teachers at the Impact dimension. Although School C had 6 of their 14 teachers at the Awareness Stage, 3 of their teachers were at Self dimension (i.e., personal concerns). A combined 61 percent of the teachers in School B were at the Impact dimension (30%) and Awareness Stage (31%). Schools B and C had the highest number of teachers at the Awareness Stages of Concern. School B did not have any teachers at Self dimension. The teachers at School D had fewer than 50% of either one of the higher Stages of Concern. The highest percent with management concerns (i.e., Task) were School B (38%) and School D (35%). According to the indicators provided by the information on Stages of Concern, School C had the greatest number of teachers concerned about the impact of cooperative learning on students or appeared ready for another innovation. Schools A, B, and D followed in that order. Appendix C provides further information about specific statements per Stages of Concern.

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Table 4. Number and percent of teachers per building per stages of concern

	•			Se	1f	Task		Impact	
School	Teachers Per Bldg.	SoCQ Return	Stage 0 Awareness	Stage 1 Informational	Stage 2 Personal	Stage 3 Management	Stage 4 Consequence	Stage 5 Collaboration	Stage 6 Refocusing
Α .	19	19	3	1	1a	4	за	6	1 <b>a</b> a
		100%	16%	5%	5%	21%	16%	32%	5%
В	13	13	4	0	0	5	0	2	2
		100%	31%	0%	0%	38%	0%	15%	15%
С	17	14	6	0	3	1	Оа	4	0
		82%	43%	0%	21%	7%	0%	29%	0%
D	24	23	2 <sup>a</sup>	3	1	8a	5	3	1
		96%	9%	13%	4%	35%	22%	13%	4%

<sup>&</sup>lt;sup>a</sup>Indicates the other stage of concern that was within one percentile score; highest percent was the stage used in the data analysis

Table 5 shows a breakdown of Stages of Concern and Levels of Use for each of the four schools. Three of the four schools (i.e., Schools A, B, and C) had a least one teacher at a higher level of use than routine - School D had no teachers at a higher Level of Use than routine. As might be expected, the majority of teachers in each school were at the routine level. Teachers at School A were at all Levels of Use (i.e., mechanical through refinement) and Stages of Concern (i.e., Stages 1 - 6). School B had no teachers at the Selfconcerns dimension of Stages of Concern and had no teachers who were interviewed at the mechanical level of use. Three of the six teachers interviewed at School C were at the mechanical level of use; however, these teachers did not complete a SoC Questionnaire so establishing a connection between Stages of Concern and Levels of Use was not possible. Years of teaching experience and grade level did not seem to influence Levels of Use and Stages of Concern. Appendix Table K - 1 provides anecdotal comments and Levels of Use of specialist teachers interviewed (i.e., counselor, music, and P.E. teachers). Appendix Table K - 2 provides anecdotal comments and Levels of Use of first and second year teachers interviewed.

## Verification of data

Study group logs The study group logs were kept by each of the study group teams. The study group logs were examined by the researcher to provide further verification of the stages of concerns of implementation of cooperative learning and to further clarify why teachers were at these stages. The information from the study group logs was organized into the categories

Table 5. Stages of concern and levels of use of each interviewee according to school with demographic data

School Participant	Grade Level	Teaching Experience	Stage of Concern	Level of Use
A	Primary	1	1	Routine
Α	Unknown	-	2	Mechanical
Α	Primary	3	2 & 3	Routine
Α	Primary	22	4	Routine
Α	Unknown	-	4 & 5 & 6	Refinement
Α	Primary	22	5	Routine
<b>A</b>	Primary	6	5	Integration
В	Primary	2	0	Routine
B	Primary	7	Ö	Integration
B	Intermediate	19	3	Routine
В	Primary	2	5	Routine
C	Primary	13	0	Routine
Č	Primary	18	Ö	Refinement
C	Intermediate	8	2	Routinea
D	Primary	4	3	Routine
D	Primary	2	3	Routine
D	Primary	6	3	Routine
D	Primary	13	3	Mechanical
D	Intermediate	16	3	Routine
D	Intermediate	1	3	Routine
D	Intermediate	3	4	Routine
D	Primary	4	5	Routine

<sup>&</sup>lt;sup>a</sup>School C: three teachers provided no information by completion of SoC questionnaire.

of six of the seven stages of concern (i.e., stages 1 - 6). The frequency counts of written concerns expressed in the logs substantiated the cooperative learning and to further clarify why teachers were at these stages. The information from the study group logs was organized into the categories of six of the seven stages of concern (i.e., stages 1 - 6). The frequency counts of written concerns expressed in the logs substantiated the questionnaire results. The Awareness stage of concern was not included as a category on the log summary. Appendix D, pp. 123-132, shows categories for stages of concern and expressed concerns.

For example, time for scheduling peer observations was consistently mentioned in the study group logs for all four schools. The amount of time spent observing another teacher and frustration over the time spent arranging for a teacher to cover a class for peer coaching was reflected in this teacher's comments:

We always had an opportunity to express our own concerns, but some of them were out of our control. . . . At first, we were saying, well, we don't have enough time, 15 minutes, just doesn't seem like enough time to peer coach, or to watch someone, especially at first. And another thing was, it seems like the study group time, we spent the entire half hour trying to figure out how we were gonna cover each other when we were peer coaching.

Staff development self-assessment surveys

There was a limited number (i.e., only 7 available) of monthly staff development surveys completed by the staff development specialist and the building administrator. The surveys provided additional verification that the teachers were concerned about time for peer observations.

<u>Ouestion Two</u>: What influence did each of the three components of the support structure have on the implementation of cooperative learning?

Teachers found it difficult to separate the 3 components of the support structure. The 3 components of the support structure had an influence on the implementation of cooperative learning and provided a source of support for the teachers in the implementation process. Table 6 provides a composite of aggregate data from the interviews indicating teachers' perceptions as to the three components of the support structure that had the greatest influence on their use of cooperative learning. Fifty-two percent of the teachers interviewed indicated that the staff development team had the greatest influence on their implementation of cooperative learning.

Three of the 4 schools, Schools B, C, and D, reported their staff development team had the greatest influence on the implementation of cooperative learning. The staff development team was separated into two different influential components (i.e., staff development specialist and administrator). The teachers indicated that the staff development specialists were influential as initial trainers for the cooperative learning model at their building level and that they also provided assistance and support in implementing cooperative learning. For example, one teacher indicated that "they gave us the knowledge, know how, and enthusiasm."

Study groups were also influential. Two of 4 schools, Schools A and C, identified the study group team as having the greatest influence on the implementation of cooperative learning. For example, one expressed the positive influence of the study group team by this comment: "We shared

different lessons and talked about what was going on in our classroom."

Teachers in School B indicated no great influence from the study group team.

It is important to note three pairs of coaching teams made up the membership of a study group team. Although 3 of 6 teachers in School C reported a great influence of the study group team, no teachers indicated the peer coaching team was a great influence.

Table 6. Greatest influence of components of the support structure, N = 25 School A = 7, School B = 4, School C = 6, School D = 8

Components	Total	A	В	С	D
Staff Development	12	2	3	3	4
Team	48%	29%	<b>7</b> 5%	50%	50%
Study Group Team	8	4	0	3	1
	32%	57%	0%	50%	13%
Peer Coaching Team	5	1	1	0	за
	20%	14%	25%	0%	36%

<sup>&</sup>lt;sup>a</sup>Indicates influence by both peer coaching team and study group team.

Table 7 provides a composite of data from interviews indicating the best source of support provided to the teachers from each of the three components. Three of 4 schools reported that the staff development specialists as the best source of support. The staff development team provided the best source of support for 10 of 19 teachers. The peer coaching team provided the best source

of support for 5 teachers in School D. The study group team provided the best source of support for only 1 of 19 teachers. Six of the teachers reported that they felt comfortable seeking support with other colleagues other than those on their peer coaching or study group teams. These data can be seen in Appendix Table G 9 -12.

Table 7. Best source of support for teachers interviewed,  $N = 19^a$  School A = 5, School B = 4, School C = 4, School D = 6

Source of Support	School	School	School	School
	A	B	C	D
Staff Development Team	2	4	3	1
	40%	100%	75%	17%
Study Group Team	1 20%	0 0%	0 0%	0 0%
Peer Coaching Team	2	0	1	5
	40%	0%	25%	83%

<sup>&</sup>lt;sup>a</sup>Six teachers indicated that they turned to other colleagues for support.

One question asked each teacher how she or he felt in August as he or she began to use cooperative learning compared to how each felt at the end of the school year. Forty percent indicated that they were more positive toward their use of cooperative learning. They also indicated that practice helped them

gain a comfort level in using cooperative learning. Appendix Table G - 17 - 24 provide analysis of anecdotal comments reflecting teachers' perceptions of their acquisition of the cooperative learning strategy and plans for future use.

Additional information about the influences of the support structure on the implementation of cooperative learning can be found in Appendix Table G - 1 - 25 on pp. 144 - 168. The () indicates number that responded with same answer.

<u>Ouestion Three</u>: What within the support structure needs to be strengthened to have a more positive impact on the Levels of Use of cooperative learning?

Table 8 provides a composite of data from the interviews indicating which of the 3 components of the support structure had the least influence. It should again be noted that in the interviews the teachers found it difficult to separate the 3 components of the support structure. Teachers from the four schools reported that the peer coaching team (36%) and the study group team (32%) had the least influence on their use of cooperative learning. Only 5 of the 25 teachers interviewed (20%) reported that the staff development team had the least influence. Four of 6 teachers (67%) in School C and 3 of 7 teachers (43%) in School A reported the peer coaching team had the least influence. Two of 4 teachers (50%) in School B and 4 of 8 teachers (50%) reported the least amount of influence from the study group teams. Table 9 provides further information about needs within each of the components of the support structure. These needs were derived by frequency counts of expressed comments in interviews. The needs for the staff

Table 8. Least influence of components of the support structure, N = 25 School A = 7, School B = 4, School C = 6, School D = 8

Components	Total	A	В	С	D
Staff Development	5	2 <sub>.</sub>	-	1	2
Team	20%	29%	0%	17%	25%
Study Group Team	8	2	2	-	4
	32%	29%	50%	0%	50%
Peer Coaching Team	9	3a	1	4	1a
	36%	43%	25%	67%	13%

<sup>&</sup>lt;sup>a</sup>Indicates influence by both peer coaching team and study group team.

development team include provisions for specialists to observe teachers, frequent walk-throughs by the administrator, recognition for trying, and provision for scheduling time for peer observations. Suggestions for the study group team include more time for feedback during the meetings, inclusion of specialist teachers (i.e., music, P.E., art) in different study groups, more structure to the meetings, and diversity in group membership. The peer coaching team needs include scheduling time for peer observations, proximity, length of time for observations, improvement on coverage of classroom while the teacher is making peer observations in other classrooms, variety of coaching partners, and the knowledge of what and how to observe.

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Table 9. Needs within the components of the support structure

Staff Development Team	Study Group Team	Peer Coaching Team
<ul> <li>Provision for specialists to observe teachers</li> </ul>	More time needed for feedback	Schedule time for peer coaching
<ul> <li>More frequent walk throughs by administrator per study group team</li> </ul>	<ul> <li>Assign only one special teacher (i.e., P.E., music,art)</li> </ul>	<ul> <li>Proximity - grade level and classrooms</li> </ul>
Recognition for trying	<ul> <li>More structure - more time for cooperative learning activities</li> </ul>	<ul> <li>Increase length of time to observe full cooperative lesson being taught</li> </ul>
<ul> <li>Provision for scheduling time for peer observations</li> </ul>	<ul> <li>Diversity as well as grade level group members</li> </ul>	<ul> <li>Improve on coverage of classroom of teacher making observations</li> </ul>
		<ul><li>Variety of peer coaches</li><li>Different grade levels</li><li>Increase in frequency</li></ul>
		<ul> <li>Know what and how to observe</li> </ul>

## Summary

Chapter 4 described the findings of the study including Levels of Use and Stages of Concern of participating teachers in implementing cooperative learning. The influence of each of the components of the support structure and suggestions for more effective use of the support structure were described. Appendix G includes tables of descriptive data about the components of the support structure. Appendix K includes some data from the findings in chapter 4: (1) first/second year teachers, (2) specialist teachers (i.e., P.E., music, and counselor), and (3) role of the administrator in promoting higher levels of implementation.

# CHAPTER V. SUMMARY, DISCUSSION, LIMITATIONS, AND RECOMMENDATIONS

The primary purpose of this study was to determine if the support structure (i.e., study group team, peer coaching team, and staff development team) of a professional development paradigm enhanced the implementation of a cooperative learning staff development program. The secondary purposes were to determine the Levels of Use and Stages of Concern of participating teachers, to determine the components of the support structure that enhanced the implementation of cooperative learning, and to identify what needs to be strengthened within the support structure to have a more positive impact on the implementation of cooperative learning.

## Summary

Data were gathered from (1) analysis of sixty-nine questionnaires (i.e., Stages of Concern Questionnaires) (see Appendix C) given to seventy-three teachers in four elementary schools to determine teachers' Stages of Concern, (2) descriptive analysis of the study group logs (see Appendix D) from each of the four elementary buildings, (3) descriptive analysis of 25 semi-structured interviews (see Appendix G) to determine Levels of Use and to aggregate data of anecdotal comments.

The detailed findings of the study were presented in the preceding chapter. This summary restates the three research questions and summarizes the results of the research.

Research Question One: What are the Levels of Use and Stages of

Concern of the participating teachers and

schools?

Research Question Two: What influence did each of the three

components of the support structure have on the implementation of cooperative learning?

Research Question Three: What within the support structure needs to

be strengthened to have a more positive impact on the Levels of Use of cooperative

learning?

Levels of Use: Eighty percent of the teachers interviewed (25) were identified at routine (64%) or higher levels of use (refinement or integration - 16%). Only 4 of 25 (20%) were below at mechanical level. This was in contrast to Hord et al. (1987) who reported that "60 or 70 percent of the first year users of an innovation will be at the mechanical level (LoU III) (p. 66). Therefore, the professional development paradigm apparently had a positive effect.

2. Stages of Concern: Sixty-two percent of the 69 teachers had concerns about the Impact of cooperative learning on students or had no immediate concerns about cooperative learning but rather were apparently ready for a different innovation. Hord (personal communication, January 10, 1990, Austin, Texas: Southwest Educational Development Laboratory), reported that most teachers during the first year of implementation of an innovation are at Stages 2 or 3 (i.e., personal or management). The number of teachers at the advanced Stages of Concern

- generally exceeded what would be expected for most teachers in the beginning process of implementing cooperative learning.
- 3. Levels of Use and Stages of Concern: Table 3 shows that as the Stages of Concern move beyond the teachers' concerns about self and task to concerns about impact of innovation on students, the Levels of Use increase. No one at the Impact dimension of Stages of Concern were below the routine level of use.
- 4. Some schools apparently were more successful in implementing cooperative learning than others. At least one teacher in 3 of the 4 schools was above routine level of use.
- 5. Three of the four schools indicated the staff development team had the greatest influence on their use of cooperative learning. Within the four schools, two of the schools indicated the study group team had a great influence on their use of cooperative learning as shown in Table 6.
- 6. Peer coaching team had the least influence on the use of cooperative learning.
- 7. Teachers indicated the three components (i.e., peer coaching team, study group team, and staff development team) of the support structure can be strengthened to have a more positive impact on the use of cooperative learning. Needs within the support structure to strengthen the components include: staff development team provisions for specialists to observe teachers, recognition by administrator for trying, provisions for scheduling time for peer observations; study group team more time for feedback during meetings, more structure to meetings, diversity in group

membership; and peer coaching team - time for peer observations, proximity of coaching partner, length of observation time, and knowledge of what and how to observe.

#### Discussion

The study attempted to clarify if the three components (i.e., staff development team, peer coaching team, and study group team) of the support structure of a professional development paradigm enhanced the implementation of cooperative learning and, if so, how. The implications from the data are that the staff development team had the greatest influence on the implementation of cooperative learning.

Staff development programs are presented and supported in a variety of ways within a school district. Importance often is placed more on getting the training rather than providing the time and support after the training for appropriate use of cooperative learning and development of the skill until is becomes part of the teacher's repertoire. This was not the case in the school district in this study. The staff development team, composed of two staff development specialists and one administrator, provided assistance and support through the entire school year - initial training through follow-up.

One of the two staff development specialists was an expert in the area of cooperative learning (i.e., had initial and advanced training in the Johnsons' model of cooperative learning and had used cooperative learning at least one year in the classroom) and provided the initial training at the building level for all teachers and building administrator. In this leadership role, the staff

development specialist serves as the second change facilitator at the building level.

Through the involvement and participation in all three components of the support structure, the staff development team provided assistance and support as ongoing follow-up to training. The staff development team served as ad hoc members of the study group teams and were members of a peer coaching team. Several anecdotal comments provide further insight into the perceptions of the teachers about the staff development team: 1) "staff development team gave me the basis for feeling secure about this, and 2) "those people did a good job presenting this information to us."

Although the teachers' perceptions of the influence of the administrator on the implementation of cooperative learning was low compared to the staff development specialist, the teachers did appreciate the involvement of the administrator in the training process. Some anecdotal comments provide greater insight into their perceptions: 1) "He felt it was important enough to take the time to be at all study group meetings . . . to participate . . . to peer coach," 2) "very positive feeling about him being involved . . . don't feel as threatened," and 3) "he knew what to look for . . . offers suggestions."

The findings support LeBlanc and Zide's (1987) contention that administrators should: 1) identify of a building goal (i.e., cooperative learning), 2) tie the goal to an instructional area (i.e., specified subject area per school), 3) provide incentives and release time (i.e., provide assistance for peer observation and materials to assist in learning more about cooperative learning), 4) delegate responsibility to the staff development specialist, 5)

attend the study group meetings and be involved in the training sessions, and 6) express commitment to cooperative learning (i.e., positive attitude).

Hord et al. (1987) identified the administrator as a change facilitator and someone working directly with him in a leadership role as a second change facilitator. The role of the change facilitator is that of a person willing to be a good team worker. All three administrators demonstrated their willingness to work with each other as a collegial support group and at the building level to work with the staff development specialists as a team.

Although the staff development team had the greatest influence on the implementation of cooperative learning, the other two components of the support structure (i.e., study group team and peer coaching team) provided information, support, and assistance to some teachers. Suggestions for strengthening these components of the support structure that will make the paradigm more effective are reflected in the key elements of an effective peer support group identified by Zins et al. (1988): 1) openness in study group meetings to discuss successes and problems, 2) structured study group meetings with a set agenda, 3) shared ideas with other teachers, 4) commitment and enthusiasm, 5) collegiality among teachers and administrators, 6) collegial support among administrators, and 7) mixed as well as grade level members within study groups.

#### Limitations

The findings and conclusions drawn from this investigation impose the following limitations:

- 1. The sample was limited to only elementary teachers in one district organization. Therefore, the conclusions should not be generalized to other elementary schools or districts.
- 2. Some participants were volunteers rather than all randomly selected as intended.
- 3. The qualitative study was limited to the first year of implementation of cooperative learning using Joyce and Showers' training design.
  - 4. All teachers' perceptions were self-reports.

### Recommendations for Practice

We need to do the following to strengthen the study group team and peer coaching team of the support structure:

Time Time to become involved within the components of the support structure is needed. The scheduling for study group meetings and peer observations need to become part of the daily workplace schedule. The teachers need to consistently set aside a specific time and date for each study group meeting and stick to that schedule. Teachers need released time from their classrooms for peer observations. Substitutes could be employed to teach while the teacher is doing peer observations. The issue of time needs to be dealt with directly and solutions that are acceptable to teachers need to be established and consistently carried out. Teachers will need help to deal with this frustration as more demands increase the teachers' time away from their classrooms.

Accountability Administrators and teachers need to be held accountable for the established staff development goal of the school. It is the role of the administrator, with input from the teachers, to set the guidelines at the beginning of the school year. Consistency is required. If study group logs, lesson plans, or lesson plan logs for peer coaching are required, then the administrator sets the criteria, due date, and follow-up to meet the set standards. Frequent five minute walk-throughs are important to observe teachers using cooperative learning at times other than evaluation. The central office needs to hold the administrators and teachers accountable for the guidelines as established by the district. Central office should be monitoring to ensure that logs, plans, and due dates are met.

Consistency It is important that activities are carried out throughout the year. Administrators appear to diminish the time allotted for study group meetings at the end of the year in an effort to deal with logistical and other problems; however, study group meetings are beneficial and end of the year activities should not interfere with them. It appears that the end of the year is apparently hectic with many meetings. This busy schedule should not interfere with the study group meetings.

Peer coaching teams Careful selection of the peer coaching partners and attention to how the team functions are critical. A trusting environment must be established so that the peer observation is a positive rather than a negative experience. Teachers need to know when and how to give feedback in a positive way. It is also important to match teachers since personalities, teaching experience and grade level or subject area preference vary. There is

also a need to clarify the purpose of peer observations and to refine techniques so that teachers know what to observe and how to do it. The frequencies of peer observations should be increased as the comfort level increases.

Study group teams The establishment of structure through the use of an agenda is a critical element in helping the study group team to function more effectively. The purpose of the study group meetings needs to be defined and clarified to the extent that the meetings serve the intended purpose. For example, if the purpose of the study group meetings is to develop lesson plans, then time needs to be spent developing plans. Time allocation within the study group meetings need to be clarified so that time is available to share ideas and discuss problems and successes.

<u>Diversity of study group teams</u> Although grade level teams are effective for developing lesson plans and solving problems pertinent to the grade level, many good ideas can be gained across grade levels. The large study group sessions should be held to a minimum.

<u>Proximity</u> Teachers will tend to reach out and share ideas, problems and successes with teachers in close proximity. Therefore, it is important to take into consideration the location of teachers within buildings when establishing peer coaching teams and study group teams. For example, a first year teacher should be placed in close proximity with an experienced teacher which would increase the frequency of observations and build trust within a shorter period of time.

#### Recommendations for Further Research

The following recommendations are submitted for further consideration for other researchers investigating follow-up to training, restructuring of the workplace to build a more collegial atmosphere, and ways to implement cooperative learning:

- 1. The present study should be replicated except an equal number of teachers should be used to determine the Levels of Use and Stages of Concern. This would provide stronger verification of the relationship between the two components of the CBAM model and help clarify how the staff development paradigm influences teachers.
- 2. A study should be conducted to measure the results of the initial training and then measure the results at the end of the year when the staff development specialist was not involved in the implementation process. This would provide verification if the staff development specialist strongly influenced the implementation because he or she provided the training of the innovation.
- 3. If Levels of Use and Stages of Concern are to be used in determining the degree of implementation, an innovation configuration should be developed and used with the interviews to help determine the Levels of Use. The innovation configuration would provide operational features of the innovation.
- 4. A comparison study of two different models of teaching using the same support structure should be completed to determine if the innovation makes the difference or if it is the support structure.

- 5. A study should be completed to examine the structure of the study group team meetings: time of meetings, frequency, make up of group, number in the group, purpose, and the structure of the meetings to see what, if anything, makes a difference in implementing cooperative learning or another innovation.
- 6. An effort should be made to clarify the difference between peer coaching and peer observation and research to determine what difference either or both make on the implementation of cooperative learning or another innovation. Does it go beyond feedback?
- 7. Further research should be done to determine if a support structure implementing cooperative learning changes the culture of the school by promoting more collegiality and experimentation.

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#### **ACKNOWLEDGEMENTS**

The degree to which I create relationships which facilitate the growth of others as separate persons is a measure of the growth I have achieved in myself.

Carl Rogers

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I am grateful to my former students at Nodland School, the teachers and administrators from Sioux City and across Iowa that have helped me grow

teachers and administrators from Sioux City and across Iowa that have helped me to continue to learn and grow from my experiences with cooperative learning.

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A special thank you to my mother, who encouraged me to use my energy and determination to accomplish what I start out to do, and my brothers who have always been there (only a phone call away) when I needed some encouragement.

I dedicate this dissertation to my family, each and everyone, who hold a special place in my heart for all the love and support that they have given me throughout the years.

This major task is completed, but it is just the beginning not the end!

### APPENDIX A.

SELECTED SAMPLES OF CORRESPONDENCES

# Urbandale Community Schools

Administration Office 7101 Airline Avenue Urbandale, Iowa 50322 (515) 253-2300

November 28, 1989

Linda Munger Education Admin. Office N229 Lagomarcino Iowa State University Ames, IA 50010

Dear Linda,

I have the feedback from all the Staff Development Specialists now at the elementary level who are engaged in the cooperative learning initiative. They have interest in cooperating with you but some concerns about the level of involvement required by staff indicated in your initial proposal. They and I would like very much to set up a meeting with you in order to discuss the possibilities of some modification of this proposal in order that we could entertain your request. It is our feeling that we could profit from this effort as well as you. Please give me a call and let me know when you would be able to meet with us within the next couple of weeks.

Thanks.

Sincerely,

Home

Nina M. Carran

Asst. Supt.

Linda Munger
Iowa State University
Educational Administration
N229 Lagomarcino Hall
Ames, Iowa 50011
January 3, 1990

Ms. Nina Carran Assistant Superintendent Urbandale Community Schools 7101 Airline Avenue Urbandale, Iowa 50322

Dear Ms. Nina Carran,

I am writing to request permission to conduct a qualitative study of the professional development paradigm in implementing cooperative learning in the four elementary schools: Jensen, Karen Acres, Rolling Green, and Olmsted in the Urbandale Community School District. The qualitative study will analyze the three components of the professional development paradigm: peer coaching team, staff development team, and study group team.

The results of the study will be reported in a dissertation as part of my requirements in completing my PhD degree at Iowa State University. The proposal has been presented and accepted by my graduate committee at Iowa State University.

I look forward to having an opportunity to work with you and the elementary staff. Thank you.

Sincerely,

Linda Munger

February 9, 1990

Mr. Dave Wilson Concerns-Based Adoption Model Project Southwest Ed. Department Laboratory 211 E. Seventh Street Austin, Texas 78701

Dear Mr. Wilson,

I have purchased the manual, Measuring Stages of Concern About the Innovation: A Manual for Use of the SoC Questionnaire. I received verbal permission by the phone from Southwest Ed. Development Laboratory to use the concerns questionnaire as part of my data collection for my dissertation. I retyped the questionnaire and used the term "cooperative learning" instead of "innovation." I am enclosing a copy of the questionnaire as I have retyped it. I would like at this time to have you review it and grant me written permission to use the questionnaire format. I will need to print and give 73 questionnaires to elementary teachers involved in the study. The questionnaire will be color coded for the building identification and the last four digits of the social security number will be used for teacher identification.

The SoCQ is part of a triangulation data collection for the purpose of studying the effect of a professional development paradigm (i.e., peer coaching team, support group team, and staff development team) on the implementation of cooperative learning. The questionnaire will be given to all elementary teachers implementing cooperative learning. The questionnaire will be given by the staff development specialist in each building during their regular weekly support group meetings.

I want to use the questionnaire to determine the stage of concern each teacher and each building is at now after being involved with implementing cooperative learning for at least one semester. Some of the teachers will have used it more and a demographic page will help with that analysis. I will be doing random selection of interviews from the teachers that have completed the questionnaire. Thank you for your cooperation.

Sincerely, •

Linda Munger



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# SOUTHWEST EDUCATIONAL DEVELOPMENT LABORATORY 21) East Seventh Street Austin, Texas 78701 512/476-6861

April 16, 1990

Linda Munger N229 Lagomarcino Hall Iowa State University Ames, IA 50011

Dear Ms Munger:

This letter is to give the permission requested in your letter of February 9, 1990, to use the Stages of Concern Questionnaire for your dissertation research as described in your letter. The adaptations you have made are completely acceptable.

We appreciate your consideration in requesting this permission. If you have other applications for the Questionnaire in this or similar work beyond that described in your letter, such permission can be readily granted, but we would like to be aware of them.

Good luck in your project, and I hope this permission is in time to be of some use to you. You letter got buried in a pile of paperwork and I just found it this afternoon.

Sincerely,

David A. Wilson

Director, Communications and Development

Dr. Bruce Joyce **Booksend Laboratories** 3830 Vine Maple Eugene, Oregon 97405

Dear Dr. Joyce,

I am a doctoral candidate at Iowa State University. I am doing my dissertation with the Urbandale Community School District in Urbandale, IA and working with Nina Carran, assistant superintendent. The study includes analysis of the study group logs and staff development team surveys, and interviews. I am using the CBAM Stages of Concern to aid in analysis of the study group logs to determine the concerns of the group members and what interventions addressed these concerns.

The interview questions will relate to three areas: study group meetings, peer coaching/observation, and the staff development team which includes the building principal. I would appreciate it if you could review my interview questions and make any suggestions that might help to clarify what needs to be asked during the interviews. The interviews are scheduled the first part of April.

I met and visited with Carol Rolheiser-Bennett at the National Symposium for Cooperative Learning. She had high regards for you and also told me how busy you are.

I am responsible for doing the Johnson & Johnson model of cooperative learning with schools in lowa. My concern is that I want to help districts implement the model appropriately. Hopefully, the study will provide some answers that will help some lowa schools realize the need for study groups. ongoing training, and peer coaching. I want to do more than just do a workshop on cooperative learning. I realize the need for improvement in the staff development programs as they are now in lowa.

I appreciate your time. Please send any comments written right on the sheet and return it in the self-addressed envelope. Thank you.

Sincerely,

Linda Munger N229 Lagomarcino Hall

Iowa State University

Ames, IA 50011

#### APPENDIX B.

STAGES OF CONCERN QUESTIONNAIRE FORMS: LETTER TO EDUCATOR, COVER PAGE, AND SoC QUESTIONNAIRE (35 ITEMS)

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February 27, 1990

Dear Educator:

Thank you for your willingness to assist me in part of my research project.

Part of the study involves the process of change in implementing cooperative learning. Because your school is involved in implementing cooperative learning, I feel that this questionnaire will be a good source of information to learn more about the process of change at the individual level.

I am asking you to fill out the attached questionnaire which seeks to measure your present concerns about cooperative learning. Please place the completed questionnaire in the envelope included and hand it back to the designated person. I will then collect the questionnaires from your school as a group. Your name is not requested, but I would appreciate the last four digits of your social security number to use for data processing.

Thank you for your help. I will report the findings in my final report to your district in June.

Sincerely,

Linda Munger Iowa State University Ames, IA 50011

#### **CONCERNS QUESTIONNAIRE**

In order to identify these data, please give me the last four digits of your Social Security number:

The purpose of this questionnaire is to determine what people who are using cooperative learning are concerned about at this time during the innovation adoption process of cooperative learning. The items were developed from typical responses of school and college teachers who ranged from no knowledge at all about various programs to many years experience in using them. Therefore, a good part of the items on this questionnaire may appear to be of little relevance or irrelevant to you at this time. For the completely irrelevant items, please circle "0" on the scale. Other items will represent those concerns you do have, in varying degrees of intensity, and should be marked higher on the scale.

#### For example:

This statement is very true of me at this time. 0 1 2 3 4 5 6 7

This statement is somewhat true of me now. 0 1 2 3 4 5 6 7

This statement is not at all true of me at this

time. 0 1 2 3 4 5 6 7

This statement seems irrelevant to me.

0 1 2 3 4 5 6 7

Please respond to the items in terms of your present concerns, or how you feel about your involvement with cooperative learning. The term "innovation" is defined in terms of implementation of cooperative learning as defined in the Johnson & Johnson model of the training program - the five basic elements of positive interdependence, face to face interaction, social skills, individual accountability, and processing. Remember to respond to each item in terms of your present concerns about your involvement with cooperative learning.

Thank you for taking time to complete this task. Please keep all pages (cover page, questionnaire, and demographic page) stapled together. Please put your response in the attached envelope and return to the person that handed out the questionnaire.

Linda Munger
Iowa State University
Ames, Iowa 50011

#### PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

104-107, SoC QUESTIONNAIRE ITEMS

**U·M·I** 

## DEMOGRAPHIC PAGE

Please complete the following:

1.	Grade level assignment: Primary Intermediate Other
2.	Job assignment: Full time - all subjects Core subjects only
3.	Sex: Female Male
4.	Age: 20-29 30-39 40-49 50-59 60-69
5.	Highest degree earned: Bachelor Masters
6.	Year degree earned:
7.	Total years teaching:
8.	Number of years at present school:
9.	In how many schools have you held full time appointments?
	one two three four five or more
10.	How long have you been involved in cooperative learning?
	Since Aug., 1989 Since last school year ('88 - '89 school year)
	More than a full school year
11.	In your use of cooperative learning, do you consider yourself to be at:
	mechanical use routine use executive control
12.	Have you received cooperative learning training other than at the
	building level?
	yes no

13.	How frequently do you use cooperative learning in your classroom
	weekly?
	At least once Up to three times More than three times
14.	Do you use cooperative learning in more than the building designated
	subject area?
	yes no

### APPENDIX C.

RESULTS OF SoC QUESTIONNAIRES SCHOOLS A, B, C, AND D

Table C - 1. Listing of individual stage of concern percentile scores for cooperative learning - School A<sup>a</sup>

Stage of Concern Percentile Scores									
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total	
01	66	60	59	<u>98</u>	59	44	94	83	
02	29	45	05	52	86	<u>95</u>	90	66	
03	60	51	67	52	43	<u>76</u>	22	5 <b>7</b>	
04	77	66	72	<u>83</u>	16	31	38	60	
05	66	37	39	27	<u>92</u>	<u>93</u>	<u>92</u>	71	
06	46	43	45	52	<u>66</u>	59	17	42	
07	29	37	25	39	59	<u>64</u>	<u>65</u>	42	
08	77	37	48	65	<u>90</u>	44	69	66	
09	23	43	45	43	38	<u>52</u>	09	27	
10	<u>72</u>	69	67	47	59	44	47	66	
11	37	63	31	<u>73</u>	38	19	20	33	
12	<u>81</u>	30	48	77	27	25	26	36	
13	53	<u>75</u>	52	47	33	55	47	57	
14	29	93	<u>96</u>	<u>97</u>	92	93	92	98	
15	37	57	39	15	71	<u>84</u>	22	45	

<sup>&</sup>lt;sup>a</sup>The line under the number indicates the highest stage of concern on the SoC questionnaire for each participant.

Table C - 1. Continued

Stage of Concern Percentile Scores										
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total		
16	29	16	35	56	<u>59</u>	52	30	30		
17	<u>81</u>	40	57	39	19	72	34	45		
18	10	19	28	39	30	<u>80</u>	26	24		
19	29	60	<u>67</u>	60	38	40	<b>57</b> .	54		
			Group	Profile	N=19					
Means	49	50	49	56	53	<u>59</u>	47	53		

Table C - 2. Listing of individual stage of concern percentile scores for cooperative learning - School B

Stage of Concern Percentile Scores									
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total	
01	<u>77</u>	16	12	43	05	52	38	15	
02	53	05	12	52	19	07	<u>57</u>	09	
03	<u>46</u>	05	05	34	38	09	<u>47</u>	09	
04	<u>94</u>	40	48	69	63	52	34	63	
05	46	37	57	<u>83</u>	59	76	30	60	
06	23	37	35	<u>77</u>	27	16	14	18	
07	<u>72</u>	12	12	11	21	52	47	12	
08	<u>81</u>	23	31	27	03	05	09	06	
09	46	57	41	<b>3</b> 9	54	<u>88</u>	65	69	
10	72	40	31	<u>77</u>	24	03	30	21	
11	72	48	31	<u>80</u>	30	03	34	39	
12	10	05	21	23	59	<u>91</u>	22	21	
13	53	30	21	<u>73</u>	08	07	14	09	
			Group	Profile	N=13				
Means	<u>57</u>	27	27	53	32	35	34	27	

Table C - 3. Listing of individual stage of concern percentile scores for cooperative learning - School C

Stage of Concern Percentile Scores								
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total
01	46	12	41	15	43	<u>52</u>	42	24
02	86	90	<u>94</u>	73	38	72	69	89
03	37	16	<u>52</u>	30	48	44	30	27
04	<u>46</u>	16	21	27	33	36	17	12
05	<u>46</u>	37	25	39	38	28	20	18
06	66	19	57	56	38	<u>91</u>	81	71
07	<u>91</u>	48	48	47	08	68	57	51
08	53	16	17	11	33	<u>84</u>	22	18
09	29	40	31	<u>52</u>	48	00	20	27
10	<u>89</u>	54	70	65	33	44	57	66
11	<u>86</u>	16	52	83	63	59	60	63
12	53	37	<u>72</u>	56	71	64	38	63
13	72	27	41	23	<u>90</u>	<u>91</u>	47	54
14	<u>60</u>	27	21	39	05	07	11	06
		•	Group	Profile	N=14			
Means	<u>61</u>	33	45	44	42	56	41	42

Table C - 4. Listing of individual stage of concern percentile scores for cooperative learning - School D

	Stage of Concern Percentile Scores										
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total			
01	46	<u>63</u>	45	43	13	25	42	33			
02	60	66	91	<u>97</u>	66	55	65	89			
03	46	27	55	<u>95</u>	66	68	65	69			
04	37	19	28	<u>77</u>	59	55	60	45			
05	60	<u>75</u>	55	83	24	52	52	66			
06	66	37	39	47	48	<u>80</u>	30	45			
07	53	16	21	<u>80</u>	19	03	26	12			
08	23	19	21	23	<u>63</u>	12	34	12			
09	66	88	83	<u>92</u>	38	09	42	69			
10	37	63	<u>76</u>	65	<b>7</b> 1	52	22	63			
11	<u>81</u>	54	45	69	59	36	38	54			
12	53	30	41	39	<u>90</u>	72	42	51			
13	53	34	63	<u>83</u>	54	40	60	60			
14	10	80	48	69	<u>92</u>	31	20	5 <b>7</b>			
15	37	37	83	80	<b>7</b> 1	<u>93</u>	90	83			
16	81	12	21	80	<b>7</b> 1	88	<u>90</u>	. 66			

Table C - 4. Continued

		Stage o	of Conce	rn Perce	ntile Sco	res		
Subject number	Stage 0	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Total
17	10	16	55	34	<u>76</u>	64	52	42
18	<u>66</u>	<u>66</u>	39	56	21	19	22	33
19	72	69	85	73	71	<u>95</u>	81	92
20	72	<i>7</i> 5	<b>7</b> 6	<u>88</u>	54	59	60	80
21	<u>86</u>	54	57	77	19	40	30	51
22	29	06	39	<u>47</u>	30	22	38	21
23	46	30	52	<u>85</u>	<u>86</u>	48	34	60
			Group	Profile	N=23			
Means	52	45	55	<u>69</u>	55	49	48	54

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These consist of pages:

117-120, Stages of Concern

U:M:I

#### APPENDIX D.

STUDY GROUP LOG OUTLINES
TABLES: STUDY GROUP LOGS
SCHOOLS A, B, C, AND D

## STUDY GROUP MEETING LOG

### 1989-1990

Date:	Group leader:
Group Members: 1.	4.
2.	5.
3.	6.
Topic:	
Brief summary of meeting:	
Group concerns and/or specific rec	
Assignment/or topic for next week:	
Reflections of the session (optional)	

## STUDY TEAMS

## 1989-1990

Group Members: (indicate coaching partnerships)  1	Date:	Recorder:
2	Group Members: (indicate coaching par	rtnerships)
3 3 Brief Summary of Meeting:  Topics addressed:  1  2  Group concerns and/or specific recommendations:	1.	1.
Brief Summary of Meeting:  Topics addressed:  1  2  Group concerns and/or specific recommendations:	2.	2
Topics addressed:  1	3	3.
1	Brief Summary of Meeting:	
2.  3.  Group concerns and/or specific recommendations:	•	
3	1.	
3	2.	
Group concerns and/or specific recommendations:	3.	
1.		nendations:
	1.	
2	2.	

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Table D - 1. Log summary - School A

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Sept.					
Understanding task/role     List of social skills     Specific written objectives     Review lessons for positive interdependence					
Oct.  • Group grading - not to be used in district • Need to review to utilize material from book	Teach social skills in homeroom or core Build files of activities Cover specific recommendations for stumbling blocks for class groups and individual students Need problem solving session		Students staying in group for period of time versus not changing frequently		

Table D - 1. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Nov.	"How will specialist peer coach?"     Need for individual goals     Frustration - reassurance to not be so concerned with immediate results     How to involve specialists when schedules sporadic?     Conflict of 2 partners for peer coaching     Time - punctuality for study team meetings	Frustration     working with groups     for cooperative learning due to schedule     Problem solving -     scheduling for     teachers     Coordination of     time for observations     Problem solving -     core time versus noncore time for peer     coaching	Difficulty with some students accepting roles		Look at coop- erative learning in other areas
Dec.	Problem solved for processing	<ul> <li>Decision to make file for lesson plans for each skill area</li> <li>Group pleased with direction and productiveness of study team</li> </ul>	Evaluation of goal - random sample of core students		<ul> <li>"Do we have to change strategies for next year?"</li> </ul>

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Table D - 2. Log summary - School B

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Nov.	<ul> <li>Grade level differences (4, 5, 6)</li> <li>Differences in approaches by 2 &amp; 3 grades</li> </ul>	<ul> <li>Evaluation of writing</li> <li>Review plans in more detail as needed</li> </ul>			
Dec.  Importance of verbalizing Importance of evaluation Discussion of how to adapt lessons to low functioning students	<ul> <li>Problems with high kids working together socially</li> </ul>	Time and flexibility Schedule for peer coaching - time and lesson Group plans - same/different each week How often to change groups			
Jan.		Discussion about coaching     Time management     Valid times for log sheet     Coop proofreading problems     Grading     Reminder to process well     Concrete ideas for 'off-task' behaviors			<ul> <li>Discussion of reading and writing activities - buddy journals</li> <li>Co-op writing - (only 1 part might be actually a coop task)</li> </ul>

Table D - 2. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Feb.	<ul> <li>Some groups need more structuring than others</li> <li>Two group levels make more concern</li> <li>Some groups not sharing-taking turns with partners</li> </ul>				

Table D - 3. Log summary - School C

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Aug.  How to group kids How to use in PE What about MY kids "How can we help each other when we come from different plans?" "What good does it do to watch each other?"			<ul> <li>"How to pull into group activity student who would rather sit back?"</li> <li>"How many students will be stand offs and not take responsibility?"</li> <li>"How does this affect the group?"</li> </ul>		
Sept.  Social skills  "How do I keep kids on task?"  "How do I make everyone participate?"	Unique group - problems & types of teaching situations different     Concern for use next year     Frustration of district jumping strategies     Concern for teachers going to conference	<ul> <li>Time frame</li> <li>Fitting it all in</li> <li>Noise level</li> <li>Time and supervision</li> </ul>	<ul> <li>See improvement in ability to cooperate (2)</li> <li>Parental concern of responsibility of students in group</li> </ul>		

Table D - 3. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Oct.  • Sharing of ideas about positive interdependence • Desire practical activities to do with kids in reading • Need to brainstorm ways to use cooperative learning in reading	<ul> <li>Resentment by some teachers as group moves toward planning specific reading activities</li> <li>"Are other schools expressing some concerns?"</li> <li>Teacher felt the students didn't work well in teams - lack of social skills</li> </ul>		Concerns of effect of T-chart and involvement of students in making T-chart	Discussion of presentation at PTO and letter home to help with parent perception of cooperative learning	
Nov.	Teacher will write lesson - group leader will help with parts and observe lesson Absenteeism from group Use of videos to visualize Problems with some parents "Every lesson doesn't have to be big show'." Concern about changing peer coach Time to do peer coaching when guidance teacher in room	Keep track of cooperative learning lessons in plan books (use of stickers)     Record on study group log by date     "Don't have to write three a week just implement"     Want time at beginning of study group meeting to record peer coaching			

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Table D-3. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Dec.  Need ideas for processing	Concern about one teacher from group not teaching CL lessons  Need to make plans for observations Helpful to discuss section from brown book on positive interdependence		Jigsawing within groups: discussion of removing individuals from group and individual rewards even if group doesn't succeed		
Jan.	<ul> <li>Concern for same partner all year</li> <li>Integration of a lesson for all students in class without separate lessons</li> <li>Development of strategy file</li> <li>"Are we doing it right?"</li> </ul>	<ul> <li>Next semester - integrated language ideas sharing</li> <li>Meetings - partner/study team being productive</li> <li>Working out a schedule to observe</li> </ul>			
Feb.	<ul> <li>Reminder to group to put papers in folders</li> </ul>				

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Table D - 4. Log summary - School D

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Oct. • Processing					
1100000116				<del></del>	
Nov.	<ul> <li>Leaving room for observations</li> <li>Bothering other people to watch kids</li> <li>Observing students not teacher</li> <li>Locked into these meetings</li> <li>Burned on cooperative learning</li> <li>Keeping data for proof of peer coaching</li> </ul>	Time consuming doing lesson plans Tired of doing cooperative learning TOO MUCH PAPERWORK - observation/preplanning papers and accountability forms	Leaving kids to observe teacher     Effectiveness for students to plan a lesson one week in advance		
Dec.  • Inservice on coaching  • Modeling-instruction  • Need more information on peer coaching	Repetitious for last year's teachers     Difficulty for some knowing how to peer coach     Conflict - giving up current or gr. level partner     Stating importance of gr. level partner	Too much paper work Required to do 3 lessons a week Need to do more than just 20 observations Good to have grade level planning		Need more whole- group sharing of math lessons & ideas	

Table D-4. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Jan.	Conflict - want to stay with peer coaching partner/ last yr.'s partners want to change partners How to get room covered for observations/ coaching Pressure to get all done Gr. level planning need and helpful Most don't want to visit other bldg. or have other bldg. visit here Desire to observe teachers using cooperative learning in other areas Want choice in who to observe Need to get good at what we do before going on to something new Desire to observe more cooperative lessons	15 minutes not enough for peer coaching     Whole day in-service too long     Would like grade level planning	Do kids get hurt feelings when not picked?     How often to switch partners?     Not visible complaints from kids		

Table D - 4. Continued

Informational	Personal	Management	Consequences	Collaboration	Refocusing
Feb.  • Seeking	Want to see a     whole lesson taught     with coach	<ul> <li>Want time for gr.</li> <li>level planning</li> <li>Doing cooperative</li> </ul>		<ul> <li>Want to share when and how to process at end of</li> </ul>	
information on othe social skills Interest in file of lessons available	······································	lessons three times a week in math  How much to do to have it count as a cooperative lesson  Want longer observation time  Grade level plans this year won't be good next year		lesson	

#### APPENDIX E.

CORRESPONDENCES AND CONSENT FORMS FOR INTERVIEWS

February 20, 1990

Dear Educator,

As part of my dissertation, I am studying the effects of the professional development paradigm of support group meetings, peer coaching, and administrative support on the implementation of cooperative learning. In order to obtain a broader perceptive of this professional development paradigm, I need to interview a random selection of teachers. The interview questions will relate to your perceptive of the three components of the professional development paradigm.

You have been randomly selected as a participant in an audio-taped interview. Participation in this project is voluntary; however, your participation would be greatly appreciated in order to make the results of the total project useful. The interview will be scheduled at your convenience and will be audio taped with your permission. The interview will require approximately one hour of your time. Your identity will be kept confidential. The audio-tape will be destroyed at the end of the study. Your taped interview will only be identified for transcription by the last four digits of your Social Security number. Your name will not be used at any time.

At the conclusion of the study, I will provide the district with a summary of the results of the study.

If you agree to participate in the interview portion of the study, please sign the attached permission form and return by mail directly to me.

Sincerely,

Linda Munger

<u>URGENT</u>: The response from the random sample of teachers for interviews has been less than minimal for me to complete my research study. The project is not able to continue without your help. I would appreciate it if you could volunteer a maximum of one hour of your valuable time to be interviewed by Linda Munger. I need the teachers' perceptions relating to the impact of the three components of the professional development paradigm (i.e. study groups, peer coaching/observation, and staff development team support with emphasis on the building administrator) to complete the research study.

# PLEASE RETURN THIS FORM BY FRIDAY, MARCH 16

Research Study: Analysis of the Effect of a Professional Development Paradigm on the Implementation of Cooperative Learning

## Consent form:

I agree to VOLUNTEER as a participant in the research study by being interviewed by Linda Munger. With my permission, the interview will be audio taped for transcription of the data. I understand that my identity will not be revealed in any publication, typed transcript, audio tape, or in any other way which relates to this study. I understand that I am free to withdraw my consent of participation at any time.

Research Study: Analysis of the Effect of a Professional Development

## PLEASE RETURN THIS FORM AS SOON AS POSSIBLE

Paradigm on the Implementation of Cooperative Learning

Consent Form:

I (do \_\_\_, do not \_\_\_) agree to participate in the research study by being
a participant in an audio taped interview conducted by Linda Munger. The
nature and general purpose of this research project have been explained to me.

I understand that my identity will not be revealed in any publication, typed
transcript, audio tape, or in any other way which relates to this study. I
understand that I am free to withdraw my consent of participation at any time.

At this time, the best date for me is:

\_\_\_ March 21 \_\_\_ March 29 \_\_\_ April 5 \_\_\_ April 11

\_\_ March 22 \_\_\_ March 30 \_\_\_ April 9 \_\_\_ April 12

\_\_ I prefer to have a substitute hired to cover my class during the time for

Signature of Participant

Date:

Please return this signed form in addressed envelope to: Linda Munger N229 Lagomarcino Hall Iowa State University Ames, Iowa 50011

\_\_\_ I prefer to do the interview before or after school.

the interview.

At this time, the	best date for me is:		
March 21	March 29	April 5	April 11
March 22	March 30	April 9	April 12
the interv		•	ss during the time for
	Signature o	of Participant	

Please return this signed form to the designated building representative.

Thank you for your help. I appreciate your professional dedication and time.

Linda Munger Research Associate Iowa State University Ames, IA 50011

# APPENDIX F.

INTERVIEW QUESTIONS

# **INTERVIEW QUESTIONS**

The purpose of this interview is to elicit your perceptions of what effect these three components (coaching team, study group team, and administrator involvement as part of the staff development team) had on the implementation of cooperative learning in your classroom.

- 1. What do you consider the strengths of using cooperative learning?
- 2. What do you consider the weaknesses of using cooperative learning? (What did you do to overcome these problems or weaknesses?)
- 3. As you have been involved in the implementation of cooperative learning in your own classroom and in your building, what has the effect of this implementation had on you as a classroom teacher?
- 4. Of the three components (coaching team, study group team, and staff development team with emphasis on the involvement of the administrator), which component has had the greatest influence on the implementation of cooperative learning in your own classroom? Why? How?
- Of the three components, which component has had the least influence on the implementation of cooperative learning in your own classroom? Why?

- 6. As you were involved in a peer coaching team, what do you think was the purpose of it?
- 7. What were some of the most difficult things that you experienced in being a member of a coaching team?
- 8. In what ways did you benefit from observing another teacher?
- 9. What specific ways did your coaching partner help you in the implementation of cooperative learning in your own classroom?
- 10. What changes have you made in the use of cooperative learning in your classroom based on the input from your coaching partner?
- 11. What do you consider as the strengths of peer coaching as a means of helping to implement cooperative learning?
- 12. What do you consider the weaknesses of using peer coaching as a means of helping to implement cooperative learning in your own classroom?
- 13. What would you do to improve the peer coaching experience?
- 14. As you were involved in a weekly study group meeting, what do you think was the purpose of it?

- 15. What ways did you benefit from being a participant in a weekly study group?
- 16. In your study group, have you had an opportunity to specifically address some of your concerns about the implementation of cooperative learning in your classroom or in the school? If so, how? If not, why not?
- 17. How would you improve the purpose and functioning of your study group?
- 18. What changes have you made in the use of cooperative learning in your classroom based on the input from your study group members?
  (What has that input been? demonstrations, development of lesson plans, and discussion of concerns)
- 19. Do you seek assistance from other colleagues (other than your coaching partner or members of your study group team) in implementing cooperative learning in your own classroom? If so, who? Why?
- 20. Within your building (either teacher or administrator), who has been your best source of support and encouragement in implementing cooperative learning?

- 21. The building administrator has been involved as part of the staff development team, as part of a study group, and involved in the training of using cooperative learning. How has his knowledge of cooperative learning and involvement in the process influenced your implementation of cooperative learning? Why?
- 22. What specific types of support and encouragement has the building administrator provided to you personally as you have been involved in a coaching team and a weekly study group team in an effort to implement cooperative learning in your own classroom as well as in the school?
- 23. In what ways would you suggest that the building administrator provide specific assistance and support to you as a classroom teacher implementing cooperative learning?
- 24. As you reflect back over the school year, how would you specifically express your involvement in the implementation of cooperative learning in your own classroom? Why? (reflect on the three components specifically)
- 25. As you plan the rest of this school year and look toward next school year, how would you express your involvement with the continued use of cooperative learning in your own classroom? Why?

# LEVEL OF USE RATING SHEET (CBAM, 1975)

Tape #: Date:

/ 75

Site: I.D. #:

Interviewer: Rater: 42

Level	Knowledge	Acquiring Information	Sharing	Assessing	Planning	Status Reporting	Performing	Overall Lo	οU
Non-Use D.P. A	0	0	0	0	0 -	0	0	0	
Orientation D.P. B	I	I	I	1	I	I	I	I	
Preparation D.P. C	II	11	11	11	11	11	II	II	+ 4 1
Mechanical Use	III	III	Ш	111	III	III	III	III	
Routine D.P. D-2	IVA	IVA	IVA	IVA	IVA	IVA	IVA	Äavı	
Refinement D.P. E	IVB	IVB	IVB	IVB	IVB	IVB	IVB	IVB	
Integration D.P. F		V	V	V	V	V	V	V	
Renewal	VI	VI	VI	VI	VI	VI	VI	VI	
User is not doing:	ND	ND	ND	DN	ND	ND	ND		
No information in interview:	NI	NI	NI	NI	NI	NI	NI		

Is the individual a past user?

Yes

No

How much difficulty did you have in assigning this person to a specific LoU?

None 1 2 3 4 5 6 7 Very much

Comments about interviewer --

# APPENDIX G.

TABLES: INTERVIEWS SCHOOLS A, B, C, AND D

Table G - 1. Peer coaching - School A

Purpose of Coaching	Strengths	Weaknesses	Difficulties in Coaching	Benefits of Observing	Ideas for Improvement
<ul> <li>"somebody else looking for something specific and commenting on it"</li> <li>"feedback from someone who might see the process in a different way than what you might see"</li> <li>"give more of an outside view"</li> <li>"point out the good things they're doing and then model"</li> <li>"give each other feedback"</li> <li>"I found a strength learned myself from watching that teacher do a lesson"</li> <li>feedback on what the kids were doing - (preferred feedback on what the teacher was doing)</li> </ul>	"low risk, you want to do more and more because things were going or you thought they were going of you thought they were going due to feedback from coach       "nonthreatening compared to being supervised by an administrator reciprocal relationship"     able to bounce ideas off someone     "making sure that you're doing it positive feedback"     "encouraged me to want to try to do more and more things with cooperative learning"     "helps you stay ontask thought through my lessons more thoroughly"     communication - "talking to somebody else about problems and successes"	schedule limitations 'if you didn't have a partner that you could trust" 'both don't know what you're doing very well you might want to have someone who's been trained more in it" 'I think it could be discouraging if you saw someone just plodding through it because it was required" no real weaknesses (3)	• finding someone to watch class while you observe - double core - "no time off during the day, no planning periods" • time - "having to do it on a certain day and a certain time in order to do the peer coaching" • scheduling time in and out of room - difficulty getting back and conferencing (2) • because of core - "switched classes didn't really get to see her teach her kids working" • "told not to look at the teacher observe the social skills the kids were using" • observed during planning time to avoid work for sub • difference in age level hindered peer coach talking	<ul> <li>"aiming for some of the same goals and working in the same way got ideas for activities to use"</li> <li>more ideas (4)</li> <li>"pick up on some of the techniques that they were using"</li> <li>"if it hadn't been a requirement, I probably wouldn't have done it real plus for me"</li> </ul>	"needs to be more like a check-list so that throughout the year you look for so many things"     "do informal peer coaching a lot" - teachers in same room     "exchange partners more often"     observe people in other subject areas using cooperative learning     time element     input from a peer coach not teaching the same skills - different insights     observe different classrooms and different grade levels.

Table G - 2. Peer coaching - School B

Purpose of Coaching	Strengths	Weaknesses	Difficulties in Coaching	Benefits of Observing	Ideas for Improvement
• "support you in your efforts of using cooperative learning" • "to look at students to see how the kids were interacting with each other" • "I think it's just kind of nice to know that somebody else is having some of the same difficulties your are, when you are trying something newencouraging kind of thing, to peer coach" • "help one another answer and ask questions, see how they do it, find different ways for processing and some different ideas"	• helpful - "need more things on what we were to look for" • support • "two heads are better than one"" as peer coaches in a way become a cooperative teamnice to bound it off somebody elsevery reinforcing" • "able to talk to someone about what you are doing, to see if you are on the right track, have someone to just bounce your ideas back and forth"	time problem     go more times a week - lack of observations     "I don't see how it can be a weakness unless you would have people together who are just so negative about it"     hindrance of peer coaching the building goal subject area rather than cooperative lessons in any subject area inconvenience preparing a cooperative lesson in goal area just for peer coaching	• "getting the time, taking the time to do it" - difficulty in getting the time together once a week-coaching during own planning time • "early on being completely new to it" "interested to see how they were doing it" - people trained last year - wished more of • scheduling (3)	seeing enough cooperative lessons to implement it     ideas on processing and different ways of monitoring     other methods, other strategies, other ways of implementing it     on the right track by "seeing what someone else was doing was what I was doing"     "encouraging to open and share with other people"	<ul> <li>scheduling a certain time each week</li> <li>need more time</li> <li>"leave it open for when you had a lesson, it could be in any subject area"</li> <li>variety of peer coaches (2) - "I think it's real good to keep changing partners so you are getting new input all the time."</li> <li>scheduling (2) - difficult as now using planning time or being freed by support staff</li> </ul>

Table G-3. Peer coaching - School C

Purpose of Coaching	Strengths	Weaknesses	Difficulties in Coaching	Benefits of Observing	Ideas for Improvement
• "to get to know other teachers Some teachers you never really have a chance to talk to then you get to meet that person and you're almost force to get to know themalmost always good things come out of that." • "To give thought to what you see." • "to look at the kids, see how the kids were doing, see if they were on task, give suggestions as to how can we channel their energies or how can we make it better for them." • a meeting with the teacher to talk about the goal to observer with the students - "usually more social" • "It has given teachers a chance to look at what other teachers are doing.	It has great potential but it has to be used."  It like being able to see other teachers' techniques but I like to keep my own ideas and not borrow others' ideas all the time."  Ichance to hear from another adult" - adult contact during the school day rather than just kids  "feedback from one another and sharing of ideas as much as anything"  "not threatening"-find the middle of the road person to peer coach with - not a friend but someone you get along with	<ul> <li>being able to find the time to go in and do it" - "tough to juggle things around during core time"</li> <li>"It's easy to get around it."</li> <li>"I don't see a lot of weaknesses apparent."</li> <li>"I think it is important for teachers to work with teachers."</li> <li>If you didn't have the 20 observations, "it would slip away."</li> <li>"it takes away a good chunk of the time"</li> <li>"initiallypeople feeling threatened about it"</li> </ul>	<ul> <li>"I think getting to itall the way across the open spacenot convenient at all."</li> <li>building "emphasis being on reading and learning" - not related to my speciality area</li> <li>time element - "just getting there and having a chance to follow-up with what you've done and talk about what you observedto give feedback after you've seen it"</li> <li>"I haven't had any."</li> <li>Being able to find enough positive things to say to the person after the lesson was given. Being able to keep my concentration up." - watch teacher teach/not observe how students work together</li> <li>Problem arranging observation time with part time core</li> </ul>	"It's nice to see the good and bad of other classes and how other people handle things."     techniques, styles, activities, good ideas     "helpful to see how other people teacherable to "compare what I was doing or how my kids were doing" - beneficial     "get other ideas of things to do with my class" - scale down to grade level     "It helps teachers of other grade levels see what's happening in other classrooms." - to see what is going on elsewhere	

Table G-4. Peer coaching-School D

Purpose of Coaching	Strengths	Weaknesses	Difficulties in coaching	Benefits of Observing	Ideas for Improvement
<ul> <li>"learn from each other, and to share ideas and critique each other."</li> <li>"you watch the kids and you watch for something that the teacher has told you to watch for"</li> <li>"see students that I had, but in a different situation, and how other peer coaches used cooperative learning techniques with the same group of kids that I had at a different time."</li> <li>"support and to help each other learn it together"</li> <li>"provide support and different perceptions"</li> <li>"support for each other and providing feedback"</li> <li>"support system, and someone who can feedback to you what they see in</li> </ul>	• support • "constant check- point to feel good about what you're doing, and what you're supposed to be doing" • "forces you to do it" • "another person's insight and ideas, somebody else to bounce it off of" • "just making sure that you are doing the same thing as everyone else does force you to do the cooperative learning" • support - "comfort- able having another teacher or colleague come in" • support and forced to do it • comfort level, "having somebody else there, people go- ing through the same thing that you are, and having that	type of feedback - evaluative - "turn you off to a new strategy"  "time on their own" tight schedule need to observe the whole lesson not just minutes problem of who will cover your classes "15 or 20 minutes that is taken out of my kids day" - time away from own kids "I wish I would have been educated more on how to peer coach" - not sure what to do some- times time away from own students "Some people feel very comfortable critiquing another teacher" - harder to monitor teacher than students	Scheduling time away from class to coach feeling of insecurity, apprehension, vulnerability working with someone that needed more help in understanding the concept experienced coach paired with inexperienced coach no training in how to peer coach focusing on intent of the observation	"picked up new ideas and strategies" - beneficial to see different groupings and organizations of lessons     "picked up a lot of different teaching ideas"     "different skills and different ways to arrange groups, different ways to have roles, different ways to have roles, different ways to start a lesson, end a lesson, lot of different points to process"     "seeing new ideas - see how they've taught a particular lesson at same grade level"     "seeing how another teacher would handle maybe the exact same lessonseeing a whole different atmosphere"     "comfort level with other people"	<ul> <li>training on coaching - "We had a lot of training on cooperative learning, we need more on how to coach, how even to tally what you are looking for or different ways to observe the classroom"</li> <li>(2)</li> <li>more time for a peer coach to see more of a lesson (2)</li> <li>"helpful to have it within your own area" - might involve traveling if a specialist</li> <li>"length of time of observation, more time for the coaches to process what went on in class, and process the teaching of it" - not just what kids are doing (2)</li> <li>"developmental of how the teacher is progressing"</li> </ul>

Table G - 5. Study group team - School A

Purpose of Study Group Team	Benefit of Being a Study Team Member	Improvement in Purpose and Function
<ul> <li>"sharing of ideas, being able to ask questions of your group I either wanted to get feedback from my group before I tried it or else I tried something and I was frustrated with it and I'd take it to the group and get some ideas for working out problems."</li> <li>"just to implement the cooperative things that we were learning"</li> <li>sharing of ideas and writing lesson plans (4)</li> <li>"original study group vertically put together all different grade levels and specialists mixed together share our successes and our failures in working with cooperative learning support each other"</li> </ul>	<ul> <li>support and encouragement</li> <li>"getting new ideas and having heads together"</li> <li>"helped to work with my grade level to try to get ideas, just to know how we could implement the stuff we were learning"</li> <li>lots of lesson plans, easy to access in a central location</li> <li>opportunity to specifically address concerns during the study team meeting (6)</li> </ul>	<ul> <li>"as we got a lot better at it" - maybe meet every other week</li> <li>variety of group members - changed teams three times</li> <li>more time so everyone can share and get feedback that is needed (question where time would come from) - (3)</li> <li>good representation of mixture of grade levels, good membership (5 or 6)</li> <li>content discussion - good to have own grade level members</li> <li>beneficial to make materials to actually use in classroom</li> <li>frequency of once a week was good</li> <li>meeting with grade level people</li> <li>good to have in morning - Tuesday was a good time</li> </ul>

Table G - 6. Study group team - School B

Purpose of Study Group Team	Benefit of Being a Study Team Member	Improvement in Purpose and Function
• "share lessons more productive near the end instead of looking at specific lessons, we've talked about them more what are going to be doing what was a good lesson you did this week" • support get more ideas fine tune what you are going with your strategy" • "to discuss lesson plans, ideas, any questions about an aspect chance to voice opinion" • at the beginning - training now, actual lesson planning • varied since beginning of year - change structure of group members - able to interact with more people	<ul> <li>"kept you on your toes about things to be looking for"</li> <li>positive support</li> <li>"disciplines a person to stay thinking about these things and keeps you on it on-task scheduled time common languagecommon goal communicating more"</li> <li>productive writing lesson plans</li> <li>give more input in smaller group</li> </ul>	<ul> <li>"specific goals each time keeps you on task"</li> <li>schedule and plan</li> <li>flexibility to deviate from the plan if "something came up that was important to the people at that time"</li> <li>meet at end of the year every two weeks at the beginning, needed weekly meeting (2 specific focus "tend to wander away a little bit"</li> </ul>

Table G - 7. Study group team - School C

Purpose of Study Group Team	Benefit of Being a Study Team Member	Improvement in Purpose and Function
<ul> <li>"get together and discuss any fun/good/neat ideas that we had during the previous weeklog our peer coaching times"</li> <li>share ideas and experiences, logging frequency of use of cooperative learning</li> <li>"made us accountable for our goal which is to do this 3 times a weekhelped us get ideaschance of airing problemshelped us schedule our peer coaching"</li> <li>"keeps you on your toes and keeps the strategy of cooperative learning in front of you"</li> <li>"at the beginning to educate us and inform us of cooperative learning and then to share ideas and see how things were going"</li> <li>"comfortable by doing it (training) weekly even if you weren't sure how you'd fit in, the smoother it seemed to go as time went on"</li> </ul>	<ul> <li>"keeping it as a priority for me and remembering to keep my peer coaching scheduled and as a goal"</li> <li>"I did cooperative learning. I'm not sure I'd have done it with knowing how it is without the study group."</li> <li>"helped me know what things you could do more ideas not just thinking of doing it in one isolated situation"</li> <li>"wonderful to be able to share honest about my perceptions of how it was going"</li> <li>at the beginning, talking about cooperative learning - sometimes now not always on target (2)</li> <li>better teacher and understanding of another strategy</li> </ul>	<ul> <li>"doing more along with the building goal more literature activities that we can use"</li> <li>only one special teacher on a team (2)</li> <li>preferred to meet once a month - many times were used just to socialize</li> <li>helped in the beginning having a veteran teacher that already used cooperative learning</li> <li>more structure - more time allotted to cooperative learning activities</li> <li>grade level members</li> <li>sometimes meet across grade levels</li> <li>comfortable with six members</li> <li>six was too large - tended to pair off and talk</li> <li>clearer, more specific focus</li> <li>lessen frequency toward end of the schoo year</li> </ul>

well" (2)

• keep meeting as set up not bring other faculty issues discussed (2)

Improvement in Purpose and Function

Change structure due to different levels of

knowledge and skill - "frustration . . . some

people have been involved for a longer

period of time, some people have learned new concepts of teaching ... more versed at

it . . moving in their own direction right

- make good use of time
- "more instruction, even in peer coaching. ... then maybe get in the study groups and
- discuss that"
- more structure (2) not sure of purpose now
- grade level groups
- at the beginning, weekly support meetings but later not as frequent - every two or three weeks
- diversity of group members benefit of observing and understanding different grade levels

# Table G - 8. Study group team - School D

#### Purpose of Study Group Team

- "the purpose was to get together and share ideas and to possibly break into grade levels study teams and be able to possibly work up lessons with mutual curriculum"
- "talk about concerns and questions support group"
- Now it is grade level "it's like the only time we can get together to talk about other things"
- "learn the techniques and support each other and kind of communicate what we felt about it"
- "training sessions . . . step by step . . . I could go back to the classroom and then next week you would add a little more"
- "share ideas and to provide support, to share different perceptives"
- "felt the purpose was just to be together to say we were together to accomplish out goal" - the focus was sharing and targeting problem areas
- "cleared up things that people were having some trouble with . . . concerns about the program as a whole on how it was being implemented"
- "in the beginning, it was to share with other people and across grade levels, things that we have observed and to share ideas . .
- . work on some of our cooperative lesson plans ... lately ... It's just been people sitting around just casually talking or the principal taking over adm. business."

#### Benefit of Being a Study Team Member

- support (3) "on track with my way of thinking"
- "work in a group with more ability based people than people who might know more concepts of teaching at their level"
- "an opportunity to express our concerns. .. some beyond our control"
- "staff member equal to them" part of the staff each week
- "kind of close because we were together through all of this for an hour every week ...
- trust in each other"
- "assured me that what I was doing ... most of the time was right and effective . . . on track with what cooperative learning was and what peer coaching was ... ways to solve problems"

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Table G-9. Support-School A

Assistance in Bldg.	Best Source of Support	Bldg. Administrator	Adm. Support	Suggestions for Adm.
• Any teacher "we all talk about it a lot, and sound off of each other (4) • Staff development specialist (3)	Peer coach (2) Study team (1) Staff development specialist (2) teacher "really everyone has"	<ul> <li>"not just me, but the kids see him doing something that we're doing teaching and practicing"</li> <li>"very positive feeling about him being involved don't feel as threatened"</li> <li>"makes you want to do well"</li> <li>"he's encouraging it knowing that your administrator is behind all the risks that you're taking feel like it's okay to take a risk"</li> <li>"felt it was important enough that does take the time to be at all of the study group meetings to participate to peer coach"</li> <li>"gives me a more positive attitude toward it"</li> <li>positive attitude</li> </ul>	"roome into my room and taught"     "positive remarks about what I'm doing"     "part of our study group"     ask him I needed anything or if he could help in anyway     "verbal compliments"     "his confidence in his staff development people is so strong"     "knows what's going and can give feedback"	celebration - "keeps you on a positive attitude to keep up with it and keep going"  more feedback - only minimal now because off cycle for evaluation  building funds used for more materials  more school wide teaching of cooperative learning lessons by the administrator  "check in and come in and watch a little more often"  "observe me on a non-evaluative level"  "be around more"

Table G - 10. Support - School B

Assistance in Bldg.	Best Sorce of Support	Bldg. Administrator	Adm. Support	Suggestions for Adm.
• study group members (2) - due to proximity probably seek more from grade level team members • anybody (2) - some enough staff	• staff development specialists (4)	<ul> <li>"learning right along with us willingness to give this a try"</li> <li>"can't effectively make the change unless you're (principal) out there at the forefront showing that you know what is going on and you are encouraging others"-helpful</li> <li>"made them (principal and assistant principal) more aware of what we're going through and it has made us see them in a different light" - enthusiastic, supportive</li> <li>good for the kids to know that they (principal and assistant principal) are actively involved in this</li> <li>"Everyone believes in it."</li> </ul>	covered my class financial support, encouragement frequent visits to classroom and complimentary, informal tally as the administrator moves throughout the building and then gives feedback, encouragement for celebration and communication with parents and the community  "lots of encouragement" - "makes you feel good about what you are doing"	• some type of recognition (did do at beginning of year) • "hire a sub who did nothing for the day but travel from class-room and cover for individual teachers doing peer coaching" • around more in the building - "need to be in the middle more" • scheduling problem of being able to take classes more

Table G - 11. Support - School C

Assistance in Bldg.	Best Source of Support	Bldg. Administrator	Adm. Support	Suggestions for Adm.	
•study team (more grade level) • staff development specialists (2) • no one other than study group team	•staff development- specialist (3) • administrator •grade level teacher or upper grade level teacher • another teacher • peer coach	•"knows what to look foroffered suggestions" - was a peer coach by giving suggestions • important during evaluation - understood cooperative learning - provided feedback (2) • "nice that he's there so he knows where we're coming from" • member of only one study team - "didn't affect me one way or the other" • peer coach and member of study team • "guiding force that you start with" • need to be more knowledgeable - expert	shared a lot of activities and ideas following evaluation     helped during evaluation     available to cover classroom, encouraging, observes students working together - "makes me feel good and wanted to carry over"     "keeps us knowing what's happening in the building"     notes, verbal praise	more positive feedback     more five minute walks through the room     "recognition that I've tried"     "need them to know how it operates, or their vision of how they want to see it operate"	

Table G - 12. Support - School D

Assistance in Bldg Bost Source

Assistance in Bldg.	Best Source of Support	Bldg. Administrator	Adm. Support	Adm. Support (cont.)	Suggestions for Adm
Veterans Grade level teacher (3) Staff development specialists (2) "people who were long time colleagues I trust and feel comfortable with" Not really - due to time related to job assignment (core or specialist) (2)	Peer coach (3) Comfortable asking anyone for help Usually friends First peer coach - "expert confidence in her" Staff development specialists Team of teachers where most comfortable - peer coach from within the team	•"I think that's been very key comfortable see him in a different light, not as the evaluator gave us a lot of encouragement support" • he is "just kind of learning along with the rest of us." • "interested in it, and wants to do it" • "definitely cuts down the barrier that might be there" • "more at ease with it" on the same study team made it a lot easier to communicate with him kept track of what was going on because of process • active participant • enthusiastic and supportive • "good feel for what we are going through"- involved	• positive feedback - "walking through" - jots down a positive note about cooperative lesson "It makes me want to keep going, and let's me know that I'm doing it right" • "he walks around" "I know he notices me doing cooperative things it makes me want to do more" - "he knows what is going on" • willingness to take over a class for teacher to leave for coaching • not verbal at giving out praise • encourages us - memo saying staff did so many coop lessons this week • frequent visits - gets excited when he sees a cooperative lesson - "feel good about what you are doing"	monthly celebration - individual notes he writes - "build-ups" - demonstration teaching     member of study team, times to celebrate - "cruising through the building" - encouraging note - support - menu for release time     resource - allowance to attend workshops or watch videos	"sit in on each study team"     provision for time for specialists to observe     time - not only "more time to undestand cooperative learning, but how coach cooperative learning"

Table G - 13. Influence on use - School A

Greatest Influence on Use	Least Influence on Use	Input from Peer Coach	Input from Study Team
staff development team (2) study team (4) "people who did a good job presenting this information to us peer coaching has helped me continue and learn beyond the initial lessons" peer coaching - "You get feedback and you definitely have to write up a lesson each week, and it gives you good practice." grade level team - "developing a lot of those cooperative learning lessons together, getting feedback from each other that we can actually go back and use in our classroom"	<ul> <li>peer coaching (3)</li> <li>administrator</li> <li>"all had an emphasis in a different area" - study team when it became grade level - "dealing with grade level academic materials didn't apply to me"</li> <li>staff development specialist because of previous training</li> </ul>	move ahead to another social skill or reemphasize a skill     working with pairs rather than triads     "implementing the ideas that we discussed and the changes we talked about"     monitoring the social skill     establishment of groups     "Some of the things I observed in her classroom helped me to realize that I could do a little bit more random grouping and proximity in the room, spreading them out more."     "more lax with the noise level"     processing     ideas from peer coach	<ul> <li>general type of task presented in the study group and actually doing the lesson in own classroom</li> <li>took a question to the study team - used idea about mystery group in the classroom</li> <li>coming up with new ideas chow to do things - questioning techniques</li> <li>focused in more on the building goal - reading</li> <li>more peer modeling</li> <li>development of good questioning techniques (3)</li> </ul>

Table G - 14. Influence on use - School B

Greatest Influence on Use	Least Influence on Use	Input from Peer Coach	Input from Study Team
<ul> <li>staff development specialists</li> <li>(3)</li> <li>peer coach - "doing the observations I feel has really helped me a lot."</li> <li>"I guess I can't see how what one would work very well without the other."</li> </ul>	<ul> <li>peer coaching - "we didn't know what we were doing"</li> <li>study team (2) - waste of time, least effective</li> <li>"all three were just real well balanced"</li> </ul>	<ul> <li>specific ideas to use</li> <li>"different ideas and different ideas to do the steps of cooperative learning"</li> <li>"if my partner had found a better way to do it I'd go back and try the same thing"</li> </ul>	<ul> <li>free to try ideas presented in study group meetings</li> <li>lesson planning in study groups</li> <li>"used cooperative learning more frequently now in writing because I have new ideas from my study group"</li> </ul>

Table G - 15. Influence on use - School C

Greatest Influence on Use	Least Influence on Use	Input from Peer Coach	Input from Study Team
staff development specialist (3) -"gave us the knowledge, know how, and enthusiasm"     study group team (3) - "especially when we shared different lessons and talked about what was going on in our classroom"	<ul> <li>peer coaching (4)</li> <li>open space classroom - "I just kinda was left out didn't really pursue it"</li> <li>"maybe I am not putting as much into it, not being forced"</li> <li>peer coach not always available - "use more of the other people who are at my grade level to coach"</li> <li>hard to schedule</li> <li>administrator involvement</li> </ul>	students working in pairs     emphasized cooperative learning more     grouping     "see a lot more opportunity to use cooperative learning"     fine tuning	<ul> <li>processing</li> <li>discussion in group about things that worked at grade level</li> <li>"I became a lot more comfortable talking about cooperative learning and what this should look like"</li> <li>how to intervene and help students that are not getting along within the group</li> <li>socializing</li> <li>changed seating arrangements, used processing ideas, used lesson plans developed in study group, and changed some ways of individual accountability</li> </ul>

Table G - 16. Influence on use - School D

Greatest Influence on Use	Least Influence on Use	Input from Peer Coach	Input from Study Team
• peer coach (4) • staff development team (5) • study group team • "It is hard to separate the three out because they all overlap so much. They all had a positive effect." • peer coach - "support and the feedback reassuring to know that I am doing things the right way, at least the way we all perceive it to be the right way." • in-services - participating in activities • "staff development team gave me the basis for feeling secure about this, but my coach helps me to continue and to feel successful" • peer coaching - "chance to watch other styles and other methods of cooperative learning implementation procedures opened a lot of communication between teachers"	<ul> <li>study team (3)</li> <li>staff development team</li> <li>peer coaching and study groups - "don't think they are as beneficial as they are supposed to be"</li> <li>peer coach because she was staff development specialist - "her influence was already coming to me through a different route"</li> <li>administrator</li> <li>"hard time separating the three separate groups"</li> <li>study group - "don't feel like we accomplish in study groups what they were probably set out to be, and what they were devised to be used for"</li> </ul>	<ul> <li>"feel more comfortable with creating my own lesson plans and finding my own materials now"</li> <li>"would reaffirm what I already suspected"</li> <li>"I've tried to let it carry over into other subject areas more than just math"</li> <li>not a lot of changes (2) - "ways we've approached it"</li> <li>no changes from input</li> <li>going over the same social skills - not covering so many</li> <li>changes in approach of doing the social skills</li> </ul>	<ul> <li>"role playing had a major impact and seeing how others did their lesson plans and how they implemented all the parts of a cooperative lesson</li> <li>different ways of processing and lesson ideas</li> <li>"taken other ideas that other teachers have had from their lessons and modified them to my own and tried some different things"</li> <li>"take a lot of ideas of how to work a lesson out of dividing kids, what roles to use, and comments, ways to give directions, comments you can make"</li> <li>helped to see other ways to teach social skills than the use of a T-chart</li> <li>"see a new technique or a new way of observing and monitoring information"</li> <li>guidance and answer to questions from veteran cooperative learning teachers (2)</li> </ul>

Table G - 17. Effect of cooperative learning - School A

Strengths of Using Cooperative Learning	Weaknesses of Using Cooperative Learning	Effect of Using Cooperative Learning
social skills (3) children sharing ideas "kids have learned to work together better" "Kids learning how to get along together or work together and using it outside of the classroom" "helping me spend more time with individual kids" "great growth in the kids" "freer to share their feelings and ideashelped to involve more children" "student really learn a lot from each other"	<ul> <li>deciding which student from the group gets the finished product</li> <li>"I think at times I've had to force it into maybe a lesson maybe because of our requirement of using it three times a week work takes longer"</li> <li>"hard to group children together, difficult to get children who will get along and really enhance each other"</li> <li>students who won't do their share of the work</li> <li>"see a little bit more growth as far as the social skills"</li> <li>"kids have kind of been bombarded with a lot of redundancy"</li> <li>"don't get to take as much home"</li> </ul>	<ul> <li>"staff works together really well in sharing idea"</li> <li>"enjoy seeing children relate to each other and getting along don't have as many social problems among the children"</li> <li>"revitalized me"</li> <li>"that I work on the social skills, too - find myself trying to be real positive and using social skills with them"</li> <li>"grown a great deal soaked in a lot of information and I've been more of a risk taker don't mind people coming in and observing me makes me more prepared and organized"</li> <li>"opened some doors for me in working with other teachers to work not only in the study team, but just from the peer coaching angle of working one on one"</li> <li>"whole different way of looking at things and setting up the lessons more supervising of the small groups"</li> </ul>

Table G - 18. Effect of cooperative learning - School B

Strengths of Using Cooperative Learning	Weakness of Using Cooperative Learning	Effect of Using Cooperative Learning
<ul> <li>"thinking and verbalizing to each other internalized better"</li> <li>"social growth of studentsenhances academic growth"</li> <li>academic and social gains</li> <li>"verbalize everythingreally thinking about what they are doing"</li> </ul>	<ul> <li>"sometimes in the beginning it was tough the more I've become use to it, the easier it's become"</li> <li>"still have the kids that don't do well with cooperative learning they do get tired of it"</li> <li>"if you put it in a situation that truly isn't a good time to use cooperative learning"</li> <li>sometimes noisy</li> </ul>	<ul> <li>"another tool to use as a teaching devicemore exciting to teach"</li> <li>"changed my teaching style a great deal"</li> <li>"frees me up to get in there and give the help where it's needed more quickly"</li> <li>"made me a better teacher made me really look at each lesson that I'm doing"</li> </ul>

Table G - 19. Effect of cooperative learning - School C

Strengths of Using Cooperative Learning	Weaknesses of Using Cooperative Learning	Effect of Using Cooperative Learning
<ul> <li>"neat how we as a school got together as a group and talked about education"</li> <li>"learning the social skills, especially for someone like kidsevaluatehow they're relating to one another"</li> <li>"kids being able to work together in a group helps them not just to be able to socialize with each otherhelps them understand a lot of the maybe facts or problems they didn't understand"</li> <li>"children being able to work together in cooperative activity and learning how to help each other in a positive way"</li> <li>"interaction that it provides with kids working with kids" - "gives more structure and a better handle on specific skills that we want to work with kids on and provides kids with specifics"</li> <li>"it's everyone in the building that's involved in cooperative learning kids are learning from each other" - "It's helped kids socially, academically and it carries over not just in the classroom but on the playground." - "I've seen big improvement as far as more collegiality among staff members and working on the same strategy"</li> </ul>	<ul> <li>"the way it was presented in the school there's a lot of different teaching strategies and you can't just use one"</li> <li>none</li> <li>"mainly inexperience"</li> <li>"takes a lot of time - it's really hard to take the curriculum that we have to teach and find a way to creatively do a cooperative lesson."</li> <li>"at first the amount of time it took to get the kids started and rolling with the procedures not been a problem the last few months"</li> <li>size of the groups - "I've found pairs work better than anything for me."</li> </ul>	<ul> <li>"talking with other classroom teachers from different grade levels about academic types of things expanding yourself, building up your repertoire of things that you can do"</li> <li>"really very little I've always felt that kids can learn just as much from other kids as they can from a teacher"</li> <li>"it's challenged me to look at the way I teach, I'm first year It gives me more experience in learning a method and trying it out and trying to be consistent."</li> <li>"I allow the children to work together much more than before"</li> <li>"I have noticed the kids being more cooperative and sharing ideas."</li> <li>"it's not only given the kids some tools, I think it's given me some tools to work with kids" - "it's given me a chance to ease into a new structure in the classroom and new way of thinking about some old things"</li> </ul>

Table G - 20. Effect on cooperative learning - School D

Strengths of Using Cooperative Learning	Weaknesses of Using Cooperative Learning	Effect of Using Cooperative Learning
<ul> <li>developing social skills (5)</li> <li>"through cooperative learning understand how I can structure the team working thing so that it goes better"</li> <li>"I think the processing part of it makes them more aware of their own behavior and they feel maybe more in charge of their life."</li> <li>teachers working in study groups</li> <li>"being able to do a lot more things with partners in a shorter amount of time because they've got the techniques for finding a partner, getting in a group and having the skills that they've worked on in the homeroom or in a core can do a lot more creative things able to branch away from what I traditionally have done"</li> <li>"social skillslearning lots more this year"</li> <li>"students being able to work together and share their ideas and pulling their knowledge together"</li> <li>"see another person's perspective of whatever it is we are doing"</li> <li>being coached</li> <li>"beneficial to many kinds of groups and it has a nice broad range"</li> </ul>	<ul> <li>"you should be able to fit it into your own style or not not going to work in every single situation."</li> <li>not any weaknesses for the kids - "I think that as a staff it's hard when different teachers have a different attitude towards it trying to find new ways to do things"</li> <li>limitations because of specific situation - small classroom and time frame</li> <li>"it's hard to get started and it's scary Some things you just can't teach with cooperative learning, so you can't do it all the time."</li> <li>"negativity of the attitude that some people have expressed towards it, without really giving it a chance or just seeing what they can do with it time line with cooperative learning bothers me" - so many observations in one subject area</li> <li>"first implementation stages are difficult"</li> <li>"planning time together, being able to develop the whole lesson and the time it takes to run a lesson from beginning to end."</li> <li>individual accountability - "students who are high achievers are those that aren't very interested in the cooperative learning"</li> </ul>	<ul> <li>"It made me more aware of how children interact with each other, and how social skills really can be taught and can be learned and relearned."</li> <li>"more sensitive to the kids, more sensitive to how they do things"</li> <li>"made me excited about teaching I can refer to the cooperative learning part of instruction in other things I'm doing."</li> <li>"I'm better able to structure my lessons so that they flow more smoothly social skills"</li> <li>"more aware of the lack of social skills that students have"</li> <li>"definitely become more a part of my style it was a major chore had to really change my thinking about having things set up"</li> <li>"good idea of how to put kids in groups and make that group work real focus secure in trying something new like that when there is some basis for it."</li> <li>"doing a lot more partner work whole new style for me more flexible helped me plan forecast where I'm going to be because you take the time to go through the lesson and what you are going to be covering"</li> </ul>

- "in August I was just apprehensive about just what exactly it was and with peer coaching, would you be comfortable when somebody came in to watch, are you comfortable going and watching somebody else. I just have a relaxed feeling now about it."

  (What helped you? training, acceptance of others)
- "at the beginning of the year, I was more like, 'Okay, they're going to have us do three times a week, I'll just make myself do that.' And now, I find myself using a lot in my classroom ... I've seen so many benefits that I'll keep using it"
- "I'm using it more spontaneously. I feel more comfortable with it" (What helped you? practice, taking risk)
- "I don't feel that one year is enough to really feel comfortable and knowledgeable enough. I feel I'll need a lot of refreshers, both ideas, maybe methods of teaching some of the social skills."
- "I just feel like it's kind of meshed together . . . It's just become kind of second nature."
- (What helped you? "we use it so much ... we were required to do it ... you kind of move past that ... getting to executive control ... Which means that you find yourself doing it without really thinking about it.")
- "realized how much it involved ... the book learning part wasn't nearly as much fun as the actual implementing. I guess I didn't realize how quickly you would become natural ... now I can look at my lesson plans and kind of on the spot turn it into a cooperative learning activity ... My students are so familiar with the procedure that they move so smoothly right into it"
- "It's become really networked into my executive control. I feel like now I can just take a lesson and go"

• "I guess I was excited to get started this year and work with cooperative learning... I feel competent using it and when I'm looking now, when I'm planning a lesson, I'm looking at how I can use it as a cooperative lesson and try to get two or three in a day if I can... I've noticed changes in kids... a neat feeling that the kids are into it and it's natural."

(What helped you? - working at it over and over)

- "At the beginning of the year, I was excited about it, but I was kind of nervous because I never really had an opportunity to . . ."
  (What helped you? listening and watching the staff development specialist teaching next door)
- "Starting out . . . almost overwhelmed with it . . . now it doesn't seem nearly as overwhelming . . . I think you do need this support in learning the strategy, so it's a difficult process, and sometimes you fight against the process, but it leads you down the road in a very positive way"
- "Time and practice . . . it's hard for me right now to remember what it was like before I did it."

- "In August I was really excited about it. I thought it looked like a good opportunity to learn a different method or talk to different people in my grade level or whatever about their teaching strategy. It looked really exciting. Now I feel like it's burden. I feel like since I have to have 60% or 3 times a week I have to use cooperative learning, it's not quite as fun."
- "I feel like I've really learned a lot, I think, in implementing and trying. I think there's been a big impact on the kids, the parents at conferences talked about it a lot. They feel their children are getting along better at home as a result of cooperative learning at school."
- "I find myself working closer with other teachers... I want to be an individual and I don't want anybody to tell me that we're going to do this this year and you're going to be a clone this way... where for years I've tried something maybe similar but I've learned to refine some of the things I've done in the past."
- "When I first heard they were going to do cooperative learning in reading, I thought thanks a lot . . . I bust out again. Cooperative learning I felt did fit with PE and it was something I enjoyed doing with the rest of the staff and feeling maybe a little more part of the staff than my own little department . . . I did enjoy doing it with everyone else"
- "At first I was overwhelmed because we got this big book and I wasn't sure what all the components were . . . it's not as scary as I initially thought it would be."
- "I've enjoyed the whole process... looking back on the whole process, I've enjoyed my study group, they've been delightful to work with, we all come from very different places. We've been able to recognize that and work well with each other together. For our first year strategy I've been able to get a good handle on it."

- "I guess the main thing is that I know what cooperative learning is now. I feel personally I understand what the components of it are, I've seen kids grow with it, which is really nice."
- "When we started peer coaching, probably I was apprehensive, but not about cooperative learning about my interpretation of it being correct. I probably started out one lesson a week when I was being correct. I probably started out one lesson a week when I was being observed, then they crept in more. Be now, it's probably about three lessons a week or four. And we started just in math, and now we're into other subject areas and expanding."
- "I love using cooperative learning... the process, I think, could be as far as the study group and the peer coaching, probably could be better. But we're all beginners, and that's probably the way it is."
- "I remember thinking, how am I ever going to do this in music? ... and I found out that if I was willing to just kind of broaden my horizons a little bit, that I didn't have to have that feeling. It was a lot easier to fit in than I thought it was going to be."
- "At the beginning of the training, I didn't even know what I was getting into . . . I didn't have any idea what idea it was at first, and I thought it was going to be one of these dorky little things that the district gets into some new little fad that they've going to get into and then it'll be over with. But the more that I got into the training, the more interested I became in it. The more I used it, I thought, "This really is neat and it really works.' It really added to my teaching style."

- "I know my style has really changed. I see myself as more confident in what I'm doing. I feel like it's becoming a regular part of my routine no matter where I am. I can't really remember what I taught before I didn't use it. I find it being implemented about 50% of the time in my classroom. And I feel the kids feel real comfortable with it as well. I know it has influenced me a lot and has focused my attention on more than just academic and realizing the other aspects that go with the educational process."
- "it was real time consuming for me, and I guess because I tend to be a perfectionist anyway . . . I was maybe a little bit scared with it, with it all being new to me . . . I had my peer coach and telling me you are doing great, and then going to see my peer coach working also and thinking, 'Well, we're doing pretty much the same thing.' That's a lot of reassurance, too. And I've just become more comfortable with it to the point now where I can just look at my lesson plan book and see that we're doing clocks and time and think, 'Wow, I could just get out all the clocks and give them cards that have digital times and have them work together with the team and we'll work on put-ups."
- "Initially, when you are learning all that stuff, you just are over-whelmed...I'm to the point where it's an everyday thing for me, and it's very easy to just go into a cooperative learning lesson, very easy...so I really feel I benefitted from it, my students have benefitted from it...they understand that social skill is a part of academic skill...although it's overwhelming, and it's a little tricky to get implemented, I just feel so good about the progress we've made."

# APPENDIX H.

KEY FACTORS IN PROGRAM DESIGN AND IMPLEMENTATION (CHECKLIST MATRIX BY LEBLANC AND ZIDE)

Table H - 1. Key factors in program design and implementation (checklist matrix by LeBlanc and Zide)

Administrative Support	School A	School B	School C	School D
Identify need/goal collaboratively: administration, teachers, consultants	х	х	Х	х
Define instructional area tied to goal	X	X	X	x
Provide incentives, space, release time	x	X	X	x
Delegate responsibility/authority for coordination to program directors	Х	X	Х	X
Attend collaborative planning and training sessions	Х	X	X	x
Express value of and commitment to program	x	x	х	x

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Table H - 2. Continued

Teacher Involvement - Growth	School A	School B	School C	School D
Support experimentation and problem solving	х	х	х	х
Collaborate in goal setting, program implementation, monitoring, and evaluation	X	х	X	х
Choose incentive option:  • graduate credit  • in-service credit				
open session participation	X	Χ	Χ.	X
Participate in staff development program process:				
• information	х	x	х	X
demonstration	X	X	X	X
critique and selection of techniques	X	X	X	X
• practice	X	X	X	X
• peer observation	X	X	X	X
• feedback	X	X	X	X
• peer coaching	X	X	X	X
• team work	X	X	X	X
<ul> <li>product development</li> </ul>	Χ	Χ	Χ	х

## APPENDIX I.

STAFF DEVELOPMENT SELF-ASSESSMENT SURVEY

#### **PLEASE NOTE:**

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

### These consist of pages:

174-175, SDT SELF-ASSESSMENT SURVEY

177-180, WHAT ARE THE STUDY GROUPS SUPPOSED TO TO - PEER COACHING/OBSERVATION

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## APPENDIX J.

SCHOOL IMPLEMENTATION PLANS, SCHOOL A AND B GRAPHS

#### SCHOOL B - COOPERATIVE LEARNING IMPLEMENTATION PLAN

Goal Statement: School B students will improve their writing skills through the use of the teaching strategy of cooperative learning.

- 1. Staff training ongoing through in-service released time and before and after school meetings and led by staff developers from Aug. to Nov.
  - a. Frequency as per scheduled district released time at 45 minutes per week (Tuesday 8 8:45 a.m.)
  - b. Group study teams (Sept. May) multi-level and/or grade level teams as well as total faculty interaction as needed.
- 2. Guidelines Strategy Development
  - a. Study groups all certified personnel will be assigned.
    - 1. Groups of 4 or 6, coaching pairs are flexible
    - 2. B.I.T. team member of each study group will maintain the group meeting log, after whole staff training is completed logs due weekly to S.D.S. and monthly to the principal.
    - 3. S.D.S. will maintain meeting log during training whole staff logs will be due to principal bi-weekly
    - 4. Study groups will meet weekly on Tuesday 8 8:45 a.m. for planning and feedback, when total staff training is completed.
    - 5. Principal, intern and S.D.S. will rotate between study groups as ad hoc members.
  - b. Observation time
    - 1. Schedules determined by study groups/partners
    - 2. Release time through use of certified personnel and cooperation between teachers
    - 3. Length of observation 15 30 minutes
    - 4. Frequency of observation 1 per week/coaching pair
  - c. Peer coaching schedules by coaching pairs from Oct. May
  - d. Instructional planning
    - 1. Begin using strategy as assigned during training and at least 3 times per week after training
    - 2. Regular lesson plan dated and completed for cooperative writing lessons
    - 3. Each staff member will maintain a log indicating the date and objectives for each cooperative writing lesson and when peer coaching/feedback was utilized
  - e. Introduction to and training of students (Sept. May)
    - 1. Post cooperative theme
      - a. in classroom
      - b. in building activities

- 2. Use simple lessons about orientation to Cooperative Learning teacher/classroom expectations
- Student will participate in and experience Cooperative Learning in every classroom with emphasis in writing as it relates to our building goal
- 3. Academic Goal Development
  - a. Pre-test on holistic writing, grades 2 5
  - b. Collect writing samples for grade 1
  - c. S.D.S. and staff will work together to develop various lesson plans to develop writing skills using cooperative learning.
    - 1. File will be provided for staff to keep all writing lesson plans
    - 2. Lesson plans and ideas for teaching of writing will be shared via file and study groups
  - d. All teachers (grades 2 5) will provide a minimum average time of 30 minutes daily on writing or pre-writing activities during core instruction
  - e. Narrated writing skills will be emphasized based upon:
    - 1. Prewriting activities
    - 2. Drafting
    - 3. Revising
  - f. Post test on holistic writing (gr. 2 5) and collection of writing samples (gr. 1)

## SCHOOL C - BUILDING GOAL AND STRATEGY

Building: School C, Grades 2 - 5 and Specialists

Goal: School C student reading experiences will be expanded and their appreciation of literature will be increased.

Strategy: Cooperative Learning
Assessment: Reading Attitude Survey - fall and spring

<u>O</u>	<u>bjectives</u> : (Tasks to be done)	<u>Timeline</u>	Responsibility
1.	Develop Reading Attitude Survey	AugSept. 8	B.I.T.
2.	Administer Fall Reading Attitude Survey		Teachers Gr. 2 - 5
3.	School C staff will attend training sessions which will include theory, demonstration, and practice opportunities for Coop Learning	3 workshops Aug., Oct., Jan. Early release days study group meetings	SDS 1 and 2 B.I.T. members principal
4.	Staff will participate in study groups which will interact regarding content skills and strategies related to Coop L.	Every Tues. 8 - 8:40 a.m.	Individual teachers SDS 1 and 2 principal
5.	Staff will implement and practice components of Coop Learning in their classrooms an average of 3 times weekly during Reading. Coop lessons will be noted in lesson plan book and shared with the study group.	Sept May	Individual teachers
6.	Staff will participate in peer coaching groups to provide feedback on the use of Coop Learning strategy for at least 20 sessions.	Nov May	Individual teachers
7.	Administer Spring Reading Attitude Survey	May	Teachers Gr. 2 - 5

#### SCHOOL D - IMPLEMENTATION FOR COOPERATIVE LEARNING

Goal: To enhance students reasoning, speaking and listening skills in mathematics.

<u>Training</u>: Ongoing through weekly study team sessions conducted before school, on early release days and in-service days. Led by two "onsite" trainers (SDS) who are staff members of School D.

- a. Weekly study team sessions on Tuesday mornings 8 8:40 a.m.
- b. Three early release days Sept. 18, Nov. 16, and Dec. 14
- c. In-service days Aug. 23, Oct. 16, Jan. 15

#### Procedures:

- a. Study teams composed of all members of School D teaching staff
  - 1. The primary focus of study teams is for joint-planning of lessons, to share activities, and to support/review/refine lessons. During study team sessions, pairs of teachers also may meet to discuss their observations from watching a colleague teach (peer coaching).
  - 2. Teams are made of groups of six. The make-up of these teams was designated for the first 8 10 weeks of the year. The desirability of rotating members will periodically be reviewed by B.I.T. and the trainees during the course of the year. (Needs will affect the membership of the study teams.)
  - 3. Each study team is chaired by a member of B.I.T. The chair is responsible for facilitating sessions and maintaining a log of study team meetings.
  - 4. Logs will be reviewed by trainers and building principal on a weekly basis. Feedback and information recorded in logs will be used to assist trainers in planning for follow-up activities.
  - 5. Study teams will meet on Tuesdays from 8 8:30 a.m.
  - 6. The two trainers (SDS) and principal are ex-officio members of all teams. Over the course of the year, they will rotate from team to team on an interim basis. (i.e., often with one group for several weeks)

#### Observations:

1. The staff will use a "menu" of ways to release teachers

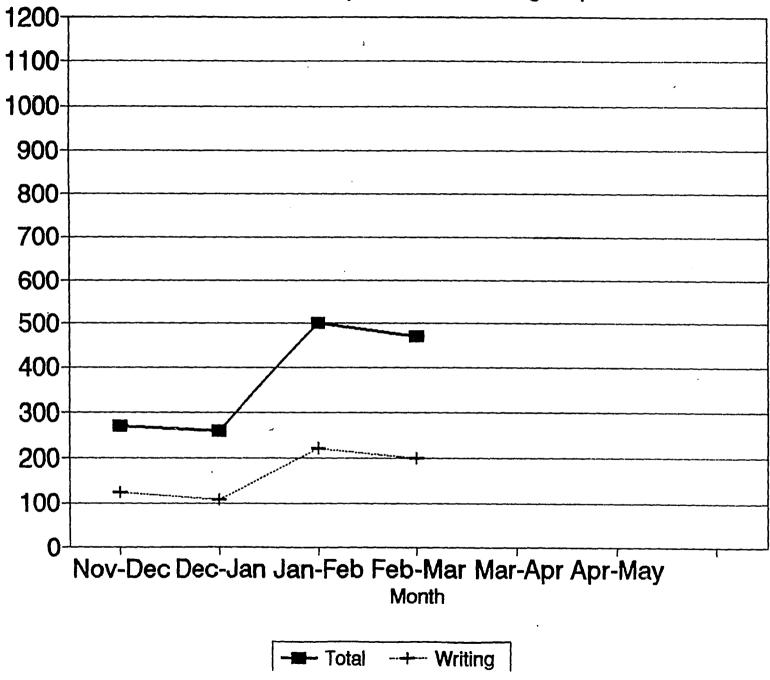
- for observations.
- 2. Trainers, B.I.T. members and principal will "fine tune" the options for release time and present options to the staff.
- 3. Schedules will then be arranged by each peer coaching partnerships.
- 4. Length of observations usually 15 20 minutes
- 5. Frequency of observations usually 1 per week (minimum 20 observations during the year)
- 6. Peer coaching feedback conferences/sessions during last portion of study team session or scheduled at another time by "coaching" pairs.

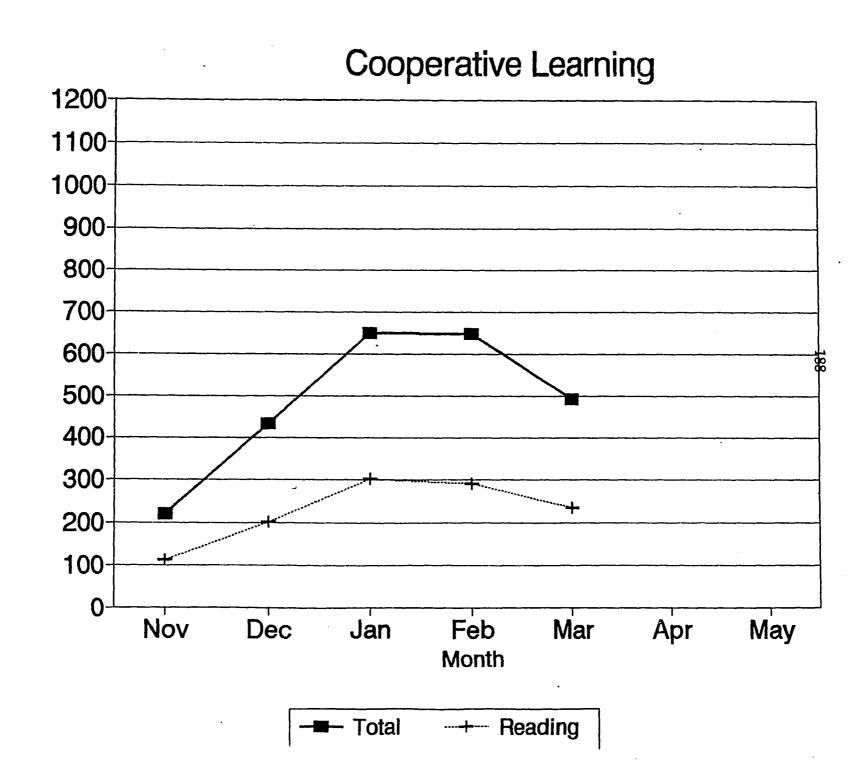
## 180AL STRATEGY IMPLEMENTATION LOG

Teach	er	Grade	Su	bject	School	
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PLEASE COMPLETE THE REQUIRED INFORMATION. THIS FORM IS TO BE TURNED IN ON THE LAST WORK DAY OF EACH MONTH.

## **Cooperative Learning Report**





### APPENDIX K.

TABLES USING LEVELS OF USE AND STAGES OF CONCERN FOR COMPARISON STUDY

Table K - 1. Specialists - stages of concern, levels of use, and descriptive analysis<sup>a</sup>

School	SoC	LoU	Descriptive Analysis of Components
A	5	Routine <sup>a</sup>	<ul> <li>Opened doors for working with other teachers</li> <li>Greatest influence - staff development specialist</li> <li>All components had different emphasis</li> <li>Least influence - grade level study group team</li> <li>Administrator's flexibility in allowing time to work with another specialist</li> <li>Lots of use of cooperative</li> </ul>
С	-	Mechanical	<ul> <li>learning</li> <li>Feeling as more part of the staff</li> <li>Greatest influence - staff development specialist</li> <li>Least influence - peer coaching</li> <li>Need to peer coach/work with another specialist</li> <li>Administrator's involvement in process is good but need more personal discussion and input</li> </ul>
D	3	Mechanical	<ul> <li>Want to be more selective in use</li> <li>Feeling part of the whole staff</li> <li>Greatest influence - staff development specialist</li> <li>Least influence - lack of as much direct input from administrator</li> <li>Need to peer coach/work with another specialist</li> <li>Want to be more selective in use</li> </ul>

<sup>&</sup>lt;sup>a</sup>Means executive control of cooperative learning model.

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Table K - 2. First/second year teachers - stages of concern, levels of use, and descriptive analysis

School	Years	SoC	LoU	Descriptive Analysis of Three Components
A	1	1	Routine	<ul> <li>Greatest influence - study team because of exchange of ideas and planning lessons</li> <li>Least influence - peer coaching because of scheduling</li> <li>Need for more structure in peer coaching</li> <li>Comfort in knowing administrator is behind risk taking</li> <li>Practice</li> </ul>
В	2	0	Routine <sup>a</sup>	<ul> <li>Practice</li> <li>Greatest influence - peer coaching</li> <li>Least influence - study group team</li> <li>More openness in peer coaching in lots of subjects</li> <li>Lots of encouragement from administrator</li> <li>Positive school atmosphere and staff</li> </ul>
В	2	5	Routine <sup>a</sup>	<ul> <li>development specialist's knowledge and attitude</li> <li>Greatest influence - staff development team</li> <li>Least influence - study group team</li> <li>More opportunities for peer coaching</li> <li>Encouragement from administrator</li> <li>Practice - working at it</li> </ul>

<sup>&</sup>lt;sup>a</sup>Means executive control of cooperative learning model.

Table K - 2. Continued

School	Years	SoC	LoU	Descriptive Analysis of Three Components
С	1	-	Mechanical	<ul> <li>Greatest influence - study group team</li> <li>Least influence - peer coaching</li> <li>Need for direct scheduling of peer coaching</li> <li>Direct suggestions from administrator</li> <li>Lack of involvement with other staff members</li> </ul>
D	1	3	Routine	<ul> <li>in working with cooperative learning</li> <li>Greatest influence - study group team</li> <li>Least influence - peer coaching</li> <li>Need for more processing/feedback of yourself as the teacher implementing cooperative learning</li> </ul>
D	2	3	Routine	<ul> <li>Positive feedback and "walk-through" by administrator</li> <li>Less apprehension about peer coaching and expanding to use in other subject areas</li> <li>Trouble separating three components - staff development team provided initial help</li> <li>Need for more training in how to peer coach</li> <li>Frequent visits by administrator</li> <li>Less apprehension because of feedback by peer coach</li> </ul>

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Table K - 3. Role of administrator in promoting higher levels of implementation<sup>a</sup>

Teacher's Levels of Use	Teacher's Stages of Concern	Teacher's Behavior	Administrator's Influence
Basic Competence	How do I do it? 39%	Lock step approach (concern for performance)	Provides personal help • Peer support • Coaching
• Mechanical 5 out of 25	<ul> <li>Informational 4 out of 69 (6%)</li> <li>Personal 5 out of 69 (7%)</li> <li>Management 18 out of 69 (26%)</li> </ul>	See Appendix G - Tables 13 - 16	See Appendix G - Tables 9 - 12 See Appendix H
Effective Use	How is this better for my students?	Signs of commitment (knowledgeable)	Highlights improved student outcomes
<ul><li>Routine</li><li>16 out of 25</li></ul>	<ul><li>Consequences 8 out of 69 (12%)</li></ul>	See Appendix G - Tables 17 - 20	
<ul><li>Refinement</li><li>2 out of 25</li></ul>	SoC Questionnaires #11 - 45 (65 %) #24 - 41 (59%)		

<sup>&</sup>lt;sup>a</sup>Information and format adapted from Stiegelbauer (1990).

Table K - 3. Continued

Teacher's Levels of Use	Teacher's Stages of Concern	Teacher's Behavior	Administrator's Influence
Integrated	How does it fit within the total program?	Part of self  not an add-on	Encourages sharing of expertise with others
• Integration 2 out of 25	<ul><li>Collaboration 15 out of 69 (22%)</li></ul>	Reflections	
Innovative	How can I improve upon it? - 28%	Creative application	Markets the results
	<ul> <li>Refocusing</li> <li>4 out of 69 (6%)</li> <li>Awareness</li> <li>(User with no concerns for this innovation)</li> <li>15 out of 69 (22%)</li> </ul>		

## APPENDIX L.

PERMISSION FOR USE OF HUMAN SUBJECTS

# INFORMATION ON THE **95**E OF HUMAN SUBJECTS IN RESEARCH IOWA STATE UNIVERSITY

(Please follow the accompanying instructions for completing this form.)

D.	Title of project (please type): Analysis of the effect of a professional development  paradigm on the implementation of cooperative learning
ව.	I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are properly protected. Additions to or changes in procedures affecting the subjects after the project has been approved will be submitted to the committee for review.
	Linda K. Munger  Typed Name of Principal Investigator  Date  Signature of Principal Investigator
	N229 Lagomarcino Hall 294-1279
	Campus Address Campus Telephone
3.	Signature of others (If any)  Date Relationship to Principal  Investigator
	2/5/90 Major Professor
ூ.	ATTACH an additional page(s) (A) describing your proposed research and (B) the subjects to be used, (C) indicating any risks or disconforts to the subjects, and (D) covering any topics checked below. CHECK all boxes applicable.
	Medical clearance necessary before subjects can participate  Samples (blood, tissue, etc.) from subjects
	Samples (blood, tissue, etc.) from subjects  Administration of substances (food, drugs, etc.) to subjects  FEB 5 199
	Physical exercise or conditioning for subjects
	Deception of subjects
	Subjects under 14 years of age and (or) Subjects 14-17 years of age
	Subjects in institutions
	Research must be approved by another institution or agency
<b>D</b> .	ATTACH an example of the material to be used to obtain informed consent and CHECK which type will be used.
	Signed informed consent will be obtained
	Modified informed consent will be obtained
).	Month Day Year Anticipated date on which subjects will be first contacted: Feb. 20 1990
	Anticipated date for last contact with subjects: <u>June 1 1990</u>
<b>)</b> .	If Applicable: Anticipated date on which audio or visual tapes will be erased and (or) identifiers will be removed from completed survey instruments:
).	Signature of Head of Chairperson Date Department or Administrative Unit
).	Decision of the University Committee on the Use of Human Subjects in Research:
•	Project approved Project not approved No action required
	Philipping Tioject not approved The action required
	Name of Committee Chairperson Date Signature of Committee Chairperson