

William T. Truesdale

Loyola University Chicago

THE IMPLEMENTATION OF PEER COACHING ON THE
TRANSFERABILITY OF STAFF DEVELOPMENT TO CLASSROOM
PRACTICE IN TWO SELECTED CHICAGO PUBLIC ELEMENTARY SCHOOLS

The purpose of this study was to examine the implementation of peer coaching as compared to no coaching (standard presentation only) on the transferability of staff development to classroom practice in grades one through eight in two Chicago Public Elementary Schools. Quantitative and qualitative data were collected by classroom observation by trained inter-raters in three areas of staff development tallies: low profile interventions, cooperative learning, higher order thinking and composite score. The peer coaching and standard presentation participants reported qualitative data in journals, semi-monthly in interviews focusing on strategic attitude, and evaluation relating to the three areas cited above.

The control group was composed of five teachers in grades one through eight who were randomly selected and received standard presentation only and no training in peer coaching. The experimental group peer coaching was composed of ten teachers in grade one through eight who volunteered to be involved in the study. The teachers were organized into teams of two: five peer coaching teams. Each experimental group peer coaching teacher chose his/her own partner to work with during the study. The

Gottesman Jennings Model of Peer Coaching in three phases: peer watching, peer feedback, and true peer coaching was used. The quantitative data pretest to posttest was analyzed by both Independent and Dependent T-Tests. There is a statistically significant difference between the control standard presentation and the experimental peer coaching group at the .01 level.

The results of the four hypotheses and the quantitative data follow:

Hypothesis #1: Peer Coaching will have a higher incidence of transferability of staff development to classroom practice. Accepted at .01 level. The Dependent T-Test revealed peer coaching pretest mean of 8.40 to posttest mean of 18.90. Overall pretest to posttest measures showed $t(d.f. = 9) = 7.584 < .05$. The qualitative results supported the hypothesis.

Hypothesis #2: Standard presentation had a higher incidence of transferability of staff development to classroom practice. Not accepted at the .01 level. The Dependent T-Test overall pretest mean of 9.20 to posttest mean of 9.40 showed that $0.058 p > .05$. The qualitative data did not support the non-acceptance of the hypothesis.

Hypothesis #3: Peer Coaching had a lower incidence of transferability of staff development to classroom practice. Not accepted at the .01 level. The Dependent T-Test overall pretest mean of 8.40 to posttest mean of 18.90. Overall pretest to posttest measures show $t(d.f. = 9) = 7.584 < .05$. The qualitative data supported the hypothesis.

Hypothesis #4: Standard presentation had a lower incidence of transferability of staff development to classroom practice. Accepted at the .01 level. The data from the Dependent T-Test comparing the standard presentation to the peer coaching reveal that the standard presentation overall score mean of 9.20, total score of 0.058 $t(d.f. = 4) =$

0.058 $p > .05$. The peer coaching group mean pretest of 8.40 and mean posttest of 18.90 total score 7.584 $t (d.f. = 9) = 7.514$ $p > .05$ is statistically significant. The qualitative data supported the hypothesis. The major recommendation peer coaching should be implemented to enhance staff development.

ACKNOWLEDGMENTS

The author would like to thank his dissertation committee: Chairperson Professor Emeritus, Dr. Mel Heller, Co-Chairperson, Dr. Jack Kavanagh, and Committee Member, Dr. Janis Fine for their unwavering support and assistance. Dr. Mel Heller foresaw the development of the study and made valuable contributions important to all aspects of the study. Dr. Jack Kavanagh contributed to the study by assisting in the development, methodology and statistical analysis. Dr. Janis Fine provided invaluable insight and support in the analysis of the study. They all provided guidance and support throughout the study which helped the author to accomplish his best work in the field of education.

The author would also like to thank the teachers and principals of the two selected Chicago Public Elementary Schools in the study. These two outstanding instructional leaders, Margorie Joy and Joyce Jager, provided the leadership and facilities to complete the study. The author would also like to thank Dr. Vinni Hall for her contributions and help in completing the study. In addition, the author would also like to thank Valerie Collier for formatting the final manuscript. Finally, the author would like to thank Dr. Barbara Gottesman for inspiring me to develop a “passion for peer coaching.”

DEDICATION

This dissertation is dedicated to my mother, Helen M. Truesdale - my first teacher who has taught me perservance and the dedication to complete goals in spite of all adversity.

TABLE OF CONTENTS

ACKNOWLEDGMENTS	iii
LIST OF TABLES	vii
Chapter	
I. INTRODUCTION	1
Statement of the Problem	9
Purpose of the Study	10
Significance of the Problem	12
Methodology	13
Definitions	20
Limitations	23
II. REVIEW OF RELATED LITERATURE	24
Concept of Peer Coaching	24
The History of Peer Coaching	50
Effects of Peer Coaching Programs	64
Summary	78
III. PRESENTATION AND ANALYSIS OF DATA	82
Section One: Quantitative Data	82
Section Two: Qualitative Data	89
Section Three: Comparative of Qualitative and Quantitative Results	119
IV. SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND SUGGESTIONS FOR FURTHER STUDY	122
Summary	122
Conclusions	124
Recommendations Based on Conclusions	127
Suggestions for Further Study	127

APPENDIX

A.	STAFF DEVELOPMENT IN THREE AREAS: LOW PROFILE INTERVENTIONS, COOPERATIVE LEARNING, AND CRITICAL THINKING	129
B.	THE GOTTESMAN-JENNINGS MODEL OF PEER COACHING	135
C.	PREOBSERVATION AND POSTOBSERVATION FORMS	137
D.	JOURNAL RESPONSES	141
E.	CONSENT FORMS	143

REFERENCES	146
------------	-----

VITA	154
------	-----

LIST OF TABLES

Table	Page
1. Dependent T-Test - Low Profile Interventions	84
2. Dependent T-Test - Cooperative Learning	85
3. Dependent T-Test - Higher Order Thinking	86
4. Dependent T-Test - Composite Scores	87
5. Low Profile Intervention Strategies - Standard Presentation	92
6. Cooperative Learning Strategies - Standard Presentation	92
7. Higher Order Thinking Strategies - Standard Presentation	93
8. Low Profile Intervention Attitudes - Standard Presentation	94
9. Cooperative Learning Attitudes - Standard Presentation	95
10. Higher Order Thinking Attitudes - Standard Presentation	95
11. Low Profile Intervention Evaluations - Standard Presentation	96
12. Cooperative Learning Evaluations - Standard Presentation	97
13. Higher Order Thinking Evaluations - Standard Presentation	97
14. Low Profile Intervention Strategies - Peer Coaching	99
15. Cooperative Learning Strategies - Peer Coaching	100
16. Higher Order Thinking Strategies - Peer Coaching	101
17. Low Profile Intervention Attitudes - Peer Coaching	102

18.	Cooperative Learning Attitudes - Peer Coaching	103
19.	Higher Order Thinking Attitudes - Peer Coaching	104
20.	Low Profile Interventions Evaluations - Peer Coaching	105
21.	Cooperative Learning Evaluations - Peer Coaching	106
22.	Higher Order Thinking Evaluations - Peer Coaching	107
23.	Similarities of Patterns and Trends Between Each Group	113
24.	Differences of Patterns and Trends Between Each Group	116

CHAPTER I

INTRODUCTION

A report issued in the year of 1996 by the Commission of Teaching and America's Future offers a unique perspective on some problems confronting the teaching profession. The commission found a profession that is stagnating from neglect. It noted that the reform of elementary education depends on the rebuilding of its foundation in the teaching profession. The commission said in its report "rebuilding the foundation of education must address the technical level of teachers and the social restructuring of schools to support high quality teaching and professionalism."¹

One of the challenges identified by the Commission of Teaching and America's Future (1996), as a barrier in the development of a high quality teaching work force in the public schools was teacher isolation and a lack of professional development for No Child Left Behind legislation for experienced teachers. The N.C.L.B. federal legislation of 2001 requires that all teachers constantly update their skills. Students experience success in eighteen categories including special education. Peer coaching may be valuable in meeting this requirement. In addition, most school districts spend much of their limited resources on one-shot workshop presentations with no follow-up of the training to classroom practice. According to teacher training researchers, Gottesman and Jennings

¹Commission of Teaching and America's Future, 1996, 3.
stated:

Teaching is a very complex and complicated skill. During any given day, most teachers will make hundreds of highly subjective decisions involving teaching and learning. To further complicate this matter is the fact that most teachers work in isolation. Therefore, many critical decisions about teaching are made in total and complete isolation.²

In the teaching profession, the tradition and common norm is that teachers are physically and socially isolated from one another. The physical isolation comes from the original one room school house to current modern building structures described by Glickman, "As one schoolroom houses repeated every few yards down the corridor, the physical characteristics of schools impose barriers to communication about successful instructional and curricular practice."³

In further defining the problem of social isolation, teacher researchers Liberman and Miller stated: "That is perhaps the greatest irony and the greatest tragedy of teaching that so much is carried on in self-imposed and professionally sanctioned isolation."⁴

As result of this isolation, not many teachers have an opportunity to benefit from the help of other colleagues. Gottesman gives an additional perspective on the problem of teacher isolation having stated:

Further complicating the problem of teacher isolation is the fact that most

²Gottesman, B., *Peer coaching for educators*, 2nd ed. (Lancaster, PA: Technomic Publishing, 2000), 3.

³Glickman, C., Pushing school reform to a new edge: The seven ironies of school empowerment, *Phi Delta Kappan* 721: 68-92.

⁴Smith, S., and Scott, W., New structures build collaboration among teacher and administrator, *OSCC Report* 27 (Fall 1990): 2.

teachers have only three to five hours a week for planning purposes. This means there is almost no regular time in the school day for teachers to

consult together about curriculum, instruction, and student matters.⁵

Rosenholtz, in his research indicates that teacher isolation stunts professional growth. Rosenholtz found:

Teacher isolation is perhaps the greatest impediment to learning to teach or improving existing skills because it forces teachers to learn by trial and error. Where school structures and norms inhibit teachers from assisting one another, they must rely on their own ability to detect problems and discern solutions. As a consequence of these norms, many teachers feel to ask a colleague for help is a sign of incompetence. Most teachers feel very uncomfortable about venturing into another teacher's classroom or having another teacher visit theirs.⁶

Robbins further supported Rosenholtz's perspective on teacher isolation in her book, "How to Plan and Implement a Peer Coaching Program." She stated:

As a result, many well kept secrets exist. In individual classrooms, and year after year, teachers leave their mark on education experiences but not a trace on the teaching profession. Despite hundreds of years of collective experience individual schools, few avenues exist for teachers to tap this expertise.⁷

While it is not usually the norm for other professionals to work in isolation, their isolation is unique from teachers. In other professions, such as law and medicine, the professionals have an opportunity to work in teams to collaborate on difficult cases. In the teaching profession, this practice is almost non-existent. According to Robbins, "The

⁵Gottesman, 7.

⁶Rosenholtz, S., *Teacher=s workplace* (New York: Longman, 1989), 20.

⁷ Robbins, P., *How to implement a peer coaching program* (Alexandria, VA: Automated Graphics, 1991), 11.
norms governing collegial interactions in schools stand in stark contrast to those of the

medical and law professions, where joint work in collegial consultation are the norm.⁸

Jennings further supports Robbins' perspective on lack of teacher collaboration having stated:

Therefore we fail to provide in education an environment to promote teacher growth. We have failed to provide the type of environment where teachers are encouraged to discuss teaching and learning in order to develop ideas and practice. If teachers were flowers, they would die on the vine for lack of nourishment. It should come as no surprise that most teachers most decisions based on instinct rather than research. Most are about as skilled as they will ever be by the fifth year of teaching.⁹

One of the ways to remediate the problems that exist because of physical and philosophical isolation is to establish a climate that supports professional collaboration.¹⁰

However, collaboration within the area of professional growth in a hierarchical organization is challenging. Glickman posited:

One of the key components for traditional teacher growth has been the area of formal evaluation and supervision. The means for professional growth have been imposed on the teacher by an "evaluator who, in the bureaucratic hierarchy, is "above" and not equal to the teacher. This unequal relationship has resulted in teachers' viewing supervision as threatening to their teaching. Within this model of supervisory evaluation teacher performance is viewed as basically deficient, and personal knowledge is ignored.¹¹

⁸Ibid.

⁹Gottesman, 3.

¹⁰Barth, R., *Improving schools from within* (San Francisco, CA: Jossey Bass, 1990).

¹¹Glickman, 80.

Gitlin and Price discovered in their research relative to teacher evaluation:

indicated traditional teacher evaluation builds on several assumptions: a) evaluation is a process that compares a set of predetermined standards with a set of practices, b) evaluation is a one way process from the evaluator to the observed teacher, c) evaluation reflects the historical and technical nature of knowing, and d) administrative evaluation assumes an individualistic, and competitive view of evaluation.¹²

Nolan further supported Glickman, Gitlin and Price with the following: "There has been very little opportunity for teachers to examine their own teaching and make changes. Teachers have the capacity and desire to make their own discoveries about how to better their craft."¹³

In 1992, the concept that the principal was solely responsible for teacher behavior, growth, and development; changed to a different paradigm. "As educational systems struggle with restructuring and organizational shifts, the old paradigm of the bureaucratic style of supervision is in flux."¹⁴

Another, more recent paradigm is that teachers are responsible for their own professional growth individually and as a group.¹⁵ In addition, Rooney further stated, "that the traditional model of supervision inherently assumed that the principal has the

¹²Gitlin, A., and Price, D., *Teacher evaluation alternatives* (New York: Falmer Press, 1992), 182.

¹³Nolan, J., Case study: Windows onto clinical supervision, *Educational Leadership* 51(2): 50.

¹⁴Glickman, 189.

¹⁵Rooney, J., Teacher evaluation: No more supervision, *Educational Leadership* 51(2): 120.
power to change behavior, and that teachers need some adjusting the coaching model

redefines the role of teachers in collaboratively working toward professional growth.¹⁶

Although the concept of coaching is grounded in the previous research in staff development training, the term coach was first applied to staff development training. The term coaching was first applied to staff development training programs because of its similarities to athletic coaching. Coaching has been defined by experts in the field, Joyce and Showers:

...as companionship, the giving of technical feedback, and the analysis of the application of skills in the classroom. Technical feedback is limited to giving information about the execution of skills in a non-judgmental manner. The purpose of coaching is to enhance the application of skills by providing structure for follow-up to the initial training activity which focuses on acquiring new teaching skills.¹⁷

Neubert and Bratton expand the definition of coach stating:

Following initial staff development training activities the second phase of staff development training includes applying new instructional strategies to the teacher's repertoire and the companionship of peers is needed to do so. Peer coaching encourages two teachers to attend the same staff development training, collaborate on lesson development, observe one another in their classrooms as the lesson is taught, then offer constructive criticism about the lesson.¹⁸

The additional research of Hunter and Russell supported Neubert and Bratton's observation about coaching as it relates to teacher effectiveness.

¹⁶Ibid.

¹⁷Joyce B., and Showers, B., *Student achievement through staff development* (New York: Longman, 1988), 20.

¹⁸Neubert G., and Bratton, E., Team coaching: Staff development side by side, *Educational Leadership* 44(5): 30-31.

A more effective means of enhancing teacher effectiveness is through the use of teacher collaboration. Teacher professional growth will occur as a

result of the following: a) motivation to be a growing professional, b) opportunities to learn procedures for instructional effectiveness, c) coaching and supervision to enable one to become a increasingly skilled professional, and d) informed self help. Coaching has the power to heighten teacher effectiveness by reinforcing and extending a teacher's productive practice. In addition, coaching adds new understanding in instructional effectiveness by incorporating new research into daily teaching.¹⁹

Glatthorn identifies five different ways in which collaboration will occur in a school: "professional dialogue, curriculum development, action research, peer supervision, and peer coaching."²⁰ Glatthorn defined peer coaching as:

As a confidential arrangement between peers that includes a focused observation and feedback on that observation. It is not an evaluation; it does not validate a teacher's effectiveness. Coaching provides teachers an opportunity to closely examine and reflect on classroom practice in a psychologically safe environment where it is all right to experiment, fail, revise, and try again.²¹

Even though Glatthorn's Model is sixteen years old, the information is relevant for today's teachers as they collaborate:

Teams of teachers encourage one another to think in new ways, make new connections, and experiment with new skills in a supportive environment. Teachers are empowered to make decisions about data collection as they engage in peer observation and post observation conferences. This reflective process provides substantial advantage over the traditional old

¹⁹Hunter, M., and Russell, J., *Rx improved instruction* (El Segundo, CA: T.I.F. Publications, 1990), 187.

²⁰Glatthorn, A., Differentiated teacher evaluation, *Educational Leadership* 44 (1987): 35.

²¹Ibid.
paradigm of individual self-reflection.²²

The process of moving a school from a traditional supervisory model to an effective environment of collaboration is not an easy task. Smith and Scott indicate that research on effective schools has emphasized the importance of regular teacher observation of teacher's classroom performance. "Teachers improve when they are observed and given feedback by someone who can identify and reinforce a teacher's strengths, discern their weaknesses, and assist them in carrying out an improvement strategy."²³

Other researchers, Bird and Little corroborate the ideas of Smith and Scott on effective schools as:

Teachers can learn from observing other teachers model effective teaching. The process of observing and being observed, giving and getting feedback about one's work in the classroom, may be one of the most powerful tools of improvement. Although observations of teacher's classroom performance is traditionally handled by principals, time constraints and the problem of trust prevent many principals from carrying out this role effectively.²⁴

The 21st century's regeneration of interest in peer coaching is a by-product of the movement to professionalism in teaching.

Barth suggests the impact of peer review as moving teachers from isolation to strengthening teachers' practice as:

²²Ibid.

²³Scott and Smith, 55.

²⁴Bird, R., and Little, W., *Effective collaboration: The complete guide* (New York: John Wiley, 1984), 100.

Peer review as to be the summit of a profession, whose practitioners monitor one another's performance. Peer review is essential to the reform

of the teaching profession and it provides a valid argument for changing a school's structure. Peer observation once was declared unworkable because it was at odds with the school's typical isolation of teachers in a hierarchical authoritative structure. Peer observation is necessary to shape a school's culture and structure and create a supportive environment to nurture peer coaching.²⁵

Statement of the Problem

In recent years the concern for school improvement in our schools has focused upon the classroom teacher to receive staff development training in order to provide students with the best possible education. The attempt to upgrade teacher performance or effectiveness has led to a multitude of in-service programs. While many of these programs are short term, peer coaching has emerged as a process which over a period of time many improve teacher effectiveness.

The purpose of teacher staff development training is to provide practicing teachers the opportunity to refine and update their technical teaching skills.

Teacher training can be considered a regenerative process whereby staff development training provides opportunities for teachers to stay abreast to the best practices in the classroom. The goal of the staff development training is not only to enable educators to acquire new skills; but to aid teachers in their knowledge of technical of classroom practice.²⁶

Limitations of Traditional In-Service

As teachers participate in staff development, the transfer of the information in those sessions do not appear to affect classroom practice. Joyce and Showers found:

²⁵Barth, 102.

²⁶Cochran, Smith, and Lytle, Research on teaching and teaching research, *Educational Researcher* 19 (1990): 2-10.

When teachers attend an in-service training session to learn a new skill and hear only theory, only 5% will transfer that new skill into their teaching

back at the workplace. Joyce and Showers second finding was that 10% will transfer new skills into classroom practice with theory and demonstration on part of the trainer. The percentage rises to 20% if the staff development session includes theory, demonstration, and practice under the guidance of the trainer. The rate of transfer goes up to 25% if the feedback is added to the theory, demonstration and practice. The crucial element is coaching. Coaching added to theory, demonstration, practice, and feedback increases the transfer of new skills to 90%.²⁷

Additionally, Joyce and Showers discuss the integration of such new teaching strategies is often dependent on the complexity of the strategy:

Although the technical elements of a new teaching strategy appear to be mastered easily by most learners, the integration of new strategies with existing practices is apparently more difficult. In addition, the amount of practice needed to gain control of specific teaching strategy depends on the complexity of the skill.²⁸

Munro and Elliot provide another dimension to the problem of traditional in service by pointing out that staff developers face a two tiered challenge, the problem of designing the transfer of new skills into the classroom.²⁹

Purpose of the Study

The purpose of this study is to investigate peer coaching as a vehicle to transfer staff development to classroom practice. The underlying assumption of this study is that teachers helping teachers is an effective method to transfer training to classroom practice.

²⁷ Joyce B., and Showers, B., *Power in staff development through research on training* (Washington, DC: Association for Supervision and Curriculum, 1983), 18.

²⁸ Ibid., 25.

²⁹ Munro, P., and Elliot, J., Instructional growth through peer coaching, *Journal of Staff Development* 81 (1987): 25-28.
According to Showers, research on the effects of peer coaching yield a positive

significant influence on the transfer of information after an inservice. All the teacher participants in her study received three months of training in a specific skill. Half the group also received training back at the school site as they implemented the skill into practice. The other half did not receive the coaching. Her research concluded the following:

Results show that 75% of those who received coaching transferred the skill appropriately to the classroom. In the group that was not coached, only 15% transferred to the classroom. Many of the teachers who did not receive coaching delayed using the skills, and after approximately six months, had lost the skill entirely.³¹

The purpose of peer coaching is to provide for the transfer of training skills in an every day situation so teachers can manage them. Peer coaching is not content, but rather a process that can be used for any skill.³² Earlier, in Gottesman's Book, "Peer Coaching for Educators," she says:

The major purpose of peer coaching is to help implement new training to help sustain existing training so that training will have an impact on student learning in the classroom. Peer coaching ensures that theory, demonstration and practice, feedback, and coaching transfer any training from the lecture room to the classroom with ongoing trouble shooting and renewal.³³

³⁰Showers, B., Transfer of training. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada, 1983.

³¹Ibid.

³²Gottesman.

³³Gottesman, B., and Jennings, J., *Peer coaching for educators* (Lancaster, PA: Technomic Publishing, 1994), 15.

Peer coaching may be an effective strategy to extend the life of staff development for teachers to improve classroom practice. According to Gottesman and Jennings:

Traditionally staff development has been a one shot deal, which does not include provisions for on site continual coaching. If teaching is to develop into a true profession the training must include elements to ensure the transfer of staff development skills from the in-service to the classroom. Teaching is a series of complex skills that require not only periodic updating and retraining but also an internal support system peer coaching.³⁴

Peer coaching has been outlined by Joyce and Showers research as a process that may influence collegiality and improve instruction. They suggested that peer coaching is a confidential process where teachers share their expertise, provide support, and assist each other in developing and expanding teaching skills.³⁵

The four functions of successful peer coaching as defined by Joyce and Showers include:

- “a) Companionship through which teachers discuss successes and failures with a new teaching model;
- b) Analysis through which teachers help each other master a new approach until it is internalized, spontaneous, and flexible;
- c) Adaptation through which teachers work together to mold a teaching model to the needs of the class; and
- d) support through which the coach helps the peer teacher in applying a new skill.”³⁶

³⁴Gottesman, 6.

³⁵Joyce, B., and Showers, B., *Power in staff development through research on training* (Washington, DC: Association for Supervision and Curriculum Development, 1983).

³⁶Joyce, B., and Showers, B., 1983, 2.

The data from studies of peer coaching have shown that the process results in the

greater application and transfer of training to classroom practice for most teachers.³⁷

However, the results of this limited body of research are restricted to only a few studies and informal evaluations of model peer coaching programs. The importance of this study lies in its potential to assess the implementation of peer coaching program as a vehicle to transfer staff development to classroom practice.

Methodology

This fifteen week study took place in first through eighth grade classrooms in two selected Chicago Public Elementary Schools. The study examined the implementation of peer coaching as compared to no coaching (standard presentation only) on the transferability of staff development to classroom practice. Quantitative and qualitative data were collected during this study. The quantitative portion of this investigation was a double blind study of the data collected in two schools. These two Chicago Public Schools were selected because their year around schedule does not follow the usual organizational pattern.

Both schools received standard presentation staff development training in three areas: low profile interventions, cooperative learning, and critical thinking (see Appendix A). Each staff development session was presented by the study director. The control group, elementary school A, received standard presentation only and no training in peer coaching. The control group, elementary school A, was composed of five teachers in grades one through eight who were selected randomly. The experimental group,

³⁷Joyce and Showers, 1983.
elementary school B, was composed of ten teachers in grades one through eight who

volunteered to be involved in the study. The experimental group chose their own peer partner to work with during the study. The five peer coaching teams consisted of two teachers each.

The experimental group was trained by the study director in the Gottesman-Jennings Model of Peer Coaching.³⁸ The Gottesman-Jennings Model of Peer Coaching was used because it follows the South Carolina Effective Schools Best Practices and Goodlad's National Network for Educational Renewal.³⁹ In addition, the model has been successful in over three hundred forty-eight schools in Maine, South Carolina, and Hawaii.⁴⁰

The experimental group teachers input from a peer coaching survey was incorporated into the formation and modification in the structure of the Gottesman-Jennings Model of Peer Coaching incorporated in this study (see Appendix B).

The Gottesman-Jennings Model consists of three phases:

- § Phase 1 peer watching,
- § Phase 2 peer feedback, and
- § Phase 3 peer coaching.⁴¹

³⁸Gottesman and Jennings.

³⁹Gottesman.

⁴⁰Ibid.

⁴¹Ibid.

Adapted for this study, the Gottesman-Jennings Model was used in the following

way:

- § Phase 1, peer watching for five weeks, and two visits to the peer's classroom;
- § Phase 2, peer feedback for five weeks, with two visits to the peer's classroom and uniform training in the five steps, with two feedback sessions with peer suggestions; and
- § Phase 3, peer coaching, five week review of the five steps, two visits and two written coaching suggestions.⁴²

The five peer coaching teams met semi-monthly with the study director to ensure the uniformity of training on each phase of the fifteen week study. The control and experimental groups kept a weekly journal during the fifteen week study narrating the implementation of three staff development in-services into their classroom practice. Both groups entries focused on low profile intervention for the first five weeks. Comments cited during the fifth week were tabulated and analyzed. Both groups focused on cooperative learning for the second five weeks. Comments cited during the tenth week were tabulated and analyzed. Both groups entries focused on higher order thinking skills for the third five weeks. Comments cited during the fifteenth week were tabulated and analyzed. This qualitative information was used to gather data on variables that could not be included in the statistical treatment. Both the control and experimental individual participants were required to write a journal entry on three probes. The structure of the log focused on three probes listed below. The journals were collected semi-monthly by

⁴²Ibid.

the study director. The study director monitored each individual participant's

semi-monthly log to analyze similarities and differences along with patterns of responses.

The three probes focused on the knowledge and application of low profile interventions, cooperative learning, and critical thinking. For example:

- § Probe one - low profile intervention - was answered during phase 1, of the study February 4 through March 11: How has your knowledge of low profile interventions influenced your teaching? A. Strategies, B. Attitude and C. Evaluation.
- § Probe two - cooperative learning - was answered during phase 2, of the study March 18 through May 10: How has your knowledge of cooperative learning techniques influenced your teaching? A. Strategies, B. Attitude, and C. Evaluation.
- § Probe three - critical thinking - was answered during the last phase of the study May 17 through June 21: How has your knowledge of critical thinking techniques influenced your teaching? A. Strategies, B. Attitude, and C. Evaluation.

Interater Training

As stated previously, the data collection consisted of quantitative and qualitative analysis of three probes. The quantitative analysis was gathered by collecting data from four trained inter-raters on pre-test and post-test observation sheets. The interaters were composed of peer teachers who were not part of the study. The four interaters were trained by the study director to gather data and establish an 80% baseline agreement in the three main measures: low profile interventions, cooperative learning, and critical

thinking. The four interaters were trained to identify and record quantitative data by using descriptors of the skills in the three main measures.

The four interaters were trained by viewing videos of classrooms in which teachers were demonstrating low profile interventions, cooperative learning, and critical thinking. An interater descriptor was developed so that each interater could uniformly and objectively agree on the identification of each skill in the three main measures and tally them on the pre and post observation sheet. In the first main measure low profile interventions the interaters were trained by objectively observing ignoring, proximity, eye contact, body language and name dropping in a classroom video. In the second main measure, cooperative learning, the interaters were objectively observing positive interdependence, individual accountability, promotive interaction, interpersonal skills, and group processing in a classroom video. In the last main measure, critical thinking the interaters were observing questions of recall, comprehension, application, analysis, synthesis, evaluation.

In order to ensure uniformity of training the four interaters viewed the three videos at the same time. After viewing each video the interaters discussed their tallies and explained the justification for their tally by using the interater observation descriptor sheet (see Appendix A). The four interaters were structured into two teams. Each team was composed of one teacher from School A and one teacher from School B. One team of interaters observed five teachers; classrooms in School A (Control Group) and collected quantitative data on the three main measures. The other interater team observed ten teachers; classrooms in School B (Experimental Group) and collected data on the

three main areas. The data on three main measures was assessed in three areas: low profile intervention techniques were measured by a classroom observation model form.⁴³ Cooperative learning was assessed by using the Johnson and Holobec's⁴⁴ observation form.⁴⁵ Critical thinking was measured by Hannel's Critical Thinking Observation Form.⁴⁶ The three previous objective measures were quantified and condensed into the interater pre-test and post-test observation form (see Appendix C).

At the beginning and end of the fifteen week study quantitative analysis was assessed in both schools to establish a baseline. School A the control group (standard presentation only) and School B the experimental group (peer coaching) by the pre-test and post-test data collection from four trained interaters. The interaters were structured into two teams. Each team was composed of one teacher from School A and one teacher from School B. One team of interaters observed five teachers in School A (Control Group) and collected data on three main measures. One team of interaters observed ten teachers in School B (Experimental Group) and collected data on three main measures. The data from the two interaters from each team were averaged together to determine a final tally count in each of three measures. This method was used to try to eliminate interater bias. The four hypotheses are:

⁴³Coaching of Teachers Manual, 1994.

⁴⁴Johnson and Johnson, Advanced Cooperative Learning, 1983.

⁴⁵Johnson and Johnson, Advanced Cooperative Learning, 1993.

⁴⁶Steps to Critical Thinking, 2000.

1) Peer coaching will have a higher incidence of transferability of staff

development to classroom practice.

- 2) Standard presentation will have a higher incidence of transferability of staff development to classroom practice.
- 3) Peer coaching will have a lower incidence of transferability of staff development to classroom practice.
- 4) Standard presentation will have lower incidence of transferability of staff development to classroom practice.

The Independent sample T-Test will be used to determine if the differences were Significant between the pretest measures. The independent sample T-test also measures the statistical significance of each of the four areas: low profile intervention, cooperative learning and higher order thinking and total composite score. Both the control group and experimental group will be analyzed in pretest differences in low profile interventions, cooperative learning, higher order thinking and total composite score.

The hypotheses will be verified by the use of the Dependent T-Test to determine the difference between pre and post test measures. The Dependent T-Test also measures the statistical significance of each of the four hypotheses in the area of low profile interventions, cooperative learning, higher order-thinking and total composite. Both the control and experimental group will be analyzed in the four main areas on pretest and post test differences in low profile interventions, cooperative learning, higher order thinking and composite scores.

Chapter III comprises of three sections that review the quantitative and qualitative results of the investigation. Section I examines the quantitative data pre-test and post-test

that was analyzed by Independent and Dependent Sample T Tests. Section II examines the qualitative analysis of the data about variables that could not be included in the statistical treatment. The five individual teachers' logs from the control group and the ten individual teachers' logs from the experimental groups were collected semi-monthly. The study director along with four readers examined each of these logs for similarities and differences as to patterns of their responses in the implementation of the three probes of staff development in-service skills into classroom practice. Section III analyzed the blending of the quantitative and qualitative as it related to the hypotheses and related literature where appropriate.

Definitions

The following terms need to be defined to understand the study:

- § In-Service: This term refers to the job related training for teachers currently employed by a school.
- § Critical Thinking (Higher Order Thinking Skills): This term refers to questioning that leads to a response requiring cognitive processing of information (e.g., knowledge, comprehension, application, application, analysis, synthesis, and evaluation).
- § Knowledge is the recall of information who, what, when and how.
- § Comprehension is the organization and selection of facts and ideas.
- § Application is the use of facts, rules and principles.
- § Analysis is the separation of the whole into component parts.
- § Synthesis is the combination of ideas to form a new whole.

- § Evaluation is the development of opinions, judgements, or decisions.
- § Cooperative Learning: This is an instructional strategy in which students work in small learning groups. The groups usually have three to five members who work together to accomplish an academic goal (e.g., positive interdependence, promotive interaction, individual accountability, interpersonal skills, and group processing).
- § Positive Interdependence is clear student group goals and roles.
- § Promotive Interaction is face to face student verbal interaction patterns.
- § Individual accountability is assessing how each group member is contributing to group goals.
- § Interpersonal Skills are social skills with collaboration through trust and acceptance.
- § Group Processing where group discusses how well they are working and achieving their goals.
- § Low Profile Intervention: Teachers who are skilled in behavioral management are able to minimize the harmful effects of student misconduct. These teachers use behavior management strategies that prevent or control misbehavior with the least amount of attention being drawn to the misbehaving individual (e.g., ignoring, proximity, eye contact, gestures, body language, and name dropping).
- § Ignoring is not verbally or physically responding to student misbehaviors.
- § Proximity is physical nearness to thwart student misbehavior.

- § Eye contact is the teacher getting the student to directly look at her/him until student misbehavior ends.
- § Body Language is the teacher's facial expression cues student to end misbehavior.
- § Name Dropping is when teacher inserts student's name to cue student about misbehavior.
- § Application of Training: The use of knowledge and skills acquired during in-service training in the classroom.
- § Coaching: This is the provision of on site personal support and technical assistance for teachers.
- § Peer Coaching: This exists when two classroom teachers who attend the same in-service training develop a systematic plan. This plan includes a confidential process to work together to reflect on current practices, expand, share ideas, and conduct classroom research to solve problems in the workplace.
- § Staff Development: A system within an educational organization with objectives to provide opportunities for individual professional growth and effective school improvement through theory, demonstration, practice, and feedback.
- § Transfer: The appropriate usage of prior learning. The appropriate inclusion of the strategies acquired by in-service participants into classroom practice.

Limitations

1. The results of the study were limited to the reliability and validity of the pre-test and post-test of the interaters observations. It is assumed that 80% baseline agreement between the four interaters will provide valid reliability in the three main measures: low profile interventions, cooperative learning and critical thinking.

2. The study director participated in conducting the peer coaching training. Therefore, the possibility of bias exists. This will be further addressed in Chapter III.

3. The study director was not able to control: a) which teachers volunteered to participate in the study; b) the attendance of teachers; c) the time schedule of classroom visitation for peer coaching; d) the drop out rate of the participants in the study; and e) age and experience of teachers.

4. The results of this study can not be generalized to all schools. The results of this study are limited to these two selected Chicago Public Schools.

5. Due to the study director serving as the peer coaching trainer, some experimental bias may have occurred.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of this study is to examine the effectiveness of peer coaching as compared to standard staff development on the transferability of new teaching innovations to classroom practice. This chapter will analyze the related literature and views of experts on peer coaching as a data-gathering source. This review of the literature was organized in the following manner: 1) Concept of Peer Coaching, 2) The History of Peer Coaching, 3) Peer Coaching, and 4) Summary.

Concept of Peer Coaching

The concern for school improvement in our schools has focused upon the classroom teacher to provide students with the best possible education. The attempt to upgrade teacher performance or effectiveness has led to a multitude of inservice programs. While many of these programs are short term, peer coaching has emerged as a process which, over a period of time may improve teacher effectiveness.¹

The peer coaching program provides a model for improving teaching skills and

¹Fullan, M., Changing school culture through staff development. In Bruce Joyce, ed., *Development, innovation, and institutional, and institutional development* (Alexandria, VA: Association for Supervision and Curriculum Development, 1990). Joyce, B., and Showers, B., The coaching of teaching, *Educational Leadership* 40 (1982): 4-10. Showers, B., Teachers coaching teachers, *Educational Leadership* 53 (1985): 39-

44. for adding new skills or strategies to the teaching repertoire. The program dictates that after the training period, peers objectively observe and non-judgmentally give feedback to each other. The goal is to work toward improvement in teaching skills, including the effective timing of necessary applications. Some research data on peer coaching programs support the effectiveness of this methodology. The peer coaching process may be implemented to extend the life of staff development which may significantly strengthen what was presented in staff trainings into classroom practice. The review of literature in the 1980s is somewhat limited due to the fact that coaching is a relatively new practice. In addition, the nature of the concept is such that it overlaps collaboration effectiveness and education.

Joyce and Showers' research on training has found "that with theory, demonstration, opportunities for practice and feedback, most teachers can acquire skills and strategies previously absent from their repertoires."²

Fullan, a researcher in teacher training, offers an additional perspective on the training transfer problem. Fullan states, "...the literature on training effects, however, also identifies a frequent failure to transfer new knowledge and skills to classroom practice or, if initial transfer was accomplished, a rapid attrition of new behaviors over time."³ In addition, Fullan characterizes these mediocre training sessions as one-shot workshop presentations. He criticizes them for the absence of follow-up training activities which

²Joyce, B., and Showers, B., *Power in staff development research on training*

(Washington, DC: Association for Supervision and Curriculum Development, 1983), 14.

³Fullan, M., *The meaning of educational change* (Columbia University: Teachers College Press, 1982), 24.

leaves trainees without feedback support and suggestions for implementation in the classroom.

Dettmer, another teacher training researcher, parallels Fullan's ideas. Dettmer states, "...the haphazard design and implementation of inservice training in the workplace often produces inconsistent results."⁴

Researchers who study the change process discovered that most of the training between teacher and coaches have disappeared at the critical point of interaction between teacher and students.⁵

The Rationale for Peer Coaching

The tradition of teaching is rooted in isolation. From the original one-room school house to current structures, described by Glickman, "...as one-room school houses repeated every few yards down the corridor, the physical characteristics of school impose barriers to communication about successful and curricular practices."⁶

One argument in the case for peer coaching is that it offers a way to end isolation and enhance the technical knowledge of others. Robbins, a peer coaching researcher stated:

⁴Dettmer, P., Gifted program inservice and staff development: Pragmatics and possibilities, *Gifted Child Quarterly* 30 (1986): 99-102.

⁵Joyce, B., and Showers, B., *Student achievement through staff development* (New York: Longman, 1988). Sparks, G., Synthesis of research on staff development for effective leadership, *Educational Leadership* 41 (1983): 65-72. Fullan, 1982.

⁶Glickman, C., Pushing school reform to a new edge: The seven ironies of school empowerment, *Phi Delta Kappan* 721 (1990): 110.

This requires that teachers relate to one another in a collegial way, sharing their knowledge about teaching across classrooms. Many teachers have never experienced this type of interaction. Frequently, the historical tradition of isolation provides unwritten laws or norms that dictate relationships among colleagues in schools. Because of this, it is generally not the norm for teachers to observe one another.⁷

In addition, according to Glickman, 90 percent of teachers have never visited another teacher's classroom to observe and then discuss what they can learn from each other.⁸ 'Close my door and let me teach' philosophy prevails in many schools. Advice given to teachers in the writer's experience, is often perceived as an unwelcome practice or as bragging. As a consequence of these norms many teachers feel to ask for assistance is a sign of incompetence. Rosenholtz found:

Teacher isolation is perhaps the greatest impediment to learning to teach or improving existing skills because it forces teachers to learn by trial and error. Where school structures and norms inhibit teachers from assisting one another, they must rely on their own ability to detect problems and discern solutions. As a consequence of these norms, most teachers feel very uncomfortable about venturing into another teacher's classroom or having another teacher visit theirs.⁹

Robbins further supported Rosenholtz's perspective on teacher isolation in her book, "How to Plan and Implement A Peer Coaching Program." She stated:

As a result many well-kept secrets exist in individual classrooms and year after year, teachers leave their mark on students' educational experiences but not a trace on the teaching professional. Despite hundreds of years of collective expertise, individual schools, few avenues exist for teachers to

⁷Robbins, P., *How to implement a peer coaching program* (Alexandria, VA: Automated Graphics, 1991), 11.

⁸Glickman, C., Pretending not to know what we know. *Educational Leadership*

48 (1991): 7.

⁹Rosenholtz, S., *Teacher=s workplace* (New York: Longman, 1989), 20.

tap this expertise.¹⁰

Peer coaching when properly implemented can help transform the norms of isolation into norms of collaboration. A second argument for coaching is that when teachers work together regularly to reflect on, analyze, and refine teaching practices; they find this work intrinsically meaningful and collaborative norms can develop in the workplace.

In the teaching profession this practice is almost nonexistent. According to Robbins, "The norms governing collegial interactions in the schools stand in stark contrast to those of the medical and law professions, where joint work and collegial consultation are the norm."¹¹ While it is not usually the norm for other professionals to work in isolation, their isolation experience is unique of teachers. In other professions, such as law and medicine the professionals have an opportunity to work in teams to collaborate on difficult cases.

Jennings further supports Robbins perspective on lack of teacher collaboration having stated:

Therefore we fail in education to develop an environment that promotes teacher growth. We have failed to provide the type of environment where teachers are encouraged to discover teaching and learning in order to develop ideas and practice. If teachers were flowers, they would die on the vine for lack of nourishment. It should come as no surprise that many teachers make most decisions based on instinct rather than research. Most

¹⁰Robbins, 10-11.

¹¹Ibid., 11.

are about as skilled as they will ever be by the fifth year of teaching.¹²

Glickman gives an additional perspective on teacher collaboration, "The theory of professional empowerment is that when given collective responsibility to make educational decisions in an information rich environment, educators will work hard and smarter on behalf of their clients: students and their parents."¹³

In a culture characterized by collaborative norms teachers have an opportunity to take action together and make wise choices related to instruction, curriculum, and student learning. Fullan further supports Glickman: "Successfully implementing innovative procedures is very much a social process."¹⁴ In addition, Little elaborates, "meaningful, purposeful collaboration addresses the social and emotional demands of teaching." Effective collaboration creates an opportunity for teachers to receive credit and praise from their colleagues for their technical knowledge in a team effort.

¹²Gottesman, B., *Peer coaching for educators*, 2nd ed. (Lancaster, PA: Technomic Publishing, 2000), 3.

¹³Glickman, 1990, 72.

¹⁴Fullan, M., and Stiegelbauer, S., *The new meaning of educational change* (New York: Teachers College Press, 1991), 84.

¹⁵Little, J., The persistence of privacy: Autonomy and initiative in teacher=s professional relations. *Teacher College Record* 91 (1990): 509-536.

The Purpose of Coaching

Coaching has several purposes. Barth, as researcher says one purpose of coaching is: "...to build communities of teachers who continuously engage in the study of their craft."¹⁶

Many teachers, according to Barth, entered the profession because of the autonomy the individual classroom offered. These teachers consciously chose the culture or context of isolation and now find themselves bound by norms and traditions that celebrate individual work and accomplishment. Even if a teacher decided to collaborate with another, it would be difficult to change old norms of operation and little time would be available for colleagues to address instructional problems. Because of these limited opportunities for collegial interactions, most teachers' on-the-job learnings are primarily achieved through trial and error experiences.¹⁷

Robbins gives an additional perspective on how peer coaching can build a community of learners.

Properly implemented: "Peer coaching can celebrate individual work and accomplishment, yet simultaneously assist teachers in learning from one another rather than errors alone." The opportunity to work peer coaching offers a viable source of support. It also provides "a structure for building a shared knowledge base capable of advancing not only the teaching profession but the educational process that contributes to the collective success of individual students."¹⁸

Second, coaching develops "...shared language, a set of common understandings necessary for the collegial study of new knowledge and skills. The expansion of teachers'

¹⁶Barth, R., *Improving schools from within* (San Francisco, CA: Jossey Bass, 1990), 10.

¹⁷Ibid., 11.

¹⁸Berliner, D., The half-full glass: A review of research on teaching. In P.L. Hosford-Alexandria, ed., *Using what we know about teaching* (Alexandria, VA: Association for Supervision and Curriculum Development, 1984).

repertoire of skills requires a window of time for teacher reflection."¹⁹ Research and practice suggest that teaching involves a constant stream of decisions made before, during and after teaching.²⁰

Robbins gives an additional perception on teacher reflection:

With the rapid paced reality of classroom life, teachers rarely have time to reflect. Yet reflection time is precisely what teachers need to gain new insights about teaching and learning that can help refine current practices. Peer coaching provides not only the time to reflect but also the opportunity to discuss those reflections.²¹

Third, according to Robbins, coaching provides "an avenue for teachers to tailor a staff develop plan for themselves."²² They can become action researchers in their own classrooms and investigate the connections between their own planning and teaching behaviors and the consequences. Teachers can in this way modify their own practices as a result of careful analysis of data a colleague has collected.

Fourth, coaching provides "a structure for the follow-up to training that is essential for acquiring new teaching skills and strategies."²³ Some researchers on teacher training view a sense that transfer of skills and strategies are not part of the teacher's

¹⁹Little, J., *The mentor phenomenon and the social organization of teaching*, *Review of Research Education* 5 (1982b): 16 (Washington, DC: American Educational Research Association), 321.

²⁰Berliner.

²¹Robbins, 13.

²²Ibid.

²³Ibid.

existing repertoire.²⁴ The transfer of skills requires more substantial training than what is typically allotted to inservices. In addition, Joyce and Showers have found that one or two day workshops do not provide enough time to develop the degree of competency necessary for most teachers to be able to apply a new skill into the work setting. They maintain that at least fifteen to twenty practices are necessary to gain control of a moderately difficult skill.²⁵

In review of more than 200 studies in teacher training, Joyce and Showers conclude that:

The effectiveness of inservice in promoting the mastery of a new approach is greatest when all five components--theory, demonstration, practice, feedback and coaching are present. All the components must be in place if training is to be transferred from the training to the classroom so it can impact students.²⁶

Peer coaching is not content but rather a process that can be used for any skill. Its major purpose, according to Gottesman, is to "...help implement new training so that theory, demonstration, feedback, and coaching transfer directly from staff development into the classroom to impact the students."²⁷

²⁴Joyce and Showers, 1983. Gottesman, B., and Jennings, J., *Peer coaching for educators* (Lancaster, PA: Technomic Publishing, 1994).

²⁵Ibid.

²⁶Joyce and Showers, 1982, 4-10.

²⁷Gottesman, 52.

The Process of Coaching

Peer coaching can be described as the "...process where teams of teachers regularly observe one another and provide companionship, feedback, and assistance."²⁸

Joyce and Showers were the first researchers to focus on coaching as an aspect of staff development. "Coaching universally involves a collegial approach to the analysis of teaching for the purpose of integrating mastered skills and strategies into: a) curriculum, b) instructional goals, c) time span, and d) personal teaching style."²⁹

Coaching is a cyclical process designed as an extension of training. The first steps are structured to increase skill with a new teaching strategy through observation and feedback. Ideally coaching teams are developed during the training process. In 1983, Joyce and Showers outlined the four major functions of the coaching process: "1) the provision of companionship, 2) the giving of technical feedback, 3) the analysis of application, and 4) personal facilitation."³⁰

The provision of companionship's function is, according to Joyce and Showers, to provide a professional interaction with another educator. It results in the possibility of mutual reflection, the checking of perceptions, and the informal thinking of mutual problems.³¹ For example, when two people observe each other or try a new model of

²⁸Valencia, J., and Killon, J., Overcoming obstacles to teacher change: Directions from school board efforts, *Journal of Staff Development* (1988): 168.

²⁹Joyce and Showers, 1983, 175.

³⁰Ibid., 18.

³¹Ibid., 19.

teaching. They will have much to discuss and reflect upon. Companionship provides reassurance that instructional problems are normal. Both persons find that the implementation of new strategies and skills create awkwardness, the companionship not only makes the training process technically easier, but it can make the quality of the experience better. Joyce and Showers also give an additional perspective on technical feedback:

Technical feedback helps to ensure that growth may continue through practice in the classroom. The provision of technical feedback helps keep the teacher's mind on perfecting skills, polishing them and working through problem areas. Nearly any teacher who has been through a training process can learn to provide technical feedback to another teacher. The act of providing feedback is also beneficial to the person doing it. The coaching partner has the privilege of seeing a number of trials of the new model demonstrated by another skilled teacher. It is often easier to see problems of confusion and omission when someone else teaches than when attempting to analyze yourself. Also ideas about how to use the model are collected through observation. When a group of teachers observe each other regularly; they cannot only give each other technical feedback on a new teaching skill. The teachers will also be receiving feedback simultaneously while they are observing it being given. The cognitive aspect of transferring new behaviors into effective classroom practice are more difficult than interactive ones of teaching. While most teachers can develop skill in performing a new teaching strategy fairly readily, the harder tasks come as the skills are applied in the classroom.

For example, when teachers master inductive teaching strategies such as concept attainment and inductive teaching. The teachers may have difficulty learning the pattern of the models and then teaching their students how to respond to the new strategies in areas in which they have not seen demonstrated directly. Generally, these are the kinds of tasks that can become the substance of coaching. According to Joyce and Showers, "each

³²Ibid., 19.

model of teaching and each curriculum generates similar problems that must be solved if transfer to the classroom is to be achieved."³³

Successful teaching requires a successful student response. A new strategy needs to be adapted to fit different needs of students. Joyce and Showers have developed an adaptation training model of coaching.

In the early stages, adaptation to the students is relatively difficult and usually requires a lot of direct assistance and companionship. One of the major functions of the coach is to help the "players" to "read" the responses of the students so that the right decisions are made on how to adapt the new strategy. As the process shifts to this second set of emphasis, coaching conferences take on a character of collaborative problem-solving. Team members may begin to develop personal facilitation and begin to operate in a spirit of exploration.³⁴

The Phases of Peer Coaching

Ideally coaching is a continuing process firmly embedded in the culture and organizational context of the school. Showers found that "as a new strategy is introduced, teachers need two to three months of coaching in order to see the effects of transfer of training in these experimental periods following the initial skills training."³⁵

The Gottesman and Jennings' Model is composed of three major phases of peer coaching so that it will become institutionalized within the school: peer watching, peer feedback, and peer coaching."³⁶

³³Ibid., 19.

³⁴Ibid., 20.

³⁵Ibid., 21.

³⁶Gottesman and Jennings, 25.

According to the Gottesman Jennings' Model, the first phase of peer watching is structured to move teachers from traditional isolation into a more collegial relationship of visiting classrooms of other professionals. Gottesman states:

This phase is used to break down the barriers that have built up through years of isolation. These barriers have been reinforced by evaluation procedures and even incentive programs that have put teachers in competition with each other. Because these norms are so well entrenched in traditional school organization. ...peer watching is designed to increase the comfort zone of visiting another teachers' room. Peer watching is watching and nothing else no comments or exchange of information. Teachers can begin practicing their observation skills by taking notes or by simply writing down the objective of the lesson.³⁷

Peer watching requires no interaction between teacher and watcher. Neither teacher should talk to or comment to each other about the lesson during peer watching phase.

Gottesman and Jennings state:

The only exchange necessary is for teams of teachers to decide on a weekly focus for peer watching. For example, all watchers might look for lesson closure one week and lesson focus the next week. Groups of teachers might meet as a study group to exchange ideas on peer watching: how they felt as a watcher and watches along with how their professionalism has progressed as their comfort one has increased.³⁸

Gottesman and Jennings in their research recommend at least two months in the peer watching phase.³⁹ The time could vary depending on the readiness of teachers to receive feedback from their colleagues.

³⁷Ibid., 25-26.

³⁸Ibid., 26.

³⁹Ibid.

The next phase is peer feedback and is designed as a transition between watching and true coaching. Again according to Gottesman and Jennings:

Peer feedback involves the five step model: the request, the visit, coach reviewing the notes, the talk after the visit, and the process review. The only difference in peer feedback and peer coaching comes in the talk after the visit. After the data is collected "the only job the coach has in peer feedback is to present the data gathered. No coaching or suggestions for improvement take place during this phase."⁴⁰

Gottesman and Jennings further discuss peer feedback by stating:

This offers teachers a chance to practice the logistical skills of feedback for two months. Note-taking skills can be honed and the observer can begin to feel more comfortable. Observers can refine their observation skills and learn to focus on one concern. By eliminating suggestions or true coaching from this phase teachers feel more comfortable when they reach the true peer coaching phase of request and feedback. Depending on the reaction level of the teachers and their willingness to offer suggestions in a professional manner the group moves on the true peer coaching. The formal phase of peer coaching is true coaching. The only difference between peer feedback and peer coaching is that the coach plans and offers suggestions for improvement in the teacher who indicates willingness to be coached. After gathering the data the coach reviews the notes and lists three possibilities for improvement.⁴¹

Who Should Coach?

Although experts were used as coaches in initial research on coaching, much attention has been given recently to the use of peers as coaches. In the most recent literature, many authors have written specifically about peer coaching, summarizing previous studies and suggesting new directions for further research.

"Peer coaching is a method for improving teaching effectiveness in which teachers

⁴⁰Ibid., 27.

⁴¹Ibid., 27-28.

work with one or more colleagues to achieve specialized instructional goals through a process of observation and feedback."⁴²

According to Brandt, following initial inservice activities (i.e., workshop, course, etc.), the second phase of inservice training "includes adapting new instructional strategies to the teacher's repertoire and the companionship of peers is needed to do so."⁴³

Neubert and Bratton, staff development researchers, state that "peer coaching encourages two classroom teachers to attend the same inservice training, collaborate on lesson development, observe one another in their classrooms as a lesson is taught, then offer suggestions about the lesson."⁴⁴ In essence, this collaborative effort on the part of teachers affords them the opportunity and encouragement to transform training content to actual performance, providing much needed follow up to initial training.

Previous research conducted on the use of teachers as trainers and the importance of collegiality in effecting change led to the development of coaching. The model of teachers training teachers has become a widespread practice and has been related to positive inservice training outcomes.⁴⁵

Wu, for example, surveyed more than one hundred classroom teachers about their

⁴²Munro, P., and Elliot, J., Instructional growth through peer coaching, *Journal Staff Development* 81 (1987): 25.

⁴³Brandt, R., Learning with one from another. *Educational Leadership* 44 (1987): 24.

⁴⁴Neubert, G., and Bratton, E., Team coaching: Staff development side by side. *Educational Leadership* 44 (1987): 30.

⁴⁵Griffin, G., Implications of research for staff development programs, *The Elementary School Journal* 8 (1983): 414-425.

preferences for inservice trainers and found that "teachers prefer other teachers as training consultants."⁴⁶

Empirical evidence of the success of collegiality during the application of training also led to the concept of coaching. Evertson argues that "teachers learn from each other in their daily interactions concerning the tasks of teaching is the major way in which teachers enhance their competencies."⁴⁷

In addition, feedback coming from peers has been suggested as a positive means of enhancing learning outcomes among teachers and promoting carryover of training for the classroom.⁴⁸

Training of Coaches

Although the concept of coaching is grounded in previous research in inservice training, the term coaching was first applied to inservice training programs because of the similarities to athletic coaching. Coaching is referred to "as companionship, the giving of technical feedback, and the analysis of the application of concepts/skills in the classroom. Technical feedback is limited to giving information about the execution of relevant skills or strategies in a non-judgmental manner."⁴⁹

⁴⁶Wu, P., Teachers as staff developers: Research, opinions, and cautions. *Journal of Staff Development* 81 (1987): 6.

⁴⁷Evertson, C., Do teachers make a difference? Issues for the eighties, *Education and Urban Society* 18 (1986): 195.

⁴⁸Wood, F., and Thompson, S., Guidelines for better staff development. *Educational Leadership* 37 (1980): 314.

⁴⁹Showers, B., *Transfer of training: The contribution of coaching* (Eugene, OR: Center for Educational Policy and Management, 1982), 18.

The purpose of coaching is to enhance the application of skills by providing a structure for follow-up to the initial activity that would focus on acquiring new teaching skills and strategies.⁵⁰ Although some teachers may apply skills to the teaching situation after practice and consistent feedback; for some other teachers coaching on how to apply the new skill is necessary.⁵¹

According to the Gottesman and Jennings Model, training of peer coaches occurs in five steps: "1) request for a visit, 2) the visit, 3) review notes and list some possibilities, 4) talk after the visit, and 5) process review."⁵²

1) Request for a Visit

In step one, teachers request for a visit, a teacher requests a peer to observe a new technique or a single specific concern in management or instruction. They set a date and time for the requested observation. Both agree on a data gathering method. For example, writing down teacher questions/ student responses or marking students called upon on a blank seating chart. In training for this step participants should pair off and practice at least twice with dialogue. At first a list of possibilities should be used for practice until a teacher feels comfortable using his or her own concern for teaching. Practicing on a set list provides support for using the steps before taking a risk in front of a colleague. If feedback and coaching phases are to be successful certain elements should be included in the request for a visit. Although it takes five minutes or less, the request for a visit should be done at least a day in advance of the actual visit so that coverage can be arranged for the coach.⁵³

As Gottesman and Jennings state:

⁵⁰Joyce and Showers, 1988, 50.

⁵¹Showers, B., Joyce, B., and Bennett, B., Synthesis of research done on staff development, *Educational Leadership* 42 (1987): 42-65.

⁵²Gottesman and Jennings, 26.

⁵³Ibid., 29.

The teacher's responsibility is to be very specific about what he or she wants the peer to observe. At first, the request will be general in nature because teachers are not confident enough to be specific nor have been asked to define the observation. Teachers will become more expert at dissecting teaching as they become more secure in professional peer coaching. The coach's job is to make sure he or she knows exactly what to observe. This requires the coach asking questions of the teacher or paraphrasing the request. It may also require probing to press the teacher to define a narrow range that can be observed in 10 or 15 minutes.⁵⁴

The teacher and coach should assure each other that the confidentiality of the peer coaching will not be violated. No aspect of peer coaching will ever be discussed in the lounge or anywhere else. "Privacy and confidentiality are essential if trust is to become a reality."⁵⁵

The teacher should offer or the coach should ask what the lesson or new teaching will be during the visit. The time and the place should be set and agreeable to the teacher and coach. The coach needs to know where to sit when he or she comes to the room. The seat should be placed in advance so that no disruption occurs.

During step one, the request for the visit, the time should be set for the talk after the visit. It is essential that it take place as soon as possible: immediately after students leave for the day would be ideal. Gottesman and Jennings also expand the importance of trust and parameters on the request for a visit.

Privacy must be assured and freedom from interruptions is essential so that the teacher feels secure from the beginning. It should take place in the teacher's own environment, the classroom, instead of the coach's classroom. A time limit should be set because the pair needs ample time to talk about one concern, but not too much time so that it turns into a

⁵⁴Ibid., 34.

⁵⁵Ibid., 35.

social gathering.⁵⁶

During the request for the visit, the teacher and the coach should mutually decide on what data-gathering method will fit the observation. It needs to be as simple as possible to give the needed feedback, but it should not be intimidating to the coach or teacher. Self-designed forms or charts or tallies are best at first for the comfort zone.⁵⁷

2) The Visit

The second step is the visit. The coach comes to the scheduled observation with:

...an appropriate data-gathering instrument on which he/she has already written the specific concern only leaving out any judgment or evaluation statement. Time is recorded at the beginning, at intervals, and at the end of the observation.⁵⁸

Strict parameters should be observed to make the first visits successful. The teacher and coach each have responsibilities. The coach walks in and finds the assigned seat. The coach should be as invisible as possible while entering or exiting. He should have the data-gathering form prepared by the coach and teacher ready with pen in hand. Beginning time should be recorded at the top of the page.⁵⁹

If the teacher is not yet at the point of the requested concern, Gottesman and Jennings also discuss:

The coach watches carefully for the prearranged signal that indicates the starting point during the information gathering phase, the coach must focus his entire attention on the requested concern. She must gather data only on the information requested by the teacher. If other things happen

⁵⁶Ibid., 40.

⁵⁷Ibid., 36.

⁵⁸Ibid., 40.

⁵⁹Ibid.

that are interesting the coach should ignore them. She should never try to guess or record something that was not requested. This also ensures professional respect and can be discussed in the talk after the visit.

Another problem that may occur is that the agreed upon data gathering method may not work in the actual classroom. If the method the coach is prepared to use does not match the request, he or she may just drop it and observe. Later the teacher and coach can work out another device and arrange another visit.⁶⁰

An agreement needs to be made with the peer teacher that once the allotted time is up, the coach should leave. The coach should feel no obligation to stay beyond the time limit even if the teacher is not finished. It is paramount that for logistical concerns, the coach keeps up with the time, enter at the agreed time and leave at the agreed time limit.

3) Review Notes and List Some Possibilities

The third step is review the notes and list some possibilities. “The coach reviews the teacher's original request for observation. The coach reviews the observation notes and summarizes or categorizes as necessary. The coach deletes any evaluative statements such as 'too much', 'enough', etc.”⁶¹

According the Gottesman and Jennings Model, in this step, the coach lays the groundwork for a successful talk after the visit.

Time spent reviewing the notes and data collection here will be valuable when the conference is held. The coach must not assume that the teacher can take feedback objectively just because he asked for a visit. The coach must keep in mind that, above all the continuing collegial relationships are more important than the success of any one visit.⁶²

⁶⁰Ibid.

⁶¹Ibid., 43.

⁶²Ibid.

The coach must write down three things:

1) The opening statement for the talk after the visit; 2) Two to four leading questions to get the teacher to reflect on the lesson; and 3) Two to four suggestions for improvement if the teacher is receptive.⁶³

After writing the opening statement 'Remember you asked me to collect data on...

This question brings the focus entirely on the request for the visit, not personality or the performance of the teacher or the performance of the students in the class. Focus on this request prevents endless discussion about students, their behavior, classroom incidents or feelings.

Then the coach must structure two to four leading questions so that the teacher will take the time to reflect and dissect the lesson. This means the questions should be phrased so that the teacher does most of the talking. For example, a neutral leading question that coach should ask is: "Here is the data I gathered from my observation. What does this tell you?"⁶⁴

On a separate sheet of paper, "The coach now writes down two or three suggestions for improvement to use if the teacher is receptive. These suggestions should also be nonjudgmental and non evaluative."⁶⁵

The teacher should be more receptive to statements that begin with 'some people have found this works...'

For example, the coach could also try: "You know I've run into this also. Maybe we can work out a solution together. If the teacher is not receptive to suggestions for

⁶³Ibid., 45.

⁶⁴Ibid.

⁶⁵Ibid., 43.

improvement, this separate sheet of paper should be destroyed."⁶⁶

4) Talk after the Visit

The next step in the model is the talk after the visit.

The teacher controls this conference asking for factual data gathered relevant to the specific concern. Either the coach or teacher relates the original request to begin the conference. The teacher listens to/looks at the data with the coach analyzing its relevance and drawing conclusions leading to solutions to the problem.⁶⁷

The teacher may ask for an additional observation and or coaching. The coach sits beside the teacher with the notes between them. The coach walks the teacher through each step of the data collected, asking leading questions to help the teacher arrive at his own solution.

This is a reflective coaching model, and the purpose of the talk after the visit is to have the teacher reflect on the concern and do most of the talking. The major responsibility of the coach during this step is to keep the teacher talking.

Active listening and leading questions become equally important during this step. After the coach asks a leading question she must pause and use skills of active listening. For example, active listening skills such as silence and pausing allow the teacher time to think, but they also allow the coach reflective opportunities to formulate additional probing question based on the teacher's reaction.⁶⁸

⁶⁶Ibid., 45.

⁶⁷Ibid., 47.

⁶⁸Ibid., 51.

5) Process Review

The final step in peer coaching process review should take only two or three minutes. The sole purpose is to improve the process the teacher and coach have just experienced. Both people review the rules and guidelines to see how closely they were followed.

The process review should take place in the teacher's classroom immediately after the talk after the visit. The teacher and coach analyze the process by asking themselves a series of questions related to the method of data-gathering, participation of the peers, and the benefits of peer coaching and feedback to both teacher and coach:

1. Who talked most? Why?
2. Were there any judgmental or evaluative statements made? How can they be avoided in the future?
3. Were feelings or recorded facts discussed?
4. Did the conference include praise or blame?
5. Were the recorded facts related to the teacher's specific request?
6. Did the coach's questions lead the teacher to draw conclusions?
7. Did the coach become too directive?
8. Would notes or audio-recording have been better?
9. Will the facts that were gathered and presented in a non evaluative conference lead to improvement of instruction?
10. Who--teacher or coach--benefited most from peer coaching?
11. Will the teacher request another observation?
12. Will the teacher act as coach?⁶⁹

Common Characteristics of Peer Coaching

However varied the approaches have been in peer coaching models over the past ten years, three characteristics have become common to all peer coaching programs.

"Peer coaching programs are: non-evaluative, based on observation of classroom teaching followed by constructive feedback, and focused on improvement of instructional

⁶⁹Ibid., 59.

techniques."⁷⁰

Peer coaching is distinct from evaluation. Peer coaching will not be used to evaluate a teacher's classroom performance. According to Showers,

In divorcing itself from evaluation, coaching provides a safe environment in which to learn and perfect new teaching behaviors, experiment with variations of strategies, teach students new skills and expectations inherent in new strategies, and thoughtfully examine the results. By placing the major responsibility for coaching with peers, status and power differentials are minimized.⁷¹

Even when principals or other administrators are involved in parts of the observation-feedback process, all participants clearly understand that professional assessment is not taking place.⁷²

In describing their collegial interaction process devised for teachers in Larchmont, New York, Anastos and Ancowitz state that, "Teachers need considerable time early in the project to express their feelings about previous observations and explore the potential peer coaching has for putting them in charge."⁷³

Peer coaching includes observation followed by feedback. In some cases, Showers suggests, "The teacher experiments with a new lesson while the coach observes

⁷⁰Showers, 1985, 39.

⁷¹Ibid., 40.

⁷²Barnes, R., and Murphy, J., Staff development: Help teachers help themselves, *Executive Educator* 9 (1987): 23, 29. Grimmetti, P., The role of district supervisors in the implementation of peer coaching, *Journal of Curriculum and Supervision* 3 (1987): 3-38. Pusch, L., McCabe, J., and Pusch, W., Personalized on-site coaching: A successful staff development project, *A Case Study at Swift Education Canada* 25 (1985): 36-39.

⁷³Anastos, J., and Ancowitz, R., A teacher-directed peer coaching project, *Educational Leadership* 45 (1987): 41.

and the experiment continues with a new cycle of analysis, study, hypothesis-forming, and testing."⁷⁴

The use of observational instruments may vary. Cummings designed a detailed teaching map on which observers used different symbols to document teaching functions at one minute intervals.⁷⁵ Murphy and Eblan⁷⁶ used forms prepared by Garmston⁷⁷ to document lesson objectives during a pre-observational conference and to record information to be shared during the post conference.⁷⁸ After the observation, it is important for feedback to be accurate, specific, and non-evaluative.⁷⁹ Three ways in which coaches give feedback have been identified in an ASCD videotaped series.⁸⁰ These ways are: a) mirroring the coach records data and gives it to the teacher to analyze, b) collaborative coaching the teacher and coach work together to find ways to improve teaching, and c) expert coaching the coach acts as a mentor who gives specific suggestions to the teacher.

⁷⁴Showers, 1985, 43.

⁷⁵Cummings, C., *Peering in on peers: Coaching teachers* (Edmond, WA: Teaching, Inc., 1985).

⁷⁶Murphy, T., and Eblan, D., Inservice for instructional excellence: A model of progress. Paper presented at the annual conference of the National Staff Development Council, Seattle (1987). ERIC ED 223 860.

⁷⁷Garmston, R., How administrators support peer coaching, *Educational Leadership* 44 (1987): 18-26.

⁷⁸Murphy and Eblan.

⁷⁹Showers, 1985, 44.

⁸⁰Wolfe, P., and Robbins, P., *Opening doors: An introduction to peer coaching. Video package with facilitator=s manual* (Alexandria, VA: ASCD, 1989).

Feedback plays an important role in the three steps that Mello believes may be helpful in changing teacher behaviors.

The first step toward making any change is awareness by the individual that the new knowledge, practice or skill will satisfy a need or desire the individual has. The second step is the use of feedback to help the individual recognize a starting point from which to move toward the new behavior. Third, support from others concerning the new behavior is needed to reinforce that behavior and to further motivate the individual to continue to move in the direction of the new behavior.⁸¹

The third characteristic of peer coaching is that it focuses on improving instructional techniques. Some peer coaching programs seek to familiarize teachers with specific instructional techniques.⁸²

Other programs are aimed at general improvement and support. In a high school district outside of Chicago, Barnes and Murphy "helped teachers raise their teaching methods which at first might be intuitive to a conscious level at which the methods were examined and refined."⁸³

⁸¹Mello, L., *Peer-centered coaching. Teachers helping teachers to improve classroom performance* (Idaho Springs, CO: Associates for Human Development, 1984). ERIC ED 276 648.

⁸²LeBlanc, P., and Zide, M., *Peer coaching in collaborative programs: From theory to practice*. Report to the U.S. Department of Education (1987). ERIC ED 290726.

⁸³Barnes and Murphy, 23, 29.

The History of Peer Coaching

Beginning in the mid 1950s, national movements to improve education focused on academic quality and social equality. By the early 1970s, educators recognized that many of those efforts, even when well-founded and approved by the public, seldom led to changes. The lack of research on how people learn teaching strategies and how schools disseminate innovations contributed to a lack of success.⁸⁵ Educators assumed that teachers could learn new strategies, return to school, and implement their new learning smoothly and appropriately. The organization of the schools did not support the intensive training efforts that occurred in summer institutes or workshops. Peer observation and feedback had been used prior to Joyce's findings on peer coaching.⁸⁵ Dornbusch, Scott, and Smith developed collegial interaction methods similar to the peer coaching model, employed peer observation and feedback to improve teacher effectiveness.⁸⁶

In the 1980s changes in the organization of schools and in training designs would help to ease implementation problems. In 1980, Joyce and Showers believed that "a model practiced under simulated conditions, and practiced in the classroom, combined with feedback was the most productive training design."⁸⁷

⁸⁴Showers, B., and Joyce, B., The evolution of peer coaching, *Educational Leadership* 53 (1996): 12-16.

⁸⁵Ibid., 13.

⁸⁶Dornbusch, S., *The collegial evaluation program: A manual for the professional development of teachers*. Field test. Scott, J., and Smith, S., *Collaborative schools* (New York: Macmillan, 1986).

⁸⁷Joyce, B., and Showers, B., Improving inservice training: The message of research, *Educational Leadership* 37 (1980): 379-385.

For purposes of research, Joyce and Showers, hypothesized that teachers attempting to master new curriculum and teaching approaches would need continued technical assistance at the classroom level.⁸⁸ A review of literature on peer coaching revealed that when training components--theory presentation, modeling demonstration, practice, structured and open-ended feedback were present, there was a relationship to transfer of training to the classroom. The initial research findings support assumptions about the effectiveness of the inservice programs that include consultant coaches in the training process.⁸⁹

In 1982, Showers documented skill application for teachers in a coaching situation. Seventeen junior high school teachers were taught on three models of teaching in a twelve-hour workshop over four weeks. One group of eight teachers further participated in follow-up training coaching sessions with a consultant following six hours of training in the coaching process.

Data from teacher logs, lesson plans, classroom observations, and interviews provide evidence that coached teachers practiced targeted instructional strategies more frequently and with greater skill than non-coached teachers in their classroom.⁹⁰

⁸⁸Ibid.

⁸⁹Showers, B., *Transfer of training: The contribution of coaching* (Eugene, OR: Cetner for Educational Policy and Management, 1982). Joyce and Showers, 1983. Showers, B., Transfer of training. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada, 1983a. Sparks, G., Synthesis of research on staff development for effective leadership, *Educational Leadership* 41 (1983): 65-72.

⁹⁰Showers, 1982, 7.

Additional data collected during interviews in subject debriefing suggested that "peer coaching may increase the magnitude of application of training due to the fact that teachers are closer to one another and in an excellent position to carry out most of the coaching function."⁹¹

Although initial research in the 1980s on expert coaching often suggested the need to investigate the use of peers rather than consultants as coaches; research in the area of peer coaching in the 1990s is limited due to the nature of concept is such that it overlaps collaboration and educator effectiveness. Showers first researched the effectiveness of peer coaching.⁹² Showers results found, after twenty-two hours of training in three different instructional models, a group of ten coached teachers:

...averaged more application of training, as measured by their appropriate use of instructional models, than a group of uncoached teachers. Results of their early studies showed that teachers who had a coaching relationship that is who shared aspects of teaching, planned together and combined their experience--practiced new skills and strategies more frequently that did their colleagues who worked alone.⁹³

In a related study of peer coaching, nineteen teachers and six peer coaches were divided into three non-equivalent (on related personal and professional characteristics) groups representing different kinds of training.⁹⁴ One group of five teachers received no coaching, another group of four teachers participated in an expert coaching activity, while

⁹¹Joyce and Showers, 1982, 7.

⁹²Showers, 1983.

⁹³Ibid., 20.

⁹⁴Showers, B., *Peer coaching and its effect on transfer of training* (Eugene, OR: Center for Educational Policy and Management, 1984).

the third group of ten teachers participated in peer coaching. Analysis of pre and post observations of classroom practice of six training skills showed "significantly greater change in the desired direction in teachers who participated in peer coaching."⁹⁵

Licklider conducted an exploratory study of a site-based peer coaching inservice model for eleven teachers.⁹⁶ A single group, interrupted time series research design was employed. Initial inservice training focusing on questioning strategies was followed by peer coaching. Ratings of effective use of questioning in recorded teaching sessions and personal interviews indicated that "teachers significantly increased the frequency of effective use of recommended questioning practice after peer coaching."⁹⁷

Data collected during evaluation of peer coaching programs also documented the effectiveness of peers as coaches in follow-up training.⁹⁸ For example, Anastov and Ancowitz report on self-analysis of teachers with the use of peer observation and videotapes.⁹⁹ In one application the social and intellectual stimulation from peers enhanced self-esteem and generated positive feeling about the teaching profession. They also report that peer coaching produced positive feelings among teachers and increased

⁹⁵Ibid.

⁹⁶Licklider, B., Examination of a site-based, peer coaching inservice model (Doctoral Dissertation, Iowa State University, 1987). *Dissertation Abstracts International* 47, 04A.

⁹⁷Ibid., 50.

⁹⁸Anastov and Ancowitz. Munro and Elliot. Sparks, G., and Bruder, S., "Before and after peer coaching," *Educational Leadership* 41 (1987): 27-30.

⁹⁹Anastov and Ancowitz.

collegiality in general.¹⁰⁰

Landrum investigated the preliminary effects of peer coaching as a follow-up to inservice training in gifted education in a pilot study.¹⁰¹ In general, Landrum found that "the frequency of teacher initiated higher level questioning was significantly greater for both groups of teachers who participated in peer coaching."¹⁰²

Pogust further investigated peer coaching and its relationship in transferring staff development into the classroom. In general, Pogust, found that "peer coaching supported transfer of training with all peer partnerships reaching level III mechanical use."¹⁰³

Pogust defined level III mechanical use in this study as a state in which the user focuses most effort on the short-term, day to day use of the innovation with little time for reflection. Changes in use are made more to meet user need than client need.¹⁰⁴

Both studies concluded that the implementation of peer coaching as a follow up to staff development may appears to transfer new skills to classroom practice.

¹⁰⁰Ibid.

¹⁰¹Landrum, M., The effects of peer coaching on follow-up to inservice training on application of theory to classroom practice (Doctoral Dissertation, University of Virginia, 1990).

¹⁰²Ibid., 10.

¹⁰³Pogust, A., Transferring staff development on cooperative learning into a classroom project, *A Case Study at Swift Education Canada* 25 (1993): 15.

¹⁰⁴Ibid.

Clinical Supervision

Numerous staff development practices are called "coaching." These include "technical coaching," "collegial coaching," "challenge coaching," "team coaching," "cognitive coaching," "and ways of peer coaching." Garmston refers to traditional clinical supervision as composed of three phrases: pre-conference, observation, and post conference.¹⁰⁵ "None of these should be used for evaluation of teachers."¹⁰⁶

Cogan's book on "Clinical Supervision" in the 1970s is the foundation of the current literature on peer coaching. He gives two dual research purposes of clinical supervision that he posits as the foundation of teacher supervision literature.¹⁰⁷ "The first is to develop and explain a system of in-class supervision. The second purpose of clinical supervision is to help teachers modify existing patterns of teaching in ways that are more effective."¹⁰⁸ According to Cogan, in many respects a one to one correspondence exists between improving classroom instruction and stimulating teacher professional growth. Every decision that teachers, administrators, and supervisors make is preceded by evaluation of some sort.

The process for evaluation can be divided into two key areas: formative and summative. Cogan gives an additional perspective on the comparison of formative and summative evaluation:

¹⁰⁵Garmston.

¹⁰⁶Ibid., 68.

¹⁰⁷Cogan, M., *Clinical supervision* (Boston, MA: Houghton Mifflin Co., 1973).

¹⁰⁸Ibid., 90.

Formative evaluation of teachers is intended to increase the effectiveness of ongoing educational programs and activity. During the process of formal evaluation information is collected and used to understand, correct, and improve on classroom activity. The purpose of summative evaluation is to make a judgement about the quality of one's teaching. Summative evaluation occurs by the administrator at the end of an educational activity.¹⁰⁹

In my experience, as an administrator, the focus of clinical supervision should be on formative evaluation. The supervisor coach is foremost interested in improving teaching and increasing teacher's personal development.¹¹⁰ Goldhammer gives an additional perspective on teacher evaluation: "The concept of professional accountability in clinical supervision is growth oriented and implies a commitment by the educator to improvement in performance."¹¹¹

Practically speaking, improving classroom instruction must start with the teacher. Sustaining changes in teacher behavior and sustained improvements in classroom functioning occur as a result of teachers who are committed to these changes. It is the teacher who decides the course of a clinical supervisory cycle; the issues to be discussed and for what purpose. The supervisor coach's job, therefore, is to "help the teacher select goals to be improved, teaching issues to be illuminated, and have a better understanding

¹⁰⁹Ibid.

¹¹⁰Sergiovanni, T., and Starratt, R., *Supervision human perspectives*, 4th ed. (New York: McGraw-Hill Publishing Co., 1988).

¹¹¹Goldhammer, R., Anderson, R.H., and Krajewski, R.J., *Clinical supervision: Special methods for supervisions of teachers* (New York: Holt Rinehart and Winston Publishers, 1980), 50.

on his or her teaching strategies."¹¹² According to Goldhammer, this emphasis (on) understanding provides the way by which more technical assistance can be given to the teacher; thus clinical supervision involves the systematic analysis of events. Clinical supervision is viewed as an overall pattern of working with teachers that operationally take a number of technologies, perspectives, and approaches to specific teaching situations.¹¹³

In their book, "Techniques in Clinical Supervision of teachers," Acheson and Gall discuss new terms for teacher collaboration in improvement of teaching strategies as technical coaching, team coaching and peer coaching as in peer clinical supervision models that focus on innovations in curriculum and instruction.¹¹⁴ There has been several different interpretations of clinical supervision. Acheson and Gall also detail a three phase model of Supervision: a planning conference, the class observation, and a feedback post conference.¹¹⁵ The Acheson and Gall model emphasizes direct teacher supervisor interaction.

A planning conference takes place in which the coach supervisor builds a relationship with the teacher based on a mutual trust and support. In addition, the teacher and coach plan together a lesson, series of lessons, or a unit. Planning includes estimates of objectives or outcomes, subject

¹¹²Ibid., 70.

¹¹³Ibid., 111.

¹¹⁴Kent, K., A successful program of teacher advising teachers, *Educational Leadership* 45 (1985): 29-33. Neubert and Bratton, 30-33. Rogers, S., If I can see myself, I can see change, *Educational Leadership* 45 (1987): 64-67.

¹¹⁵Acheson, K., and Gall, M., *Techniques in the clinical supervision of teachers* (New York: Longman Inc., 1980).

matters, concepts, teaching strategies and material to be used. The last part of the pre-observation conference is that together teacher and coach discuss the kind and amount of information to be gathered during the observation period along with the methods to be used in gathering information.¹¹⁶

The class observation requires the supervisor to observe in class instruction. The coach records agreed upon data during the teaching lesson and analyzes the events of the class. The outcomes of the analysis are the identification of patterns of teacher behavior that exist over time and critical incidents that occurred that seemed to affect classroom activity.¹¹⁷ In addition, extensive descriptions of teacher behavior and evidence of student behavior is recorded.

The post conference is an opportunity for the coach to share the objective data with the teacher. The teacher also has an opportunity to exchange information, get feedback from the coach as he or she reflects upon the lesson. The final part of the post conference requires the teacher and coach to resume planning. The teacher and supervisor coach begin to plan the next lesson or unit and new target, approaches, and techniques to be attempted.

There seems to be a natural link between clinical supervision and current effective teaching. Acheson and Gall define supervision as " the process in helping the teacher reduce the discrepancy between actual teaching behavior and ideal teaching behavior."¹¹⁸

To summarize, the arguments to justify the use of clinical supervision to improve

¹¹⁶Ibid., 45.

¹¹⁷Acheson and Gall.

¹¹⁸Ibid., 50.

classroom instruction rest on five premises:

- 1.) "Provides an in-class support system designed to provide dual feedback between teacher and supervisor coach";¹¹⁹
- 2.) The purpose of formative evaluation is "to increase the effectiveness of ongoing educational programs and help increase teacher performance and personal development";¹²⁰
- 3.) A co-partnership relationship in which "colleagues have a mutual professional trust to analyze each others performance";¹²¹
- 4.) Clinical supervision focuses on "a teacher's strengths and coaches' role to tap large reservoirs of talent within teacher";¹²²
- 5.) Clinical supervision provides "a systematic analysis of instruction by collecting readily observable data."¹²³

Peer observation is the second element of peer coaching in three stages: pre observational meeting, observation and feedback.¹²⁴ The first stage of pre-observational meeting consists of discussion and planning. Once the improvement focus which the team or individuals in the team are going to work on has been decided, members of the

¹¹⁹Cogan, 90.

¹²⁰Sergiovanni and Starratt, 100.

¹²¹Garmston, 18-26.

¹²²Ibid.

¹²³Acheson and Gall, 100.

¹²⁴Ibid.

coaching team must develop a clear understanding of what specific behaviors or actions must take place to implement the desired changes. They must be sure the two or three team members understand the desired outcome or purpose of the activity and specific steps that must take place to ensure that it is implemented.¹²⁵

At the heart of the discussion must be a clear delineation of the actions that observer is supposed to record. The actions should be defined as behaviorally as possible. Developing an observation checklist is a good way to do this depending on the specific innovation involved. Having a checklist has two advantages. "One, it provides the person learning the activity with a clear understanding of what is expected. Secondly, it also provides the coach or observer with a clear objective list of things to watch for."¹²⁶

The second stage is the observation. Once everyone is ready, the teacher scheduled to conduct the observation does so. For example, if three teachers are involved, teacher A observes teacher B, who observes teacher C, who observes teacher A. Students are prepared for the observation. For example, students are told 'Mrs. Smith, Mr. Ortega and I are working together to develop some activities that we think might help you learn more effectively. Mr. Ortega will be in the room observing us as we try out a new way to develop group or team learning. Please don't pay attention to him. He will be sitting in a chair in the back making some notes. He won't participate in our work.'

During the observation the observer should only look for the behaviors or

¹²⁵Ibid.

¹²⁶Hutchins, C., Everson, S., Ewy, R., Marzano, R., Chapman, H., and Kessler, B., *Coaching a powerful strategy for improving staff development and inservice* (Kansas, MO: McKel Mid Continent Regional Education Laboratory, 1983).

activities that were agreed upon. Gottesman and Jennings emphasize by stating:

"The observer is not in the room to evaluate or pass judgment on the teacher. He or she should simply check to see what happens and record what is observable. A checklist or a log script or what happens should be kept."¹²⁷

The use of a log or script helps avoid misunderstandings. It enables the coach to say things like: 'After you corrected Johnny I watched him closely for the next few seconds. What he did was...'. This approach helps avoid value judgements. In addition, a check sheet helps keep feedback review objectives as well. For example, it might enable the coach to say: 'I measured your students' engaged rates as you asked me to for twenty minutes.'¹²⁸

"The more specific the teacher has been about what he or she wants the observer to watch for and record, the less threatening it is for both parties."¹²⁹

The last stage in feedback is as soon as possible after the observation period has ended the observer (coach) and teacher should meet to discuss what happened. During the feedback session the discussion should be as objective as possible. It is usually best if the person being observed leads the discussion so the coach isn't in the position of pressing his or her view on the teacher.

For example, the session might begin by having the coach ask the teacher 'Why don't you tell me how you think it went--what went right or what went wrong and I'll share with you information that supports your own

¹²⁷Gottesman and Jennings, 41.

¹²⁸Ibid.

¹²⁹Hutchins et al., 60.

thoughts as well as things I might have seen that you didn't see'.¹³⁰

Thus the observed teacher might go through the checklist and ask informational questions: e.g., What did you see when I was checking for understanding? If the person who was observed keeps pressing for information it will make it easier for the coach.

One of the absolute essentials in coaching is to be sure the relationship between the coach and teacher as professional as possible: (1) never talk to a third person about what was specifically observed and (2) don't let a member of the team draw the others into personal problems.¹³¹

Staff Development

Research in the latter half of the century has identified several essential components in the design of effective inservice training.¹³² The combined use of four training practices in particular has been recommended as most effective: a) presentation or theory, b) demonstration or modeling as skill or concept, and d) feedback, or the provision of information about performance and practice.¹³³ Fullan states that effective staff development promotes school improvement when there is: "(1) a shared purpose, (2) structures that represent the organizational conditions necessary for significant

¹³⁰Gottesman and Jennings, 56.

¹³¹Ibid., 58.

¹³²Killon J., and Harrison, C., "Evaluating training programs: Three critical elements for success," *Journal of Staff Development* 9 (1988): 34-38.

¹³³Nicholson, A., Joyce, B., Parker, and Waterman, *The literature on inservice teacher education: An analytical review* (Washington, DC: Office of Education, ED 124734, 1976). Joyce and Showers, 1980. Korinec, S., Schmid, F., and McAdams, G., *The team: Explorations in group process* (Dubuque, IA: Kendall Hall, 1985). Showers, 1984. Showers, 1982. Showers, B., Joyce, B., and Bennett, B., Synthesis of research done on staff development, *Educational Leadership* 42 (1987): 65-72.

improvement, (3) norms of continued improvement, and (4) norms of collegiality.¹³⁴

Fullan defines shared purpose as:

...a shared vision which does not stay static but which constantly interacts with the other three conditions supportive of change. He defines structures as the organizational arrangements, roles, and formal policies that build working which support changes. He believes that the norms of continuous improvement and collegiality are closely linked.¹³⁵

It is not an easy process to instill a vision among all members of an organization, although it may be easy enough to provide a "vision statement" that can be written and added to a policy manual.

Senge has found that:

...all too often a charismatic leader has a personal vision he or she follows but cannot transmit it to the organization in such a way as to cohesively focus everyone to work toward that goal. Even when there is a shared vision, it is usually in response to a crisis and dissipates when the crisis is over." He explains that: The practice of shared vision involves the skills of unearthing shared "pictures of the future" that foster genuine commitment and enrollment rather than compliance. In mastering this discipline, leaders learn the counter productiveness of trying to dictate vision.¹²⁶

Accomplishing a successful staff development program for any school district is extremely difficult. Pink reviewed four change projects and found twelve barriers.

1. An inadequate theory of implementation, including too little time for teachers to plan for an learn new skills and practices.
2. District tendencies toward faddism and quick fix solutions.
3. Lack of sustained central office support and follow-through.
4. Under funding the projects, or trying to do too much with too little support.

¹³⁴Fullan, 1990, 17.

¹³⁵Ibid., 20.

¹³⁶Senge, P., *The fifth discipline* (New York: Doubleday Currency, 1990), 9.

5. Attempting to manage the projects from the central office instead of developing school leadership and capacity.
6. Lack of technical assistance and other forms of intensive staff development.
7. Lack of awareness of the limitations of the teacher and school administrator knowledge about how to implement the project.
8. The turnover of teachers in each school.
9. Too many competing demands or overload.
10. Failure to address the incompatibility between project requirements and existing organizational policies and structure.
11. Failure to understand and take into account the specific differences among schools.
12. Failure to clarify and negotiate the role relationships and partnerships involving the district and the local university.¹³⁷

Effects of Coaching Peer Programs

Results of coaching programs have been reported in detail elsewhere.¹³⁸ The effects of these studies fall into two broad categories: facilitation of transfer of training and development of norms of collegiality and experimentation.

Peer Coaching appears to contribute to transfer of training in five ways.

- 1.) Coached teachers generally though not always practice new strategies more frequently and develop greater skill in the actual moves of a new teaching strategy than do uncoached teachers who have experienced identical initial training.¹³⁹
- 2.) Use the new strategies more appropriately in terms of their own instructional objectives and the theories of specific models of teaching.¹⁴⁰

¹³⁷Pink, W., *Effective development for urban school improvement* (San Francisco, CA: American Educational Research Association, 1989), 16.

¹³⁸Baker, R., and Showers, J., The effects of a coaching strategy on teacher=s transfer of training for classroom practice: A six-month follow-up study. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA, 1984, 16.

¹³⁹Showers, 1983, 20.

¹⁴⁰Showers, 1984, 15.

- 3.) Exhibit greater long term retention of knowledge about and skill with strategies in which they have been coached and, as a group, increase the appropriateness of use of new teaching models over time.¹⁴¹
- 4.) Are much more likely than uncoached teachers to teach the new strategies to their students, ensuring that students understand the purpose of the strategy and the behaviors expected of them when using the strategy.¹⁴²
- 5.) Exhibit clearer cognition with regard to purposes and uses of new strategies, as revealed through interviews, lesson plans, and classroom performance than do uncoached teachers.¹⁴³

Peer Coaching also appears to facilitate the professional and collegial relationships as discussed by Little. For example, development of a shared language and norms of experimentation. The data about this process is somewhat less formal than data on skill acquisition and transfer. However, anecdotal and interview data indicate that

the effects of coaching are far more reaching than the mastery and integration of new knowledge and skills by individual teachers. The development of school norms that support the continuous study and improvement of teaching, apparently build capacity for other kinds of change, whether it is the adoption of a new curriculum, a school wide discipline policy or the building of a teaching repertoire.¹⁴⁴

The implementation of coaching often requires a change in the conduct of schools.¹⁴⁵ Some of these changes are social and require a departure from traditional

¹⁴¹Baker, R., The contribution of coaching to the transfer of training: An extensive study (Doctoral Dissertation, University of Oregon, Eugene, 1983).

¹⁴²Showers, 1984, 8.

¹⁴³Showers, 1982, 16.

¹⁴⁴Little, J., Norms of collegiality and experimentation: Workplace conditions of social success, *American Educational Research Journal* 19 (1982a): 328.

¹⁴⁵Joyce and Showers, 1988.

school organization. For example, coaching requires a more flexible work schedule than that typically provided to teachers in order for teachers and coaches to discuss classroom performance and share ideas for future instruction.

McLaughlin and Marsh indicate: "A change in teacher behavior is affected by the organizational climate and the educational setting or school climate is an important factor in determining whether or not innovations continue."¹⁴⁶

Verma expands the previous notion by saying that the organizational climate is "composed of variables that are extraneous to training (e.g., communication, support, and teacher participation) and may either enhance or inhibit any training."¹⁴⁷

Essentially, the relationships between schooling and peer coaching remain speculative. Although Joyce and Showers contend that effects of peer coaching on school organization are positive, their conclusions remain unsubstantiated.¹⁴⁸

Models of Peer Coaching

In the summer of 1995 in Ann Arbor, the Michigan Public Schools appointed a staff development consultant to develop a peer coaching program in two elementary schools. The study focused on whether peer coaching would improve collegiality in the schools, encourage experimentation with new practices, and enhance teaching effectiveness. The study also examined teacher reactions to peer coaching and benefits of

¹⁴⁶McLaughlin, M., and Marsha, D., Staff development and school change. In L Miller, and A. Lieberman, eds., *Staff development* (New York: Teachers College Press, 1979).

¹⁴⁷Ibid.

¹⁴⁸Fullan, 1990, 30.

the process.

After consulting with their staff, two principals volunteered, School A to begin in the fall and School B to start in the winter. Both principals were proponents of effective peer coaching, and teachers of both schools had gone through at least ten hours of research-based effective teaching practice.¹⁴⁹ The two schools approached the Peer Coaching Project from different perspectives. School A was committed to peer coaching before the project began. The school improvement planning team and the principal had proposed the idea to the staff and all had been enthusiastic. In contrast School B's principal was the main proponent of peer coaching in that school. Since collaborative decision-making was not the norm in that school, many teachers were doubtful and had rejected the proposition in the fall. The results of the study were measured by a rating scale questionnaire before and after the project. Several questions dealt with the frequency and helpfulness from administration and colleagues. When asked before the project how often other teachers observed them 14% of the participants responded "frequently" or "occasionally." At the end of the year, 62% gave one of these responses.¹⁵⁰

Before the project, 20% said they received feedback on their instruction 'frequently' or 'occasionally', compared to an 89% response rate after peer coaching.

¹⁴⁹Hunter, M., *Rx improved instruction* (El Segundo, CA: T.I.F. Publications, 1976). Rosenshine, B., and Stevens, R., *Teaching functions: Handbook of research on teaching*, 3rd ed., edited by M.C. Wittrock (New York: Macmillan, 1986).

¹⁵⁰Sparks and Bruder.

Clearly peer coaching increased teacher opportunities for observation and feedback. In addition, before the project 52% of the teachers in the two schools rated advice they received regarding instruction as 'very helpful.' After peer coaching, 75% did so. Apparently the reviews of effective practices and collegial sharing during coaching sessions produced helpful professional interaction.¹⁵¹

To summarize, in spite of some initial differences between the two schools in their approaches to the Peer Coaching Project, the outcomes reflected by the questionnaires and interviews indicate that teachers in both schools became comfortable with the process and found it useful in improving collegiality and experimentation. This study also indicates that an "entire school with proper support can implement peer coaching that results in greater communication and experimentation with teaching techniques."¹⁵²

In 1986 the Old Adobe Union School District, in Sonoma County, California, implemented a peer coaching program to provide support to newly hired teachers and offer leadership roles to experienced teachers. Under the direction of Pam Robbins the training addressed Collegial Coaching along with its rationale and research base. She asked teachers and principals to envision peer coaching in its ideal state; what it would look like, sound like and feel like renamed as "Peer Sharing and Caring."¹⁵³

Participants received intensive training in Cognitive Coaching. According to Costas and Garmston, in cognitive coaching during the conference:

¹⁵¹Ibid., 27.

¹⁵²Ibid., 29.

¹⁵³Ibid., 30.

The teacher makes explicit for the observed the intended purpose of the lesson, expected student outcomes and behaviors, planned teaching behaviors and strategies, and concerns about the lesson and the desired focus of the observation. During the observation, the observer collects information about the instructional/curricular elements identified by the teacher. After the observation, the two discuss what actually happened during the lesson as opposed to what was planned.¹⁵⁴

The observer facilitates this analysis by asking questions that prompt the teacher to reflect on the lesson, recalling actual teacher and student behaviors. An integral part of the past conference in a discussion of what the observer did that facilitated or hindered the learning process for the teacher.¹⁵⁵

In Old Adobe, several factors were critical to the success of "Peer Sharing and Caring." Participation was voluntary and the training empowered teachers as well as equipped them with an expanded repertoire of coaching skills. The training was also ongoing; the coaches continued to meet as a group to learn from each other. The atmosphere was supportive so that teachers felt they could take risks. Further, principals provided direction for the program by attending workshops with the coaches, modeling coaching behaviors. They also supported the program by freeing time up for teachers to coach and follow through on commitments.

One of the benefits of the Adobe Peer Coaching Program is that "coaching" has become a norm in the school culture of old Adobe.¹⁵⁶

¹⁵⁴Costas, A., and Garmston, R., Supervision for intelligent teaching, *Educational Leadership* 42 (1985): 70-80.

¹⁵⁵Ibid.

¹⁵⁶Raney, P., and Robbins, P., Professional growth and support through peer coaching, *Educational Leadership* 45 (1989): 19-22.

Each new teacher is assigned a coach who assists him or her with instruction. In addition to promoting collegiality and providing new teachers the support they urgently need, the program has had beneficial effects on experienced teachers.¹⁵⁷

According to Raney and Roberts:

The act of coaching give teacher - coach an opportunity to observe a classroom from an objective perspective. The insights a teacher gains during these observations often have applicability to his or her own classroom. In one teacher's words: "I learned more from my observation of others than I did from being observed and receiving feedback."¹⁵⁸

Peer sharing and caring has also opened up a new level of communication between teachers of different grade levels and schools. According to Robbins: "Talking about teaching reflecting on their craft has helped teachers develop an appreciation for teaching as a profession. Feelings of isolation and passivity have given way to an environment of collaboration and professional growth."¹⁵⁹

¹⁵⁷Ibid., 22.

¹⁵⁸Ibid., 111.

¹⁵⁹Ibid., 122.

Transfer of Training

A significant and longstanding problem in American schools is making sure that effective instructional practices find their way into teachers' routine.¹⁶⁰ Carmine noted that many policymakers erroneously assume that practices proven to be effective will automatically transfer to classroom practice.¹⁶¹ Transferring practice to classroom routine is more complex than this, however, being influenced by the methods used to market and disseminate innovations as well as by the staff development activities instituted to promote teacher change and expertise.¹⁶²

A variety of methods have been recommended to enhance teachers adoption of effective teaching methods. Ackland distinguished between two types of coaching: expert coaching and reciprocal coaching.¹⁶³

Expert coaching occurs when one individual with acknowledged expertise observes another and provides support, feedback, and suggestions for change. Reciprocal coaching entails two teachers observing each other and exchanging feedback in an alternating fashion. Although one teacher may have greater expertise the two learn from each other and jointly

¹⁶⁰Cuban, L., Reforming again, again, and again, *Educational Researcher* 19 (1990): 3-13. Richardson, V., Significant and worthwhile change in teaching practice, *Educational Researcher* 19 (1990): 10-18.

¹⁶¹Carmine, D., Expanding the notion of teacher=s rights: Access to tools that work, *Journal of Applied Behavior Analysis* 25 (1992): 13-19.

¹⁶²Browder, D., Educating students with severe disabilities: Enhancing the conversation between research and practice, *The Journal of Special Education* 31 (1997): 37-44. Tyack, D., and Cuban, L., *Tinkering toward utopia: A century of school reform* (Cambridge, MA: Harvard University Press, 1995).

¹⁶³Ackland, R., A review of peer coaching literature, *Journal of Staff Development* 12 (1991): 22-24.

improve their instructional capacity.¹⁶⁴

Showers stated:

...that reciprocal coaching provides a safe environment in which to learn and perfect new teaching behaviors, experiment with variations of strategies, teach students new skills and expectations inherent in new strategies, and thoughtfully examine the results.¹⁶⁵

Joyce and Showers in their research on the coaching of teaching have identified five elements that must be present in training if that training is to be transferred to the classroom so that it can impact students: "theory, demonstration, practice, feedback, and coaching."¹⁶⁶

Joyce and Showers define theory:

....as the rationale behind the skill or strategy and the principle that governs its use. It gives a mental image of the skill and all relevant research. It also provides a framework for feedback and measurement. This element is most common and is present in all training sessions. Typically this is the only element that exists in training sessions.¹⁶⁷

The second element, demonstration, means that the trainer simulates the skill or models the skill in action under training conditions. For example, this could take place in a setting similar to the workplace. It gives the participants a chance to perceive the skill through the eyes of the learner. Often teachers leave a training session believing that if they saw the trainer demonstrate the skill, then they can do it. This point is recognized by

¹⁶⁴Ibid., 23.

¹⁶⁵Showers, 1985, 42.

¹⁶⁶Ibid.

¹⁶⁷Gottesman and Jennings, 10.

Gottesman and Jennings, when they stated years later: "The disillusion comes when the teacher returns to the classroom and finds he or she still cannot perform the skill."¹⁶⁸

The third element, practice in training, involves guided practice in the presence of the trainer who has demonstrated the skill. Participants have a chance to practice the skill in training conditions. They practice with a partner in a controlled environment.

The next element is feedback. "Feedback is defined as giving information about a skill once it has been performed. Feedback must be specific to be effective. In addition, feedback is non-evaluative because it is simply a replay of the facts."¹⁶⁹

Training has included all four of these elements, but with all four present, there is still a low percentage of transfer. Joyce and Showers' research posited that:

... 5% of learners will transfer a new skill into their practice as a result of theory, 10% will transfer a new skill into their practice with theory and demonstration, 20% will transfer a new skill into their practice with theory, demonstration, and practice within the training, 25% will transfer a new skill into their own use with theory, demonstration, practice within the training, and feedback, and 90% will transfer a new skill into use with theory, demonstration, practice, feedback, and coaching.¹⁷⁰

The fifth element that raises the application ratio is coaching. When coaching is added to the four elements, the percentages take a sharp turn upward. Coaching is more than feedback (a replay of facts) and takes place once the teacher is back in the classroom setting. "Coaching assumes that the teacher is ready to move beyond feedback to

¹⁶⁸Ibid.

¹⁶⁹Ibid., 27.

¹⁷⁰Joyce and Showers, 1983, 15.

suggestions, possibilities, planning sessions, and mutual learning.¹⁷¹

Showers' 1983 research involved conducting an experiment on the effects coaching has on transfer. All the teachers received three months of training in a specific skill. Half the group also received coaching back at the school site as they implemented the skill. The other half did not receive coaching.

Results showed that 25% of those who received coaching transferred the skill appropriately to the classroom. In the group that was not coached only 18% transferred the skill to the classroom. In addition, many of the teachers who did not receive coaching delayed using the skills and after six months had lost the skill entirely.¹⁷²

Showers' 1984 study continued the earlier research of the transfer of training of new teaching repertoire and skills as a result of peer coaching. The assumption that transfer occurred once skills have been taught and learned proved incorrect. Showers investigated the transfer problem. Study I was to measure transfer scores of coached and uncoached teachers by conceptual level. Seventeen junior high teachers were trained three hours weekly for two months in three teaching models including the coaching process. After a conceptual level test and interviews, teachers were randomly assigned to a coached or uncoached condition.

The results of the study showed that "coached teachers transferred training at a greater rate than uncoached teachers. Uncoached teachers with higher conceptual levels transferred training at a low rate."¹⁷³ All teachers expressed positive attitudes toward

¹⁷¹Gottesman and Jennings, 20.

¹⁷²Showers, 1983a.

¹⁷³Ibid.

training. In that same research, Showers also found that conceptual learning (cl) was positively related to transfer of training among coached teachers. Six months later follow-up to the study data showed "coached teachers maintained their training at a higher level than uncoached teachers but transfer also increased for both showing support to the 'lay' effect of strong training."¹⁷⁴

Successful transfer of strategy through peer coaching to a specific language arts component was discussed by Kuwait in 1988; Kurth in 1985; and Neubert in 1987. Kuwait's 1988 study showed a trend toward better understanding of teaching strategies and peer coaching process with teachers of limited English proficient students. Kuwait also concluded that peer coaching is a viable staff development for teachers of limited English proficient students.¹⁷⁵

Kurth's 1985 study was to determine if trained teachers acting as peer coaches could help other teachers improve their reading comprehension strategies. Four specific behaviors were selected for the coaching model. Findings showed:

...an increase from 26% to 90% in direct comprehension, a 35% to 64% increase of independent reading level reading during instruction, a decrease of 16% to 8% of non-instructional time during reading class. The study showed that through peer coaching specific changes in teacher behavior occurs.¹⁷⁶

¹⁷⁴Ibid., 8.

¹⁷⁵Kuwait, J., A peer coaching model for teachers of limited English proficient students. Paper presented at the annual meeting of American Educational Research Association, New Orleans, LA (April 1988).

¹⁷⁶Kurt, R., Training peer teachers to improve comprehension instruction. Paper presented at annual meeting of the American Educational Research Association, New Orleans, LA (April 1988).

Neubert's 1987 study followed a variation of Shower's Peer Coaching Model.¹⁷⁷

Twenty teachers (K-12) and two language arts resource personnel participated in a three day program on writing strategies. The resource teachers served as coaches who observed, gave feedback, planned lessons, and team taught.

Quantitative data collected after two years from questionnaire rating of coaches showed the average of all five coaching functions on a 1 to 5 (low to high) scale was 4.6 or above. This analysis distinguished five coach's characteristics which created an effective team coaching process: Knowledge, Credibility, Support, Facilitation, and Availability.¹⁷⁸

Peer coaching was reported by Servatius and Young in 1985; Leggett in 1987 as the model for learning and mastery of new teaching strategies. In Servatius and Young's study a Santa Clara school district trained seven elementary school teachers in peer coaching and two teaching strategies.¹⁷⁹ Teachers were selected to act as advisor coaches to thirty-three volunteers requesting observation and feedback. Feedback was confidential. Project evaluation data were collected from participant feedback and observation logs.

Findings, according to Servatius and Young, showed that the teachers who received both training and coaching are implementing the trained skill correctly and consistently.

In addition, the Educational Development Center of Santa Clara Co. who supported the study concluded it will never again wish to offer training

¹⁷⁷Showers, 1983.

¹⁷⁸Neubert and Bratton, 31.

¹⁷⁹Servatius, J., and Young, S., Implementing the coaching of teaching, *Educational Leadership* (1985): 50-53.

that does not include the element of coaching. We're convinced of its power to effect change.¹⁸⁰

In Leggett's 1987 study the peer to peer model was taught in a twelve hour workshop along with skills in script taking, observation, and feedback. Based on overall positive statements by the participants, peer coaching was found to be "a valuable experience and a means of helping each other develop professionally and an ongoing process to utilize teacher training in the classroom."¹⁸¹

In addition, data drawn from the project in the form of teacher interviews concluded that teacher isolationism was reduced, professional dialogue was generated, and peer coaching provided a continual process for skill improvement in the classroom."¹⁸²

Landrum, in 1990, investigated the impact of peer coaching as a follow-up to a specific training program designed to increase the frequency of teacher initiated higher level cognitive questioning. In general, Landrum found that the frequency of teacher initiated higher level questioning was significantly greater for both groups of teachers who participated in peer coaching. The results of the study support the contentions of experts that inservice training can enhance in the classroom. The use of peer coaching as a follow-up to training appears to improve classroom performance for inservice

¹⁸⁰Ibid., 56.

¹⁸¹Leggett, D., and Hoyle, S., Peer coaching: One director=s experience in using teachers as staff development, *Journal of Staff Development* (1987): 38.

¹⁸²Ibid.

trainees.¹⁸³

In addition, Pogust's 1993 research focused on which staff development factors are effective to help teachers transfer training. In general, Pogust found that peer coaching supported transfer of training with all peer partnerships reaching level II Mechanical use.¹⁸⁴ Both studies concluded that implementation of peer coaching as a follow-up to training appears to transfer new skills to classroom practices.

Summary

The suggestion that teachers could be trained to improve their instruction and that of their colleagues led Joyce to name this method of staff development "Peer Coaching". Peer coaching was also defined by LeBlanc "as a process action plan for problem solving while activating self analysis and creative thinking for the development of a specific skill."¹⁸⁵

Robbins also expands on the definition of peer coaching by stating that peer coaching:

...is a confidential process through which two or more professional colleagues work together to reflect on current practices; expand, refine, and build new skills; share ideas; teach one another; conduct classroom research; or solve problems in the workplace.¹⁸⁶

Depending upon the objectives of the peer coaching program, Garmston described

¹⁸³Landrum.

¹⁸⁴Pogust, 75.

¹⁸⁵LeBlanc and Zide, 26.

¹⁸⁶Robbins, 11.

the differences in technical, collegial, and cognitive coaching.¹⁸⁷ Most peer coaching models incorporated Joyce and Showers "five elements that must be present in training if that training will be transferred to the classroom: thorough demonstration, practice, feedback, and coaching for application. The five steps were applicable to the fine tuning of skills or to learning new teaching strategies."¹⁸⁸ They concluded that, "for fine tuning of skills, presentation and modeling were adequate for some teachers to use the skills routinely in class."¹⁸⁹

As the recommended methods of staff development became less familiar and more complex, however constant feedback was necessary for the majority of teachers. In addition to transfer the training into the classroom, some teachers needed direct coaching before transfer of skills was attained to promote collegiality in the school.¹⁹⁰

According to Robbins isolationism of teachers in school could be reduced through sharing in peer coaching.¹⁹¹

Peer observation and feedback had been used prior to Joyce's description of peer coaching. Dornbusch, and Scott and Smith developed a collegial interaction model similar to the peer coaching model, employing peer observation and feedback to improve

¹⁸⁷Garmston.

¹⁸⁸Joyce and Showers, 1983, 10.

¹⁸⁹Ibid., 1.

¹⁹⁰Ibid.

¹⁹¹Robbins.

teacher effectiveness.¹⁹² Brophy reported that non-judgmental feedback helped teachers monitor and change behavior which aided teachers in goal setting by using Elliot's 1985 peer review study.¹⁹³

In a unique variation of peer coaching Rorschach and Whitney¹⁹⁴ improved their teaching following peer collaboration through observation and feedback. "Trust partners" were discussed by Mello in his peer centered coaching model, described "as giving and receiving feedback in a supportive environment to alter teacher behavior and teacher-student interaction."¹⁹⁵

With the goal of improving teacher effectiveness, various peer programs have been implemented in recent years. As a result of coaching, changes in teacher behavior which routinely affected student outcomes was recorded by Sparks.¹⁹⁶ Sparks' 1987 study of two elementary schools who implemented the peer coaching program rating scale questionnaires revealed "that 70% of the teachers felt that students were learning more

¹⁹²Dornbusch. Scott and Smith. Smith, 1-7.

¹⁹³Brophy, J., Using observation to improve your teaching. Occasional paper no. 21 (East Lansing, MI: Michigan State University, 1979).

¹⁹⁴Rorschach, E., and Whitney, R., Relearning to teach: Peer observation as a means of professional development for teachers. Paper presented at the annual meeting of National Council of States on Inferences Education, Denver, CO (November 22-26, 1985).

¹⁹⁵Mello, L., *Peer-centered coaching. Teachers helping teachers to improve classroom performance* (Idaho Springs, CO: Associates for Human Development, 1984). ERIC ED 276 648.

¹⁹⁶Sparks and Bruder.

due to the peer coaching program."¹⁹⁷

The related literature has shown that transfer of training in skills, models, or strategies supports the basis for Showers' 1983 conclusion that coached teachers show a higher rate of transfer of training than uncoached teachers and utilize new teaching strategies more than uncoached teachers.

The peer coaching model used in this study was based on Joyce and Showers' 1983 theory and Gottesman's 1994 Effective Schools Training Program. The model describes three phases: peer watching, peer feedback, and peer coaching. The final phase, peer coaching, is a five step process: request a visit, visit, review notes and list some possibilities, talk after visit and process review to provide teachers' an easy structure for requesting and receiving a peer critique through a non-evaluative gathering of observed facts. The literature has shown that coaching should implement new training to transfer from staff development into classroom practice.

¹⁹⁷Ibid., 30.

CHAPTER III

PRESENTATION AND ANALYSIS OF DATA

This chapter is divided into three sections. The first section presents a summary of the quantitative data and suggests some patterns emerging from the information. The second section presents the qualitative treatment. Finally, the last section presents the similarities and differences and the related literature where appropriate as it relates to the hypotheses in Chapter I.

Section One - Quantitative Data

The quantitative data were analyzed by using an Independent Sample T test to determine if the differences were significant between the pretest measures. The Independent sample T test also measures the statistical significance of each of the four areas of low profile interventions, cooperative learning, higher order thinking and total composite scores. Both the control and experimental group were analyzed in pretest differences in low profile interventions, cooperative learning, higher order thinking and total composite scores.

In the first area low profile interventions, the Independent Sample T test revealed that there was no a significant difference between the pretest means of both the control standard presentation group and experimental peer coaching group ($T = .208$; $P = .838$). The control mean was 3.00 with a standard deviation 3.53553 and standard error of the mean of 1.58114. The experimental peer coaching group mean was 3.30 with a standard deviation of 2.11082 and standard error of the mean of .66750.

In the second area cooperative learning the Independent Sample T Test revealed that there was no significant difference between the pretest mean of both control standard presentation and experimental peer coaching group ($T = -.452$; $P = .659$). The control standard presentation mean was 2.00 with a standard deviation of 2.73861 and standard error mean of 1.22474. The experimental peer coaching group mean was 1.4 with a standard deviation 2.27058 and standard error of the mean of .71802.

In the third area, higher order thinking the Independent Sample T test revealed that there was no significant difference between the pretest means of both control standard presentation and experimental peer coaching group ($T = -.304$; $P = .766$). The control standard presentation group mean was 4.80 with a standard deviation of 3.11448 and the standard error of the mean of 1.39284. The experimental peer coaching experimental group mean was 7.6 with a standard deviation of 2.41293 and standard error of the mean of .76303.

In the last measure composite total of all staff development areas the Independent Sample T test revealed that there no significant difference between the pretest mean of both the control standard presentation and the experimental peer coaching group ($T = -.366$; $P = .720$). The control standard presentation mean was 9.2 with a standard deviation of 3.49285 and standard error of the mean of 1.56205. The experimental peer coaching mean was 8.40 with a standard deviation of 4.19524 and standard error of the mean of 1.32665.

The quantitative data collection were analyzed using a Dependent T test to determine the difference between pre and post test measures. The Dependent T - test also measures the statistical significance of each of the four hypotheses in the areas of low profile interventions, cooperative learning, higher order thinking, and total composite score. Both the control and experimental group were analyzed in the four main areas on a pretest and posttest differences in low profile interventions, cooperative learning, higher order thinking and total composite score.

In the first area (see Table 1) low profile interventions, the standard control presentation group the difference between the pretest mean of 3.00 and posttest mean was 1.60 was -1.40. The overall Dependent T test revealed that there was not a significant increase from the pretest to the posttest, $t(d.f. = 4) = -0.97543$ $p > .05$. In the first area, low profile intervention, the experimental peer coaching group, the difference between the pretest mean of 3.30 and posttest mean of 6.10 was 2.80. The overall Dependent T - test revealed that there was a significant increase from the pretest to the posttest, $t(d.f. = 9) = 5.467$ $p < .05$.

Table 1. Dependent T-Test - Low Profile Interventions

	Mean	Standard Deviation	T	Significance
Control Pre	3.00	3.53553	.208	.838
Experimental Pre	3.30	2.11082		
Control Post	1.60	.54772	10.408	.000*
Experimental Post	6.10	.87560		

*highly signi

In the second area (see Table 2) cooperative learning, the control standard presentation group, the difference between the pretest mean of 2.00 and the posttest mean of 2.00 was zero. The overall Dependent T test revealed that there was no significant increase from the pretest to the posttest ($t(4) = 0.00$ $p = 0.00$). In the second area, cooperative learning, the experimental peer coaching group, the difference between the pretest mean 1.40 and posttest 5.30 mean was 3.90. the overall Dependent T test revealed that there was a significant increase from the pretest to the posttest, $t(d.f. = 9) = 5.08 < .05$.

Table 2. Dependent T-Test - Cooperative Learning

	Mean	Standard Deviation	T	Significance
Control Pre	2.00	2.73861	-.452	.659
Experimental Pre	1.40	2.27058		
Control Post	2.00	2.73861	3.616	.003*
Experimental Post	5.30	.82327		

*highly significant

In the third area (see Table 3) higher order thinking, the control standard presentation group, the difference between the pretest mean was 4.20 and posttest mean of 4.80 mean was 0.60. The overall Dependent T - test revealed that there was no significant increase from pretest to posttest $t(d.f. = 4) = 0.317$ $p > .05$. In the third area, higher order thinking, the experimental peer coaching group, the difference between the pretest mean of 3.70 and posttest mean of 7.60 was 3.90. The overall Dependent T - test

revealed that there was a significant increase from pretest to posttest $t(d.f. = 9) = 5.08$ $p < .05$.

Table 3. Dependent T-Test - Higher Order Thinking

	Mean	Standard Deviation	T	Significance
Control Pre	4.20	4.02492	-.304	.776
Experimental Pre	3.70	2.40601		
Control Post	4.80	3.11448	1.930	.076*
Experimental Post	7.60	2.41293		

*highly significant

In the last measure (see Table 4), composite total of all three areas of staff development areas, the control standard presentation group, pretest mean of 9.60 and posttest mean of 9.40 was 0.20. The overall Dependent T test composite score revealed that there was no significant increase from the pretest to the post test $t(d.f. = 4) = 0.0583$ $p > .05$. The last measure composite total of all three staff development areas, the experimental peer coaching group, difference mean of 8.40 and posttest mean of 18.90 was 10.50. The overall Dependent T test composites total of all three staff development areas was significant from pretest to posttest, $t(d.f. = 9) = 7.584$ $p < .05$.

Table 4. Dependent T-Test - Composite Scores

	Mean	Standard Deviation	T	Significance
Control Pre	9.20	3.49285	-.366	.720
Experimental Pre	8.40	4.19524		
Control Post	9.40	6.34823	.396	.698
Experimental Post	10.50	4.37798		

Results

Hypothesis #1: Peer coaching had a higher incidence of transferability of staff development to classroom practice. Accepted.

The data in Hypothesis #1 showed that the first hypothesis peer coaching will have a higher incidence of transferability of staff development to classroom practice has been accepted at the 0.1 level. The Dependent T test data show peer coaching mean of 8.40 to mean of 18.90. Overall pretest to posttest measures showed $t (d.f. = 9) = 7.584$ $p < .05$.

Hypothesis #2: Standard Presentation had a higher incidence of transferability of staff development to classroom practice. Not Accepted.

The second hypothesis standard presentation will have a higher incidence of transferability of staff development to classroom practice was rejected at the 0.1 level. The data from the control standard presentation the Dependent T test overall pretest mean of 9.20 to mean posttest of 9.40 showed that 0.058 $p > .05$.

Hypothesis #3: Peer coaching had a lower incidence of transferability of staff development to classroom practice. Not Accepted.

The third hypothesis peer coaching will have a lower incidence of transferability staff development appears to be rejected at the 0.1 level. The data from the experimental peer coaching Dependent T test overall pretest mean of 8.40 to posttest mean of 18.90, overall pretest to posttest measures show $t(d.f. = 9) = 7.584 < .05$.

Hypothesis #4: Standard Presentation had a lower incidence of transferability of staff development to classroom practice. Accepted.

The final hypothesis, standard presentation had a lower incidence of transferability to classroom practice was accepted at the 0.1 level. The data from the Dependent T test comparing the standard presentation to the peer coaching group reveal that the standard presentation overall score mean pretest of 9.20 and the mean posttest of 9.40 total score of 0.058 $t(d.f. = 4) = 0.058 p > .05$. The peer coaching group mean pretest of 8.40 and mean posttest of 18.90 total score $7.584 + (d.f. = 9) = 7.514 p < .05$ is statistically significant.

To summarize, the data from the Independent Sample T test revealed that homogeneity between the control standard presentation and experimental peer coaching groups. There was no significant difference in the pretest of all four areas in both the control standard presentation and peer coaching groups. However, the data from the Dependent T test showed that in three out of the four areas pretest to posttest there is a significant difference between the control standard presentation and experimental peer

coaching groups. The Dependent T test revealed that in the areas of low profile interventions and cooperative learning in total, the experimental peer coaching group grew more significantly between the pretest and post test measures.

Section Two - Qualitative Data

The qualitative data were analyzed by using four readers who followed the procedures as outlined in Chapter I. These readers are all educators and experienced in classroom practice. Each journal was read with a specific focus. The data for the qualitative investigation included the ten journals of teachers engaged in peer coaching and five journals of teachers who received the standard presentation. Each reading session was focused on peer coaching journal entries concentrating on a specific probe (strategies, attitude or evaluation) or the standard presentation entries using the same protocol. The task of the reader was to focus on predominant concepts (themes or patterns) and/or unique statements of similarities or differences in each of the staff development areas (low profile intervention, cooperative learning, and higher order thinking).

The overall visual review of total logs revealed that the peer coaching experimental group had 119 pages of verbiage. The standard presentation group had 68 pages of verbiage. Each reader indicated that the length and quality of the sentences of the experimental group were longer than the control standard presentation group. In addition, the average number of sentences of the both groups was divided per the number of participants. The data revealed that the experimental group had 77 sentences on the average and the control group 70 sentences.

The readers also saw a pattern of a more thoughtful verbiage of the experimental group and more direct application of the staff development to classroom practice in the three areas: low profile interventions, cooperative learning and higher order thinking. For example, in the area of low profile intervention, the logs revealed that experimental peer coaching group mentioned proximity 31 times in the logs and the control group standard presentation only mentioned proximity 13 times in the logs. In addition, the experimental peer coaching group gave more "I" sentences and feelings in the direct application to proximity to classroom practice.

Selected comments from the journals of the standard presentation group and peer coaching are organized according to categories: strategies, attitude and evaluation. Strategies includes comments about what a teacher perceives that he/she plan to deal with classroom behavior. Attitude includes the affect or feeling aspect of each teacher's perception of his/her own behaviors as he/she deals with classroom behavior. Finally, evaluation deals with the teacher's perception of how effective the strategy was in dealing with students' classroom task behaviors.

The qualitative probes that the teachers were given in both the standard presentation and the peer coaching group were: (1) How has your knowledge of low profile intervention techniques influenced your teaching?; (2) How has your knowledge of cooperative learning techniques influenced your teaching?; and (3) How has you knowledge of higher order thinking techniques influenced your teaching?

This section of the chapter is analyzed in three phases:

Phase I: Presentation of selected comments (strategies, attitudes, evaluation) from the standard presentation group and peer coaching group for each probe: low profile intervention, cooperative learning and higher order thinking.

Phase II: Analysis of selected comments (strategies, attitudes, evaluation) from the standard presentation group and peer coaching group for each probe.

Phase III: Comparison of similarities and differences between the two groups, highlighting the prevalent trends and patterns.

Phase I: A. Presentation of selected comments from standard presentation

The following tables represent a sampling of trends and patterns from the standard presentation group. The comments regarding low profile intervention were entered five weeks into the study. The comments regarding cooperative learning were entered ten weeks into the study. The comments regarding higher order thinking skills were entered fifteen weeks into the study. The tables present pertinent phrases of what the participants' perspective of the strategies, attitudes and evaluation in the three areas (low profile intervention, cooperative learning and higher order thinking), after the standard presentation staff development inservice. Information was presented but no other interventions were implemented. Complete comments from all participants are in the Appendix.

Table 5. Low Profile Intervention Strategies - Standard Presentation

Low Profile Intervention Strategies	<p>Jac: ...I simply made eye contact with them for about twenty (20) seconds.</p> <p>Seg: I used the low profile intervention techniques of eye contact to stop a student who taps his pencil....while I'm teaching.</p> <p>Hig: ...low profile intervention techniques has influenced my teaching by allowing me to respond to inappropriate behavior in a variety of nonverbal techniques.</p>
-------------------------------------	--

The journal reports from the standard presentation group relative to the low profile intervention strategies were general and egotistic. None of the comments demonstrated an in depth reflection about the impact of the strategy on students and centered more on what the participants did. Clearly it is important to know how the teachers implemented the strategy; but these comments were superficial.

Table 6. Cooperative Learning Strategies - Standard Presentation

Cooperative Learning Strategies	<p>Seg: I used modeling today for the first time during cooperative learning math lesson.... Today my students worked in small groups to count ordinal numbers.</p> <p>Hig: I decided to structure the groups. Each member in each group is assigned material manager, recorder, time keeper.....</p> <p>Jac: I allowed my students to test a partner by administering a spelling pretest to one another. I had to remind several students that it was not free time.</p> <p>Hig: Cooperative learning techniques are effective yet difficult to establish.</p>
---------------------------------	---

The participants wrote more about 'their' using the cooperative learning strategy but focused less on the difficulties that the students had in 'getting' how to do it. It did not seem that these participants were provided the opportunity for students to practice the major components of cooperative learning, i.e., positive interdependence, promotive interaction, individual accountability, and group processing.

Table 7. Higher Order Thinking Strategies - Standard Presentation

Higher Order Thinking Strategies	Vax: In my opinion, critical thinking is a goal of making a person an independent problem solver.
	Hig: Higher order of thinking skills used in combination with other techniques to maximize student performance.

This strategy floored the participants. Their comments were vague and ambiguous. It appeared that none of them could figure out how to implement this strategy.

Table 8. Low Profile Intervention Attitudes - Standard Presentation

Low Profile Intervention Attitudes	Seg: Drive me crazy before I can successfully ignore them.
	Seg: As soon as I walked near him and looked at him with a long stare, he stopped tapping
	Hig: I have found that one problem with eye contact is that is that some students it does not have a long term effect.
	Jac: I immediately turned my body in a manner...they knew that I meant 'quiet, now', without saying a word.
	Vax: I have noticed that many students do not acknowledge nonverbal behaviors.
	Hig: By using these different strategies I am able to correct behavior problems without drawing or focusing the attention of the whole class with something as simple as a look, shake of the head, or movement.

Again the comments reflected the teachers' attitude as trying to work the strategy with the students but students not behaving or reacting as 'expected' to the teachers' behaviors. In other words, the teachers' attitudes were that the strategies did not work with the students so they probably would not continue to use them. If these perceptions were correct there is no indication in the comments that the teachers were willing to analyze how these attitudes of their students could be improved.

Table 9. Cooperative Learning Attitudes - Standard Presentation

Cooperative Learning Attitudes	<p>Seg: Cooperative learning is much better than role learning. I feel that the lower level students are able to achieve better products because of working with higher level students.</p> <p>Seg: I believe my students enjoy working with partners. I think joint success was celebrated.</p> <p>Hig: Students seem to get "hung up" on who is doing what.</p> <p>Seg: The students thought it was fun.</p> <p>Hig: I have restructured the classroom to allow students to help and seek help among their peers. This is a big adjustment for myself and my class.</p> <p>Hig: I found that grouping students causes many conflicts.....</p> <p>Vax: I enjoy the cooperative learning system and it is usually positive.</p>
--------------------------------	---

The standard presentation group really appreciated this strategy and their attitudes reflected as much. As some reflected on their own practice, this introspection was valuable. However, most participants focused on the negative impact of the strategy on their students, never owning their own ineffectiveness.

Table 10. Higher Order Thinking Attitudes - Standard Presentation

Higher Order Thinking Attitudes	<p>Vax:The outcome was indeed phenomenal.</p> <p>Hig: Students can process information and apply it to other situations.</p>
---------------------------------	---

Although these two entries are positive, there are no specific comments to support these points. There seemed to be lip service only to the attitudes of higher order thinking, no evidence in their reports indicated that any of them truly used this strategy. Statements such as these are excellent public relations but as presented in this context; they are meaningless.

Table 11. Low Profile Intervention Evaluations - Standard Presentation

Low Profile Interventions Evaluations	<p>Seg: Doesn't work [ignoring].</p> <p>Jac: I love using close proximity, it beats yelling at the top of your lungs.</p> <p>Seg: I believe that touching has be used in conjunction with eye contact, name dropping and proximity in order to be effective. It also must be used sparingly so that the shock effect will not wear off.</p> <p>Hig: Results are immediate, but not long lasting.</p> <p>Seg: I noticed that these strategies work, however, for a few severe cases my regular discipline system needed to be used.</p> <p>Vax: They don't seem to notice body language.</p>
---------------------------------------	---

Again, the participants focused on the 'limitations' of students and not of their practice.

Table 12. Cooperative Learning Evaluations - Standard Presentation

Cooperative Learning Evaluations	<p>Seg: My students are expecting a higher level of success....I know that it helped the students gain shared responsibility for each other....</p> <p>Vax: However, this class has super kids but they don't stay on task....since I know it will benefit them, I'll keep trying. Ultimately with a reasonable goal of increased scores on math tests.</p> <p>Hig: Negative side - noise level. For myself, I have to be more patient to allow students to 'converse'. Positive side - certain students have a hard time coming to the teacher for help. They feel more comfortable asking friends....</p> <p>Jac: The lesson was a success. There weren't any behavior problems.</p> <p>Seg: I find their behavior improves over time.</p> <p>Hig: I personally enjoy cooperative grouping. Sometimes as a teacher, it is hard to step aside and let the class go. I find discipline more an issue.</p>
----------------------------------	---

The evaluations were general, marginal and seemed to placate rather than reflect true personal changes in 'their' classroom practice. There was more of a tendency to 'blame' the students, despite these two positive comments about student behavior.

Table 13. Higher Order Thinking Evaluations - Standard Presentation

Higher Order Thinking Evaluations	<p>Vax: It is extremely important not to prejudge a student outcome. Historically the same assignment given with a resource sheet would have not yielded the same result.</p> <p>Hig: Use higher order thinking skills to inspire them as individuals. Take learning to the next step.</p>
-----------------------------------	--

These are very 'superficial' comments. The respondents are attracted to the 'ethereal' notion of higher order thinking but didn't take it personally. The aim of the staff development was to get these teachers to 'own' the strategy and recognize the reciprocity between their practice and their students' successes.

Presentation of selected comments from peer coaching group

The following tables represent a sampling of trends and patterns from the peer coaching group. The comments regarding low profile interventions were entered after five weeks into the study. The comments regarding cooperative were entered ten weeks after the study. The comments regarding higher order thinking were entered fifteen weeks after the study. The tables present pertinent phrases of what the participants' perspective of the strategies, attitudes and evaluation in the three areas (low profile intervention, cooperative learning and higher order thinking), after the standard presentation staff development inservice, along with the intervention of peer coaching techniques. Information was presented with the peer coaching training. Complete comments from all participants are in the Appendix.

Table 14. Low Profile Intervention Strategies - Peer Coaching

Low Profile
Intervention
Strategies

For: Focusing on proximity has made me more aware of the areas in which I stand in class.

Puc: Since I decided to have Kim observe me on my 'proximity' I notice myself doing it more often, especially later in the day.

Bro: Today I looked back on the week, on how my knowledge and awareness of low profile interventions has impacted my teaching. I have noticed that my proximity to the students has gotten better.

Puc: I am really beginning to see a difference.... I am more conscious of walking around the room and keeping circulating. Even by the end of the day, when I'm usually tried to push myself to keep myself closer to the students.

Far: I am getting much more confident with my proximity. It is also helping out with discipline....

Lan: This week I tried eye contact....

Bro:... Body language was my pick of the week. By using more nonverbal cues to reprimand students, I think they were better behaved.

For: Namedropping allows students to stay focused and control behavior while teaching.

Lan: This week I used a combination of name dropping and eye contact.

Bro: Instead of raising my voice when children were not paying attention, I would use my eyes to show that they need to pay attention.

These comments reflected more internalizing or comprehending the deep structure meaning of each component of the strategy presented. They internalized and applied the

strategy.

Table 15. Cooperative Learning Strategies - Peer Coaching

Cooperative Learning Strategies	<p>Bro: Eileen came into observe me today. I wanted to see how cooperative grouping was working in my room.</p> <p>Sul:The jobs will be: recorder, artist, checker, reader....</p> <p>Gra: This time I was able to observe the groups while they studied the material together and were given roles</p> <p>Puc: I divided the class into roughly five groups of six students...</p> <p>For:... It allows them (junior high students) to put their learning into their own hands.</p> <p>Puc: Today we did our second peer watching. I asked Kim to come in and observe me on the individual accountability technique.</p> <p>Jou: A group manager who makes sure everyone is own task. A reader who reads directions, problems and resource materials to group members. A checker who checks for group members' comprehension of material....</p> <p>Jou: Today Mau Sul will observe my science class..... Ms. Sul. Will observe positive interdependence. She will walk around the groups checking to see if each student is engaged....</p> <p>Gra: Since I teach math, I find cooperative learning works ...</p>
---------------------------------	---

This strategy was used across the curriculum. The participants used this strategy. It was apparent that they monitored the strategy with their peer coach to gauge the students' reactions and responses. There was evidence of collegial problem-solving.

Table 16. Higher Order Thinking Strategies - Peer Coaching

Higher Order Thinking Strategies	<p>Pai: This week for higher order thinking the focus was on question asking....</p> <p>Puc: I have decided on comprehension as my skill to work on. I also have thought a lot about it and have decided there are more ways to assess a pupil's comprehension than a pen and paper exam and that will be my strategy to assess them in a variety of ways.</p> <p>For: I have formulated other methods of evaluating students knowledge of content area.</p>
----------------------------------	--

Again, as with the standard presentation participants, this was not an easy strategy to implement or talk about. These participants attempted to understand the essence of higher order thinking, but they did not seem to work with their respective peers to 'figure' out how to apply this strategy consistently.

Table 17. Low Profile Intervention Attitudes - Peer Coaching

Low Profile Intervention Attitudes	<p>Bro: My flow through out the room during lessons in more wide spread. My desk is no longer a place to interact with the children from.</p> <p>Jou: I noticed students paid attention more if I walk around the room checking to make sure the work is being done.</p> <p>Sul: How to keep your mind on these systems as well as the material you are presenting.</p> <p>For: Students knew that I was aware of what was going on everywhere in the room.... Name dropping is also a wonderful technique. Sometimes it does not work with some students as a means of deterring behavior.</p> <p>Puc: I am more confident with myself and the students seem to respond better to be and the curriculum. I feel with me 'milling' around they too are more conscious of staying on task.</p> <p>Puc: I really like the changes I am observing in my self and my classes.... I feel more confident and the children seem to stay focused longer.</p> <p>Pai: I like this strategy because it seems to encourage some participation from the students.</p> <p>Far: I like what I see happening and how I'm feeling about the peer coaching. I was at ease when Kim came in and feel we are going to work well together...If I call on a variety of students, it instantly keeps students on task.</p>
--	---

The attitudes were positive and kinetic. The responses echoed the reciprocity of the energy between the teacher and student and the teacher and his/her peer coach. The rapport between the coach and coachee was positive.

Table 18. Cooperative Learning Attitudes - Peer Coaching

Cooperative Learning Attitudes	<p>Sul: Several children seemed stressed to be working in a group and each group of five has at least one who didn't stay on task. One fault was there was too much reading to do, and the children couldn't hear each other well.</p> <p>Pai:... but a couple of groups were very dependent upon me for assistance and direction.</p> <p>Gra: Seeing the eighth graders in another classroom was an interesting experience - the room set up - the interaction between the students and student-teacher interaction.</p> <p>For: My attitude and that of my students is very receptive to cooperative learning....seem to take this method of learning quite seriously.</p> <p>Puc: ...I thought at first that I would detest it for a multitude of reasons, but I find its not so bad and the students really enjoy it. They are coming to me when they are having problems and getting all members to equally participate but my observation is that they are settling a lot of the matters themselves.</p> <p>Puc: I felt really comfortable with Kim observing. The children seemed to barely notice her presence....</p> <p>Gra: I hear and see wonderful sharing</p> <p>Lan: This worked pretty well but it got a little loud.</p>
--------------------------------	---

The teacher participants were 'watching' their students react to their 'intervention' or strategy. Their responses indicated positive attitudes. By the end of the tenth week, the peer coaches were more comfortable than earlier in the study. Based upon the number and substance, there is evidence that the respondents applied this strategy more than low profile intervention and higher order thinking strategies.

Table 19. Higher Order Thinking Attitudes - Peer Coaching

Higher Order
Thinking Attitudes

Jou: It takes time to develop a child's ability to think critically.

Pai: I fell it is very helpful to use this strategy because the children are encouraged to think about what they read.

Lan: I found myself asking mostly knowledge and comprehension questions because that is what is found in the teacher's guide. There are not too many of the other type.

Lan: I used quite a variety of questions during this lesson. I think you really need to use all kinds of questions to be able to tell if students are really comprehending a math lesson. By asking how they got an answer it helps other students learn.

For: Other methods of evaluating student knowledge are authentic assessments. This allows students to be more creative and not just used test....

There was more reflection on the attitudes of the higher order thinking intervention as respondents struggled to make meaning of this strategy.

Table 20. Low Profile Intervention Evaluations - Peer Coaching

Low Profile Intervention Evaluations	<p>Bro: Low profile interventions really help teach. The peer coaching is going great. Thanks Bill for introducing us to this program.</p> <p>Bro: This helps me to focus on my weaknesses and it seems to work effectively. I am also finding myself away from my desk and moving around the room more. This is great!</p> <p>Lan: This is a helpful strategy which I will continue to use in my classroom.</p> <p>Puc:... I am anxious to see how the last group of the day compared to the others (who did not get the Low Profile Intervention).... I know this is working.... I am seeing results everyday.</p> <p>Far: I actually have mixed feelings about being observed by a peer coach (Kim). I am comfortable with who I selected, but it still makes me a little nervous to have someone come into my room and observe me. I think it's a pretty natural feeling, because Kim says she feels the same way.</p> <p>Far: It seems to me the more I read the literature Bill passed out to us the more aware I am of how I incorporate some of them and didn't even realize it.... I think sometimes I find by the end of the day I just sit in front of the class when I teach and I may be less effective than earlier in the day when I move around more.</p> <p>Lan:I feel this is a good strategy to use for the group of kids I have.</p> <p>Pai: I will continue to use the strategy because it is working with the class.</p>
--------------------------------------	--

These participants evaluated this strategy in terms of student reaction. They valued student 'energy' more their own. They reflected on their own effectiveness. They became more confident.

Table 21. Cooperative Learning Evaluations - Peer Coaching

Cooperative Learning Evaluations	<p>Gra: You could just hear new thoughts abounding and the students did their sharing.</p> <p>Pai: I am impressed that the activity went well and I am considering groups for four for the next cooperative learning activity.</p> <p>Lan: I will continue to use cooperative during math because I feel some students need the one on one or small group atmosphere to help understand concepts.</p> <p>Puc: I feel that my teaching has truly benefited from my increased understanding of cooperative learning. The children really love working in groups and especially doing group presentations. They look forward to group work and get upset on days when no group activities are scheduled.</p> <p>Gra: It's awesome to hear the kids sharing - throwing around algebraic terms that they may just learned.</p> <p>For: I will continue to use cooperative learning. My peer coach was able to give me feedback in the form of a seating chart. This visual allowed me an opportunity to see who was actively working on their part of the assignment.</p>
----------------------------------	--

This was an 'epiphany' for many of the participants. It was like watching a discovery that was right in front of their faces but not thought about before. There was clearly more collegiality as the coaches and coachees tried to make 'sense' of students' behaviors.

Table 22. Higher Order Thinking Evaluations - Peer Coaching

Higher Order Thinking Evaluations	<p>Puc: Though it won't be a "black and white" or "right and wrong" my evaluative processes will still be able to assess whether or not the students have grasped the material. I am really excited about it and I think my enthusiasm is filtering down to them.</p> <p>Lan: I will continue asking different types of questions making sure my students are able to not only give the answer but tell how.</p> <p>Puc: I learned to take some different approaches to the same behaviors and feel I have become a better teacher as a result.</p> <p>For: The use of higher order thinking skills and questions helps prepare students for standardized tests. Therefore, it is an excellent method to use in the classroom.</p> <p>Puc: I find also asking the students to write journal entries, kind of putting themselves into the story really works well too.</p> <p>Lan: I will continue asking different types of questions making sure my students are able to not only give the answer but tell how.</p>
-----------------------------------	--

This was a difficult task for all respondents. The peer coaching participants began to pull out what they could understand and apply. Clearly, this group looks forward to improvement 'later on' with the higher order thinking strategy.

Phase II: Analysis of Selected Comments from standard presentation and peer coaching group

Lower Profile Intervention: Standard Presentation Group

The strategy for ignoring was tried and used by the standard presentation groups. The purpose of the strategy was to bring the students back on task. It included sub-strategies: ignoring, proximity, eye contact, body language, name dropping and

comments from readers. The focus for most of these participants was on the strategy and not on their reflection on how it affected the behaviors of the students. Seg said, " I have a problem with ignoring because some of my students who shout out answer." The same held true for proximity and eye contact. Sal said: " I have to tell them that I am going to embarrass them by holding their hands."

From the comments: eye contact and body language were the popular strategies the study participants listed. The comments seemed to reflect their use of few of the low profile intervention strategies and superficial specific student responses to their behaviors.

Lower Profile Intervention: Peer Coaching Group

This group seemed to reflect on the changes in its behaviors and its general effect on the students' behaviors. Bro: "Today I looked back on the week, on my knowledge and awareness of low profile interventions has impacted my teaching. I have noticed that my proximity to the students has gotten better." Puc: " ...I have tried to push myself closer to the students." Pai: " I have increase my used of nonverbal teacher behavior...". For: "I am trying to be more aware of my use of name dropping."

Additionally, this group acknowledged the peer participation. Puc: "Since I decided to have Kim observe me on...." Additionally, there was a feeling that these strategies would affect the climate of the room. Puc: "I am getting much more confident with my proximity, it is also helping out with discipline."

Cooperative Learning: Standard Presentation

The sub-strategies of cooperative positive interdependence, promotive interaction (face to face verbal interaction patterns), individual accountability skills (assessing how each member is contributing to the group's work), interpersonal skills (social skill of collaboration and trusting/accepting each other) and group processing (members discuss how well they are working and achieving their goals). It appeared only two of the Standard Presentation participants consciously dealt with the group goals. Hig said, " I decided to structure the groups. Each member in each group will assigned a specific task a) material manager; b) recorder; c) time keeper," Seg said, " Today we used cooperative learning in reading. Students worked in cooperative groups...."

From the comments this group did not "accept" the strategy as something to master. The participants' perspective was on the limitations of the strategies than the possibilities. Seg commented, "Drives me crazy before I can successfully ignore them." Jac said, "Students automatically understand that utilizing nonverbal strategies is a way to solve problems that may create a flaw in what's being taught/learned." Vax said: " I have noticed that many students do not acknowledge nonverbal behaviors. Jac limited the effect of name dropping with, " I simply included their names as I continued to lecture."

Additionally this group also reflected their feelings on positive interdependence with mixed interpretations. Seg said, "I learned that putting students in cooperative learning groups and giving them a specific job like materials monitor or cheerleader, they behaved much better in a cooperative learning group." Hig said, " Students seem to get

hung up on who is doing what." Seg also said, "I think the group work went well and the partners were able to work quietly. I am pleased with the maps, they turned out great."

The evaluation comments from the standard presentation participants did not suggest any special attention to the strategies as a transfer to classroom practice. Jac said, "I utilize other strategies that will stop the behavior." Seg said, "Doesn't work." Seg further added: "I believe that touching has to be used in conjunction with eye contact, name dropping, and proximity to be effective." It must also be used sparingly so that the shock effect will not wear off." Hig said, "Results are immediate, but not long lasting."

Only two participants dealt with group goals as presented in the inservice. Hig said, "I decided to structure the group. Each member will be assigned a specific task..."

Cooperative Learning: Peer Coaching Group

Again, the peer coaching group acknowledged their peer observers. Jou: "Today Mau will observe my class." Bro: "Eil came into observe me today." Too, the peer observers acknowledged their peer observees. Gra: "This time I was able to observe the groups while they studied the material together...". Gra: "I was to watch for individual accountability among the student groups.... I was interested to see how another teacher would implement this strategy [individual accountability]."

The teacher participants seemed to assign roles and responsibilities to the student groupings as presented in the initial inservice. Sul: "The jobs will be: recorder, artist, checker, reader and encourager." Jou: "A group manager who makes sure everyone is on task. A reader who reads directions, problems and resource materials to group members. A checker who checks for group members' comprehension of material. A checker..."

The Cooperative Learning Strategy was used in a variety of subjects. Sul: "The task will be for the groups to give examples of the three states of matter and then explain..." Pai: " I decided to start slowly with cooperative learning by putting the students in groups of two for an addition Math game." Jou: "We did a Science experiment on electricity...". Lan: " I tried cooperative learning in Math today."

The journal entries reported their and students' reactions as positive. Puc: " I chose individual accountability and I have discussed with the class that they too will play a role in each others' grades. They like the fact that have given power." Jou: " They were very interested and paid attention..." For: " I feel that cooperative learning is a wonderful instructional strategy to use with junior high students. It allows them to put their learning in their own hands." Puc: " The groups are working out pretty good...". Gra: "Since I teach math, I find cooperative learning works beautifully for me...."

Higher Order Thinking: Standard Presentation

The sub-strategies of higher order thinking included: knowledge, comprehension, application, analysis, synthesis, and evaluation. Only two participants commented on higher order thinking. Limited information was given. Vax said, "The results were each child worked independently and were successful. I have twenty-seven students for this class." Hig said, " Students can process information and apply it to other strategies.

In addition, there were only pertinent comments in the evaluation section on higher order thinking. Vac said, "It is extremely important not to prejudge a student outcome. The same assignment would not have even yielded the same results." Hig

commented: "The use of high order thinking skills is used to inspire students and take learning to the next step."

The standard presentation participants focused more on maintaining previous belief systems and less on personal reflection and reaction of students. The prevailing themes were the limitations of strategic and regarding the students as exhibiting no response or expected response.

Higher Order Thinking: Peer Coaching

Most participants used higher order thinking questions and recognized the types of questions were on the lower level of thinking - recall and not inference (higher level thinking questions and/or responses). Jou: "During discussion in all subjects, I used critical thinking questions. The students are more apt to answer questions accurately concerning recalling events in the story than inference question." For: " I asked questions based on reading in the book. Most questions are knowledge based on answers found right in the reading." Puc: "... I ask the students to tell me in their own words what we just read. If they leave out something important I will carefully mention it. Then it seems when I call on the next student to give me their interpretation they will mention the fact."

Some participants were more reflective on the skill needed to ask higher order thinking questions. Puc: " I have decided on comprehension as my skill to work on. I have also thought about a lot it and have decided there are more ways to asses a pupil's comprehension than a pen and paper exam...."

Phase III: Comparison of Similarities and Differences

Table 23. Similarities of Patterns and Trends Between Each Group

Concept/Strategy Big Ideas	Standard Presentation Patterns and Trends	Peer Group Patterns and Trends
1. Cooperative Learning Journal	Largest responses in journal entries. More responses to the strategy journal sections.	Largest response in journal entries. More responses to both the strategy and attitude sections of the journals.
2. Higher Order Thinking Journal Entries	Fewest responses in journal entries.	Fewest responses in journal entries.
3. Cooperative Learning Across the Curriculum	These participants found use for this 'technique/strategy' for math and language arts.	These participants, also found this technique/strategy for most every subject and grade level.
4. Management of the Higher Order Thinking Components	Neither group seemed clear on how to use the higher order thinking components presented in the original staff development presentation.	These participants seemed to recognize that they did not have a grasp of how to employ higher order thinking question asking strategies.
5. Cooperative Learning Groups	Both groups favored cooperative learning strategies and found it to be the most useful for classroom practice.	Found the most use of the cooperative learning strategies among all the strategies presented.
6. Increased time on Instructional Behaviors	Both seemed to (perhaps) because of the journal process to be focused on 'highlighting' their instructional 'prowess'.	Clear that this group was engaged in task analysis of the content taught and the delivery of instruction.

Table 23 (continued)

Concept/Strategy Big Ideas	Standard Presentation Patterns and Trends	Peer Group Patterns and Trends
7. Identification of Professional Concerns	Both groups 'chose' strategies that they thought would work with the group of students they were working with. However, none of these participants seemed willing to challenge themselves to 'try' something different except the had not foray into cooperative learning.	Participants chose >easy= strategies - ones they thought they could work - only to discover they really challenged themselves.

1. Both groups wrote more about cooperative learning strategy than any of the other strategies. Each group found utility in using the cooperative learning strategies as presented in the inservice. However, the standard presentation group did not refer to the cooperative learning structures as much as the peer coaching group.

2. Both groups shunned the higher order thinking strategy. Neither group wrote much about this strategy; although the peer coaching group reflected more on how it was not a part of their general practice.

3. Each group 'discovered' the joys of cooperative learning across the curriculum. Each group reported using this strategy in math, language arts and for the peer coaching group, science. Student grouping for instruction was highlighted and popular for both groups toward teaching content without direct teacher involvement. Standard presentation group complained about the noise and student misbehaviors, whereas, the peer coaching group applied the inservice information (components) to increase student

curricular engagement.

4. Neither group managed the higher order thinking components: knowledge, comprehension, application, analysis, synthesis, and evaluation. The standard presentation did not acknowledge any of the components in their journal entries. Whereas, the peer coaching group recognized the difficulty in transferring and/or translating the higher order thinking components into 'useable' tools for classroom practice.

5. Of all the strategies, each group used cooperative learning the most.

6. Whether it was a function of 'having' to report instructional practices in a journal or the actual information from the inservice, each group of teachers probably focused 'more' on their instructional behaviors.

7. From the cluster of skills offered at the inservice, each participant 'chose' what he/she thought was already in his/her own repertoire. The peer coaching group seem to make professional 'discoveries' about how these strategies made them challenge their own beliefs about their practice. The standard presentation group had 'been there, done that' attitude.

Differences of Patterns and Trends Between Each Group

Table 24. Differences of Patterns and Trends Between Each Group

Concept/Strategy Big Ideas	Standard Presentation Patterns and Trends	Peer Group Patterns and Trends
1. Low Profile Intervention	Limited focus on the strategy as it related to student.	More focus on student reactions than personal feeling about the strategy
2. Reflection of Class Practice	Little or no reflection on their own classroom practice - most reported that they 'already' do this strategy.	These participants made discoveries about themselves as they thought about and used the various strategies.
3. Focus on student reactions	More focus on teachers' reactions to the strategies	Most participants focused on the reactions of the students
4. Reduction in professional vulnerability	These participants seem to 'blame' the students for ineffectiveness of the strategies.	Participants seemed to gradually accept an observer and interact with a strong focus on their effectiveness in using the strategy and its use to increase student engagement.
5. Using the linguistic structures presented in the original staff development	Participants in this group assumed a general knowledge of low profile intervention, cooperative learning and higher order thinking and did not particularly follow the linguistic structures presented in the original staff development.	Participants in this group used the structures and common language of each of the strategies presented.

Table 24 (continued)

Concept/Strategy Big Ideas	Standard Presentation Patterns and Trends	Peer Group Patterns and Trends
6. Evidence of professional behavior changes - transfer of learning	When a strategy was deemed as good - the reaction of the participants was that the strategy would not have a lasting affect.	These participants saw their own classroom behaviors as changeable and they changed as they made >discoveries= about themselves and the alterations from their 'usual' classroom behaviors.
7. Collegiality	Participants did not refer to any other colleagues when using any of the strategies.	Peer coaches began to rely on their colleagues= objective feedback on their 'performance' of the strategy.
8. Level of professional energy and renewal	These participants did not seem willing to try a strategy again; looking 'turned off' with student misbehaviors that were interpreted as a failure of the strategy or student and not them.	Enthusiastic, full of energy, forward to self effectiveness and >wondering= if student academic results will change - recognizing that if they change more than likely the student results will change.

1. The standard presentation group focused on how they felt about the strategy and less on student reaction. They were less student-centered. They did not seem to relate the strategy as a successful intervention as it affected student behavior. The peer coaching group's journal responses focused more on student reaction to their behaviors.

2. The standard presentation group were not challenged by the strategies, whereas, the peer coaching group was far more focused on how their behaviors affected student outcomes.

3. The standard presentation group wrote about how the students could not successfully 'accept' the various strategies, e.g., students were immature, too noisy, not used to this, etc. The peer coaching group wrote about how interested they were in seeing if the student behaviors on tests, etc. would change.

4. The standard presentation group 'blamed' the students for their own inability to engage students. Whereas, the peer coaching shouldered the responsibility for student engagement and achievement.

5. The standard presentation group did not develop a common language because they had no opportunity to interact, share ideas or develop professional collegiality. The level of communication was a single loop. The peer coaching group definitely developed common language to talk about the strategies. Therefore, they engaged, with their peers in professional dialogue about teaching and learning. This helped to create a community of learners. The level of communication was at least a double loop.

6. There was a shelf life or limit of the application of the intervention strategies

for the standard presentation group. The peer coaching group felt they were change agents or at least catalysts in the change process. There was definite paradigm shift for this group from 'sit and get' to exchange - whereby learning and teaching is reciprocal.

¹Bolan, L., and Deal, T., *Reframing organizations* (San Francisco, CA: Jossey Bass, 1990).

²Ibid.

7. The standard presentation group was isolated and received no substantive feedback. Whereas the peer coaching group was 'connected' and supported when trying their strategy. This group reported receiving ongoing feedback.

8. Clearly, the peer coaching group was 'turned on' by having another colleague view their practice and view others practice in a non threatening manner.

Section Three: Comparison of Qualitative and Quantitative Results

Hypothesis #1: Peer coaching had a higher incidence of transferability of staff development to classroom practice. Accepted.

Qualitative results indicate that the peer coaching had a higher incidence of transferability of staff development because the participants/respondents in the peer coaching group 'practiced' the information presented in the initial standard presentation. This group also reported that being 'observed' by and talking with their peer partners enabled them to 'think' about their classroom behaviors and discuss both choices and challenges.

Quantitative statistics clearly indicate in three out of the four measures (low

profile intervention, cooperative learning, higher order thinking questions and the composite scores) that peer coaching transfers the staff development presented.

The data in Hypothesis #1 showed that the first hypothesis peer coaching had a higher incidence of transferability of staff development to classroom practice. Again, the Dependent T test data showed peer coaching mean of 8.40 to mean 18.90. Overall pretest to posttest measures showed $t (d.f. = 9) = 7.584 p < .05$.

Hypothesis #2: Standard Presentation had a higher incidence of transferability of staff development to classroom practice. Not Accepted.

Qualitative results for the standard presentation had some instances of agreement of transferability of the staff development especially in the cooperative learning area. Most of the participants/respondents focused on themselves instead of the students and reported that they had already used or tried most of the techniques of the strategies presented in the staff development.

The Quantitative results had a higher incidence of staff development to classroom practice. The data from the control standard presentation the Dependent T test overall pretest mean of 9.20 to mean posttest of 9.40 showed that $0.058 p > .05$.

Overall, both the quantitative and qualitative results showed that the standard presentation group without peer coaching did not support or sustain the ideas presented in the initial staff development sessions.

Hypothesis #3: Peer coaching had a lower incidence of transferability of staff development to classroom practice. Not Accepted.

Qualitative results indicate peer coaching had a higher incidence of transferability based on the journal entries. The entries showed the peer coaching participants reflected on their classroom practice, were willing to try the strategies presented and then talk about their perceived successes and failures.

Quantitative results of the third hypothesis that peer coaching will have a lower incidence of transferability staff development was rejected at the 0.1 level. The data from the experimental peer coaching Dependent T test overall pretest mean of 8.40 to posttest mean of 18.90, overall pretest to posttest measures show $t(d.f. = 9) = 7.584 < .05$.

Hypothesis #4: Standard Presentation had a lower incidence of transferability of staff development to classroom practice. Accepted.

Qualitative results supported the hypothesis that the standard presentation group had a lower incidence of transferability of staff development to classroom practice. The standard presentation group did favor the 'gestalt' of the cooperative learning strategy but missed using the details and procedures that were suggested in the initial staff development.

The quantitative results of the standard presentation group statistically showed a lower incidence of transferability to classroom practice. The data from the Dependent T test comparing the standard presentation to the peer coaching group reveal that the standard presentation overall score mean pretest of 9.20 and the mean posttest of 9.40 total score of 0.058 $t(d.f. = 4) = 0.058 p > .05$. The peer coaching group mean pretest of 8.40 and mean posttest of 18.90 total score $7.584 + (d.f. = 9) = 7.514 p < .05$ is statistically significant.

CHAPTER IV
SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND
SUGGESTIONS FOR FURTHER STUDY

Summary

The purpose of this study was to examine the implementation of peer coaching as compared to no coaching (standard presentation only) on the transferability of staff development in grades one through eight. Quantitative and qualitative data were collected at the beginning and end of the study. The quantitative data were collected by classroom observation of three areas of staff development tallies: low profile interventions, cooperative learning, and higher order thinking. The peer coaching and standard presentation participants reported in journals their responses to three questions probes. The three probes focused on the strategies, attitude, evaluation, and application of low profile interventions, cooperative learning, and higher order thinking to classroom practice. A qualitative analysis was made by the study director to gather data on variables that could not be included in the statistical treatment.

At the beginning of the fifteen week study, quantitative analysis was assessed in both groups to establish a baseline. Both groups received standard presentation staff development training together in three areas: low profile interventions, cooperative

learning, and higher order thinkings. Each staff development session was presented by the study director.

The control group was composed of five teachers in grades one through eight who were randomly selected and received standard presentation only and no training in peer coaching. The experimental group peer coaching was composed of ten teachers in grades one through eight who volunteered to be involved in the study. The teachers were organized into teams of two: five peer coaching teams. Each experimental group peer coaching teacher chose his/her own partner to work with during the study.

The experimental group was trained by the study director using the Gottesman Jennings Model of Peer Coaching in three phases: peer watching, peer feedback, and true peer coaching. The five peer coaching teams met bi-monthly with the study director to ensure uniformity of training on each of the three phases of peer coaching. The data collection consisted of quantitative and qualitative analysis of the three probes. The quantitative analysis was gathered by a collection of data from the observation sheet of four trained interaters. The quantitative data pretest to posttest was analyzed by both Independent and Dependent T tests. The control and experimental groups also kept weekly journal logs to gather qualitative data narrating the implementation of the three staff development sessions in strategies, attitude, and evaluation. The study director monitored each individual participant's log to analyze similarities and differences with response patterns.

Conclusions

The results of the quantitative data from the Dependent T test revealed that in three out of the four areas pretest to posttest: low profile interventions, higher order thinking, and total composite score (i.e., all three staff development areas combined), there is a statistically significant difference between the control standard presentation and the experimental peer coaching groups at the 0.1 level. Although the sample size in this study is small, the fact that the results showed that there is an increase of two standard deviations from mean, an increase in the number in the sample would lead to greater increases in the means.

Hypotheses #1: Peer coaching will have a higher incidence of transferability of staff development to classroom practice. Accepted.

Quantitative statistics clearly show in three out of the four measures (low profile intervention, cooperative learning, higher order thinking questions and composite scores) that peer coaching transfers the content of the staff development to classroom. The data in Hypothesis #1 showed that the first hypothesis peer coaching had a higher incidence of transferability of staff development to classroom practice. Again the Dependent T test revealed peer coaching pretest mean of 8.40 to posttest mean of 18.90. Overall pretest to posttest measures showed $t(d.f. = 9) = 7.584 < .05$.

Qualitative results revealed that peer coaching had a higher incidence of transferability of staff development because the participants in the peer coaching group "practiced" the information presented in the initial standard presentation as evidenced in their journal. This group also reported that being observed by and talking with their peer

partners enable them to think about their classroom behaviors and discuss both choices and challenges:

Hypothesis #2: Standard presentation had a higher incidence of transferability of staff development to classroom practice. Not Accepted.

The quantitative results had a higher incidence of staff development to classroom practice. The data from the control standard presentation the Dependent T test overall pretest mean of 9.20 to posttest mean of 9.40 showed that $0.058 p > .05$. Overall, both the quantitative and qualitative results showed that the standard presentation group without peer coaching did not support or sustain the ideas presented in the initial staff development sessions.

However, the Qualitative results did not support the hypothesis for the standard presentation entirely because there was evidence in the agreement of transferability of the staff development of cooperative learning to classroom practice. Because most of the participants focused on themselves instead of the students and reported that they had already used or tried most of the techniques of the strategies presented in the staff development. Therefore, the applicability of staff development was not enhanced.

Hypothesis #3: Peer coaching had a lower incidence of transferability of staff development to classroom practice. Not accepted.

Quantitative results of the third hypothesis that peer coaching will have a lower incidence of transferability of staff development was not accepted at the 0.1 level. The data from the experimental peer coaching Dependent T test overall pretest mean of 8.40 to posttest mean of 18.90, overall pretest to posttest measures show $t (d.f. = 9) = 7.584 <$

.05.

Qualitative results reveal that peer coaching participants had a higher incidence of transferability based on the journal entries. The entries showed the peer coaching participants reflected on their classroom practice, were willing to try the strategies presented, and then talk about their perceived successes and failures. These activities were not specified in the standard presentation group.

Hypothesis #4: Standard presentation had a lower incidence of transferability of staff development to classroom practice. Accepted.

The Quantitative results of the standard presentation group statistically showed a lower incidence of transferability to classroom practice. The data from the Dependent T test comparing the standard presentation to the peer coaching group reveal that the standard presentation overall score mean of 9.20 total score of 0.058 $t(d.f. = 4) = 0.058$ $p > .05$. The peer coaching group mean pretest of 8.40 and mean posttest of 18.90 total score 7.584 $t(d.f. = 9) = 7.514$ $p > .05$ is statistically significant.

Qualitative results supported the hypothesis that the standard presentation group had a lower incidence of staff development to classroom practice. The standard presentation group did favor the "gestalt" of the cooperative learning strategy, but missed using the details and procedures that were suggested in the initial staff development.

To summarize, the data from the Independent sample test and journal entries revealed to show homogeneity between the control standard presentation and experimental peer coaching groups. The peer coaching experimental group participants quantitative and qualitative data probes from their journals demonstrated a high degree of

transferability of the information presented in the initial staff development to classroom practice, whereas, the control standard presentation group was unable to sustain prolonged interest and applicability.

Recommendations Based on Conclusions

- 1) Administrators should emphasize the value of peer coaching to fellow colleagues.
- 2) Administrators should provide time and higher priority for peer coaching as a means of improving classroom instruction.
- 3) Administrators should have follow up studies to evaluate the implementation of peer coaching in a formalized way.
- 4) Administrators should use peer coaching as a vehicle to promote positive morale among staff.
- 5) Administrators should use advantages peer coaching to publicize the values of peer coaching to the community.
- 6) Administrators should analyze the applicability of peer coaching to essential aspects of No Child Left Behind legislation.

Suggestions for Further Study

- 1) Replicate the study with larger sample.
- 2) Study the long term benefits of peer coaching.
- 3) Study the role of the administrator in leading the staff into peer coaching.
- 4) Study the presentation and implementation of peer coaching.
- 5) Study the role of peer coaching among administrators.

6) Study motivation intrinsic and extrinsic factors to promote peer coaching.

7) Study the relationships of peer coaching to the No Child Left Behind legislation.

To summarize, the data from the Independent Sample T test and journal entries revealed to show that homogeneity between the control standard presentation and experimental peer coaching groups. The peer coaching group participants(experimental) via data and their own journal entries demonstrated a high degree of transferability of the information presented in the initial staff development to classroom practice, whereas, the standard presentation group (control) was unable to sustain either interest or application of the staff development information.

APPENDIX A

STAFF DEVELOPMENT IN THREE AREAS: LOW PROFILE INTERVENTIONS,
COOPERATIVE LEARNING, AND CRITICAL THINKING

DISCIPLINE: LOW INTERVENTION TECHNIQUES
CLASSROOM MANAGEMENT

COMBINED STAFF DEVELOPMENT LEE ELEMENTARY SCHOOL
AND EBERHART ELEMENTARY SCHOOL
AGENDA MARCH 30, 2001

Part I

- I. Introduction School Discipline in Perspective
 - A. Perceptions of the Discipline Problem
 - B. Common Classroom Behavioral Problems
 - C. Barriers to Good Discipline
 - D. General Guidelines Behavioral Management

- II. Techniques of Misconduct Prevention
 - A. Alerting/Cueing
 - B. Monitoring
 - C. Modeling

- III. Low Profile Control Techniques (Dr. McDaniel, 1986)
 - A. Definition
 - B. Advantages
 - C. Five Low Profile Control Techniques
 - 1. Ignoring
 - 2. Proximity
 - 3. Eye Contact
 - 4. Gestures Body Language
 - 5. Name Dropping

DISCIPLINE: LOW INTERVENTION TECHNIQUES
CLASSROOM MANAGEMENT

COMBINED STAFF DEVELOPMENT LEE ELEMENTARY SCHOOL
AND EBERHART ELEMENTARY SCHOOL
AGENDA MARCH 30, 2001

Part II

- IV. Activity I Table Task Practice Low Profile Control Techniques AThe Behavior Game@
- A. The teacher will create a six minute lesson in any subject
 - 1. The criteria is to redirect the five students misbehavior
 - 2. Using the five low profile techniques
 - 3. The teacher will then rotate to a new position after each student has performed their behavior from their card.
 - B. The timer will observe and record.
 - C. The students the other four members have chosen a misbehavior card and will role play the misbehavior.
 - D. Rules:
 - 1. Only one misbehavior may be role played at a time.
 - 2. Each student may not act out their misbehavior until the previous student=s behavior has been redirected by the application of low profile techniques.
 - 3. Each group member will get an opportunity to be the teacher and misbehaving student.
 - 4. Teachers who overplay their misbehavior role during the game at the discretion of their principal are subject to Mr. Truesdale=s Famous Friday Afternoon Detention 2:30 p.m. to 6:00 p.m.!!!

DISCIPLINE: LOW INTERVENTION TECHNIQUES
CLASSROOM MANAGEMENT

COMBINED STAFF DEVELOPMENT LEE ELEMENTARY SCHOOL
AND EBERHART ELEMENTARY SCHOOL
AGENDA MARCH 30, 2001

Part III

- V. Activity II Table Task Group Project Presentation
- A. Each of the 12 Tables will choose a Task Card
 - B. The Table will then be responsible for Demonstrating and Presenting the Task for the Entire Group
 - C. There are 5 Low Profile Control Technique Cards and 7 Surprise Cards on Classroom Management
 - D. Rules:
 - 1. All group members are expected to participate in the group presentation.
 - 2. Groups may be as creative as possible to teach your task to the entire group using visual aids, humor, and role play.
 - 3. Time Limits each group is limited to six minutes to prepare and six minutes to present.
- VI. Summary and Conclusion
- Behavioral Management Self Assessment Survey

COOPERATIVE LEARNING

COMBINED STAFF DEVELOPMENT LEE ELEMENTARY SCHOOL AND EBERHART ELEMENTARY SCHOOL AGENDA AUGUST 30, 2001

- I. Definitions
 - A. Cooperative
 - B. Competition
 - C. Individualistic
- II. What is Cooperative Learning?
- III. Cooperative Learning and Traditional Grouping
- IV. Basic Elements of Cooperative Learning
 - A. Positive Interdependence
 - B. Face to Face Promotive Interaction
 - C. Individual Accountability
 - D. Interpersonal Small Group Skills
 - E. Group Processing
- V. Small Group Activity
- VI. Sample Lesson Plans for Cooperative Learning
- VII. Questions and Answers

HIGHER ORDER THINKING

COMBINED STAFF DEVELOPMENT LEE ELEMENTARY SCHOOL AND EBERHART ELEMENTARY SCHOOL AGENDA AUGUST 30, 2001

- I. Overview of Higher Order Thinking
- II. The Triangle of the 3 C=s
Cognitive Functions
Concepts
Content
- III. S - H - O - R Learning Model
- IV. The Pre Steps Motivation
- V. 6 Steps to Higher Order Thinking
Knowledge
Comprehension
Application
Analysis
Synthesis
Evaluation
- VI. Group Activity
- VII. Sample Lesson Plans
- VIII. Questions and Answers

APPENDIX B

THE GOTTESMAN-JENNINGS MODEL OF PEER COACHING

Peer Coaching in Five Steps
(Gottesman Model)

- A. Request a Visit
- B. Visit Observe
- C. Review Notes and List Possibilities
- D. Talk After Visit
- E. Process Review

Peer Coaching in Three Phases
(Gottesman Model)

- A. Peer Watching
- B. Peer Feedback
- C. True Peer Coaching

Three Phases of Peer Coaching

- I. Peer Watching (2 months)
 - A. Four visits to another classroom
 - 1. Noted on record
 - 2. No feedback
 - B. Videotapes of self
 - 1. Four lessons taped and watched
 - 2. Four tapes erased
- II. Peer Feedback (2 months)
 - A. Training Session: Five Steps of Peer Coaching
 - B. Coach offers no suggestions
 - C. Four feedback sessions with peer, with no suggestions, just feedback of data
- III. Peer Coaching (2 months)
 - A. Review of Five Steps
 - B. Coach offers suggestions when asked
 - C. Four visits and four true Peer Coaching sessions

Five Steps of Peer Coaching

- 1. Request a visit (5 minutes)
- 2. Visit (10 minutes)
- 3. Review notes and list some possibilities (5 minutes)
- 4. Talk after the visit (10 minutes)
- 5. Process Review (3 minutes)

APPENDIX C
PREOBSERVATION AND POSTOBSERVATION FORMS

Interater Pre-Observation Sheet

Teacher Observed _____ Grade _____
 Date _____ Time _____

ITEM

LOW PROFILE INTERVENTIONS

Nonverbal Teacher Behavior

Ignoring

Proximity

Eye Contact

Body Language

Name Dropping

Total Score

TASK

Tallies # in 10 minutes

COOPERATIVE LEARNING

Student Behavior

Positive Interdependence

Individual Accountability

Promotive Interaction

Interpersonal Small Group

Group Processing

Total Score

Yes/No 10 minutes

HIGHER ORDER THINKING

Teacher Question Asking Strategies

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Total Score

Tallies # Questions 10 minutes

Interater Post-Observation Sheet

Teacher Observed _____ Grade _____
 Date _____ Time _____

ITEM

LOW PROFILE INTERVENTIONS

Nonverbal Teacher Behavior

Ignoring

Proximity

Eye Contact

Body Language

Name Dropping

Total Score

TASK

Tallies # in 10 minutes

COOPERATIVE LEARNING

Student Behavior

Positive Interdependence

Individual Accountability

Promotive Interaction

Interpersonal Small Group

Group Processing

Total Score

Yes/No 10 minutes

HIGHER ORDER THINKING

Teacher Question Asking Strategies

Knowledge

Comprehension

Application

Analysis

Synthesis

Evaluation

Total Score

Tallies # Questions 10 minutes

Interater Observation Descriptors

Low Profile Interventions Non Verbal Teacher Behavior

IGNORING: Two step process of ignoring off task behavior until it stops and then approving the student=s acceptable behavior when on task.

PROXIMITY: Physical movement toward an off task student.

EYE CONTACT: Teacher maintains eye contact with off task student until student returns on task.

BODY LANGUAGE: Teacher=s facial expression cue students to get back on task.

NAME DROPPING: Teacher inserts student=s name in an instructional cue to get his or her attention back on task.

Cooperative Learning Student Behavior

POSITIVE INTERDEPENDENCE: Clear group goal and group roles: leader, helper, check, and encourager.

PROMOTIVE INTERACTION: Students sit face to face in groups with verbal interaction patterns.

INDIVIDUAL ACCOUNTABILITY: Individual group members are assessed by the teacher in how each member is contributing to the group=s work.

INTERPERSONAL: Observe social skills of collaboration, trust, and accepting each other.

GROUP PROCESSING: Observe group members discuss how they are working toward their group goals and how to improve group performance.

Higher Order Teachers Questions Refer to H.O.T.S. Wheel

KNOWLEDGE: Recall of information facts: who, what, when, and how.

COMPREHENSION: Organization and selection of facts and ideas.

APPLICATION: Use of facts, principles, and rules.

ANALYSIS: Separate whole into component parts.

SYNTHESIS: Combination of ideas to form a new whole.

EVALUATION: Development of opinions, judgements, and decisions.

APPENDIX D
JOURNAL RESPONSES

February 24, 2002

Qualitative Journal Log
Questions

Directions:

Please answer the following questions weekly in three or four sentences and give examples when pertinent:

1. How has your knowledge of low profile intervention techniques influenced your teaching? Feb. 4 - March 11
 - a. strategies
 - b. attitude
 - c. evaluation

2. How has your knowledge of cooperative learning techniques influenced your teaching? March 18 - May 18
 - a. strategies
 - b. attitude
 - c. evaluation

3. How has your knowledge of higher order thinking techniques influenced your teaching? May 17 - June 21
 - a. strategies
 - b. attitude
 - c. evaluation

The logs will be collected for review by the study director on a bi-monthly basis on the following dates: Feb. 22, March 8, March 22, April 5, May 10, May 24, June 7 and June 21. The logs will be collected, examined, and returned.

APPENDIX E
CONSENT FORMS

Dear Research Participant in School A:

Hello, my name is William Truesdale. I am a doctoral student at Loyola University of Chicago. I am inviting you to become a participant in a unique research project. The purpose of this project is to try to determine the effects of peer coaching on the transferability of staff development as compared to standard presentation only.

The participants of this study are asked to attend three staff development in-services: low profile intervention techniques, cooperative learning, and critical thinking, which I will lead. The staff development presentation will follow the standard presentation procedure. After the third staff development session each participant will be asked to implement the three staff development in-services in their classroom for a fifteen-week period. At the beginning of and end of the study classroom observations will be conducted to help measure the effects of the in-service programs. Two trained interaters will visit each classroom for thirty minutes. Each rater will record information on the use of three techniques in classroom practice. No names of teachers or students will be recorded during these observations. The raters will sign a code of ethics, highlighting their responsibility to keep all information recorded and observed confidential. Participants in your school will be asked to keep a weekly journal to gather data about variables that cannot be included in the statistical treatment. The standard presentation teachers= weekly logs will be collected bimonthly during the fifteen-week study. The study director will examine each log looking for patterns of similarities and differences in implementing the staff development in-services to classroom practice. All information gathered during this study will be used for research purposes only.

Participation in this study is voluntary. Refusal to participate in any part of this research will involve no penalty or decrease in any benefits; the participants are otherwise entitled to. For any questions about this study, participants may call the study director at (773) 788-0203. Participants may also call Loyola=s Compliance Manager at (773) 508-0202 should they have any questions about their rights as participants. If you agree to participate, please sign this form. Please return one signed copy of this form to me personally.

I understand my rights and agree to be a participant in this study.

Research Participant

Date

Dear Research Participant in School B:

Hello, my name is William Truesdale. I am a doctoral student at Loyola University of Chicago. I am inviting you to become a participant in a unique research project. The purpose of this project is to try to determine the effects of peer coaching on the transferability of staff development as compared to standard presentation only.

The participants of this study are asked to attend three staff development in-services: low profile intervention techniques, cooperative learning, and critical thinking, which I will lead at your school. The staff development presentation program of your school will follow the Gottesman-Jennings Model of Peer Coaching. The researcher will train participants twice a month during the fifteen-week study on how to implement this model into their classrooms. After the third staff development session each participant will be asked to implement the three staff development in-services in their classroom for the fifteen-week period using the Gottesman-Jennings Model of Peer Coaching. At the beginning and end of the study classroom observations will be conducted to help measure the effects of the in-service programs. Two trained interaters will visit each classroom for thirty minutes; each rater will record information on the use of three techniques in classroom practice. No names of teachers or students will be recorded during these observations. Raters will sign a code of ethics highlighting their responsibility to keep all information recorded and observed confidential. Participants in your school will be asked to keep a weekly journal to gather data about variables that cannot be included in the statistical treatment. The peer coaching teachers= individual weekly logs will be collected bimonthly during the fifteen-week study. The study director will examine each log looking for patterns of similarities and differences in implementing the staff development in-services to classroom practice. All information gathered during this study will be used for research purposes only.

Participation in this study is voluntary. Refusal to participate in any part of this research will involve no penalty or decrease in any benefits; the participants are otherwise entitled to. For any questions about this study, participants may call the study director at (773) 788-0203. Participants may also call Loyola=s Compliance Manager at (773) 508-0202 should they have any questions about their rights as participants. If you agree to participate, please sign this form. Please return one signed copy of this form to me personally.

I understand my rights and agree to be a participant in this study.

Research Participant

Date

REFERENCES

- Acheson, K., and Gall, M. 1980. *Techniques in the clinical supervision of teachers*. New York: Longman, Inc.
- Anastos, J., and Ancowitz, R. 1987. A teacher-directed peer coaching project. *Educational Leadership* 45: 40-42.
- Ackland, R. 1991. A review of peer coaching literature. *Journal of Staff Development* 12: 22-24.
- Baker, R. 1983. The contribution of coaching to the transfer of training: An extensive study. Doctoral dissertation, University of Oregon, Eugene.
- Baker, R., and Showers, J. 1984. The effects of a coaching strategy on teacher's transfer of training for classroom practice: A six-month follow-up study. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Barth, R. 1990. *Improving schools from within*. San Francisco, CA: Jossey Bass.
- Barnes, R., and Murphy, J. 1987. Staff development: Help teachers help themselves. *Executive Educator* 9: 23, 29.
- Berliner, D. 1982. On improving teacher effectiveness: A conversation with David Berliner. *Educational Leadership* 40: 12-18.
- Berliner, D. 1984. The half-full glass: A review of the research on teaching. In P.L. Hosford-Alexandria.(Ed.), *Using what we know about teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Bird, R., and Little, W. 1984. *Effective collaboration: The complete guide*. New York: John Wiley.
- Bolan, L., and Deal, T. 1990. *Reframing organizations*. San Francisco, CA: Jossey Bass.
- Brandt, R. 1987. Learning with one from one another. *Educational Leadership* 44: 5, 3.
- Brooks, R. 1981. Address to incoming freshmen. University of Oregon, August 14, *Eugene Register Guard*.

- Brophy, J. 1979. *Using observation to improve your teaching*. Occasional paper no. 21. East Lansing, MI: Michigan State University.
- Browder, D. 1997. Educating students with severe disabilities: Enhancing the conversation between research and practice. *The Journal of Special Education* 31: 37-44.
- Camine, D. 1992. Expanding the notion of teachers rights: Access to tools that work. *Journal of Applied Behavior Analysis* 25: 13-19.
- Cochran, Smith, and Lytle. 1990. Research on teaching and teaching research. *Educational Researcher* 19: 2-10.
- Cogan, M. 1973. *Clinical supervision*. Boston, MA: Houghton, Mifflin Co.
- Costas, A., and Garmston, R. 1985. Supervision for intelligent teaching. *Educational Leadership* 42: 70-80.
- Cuban, L. 1990. Reforming again, again, and again. *Educational Researcher* 19: 3-13.
- Cummings, C. 1985. *Peering in on peers: Coaching teachers*. Edmond, WA: Teaching Inc.
- Dettmer, P. 1986. Gifted program inservice and staff development: Pragmatics and possibilities. *Gifted Child Quarterly* 30: 99-102.
- Dornbusch, S. 1976. *The collegial evaluation program: A manual for the professional development of teachers*. Field test.
- Elliott, J., and Chidley, L. 1985. Peer review as a supervisory option. *Journal of Staff Development*: 102-107.
- Evertson, C. 1986. Do teachers make a difference? Issues for the eighties. *Education and Urban Society* 18: 195-210.
- Fullan, M. 1982. *The meaning of educational change*. Columbia University: Teachers College Press.
- Fullan, M. 1990. Changing school culture through staff development. In Bruce Joyce (Ed.), *Development, innovation, and institutional development*. Alexandria, VA: Association for Supervision and Curriculum Development.

- Fullan, M., and Stiegebauer. 1991. *The new meaning of educational change*. New York: Teachers' College Press.
- Garmston, R. 1987. How administrators support peer coaching. *Educational Leadership* 44: 18-26.
- Gitlin, A., and Price, D. 1992. *Teacher evaluation alternatives*. New York: Falmer Press.
- Glattorn, A. 1987. Differentiated teacher evaluation. *Educational Leadership* 44: 56-68.
- Glickman, C. 1990. Pushing school reform to a new edge: The seven ironies of school empowerment. *Phi Delta Kappan* 721: 68-92.
- Glickman, C. 1991. Pretending not to know what we know. *Educational Leadership* 48: 4-10.
- Goldhammer, R., Anderson, R.H., and Krajewski, R.J. 1980. *Clinical supervision: Special methods for supervisions of teachers*. New York: Holt Reinhart and Winston Publishers.
- Gottesman, B. 2000. *Peer coaching for educators*, 2nd ed.. Lancaster, PA: Technomic Publishing.
- Gottesman, B., and Jennings, J. 1994. *Peer coaching for educators*. Lancaster, PA: Technomic Publishing.
- Griffin, G. 1983. Implications of research for staff development programs. *The Elementary School Journal* 8: 414-425.
- Grimmetti, P. 1987. The role of district supervisors in the implementation of peer coaching. *Journal of Curriculum and Supervision* 3: 3-28.
- Hunter, M., and Russel, J. 1990. *Rx improved instruction*. El Segundo, CA: T.I.F Publications.
- Hutchins, C., Everson, S., Ewy, R., Marzano, R., Chapman, H., and Kessler, B. 1983. *Coaching a powerful strategy for improving staff development and inservice*. Kansas City, MO: McKel Mid Continent Regional Education Laboratory.
- Joyce, B., Brown, R., Clark, D., and Peck, L. (Eds). 1981. *Flexibility in teaching*. New York: Longman, Inc.

- Joyce, B., Hersh, R., and McRibbon, M. 1983. *The structure of school improvement*. New York: Longman.
- Joyce, B., and Showers, B. 1980. Improving inservice training: The message of research. *Educational Leadership* 37: 379-385.
- Joyce, B., and Showers, B. 1981. Transfer of training: The contribution of "coaching." *Boston University Journal of Education* 163: 163-172.
- Joyce, B., and Showers, B. 1982. The coaching of teaching. *Educational Leadership* 40: 4-10.
- Joyce, B., and Showers, B. 1983. *Power in staff development through research on training*. Washington, DC: Association for Supervision and Curriculum Development.
- Joyce, B., and Showers, B. 1988. *Student achievement through staff development*. New York: Longman.
- Joyce, B., and Weil, M. 1980. *Models of teaching*. Englewood Cliffs, NJ: Prentice-Hall Inc.
- Kent, K. 1985. A successful program of teachers advising teachers. *Educational Leadership* 45: 29-33.
- Killion, J., and Harrison, C. 1988. Evaluating training programs: Three critical elements for success. *Journal of Staff Development* 9: 34-38.
- Korinee, J., Schmid, F., and McAdams, G. 1985. *The team: Explorations in group process*. Dubuque, IA: Kendall Hall.
- Kurth, R. 1985, April. Training peer teachers to improve comprehension instruction. Paper presented at annual meeting of American Educational Research Association, New Orleans, LA.
- Kuwait, J. 1988, April. A peer coaching model for teachers of limited English proficient students. Paper presented at the annual meeting of American Educational Research Association, New Orleans, LA.

- Landrum, M. 1990. The effects of peer coaching on follow-up to inservice training on application of theory to classroom practice. Doctoral dissertation, University of Virginia.
- Leggett, D., and Hoyle, S. 1987. Peer coaching: One director's experience in using teachers as staff development. *Journal of Staff Development* 14: 33-38.
- LeBlanc, P., and Zide, M. 1987. *Peer coaching in collaborative programs: From theory to practice*. Report to the U.S. Department of Education. ERIC ED 290 726.
- Licklider, B. 1986. Examination of a site-based, peer coaching inservice model. Doctoral Dissertation, Iowa State University. *Dissertation Abstracts International*, 47, 04A.
- Little, J. 1982b. The mentor phenomenon and the social organization of teaching. *Review of Research Education* 5:16. Washington, DC: American Educational Research Association.
- Little, J. 1999. The persistence of privacy and autonomy and initiative in teachers' professional relations. *Teachers College Record* 91: 509-536.
- Little, J., and Bird (1982a). Norms of collegiality and experimentation: Workplace conditions of social success. *American Educational Research Journal* 19: 325-340.
- McLaughlin, M., and Marsh, D. 1979. Staff development and school change. In L. Miller, and A. Lieberman (Eds.), *Staff development*. New York: Teachers College Press.
- Mello, L. 1984. *Peer-centered coaching. Teachers helping teachers to improve classroom performance*. Idaho Springs, CO: Associates for Human Development. ERIC ED 276 648.
- Munro, P., and Elliot, J. 1987. Instructional growth through peer coaching. *Journal of Staff Development* 81: 25-28.
- Murphy, T., and Eblan, D. 1987. Inservice for instructional excellence: A model in progress. Paper presented at the annual conference of the National Staff Development Council, Seattle. ERIC ED 233 860.
- Neubert, G. 1988. Improving teaching through coaching feedback. *Phi Delta Kappan*: 277.

- Neubert, G., and Bratton, E. 1987. Team coaching: Staff development side by side. *Educational Leadership* 44: 30-33.
- Nicholson, A., Joyce, B., Parker, and Waterman. 1976. *The literature on inservice teacher education: An analytical review*. Washington, DC: Office of Education. ERIC ED 124 734.
- Nolan, J. 1993. Case study: Windows onto clinical supervision. *Educational Leadership* 51: 52-56.
- Pink, W. 1989. *Effective development for urban school improvement*. San Francisco, CA: American Educational Research Association.
- Pogust, A. 1993. Transferring staff development on cooperative learning into a classroom project: A case study. Doctoral Dissertation, Temple University.
- Pusch, L., McCabe, J., and Pusch, W. 1985. Personalized on-site coaching: A successful staff development project. *A Case Study at Swift Education Canada* 25: 36-39.
- Raney, P., and Robbins, P. 1989. Professional growth and support through peer coaching. *Educational Leadership* 45: 19-22.
- Richardson, V. 1990. Significant and worthwhile change in teaching practice. *Educational Researcher* 19: 10-18.
- Robbins, P. 1991. *How to implement a peer coaching program*. Alexandria, VA: Automated Graphics.
- Rogers, S. 1987. If I can see myself, I can see change. *Educational Leadership* 45: 64-67.
- Rooney, J. 1993. Teacher evaluation: No more supervision. *Educational Leadership* 51: 43-44.
- Rorschach, E., and Whitney R. 1985. Relearning to teach: Peer observation as a means of professional development for teachers. Paper presented at the annual meeting of National Council of States on Inference Education. Denver, CO, November 22-26.
- Rosenholtz, S. 1989. *Teacher's workplace*. New York: Longman.
- Rosenshine, B., and Stevens, R. 1986. Teaching functions. In M.C. Wittrock (Ed.), *Handbook of research on teaching*, 3rd ed. New York: MacMillan.

- Scott, J., and Smith, S. 1986. *Collaborative schools*. New York: MacMillan.
- Senge, P. 1990. *The fifth discipline*. New York: Doubleday Currency.
- Sergiovanni, T., and Starratt, R. 1988. *Supervision human perspectives*, 4th ed. New York: McGraw-Hill Publishing Co.
- Servatius, J., and Young, S. 1985. Implementing the coaching of teaching. *Educational Leadership*: 50-53.
- Shaver, J., Davis, O.L., and Hellburn, S.W. 1978. *An interpretive report on the status of peer-college social studies education based on three NIE-funded studies*. Washington, DC: National Council for the Social Studies.
- Showers, B. 1982. *Transfer of training: the contribution of coaching*. Eugene, OR: Center for Educational Policy and Management.
- Showers, B. 1983a. Transfer of training. Paper presented at the annual meeting of the American Education Research Association, Montreal, Canada.
- Showers, B. 1983b. Coaching: A training component for facilitating transfer of training. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada.
- Showers, B. 1984. *Peer coaching and its effect on transfer of training*. Eugene, OR: Center for Educational Policy and Management.
- Showers, B. 1985. Teachers coaching teachers. *Educational Leadership* 53: 39-44.
- Showers, B., and Joyce, B. 1996. The evolution of peer coaching. *Educational Leadership* 53: 12-16.
- Showers, B., Joyce, B., and Bennett B. 1987. Synthesis of research done on staff development. *Educational Leadership* 42: 65-72.
- Smith, S.C. 1986 Fall. New structures build collaboration among teacher and administrator. *OSSC Report 27*: 1-7.
- Smith, S., and Scott, W. 1990 Fall. New structures build collaboration among teacher and administrator. *OSSC Report 27*: 1-7.
- Sparks, G. 1983. Synthesis of research on staff development for effective leadership. *Educational Leadership* 41: 65-72.

- Sparks, G., and Bruder, S. 1987. Before and after peer coaching. *Educational Leadership* 61: 27-30.
- Swan, E., Carner, W., and Gilman, D. 1988. The effects of teachers teaching teachers: An Indiana staff development model on educator attitudes and beliefs. Paper presented at the annual conference of the American Association of School Administrators, Las Vegas. ERIC ED 291 743.
- Tyback, D., and Cuban, L. 1995. *Tinkering toward utopia: A century of school reform*. Cambridge, MA: Harvard University Press.
- Valencia, J., and Killion, J. 1988. Overcoming obstacles to teacher change: Directions from school board efforts. *Journal of Staff Development* 9: 168-174.
- Verma, S. 1984. Staff development: A systematic approach. *Education Canada* 24: 9-13.
- Weiss, I.R. 1978. *National survey of science, mathematics, and social studies education*. National Science Foundation. Washington, DC: U.S. Government Printing Office.
- Wood, F., and Thompson, S. 1980. Guidelines for better staff development. *Educational Leadership* 37, 374-378.
- Wolfe, P., and Robbins, P. 1989. *Opening doors: An introduction to peer coaching. Video package with facilitators manual*. Alexandria, VA: ASCD.
- Wu, P.C. 1987. Teachers as staff developers: Research, opinions, and cautions. *Journal of Staff Development* 81: 4-6.

VITA

The author, William T. Truesdale, was born in Evergreen Park, Illinois on March 2, 1963.

His elementary and middle school education was completed in both the Chicago Public Schools and Chicago Catholic Schools. He is a 1981 graduate of Bogan Technical High School.

He has earned a bachelor degree and two masters degrees in education from the University of Illinois at Chicago and Chicago State University. He has also completed all the necessary requirements for earning an Illinois Type 75 Administrative Certificate from Loyola University Chicago. In 1997 he entered the doctoral program in Educational Leadership at Loyola University Chicago. William has earned six Illinois teaching certificates: elementary, middle school, physical education, special education, and a superintendent's endorsement.

William Truesdale has been with the Chicago Public Schools for fourteen years. He has taught primary, intermediate, and middle school regular education and special education for eight years. In 1999 he began his administrative career as an assistant principal at Jane Addams Elementary School. Currently, William is a 2003 L.A.U.N.C.H. Apprentice Principal and actively seeking the principalship. He has presented his doctoral research on the state level in two organizations: The Illinois Principals Association and The Illinois Council for Exceptional Children. His landmark doctoral research will be published in Chapter 4 of Dr. Barbara Gottesman's book "Peer Coaching for Problem Solving What Works."

