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Peer observation and reflection: A strategy for collegial interaction among teachers

Potter, David Hannum, Ph.D.

The Ohio State University, 1991
PEER OBSERVATION AND REFLECTION: A STRATEGY FOR COLLEGIAL INTERACTION AMONG TEACHERS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

David Hannum Potter, B.A., M.A.

* * * *

The Ohio State University

1991

Dissertation Committee:

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Advisor
Department of Health, Physical Education, and Recreation
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Department of Health, Physical Education, and Recreation
To My Grandfather, Wilmer M. Hannum

Whose spirit lives in everyone he touched
I express sincere thanks to my advisor, Sy Kleinman, and to Virgil Blanke and Nancy Zimpher, who have given me so much, and helped to make this experience very satisfying. I am especially indebted to Nancy Zimpher, who provided invaluable guidance and direction. I owe so much to Mary Daniels, a wonderful mentor and friend, who was always there when I needed advice. Mary, thanks for everything. To my family, I thank you all for your love and support. And to Elisa, I thank you for walking with me step for step, and for all of your encouragements along the way. When I needed it most, you gave me the strength to carry on.
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CHAPTER I
INTRODUCTION

Socrates said that the unexamined life is not worth living. Our question is the unexamined teacher’s life, which is being lived often; can it be confronted?

Bill Smith, Participating Teacher

Many elementary and secondary school teachers face significant problems as they teach (Lieberman and Miller, 1984; Lortie, 1975; Rosenholtz, 1989). Research documenting the experiences of teachers points out the following difficulties: professional isolation, teacher uncertainty, threatened self esteem, poor administrative support, poor collegial support, feelings of powerlessness, low efficacy, stress, and exhaustion. Though these are not the only problems facing teachers, they are of enough breadth to provide support for the notion that teaching is often debilitating and frustrating work.

This inquiry focuses on the experiences of a group of three teachers who were engaged in peer reflection at their secondary school. Peer reflection attempts to facilitate professional improvement by having teachers observe each other’s teaching, meet for discussion sessions, and reflect on their experiences, both shared and personal.
BACKGROUND OF THE STUDY

Teachers in many schools do not take part in collegial enterprises for the purpose of improving their teaching. As widely reported by Ashton (1984), Joyce and Showers (1982), Lortie (1975), and Lieberman and Miller (1984), professional isolation is a reality for most teachers.

For most teachers in most schools, teaching is indeed a lonely enterprise. With so many people engaged in so common a mission in so compact a space and time, it is perhaps the greatest irony - and the greatest tragedy of teaching - that so much is carried on in self imposed and professionally sanctioned isolation (Lieberman and Miller, 1984, p. p. 11).

Isolation contributes to many of the problems teachers experience. It contributes to technical uncertainty (Rosenholtz, 1989), limited talk between and among teachers about teaching (Lieberman and Miller, 1984), lack of recognition and feedback (Lortie, 1975), and general unwillingness among teachers to offer or request assistance (Lieberman and Miller, 1984).

Lieberman and Miller (1984) describe the privacy rule most teachers follow. By following the privacy rule, teachers do not share any of their experiences about teaching, about classes, or about students (Lieberman and Miller, 1984). As a result, teachers forfeit opportunities to share their successes and gain the security of not disclosing their inadequacies (Devaney, 1987). "Loneliness and isolation are high prices to pay, but teachers willingly pay them when the..."
alternatives are seen as exposure and censure" (Lieberman and Miller, 1984, p. 9).

Devaney (1987) describes the common situation for teaching as being one which does not provide a "specific thrust for teachers to cooperate, assist each other, recognize each other's successes, and cope with each other's problems" (p. 14). Devaney (1987) believes this situation jeopardizes teachers' self esteem and creates anxiety about their professional worth.

Part of the anxiety over professional worth can be attributed to the endemic uncertainties teachers experience (Lortie, 1975). The uncertainty surrounding the connection between teaching and learning is significant (Ashton, 1984). Feelings of uncertainty and self doubt are exacerbated further because there is no real standard by which teachers can measure their professional competence (Lieberman and Miller, 1984). Most feedback teachers receive comes from their students (Lieberman and Miller, 1984; Lortie, 1975; Rosenholtz, 1989).

Lieberman and Miller (1984) believe the lack of peer support and interaction make it difficult for teachers to assess the quality of their teaching.

There is a general lack of confidence, a pervasive feeling of vulnerability, a fear of being found out. Such feelings are made worse because of the privacy ethic. There is no safe place to air one's uncertainties and to get the kind of feedback necessary to reduce the anxiety about being a good teacher, or at least an adequate one (Lieberman and Miller, 1984, p. 13).
Consequently, as teachers become "professionally estranged," they neglect each other and themselves (Rosenholtz, 1989, p. 107).

Given these problems, it is not surprising that most traditional inservice programs have not addressed such personal and professional needs of teachers (Howey, Matthes, and Zimpher 1987). Howey et al. (1987) have described two of the most common forms of inservice programs. The first form (Form I) uses the provision of time to bring teachers together to hear talks related to school goals, district objectives, or teaching strategies. In the second form (Form II), school districts financially subsidize professional development activities which carry college credit. Howey et al. (1987) maintain that a major problem with staff development activities of this kind is the detached relationship between the inservice activities and what occurs in the classroom on a daily basis.

A more recent trend in staff development utilizes empirically supported and instructionally focused programs, such as Hunter's (1976) Instructional Theory Into Practice program or Stalling's (1980) Effective Use of Time program (Howey et al., 1987). These programs, which focus primarily on the technical dimension of teaching, have proven to be effective in the transfer of a given teaching technique. Despite their success, Howey et al. (1987) express concern over inservice programs which are anchored heavily in the
technical delivery of teaching.

We maintain that a preoccupation with the largely technical aspects of teaching will contribute further to a concept of teaching as less than the complex and interpersonal activity and select vocation that it is (Howey et al., 1987, p. 75).

Maxine Green (1987) and Dwayne Huebner (1987) each provide further support for this perspective by stating that teachers need opportunities to share their own stories and to know the stories of other teachers. They believe that if teaching is to be improved, teachers must become free within the social organization of schools to enter into meaningful dialogue with students and with one another.

In their various studies of inservice programs, Lawrence and Harrison (1980), Griffin (cited in Howey et al., 1987), and Yarger et al. (1980) determined that successful inservice programs utilize significant contributions from teachers for whom the inservice programs are directed. Yarger et al. (1980) found that the successful inservice programs responded to the individual needs of teachers.

Further support comes from Little (cited in Howey et al., 1987) who concluded that staff development is most influential if it:

1. Ensures collaboration to produce shared understanding and investment in the effort, is perceived as thoughtful and fair, and is the result of rigorous testing of the ideas selected for discussion;

2. Involves collective participation of the teachers and staff in training and implementation of program
3. Focuses on problems the participants view as crucial;
4. Occurs often enough and for long enough to ensure progressive gains in structured improvement;
5. Is congruent with the norms of collegiality and experimentation (p. 70).

In-service programs of this nature incorporate collegial leadership, cooperation, communication, and sharing of personal experience. It is this kind of activity which is occurring in mentoring programs, peer coaching programs, teacher leadership programs, and reflective teaching programs in a growing number of preservice, induction, and to a much smaller extent, inservice programs. These programs directly involve teachers in their own improvement through the processes of collaboration, observation, and dialogue. In doing so, they are providing teachers with experiences which more directly address their own personal and professional needs.

STATEMENT OF THE PROBLEM

The limited number of programs targeted for more experienced teachers necessitates that new avenues be explored which provide opportunities for veteran teachers to: 1) improve their teaching, and 2) share their thoughts, feelings, and experiences as teachers. Therefore, I propose to do a study involving collegial interaction which utilizes peer reflection.
The Peer Reflection program brings three or four veteran teachers together in a peer group. The group members observe each others' teaching, participate in discussions, and reflect on their teaching experiences together. The purpose of this endeavor is to create opportunities for teachers to work with their peers on improving their teaching and the experience of being a teacher. It is hoped that the Peer Reflection program will provide opportunities for collaboration and create a willingness among participating teachers to share their experiences, thoughts, concerns, and expertise with each other.

The support for using systematic reflection for teacher development and improvement is encouraging. Initial support comes from John Dewey (1933) who stated that the way teachers think about their work may be more important than the actual techniques of teaching. More recent support comes from Bolin (1988), Cruickshank and Applegate (1981), Gore (1987), Schon (1983), Zeichner and Liston (1987), and others.

Cruickshank and Applegate (1981) believe that reflection can be an essential component in the improvement process.

If we hope to improve teaching we must encourage practitioners to practice their art with an eye toward improvement. What seems to be needed is a strategy by which teachers can engage in teaching and then, with the help of others, gain insights that will lead to improvement (Cruickshank and Applegate, 1981, p. 1).

They advocate a simulated teaching situation, referred to as Reflective Teaching. Reflective Teaching "provides
opportunities for teachers to teach and then reflect on the teaching experience with the intention of improving subsequent practice" (Cruickshank and Applegate, 1981, p. 1). It enables teachers to consider their own teaching and observe other teachers in action.

Teachers find themselves engaged in a meaningful process of inquiry which leads them toward a renewed self-esteem and interest in teaching. As a result, teachers become more reflective about teaching and more interested in self improvement (Cruickshank and Applegate, 1981, p. 2).

Another potential outcome of reflection discussed by Cruickshank and Applegate is collegiality. They believe teachers who work together and who share honest feedback will develop a trust and respect for each other. The act of sharing thoughts and feelings also confirms thinking, builds support, and provides for a dialogue which is thought to be critical to teachers cognitive development (Howey et al., 1987). Gore (1987) states that Reflective Teaching can provide an environment where teachers feel free to experiment and make mistakes without fear of negative repercussions.

Zeichner and Liston (1987) believe that reflection must extend beyond the technical dimension of teaching to each teacher's life situations as well as to the "origins, purposes, and consequences" of their actions (p. 23). They believe reflection should result in a deeper understanding of self and an enhanced perception of what is possible for both teachers and students. Consequently, they are critical of
Reflective Teaching because of its narrow focus.

Additional support for the use of reflection comes from Joyce and Showers (1982) and Eisner (1978) who describe their vision of how a school's faculty should interact professionally. Their respective comments follow below.

If we had our way all school faculties would be divided into coaching teams who regularly observe one another's teaching and provide helpful information, feedback, and so forth. In short, we recommend the development of a 'coaching environment' in which all personnel see themselves as one another's coaches (Joyce and Showers, 1982, p. 6).

I would like one day to see schools in which teachers can function as professional colleagues, where a part of their professional role was to visit classrooms of their colleagues, to observe and share with them in a supportive, informed, and useful way what they have see (Eisner, 1978, p. 622).

Research Questions

Because of the emergent nature of qualitative research, research questions were posed only to guide the organization of the study (Bogdan and Biklen, 1982). The following questions were of initial interest for the purpose of this study.

1. In what ways will the Peer Reflection program enhance or inhibit peer interaction?

2. What will be the focus of the teachers' discussions and interactions?

3. How will the teachers feel about the peer observations and weekly discussions? Will their work together change or temper their notion of good teaching?

4. What will be learned about the experience of being a teacher? Will the experience of being a teacher
change while participating in the Peer Reflection program?

5. How will the teachers experience the practice of peer reflection? Will they continue to use peer reflection after the inquiry is completed?

METHODOLOGY

The Peer Reflection program was implemented at an independent school in the midwest. The peer group was comprised of three teachers of different academic disciplines, who worked together over the length of the inquiry, which lasted for eight weeks (January 22, 1990 to March 17, 1990). The teachers' reflections centered on their teaching, their experiences, and their thoughts and feelings as they lived as teachers. Their work together involved teaching observations and discussion sessions, which created shared experiences, and opportunities for sharing.

The Peer Reflection program was organized so that each teacher would teach in front of his or her peers once every three weeks. During each week, the peer group was scheduled to meet on the day following the teaching session to discuss the observed teaching session and any other thoughts, concerns, or experiences.

In order to learn about the teachers experiences in the Peer Reflection program, qualitative data was collected by the following methods: interviews (audio tape), discussions (audio tape), observations (field notes), and participant journals. The data was analyzed using the Constant
Comparative Method and the File Card System, which allowed the data to direct the focus of the inquiry.

LIMITATIONS OF THE STUDY

Though this inquiry provided valuable insights on the teachers' experiences, it had several limitations. First, there was only one group of teachers from one school. Ideally, several peer groups in several different schools would implement this program. Second, the teachers did not keep journals. Although two of the three teachers attempted journals, their journal entries did not provide enough substance to include in the findings. Third, the observations and discussions were disrupted by scheduling problems which limited the number of observations for each teacher from three to two. Three discussion sessions were not held for the same reason. Fourth, the teachers did not feel that they had enough time to devote to their work together. Finally, the duration of the teachers' peer reflection was not long enough. More time would have allowed for the teachers to continue their work together and it may have resulted in different kinds of collaboration and reflection.

ORGANIZATION OF STUDY

The dissertation will include four additional chapters. The Review of Literature follows in Chapter II, the Methodology and Implementation in Chapter III, the Findings of the Inquiry in Chapter IV, and the Summary and Conclusions in Chapter V.
CHAPTER II
REVIEW OF LITERATURE

There are several different perspectives and beliefs about what constitutes good teaching and appropriate professional enhancement. In the midst of these conflicting perspectives, there is universal agreement that teachers face challenges and impediments which make their work difficult. Research focusing on schools as workplaces indicates that a relationship exists between a school's social organization and the interactions in which its teachers are engaged. In schools where teachers exchange ideas and share strategies, teachers feel their effectiveness is often enhanced. This chapter addresses teaching and the professional development of teachers by examining: 1) Difficulties of Teaching, 2) Schools as Social Organizations, 3) Teacher Collegiality, and 4) Reflection, which is the strategy utilized in this inquiry.

DIFFICULTIES OF TEACHING

Many elementary and secondary school teachers face significant problems in their schools (Darling-Hammond, 1984; Lieberman and Miller, 1984; Lortie, 1975; Rosenhallitz, 1989). Technical uncertainties, professional isolation, and limited collegial support are commonplace for many teachers. Day to day pressures associated with work demands, time constraints,
and large class size are often a reality. When facing problems of this nature, teaching can be frustrating and debilitating.

Assessing Effectiveness

Many goals of teaching are intangible (Lortie, 1975). In most cases, the uncertainties found in teaching center around the connection between teaching and learning (Lieberman and Miller, 1975). Ashton (1984) reports teachers often experience uncertainties as to whether or not they can affect student learning. These uncertainties are heightened by aspirations for student learning which extend beyond intellectual content to moral and social outcomes (Lortie, 1975). Although teachers hope for widespread effectiveness, assessment problems make it difficult for teachers to rate their performance (Lortie, 1975). As a result, teachers experience low levels of efficacy, which can spoil the pleasures of teaching (Lortie, 1975).

We find that the goals sought by teachers cannot be routinely realized. Their ideals are difficult and demanding: exerting moral influence, "soldering" students to learning, and achieving general impact presume great capacity to penetrate and alter the consciousness of students (Lortie, 1975, p. 132).

The assessment process, especially over the extended time period of an academic year, is filled with uncertainties and complications (Lortie, 1975).
Complexity of Classroom Situation

Classrooms are busy places where multiple interactions involving both groups and individuals occur (Feiman-Nemser and Floden, 1986). Teachers simultaneously manage groups, attend to individual needs, and handle several administrative tasks. More specifically, teachers face the difficult challenges of maintaining classroom control, eliciting work from students, and reaching students in ways which create positive feelings about learning (Lortie, 1975).

These responsibilities create seemingly incompatible demands by requiring the teacher to maintain distance in securing control and maintain close personal involvement in stimulating student learning (Feiman-Nemser and Floden, 1986). The inherent tension between these responsibilities contributes to the complexity of the classroom situation (Lortie, 1975). "Control must be maintained, work must be ordered, and the students must be aroused and sustained" (Lortie, 1975, p. 152). Teachers are expected to find a balance which allows them to address all of these demands.

The uncertainty found in the classroom takes many forms. Lieberman and Miller (1984) have identified several questions facing teachers which require them to make choices and compromises as they teach.

Do we concentrate on the individual or the development of the group? Are we out to impart basic skills or to enrich lives? Are we teaching to minimal levels of competence or are we working to develop a wide range of talents and possibilities? Do we most value discipline
or learning, order and control or intellectual curiosity? Are we socializing students or are we educating them (Lieberman and Miller, 1984, p. 3)?

As teachers find their own middle ground to questions such as these, they are forced to forge their own personal strategies and teaching styles (Lieberman and Miller, 1984). "The result is that individual teachers make their own translations of policy and that, in general, the profession is riddled by vagueness and conflict" (Lieberman and Miller, 1984, p. 3).

Limited Technical Culture

Where goals are ambiguous, where socialization and evaluation lend no clear direction, and where there is no common sense of purpose, teachers feel uncertain about a technical culture and their own instructional practice (Rosenholtz, 1989, p. 43).

Lortie (1975) contends that the limited technical culture found in the teaching profession contributes to the uncertainty individual teachers experience. He states that few other professions combine so many assessment problems with such scant technical support. Lieberman and Miller (1984) believe the absence of standards to which teachers can measure their professional competence exacerbates feelings of self doubt. "The lack of peer support and interaction makes it difficult to develop a clear sense of the quality of one's teaching" (Lieberman and Miller, 1984, p. 13). Contributing to the technical uncertainty is a weak knowledge base (Lieberman and Miller, 1984). In situations where teachers work independently of one another, their conversation "rarely
centers around a codified base of technical knowledge" (Rosenholtz, 1989, p. 18).

Teachers emphasize that educational preparation and inservice programs offer little guidance or support as they tackle the challenges of teaching (Lieberman and Miller, 1984). "The sad fact is that as a profession, we have not been able to codify teaching under a variety of contingencies in a way that is satisfying to practitioners" (Lieberman and Miller, 1984, p. 3). This situation has prompted teachers to go it alone in search of their own personal strategies and techniques, further contributing to the uncertainty teachers face.

Lortie (1975) believes the limited technical culture creates subjective problems for individual teachers and a serious threat to the status of the teaching occupation. In schools with limited technical cultures, teachers are left on their own to "discern problems, develop alternative solutions, choose among them, and assess the outcome" (Rosenholtz, 1989, p. 73). Teacher learning opportunities are then generated by trial and error (Rosenholtz, 1989).

Where teachers do not talk together about substantive issues, many teachers can feel that they are the only teacher experiencing classroom difficulties (Rosenholtz, 1989). Their inability to seek instructional guidance will likely cause them to develop alternative definitions of performance success, resulting in a school characterized by "pedagogical
pluralism" (Rosenholtz, 1989, p. 18).

The lack of instructional support and performance standards in the teaching profession creates difficulties not found in other professions. When comparing teaching to other professions, Lortie (1975) finds teaching to be less supportive of its members.

People in other lines of work also have occasion to doubt their personal efficacy and the value of the services they offer. But in fields where people perceive their knowledge (and their ignorance) as jointly shared, the individual burden is reduced. A person can take comfort from his compliance with normal expectations within the occupation; he can feel that he did everything possible within "the state of the art." Thus the individual can cope with unpleasant outcomes by sharing the weight of his failure and guilt; his inadequacy is part of the larger inadequacy of the field. Teachers derive little consolation from this source; an individualistic conception of practice exacerbates the burden of failure (Lortie, 1975, p. 81).

**Perpetuating Teacher Isolation**

In addition to the fact that teaching is difficult work which involves a great deal of uncertainty and a limited technical culture, many teachers experience professional isolation. While it is clear that teacher isolation has been influenced by the cellular nature of schools and the lack of administrative support for collegial enterprises, teachers have been instrumental in perpetuating their own isolation (Lortie, 1975; Lieberman and Miller, 1984).

For most teachers in most schools, teaching is indeed a lonely enterprise. With so many people engaged in so common a mission in so compact a space and time, it is perhaps the greatest irony - and the greatest tragedy of
teaching - that so much is carried on in self imposed and professionally sanctioned isolation (Lieberman and Miller, 1984, p. 11).

Lortie (1975) states that teachers regularly teach behind closed doors, witnessed and applauded only by their students. Although the majority of their feedback comes directly from students, teachers are reluctant to value it when it pertains to their own teaching effectiveness (Lortie, 1975). Teachers who desire feedback and reassurance, want it to come from other teachers or subordinates (Lortie, 1975). And yet, these same teachers who desire feedback and assistance will often fail to request it for fear of embarrassment or the threat of being identified as incompetent (Rosenholtz, 1989).

Time Pressures

It is a certainty that once enmeshed in the daily teaching grind, teachers have difficulty finding time for collegial endeavors (Lortie, 1975). The daily schedule in most schools is simply not accommodating to extra demands or time commitments. Devaney (1987) describes the common situation as being one which does not provide a "specific thrust for teachers to cooperate, assist each other, recognize each other's successes, and cope with each other's problems" (p. 14). Devaney (1987) believes this situation jeopardizes teachers' self esteem and "creates anxiety and even panic about their professional worth" (p. 14). The lack of administrative initiative for creating time and support for such opportunities makes it difficult for teachers to enter
Privacy - A way of Life in Most Schools

In addition to the time demands, most school cultures place limitations on collegial enterprises by what Lieberman and Miller (1984) describe as the privacy rule. In schools where norms of privacy and self-reliance prevail, teachers do not share information about their classes, their students, or their perceptions (Lieberman and Miller, 1984). As a result, teachers forfeit opportunities to share their successes and gain security by not disclosing their inadequacies (Feiman-Nemser and Floden, 1986; Rosenholtz, 1989).

Teachers also stake out territory, usually the classroom, to which they can claim sovereignty and jurisdiction. By establishing a sense of ownership of the classroom, the teacher then sets the rules which govern its access to others. For most teachers, this means rarely, if ever, inviting other teachers to observe a class (Feiman-Nemser and Floden, 1986; Lieberman and Miller, 1984). Lieberman and Miller (1984) state that teachers equate observation with evaluation, and "evaluation violates one's sense of place and position in the world" (p. 9).

Lortie (1975) purports that teachers have a vested interest in maintaining the cellular arrangement of schools because of the latitude it provides in their own assessment and subsequent allocation of rewards. An elementary teacher, for example, can readily devote more time to the teaching of
subject areas in which she has greater expertise. Likewise, a high school teacher can concentrate her efforts on classes which pay off and neglect other classes which are less rewarding (Lortie, 1975). Thus, teachers can protect their self esteem by devaluing those teaching areas which are most difficult and least rewarding.

Webb (cited in Devaney, 1987) addresses the issue of teacher initiated isolation in the following way.

With such low self value, teachers keep to themselves in fear that cooperative work could not possibly be collegial, mutual; but rather that it would expose to view their own dire inadequacy or would cast their own hard-won pearls of instructional wisdom before undeserving swine. Teacher isolation then functions to deprive teachers of the power to influence schoolwide decisions that affect the conditions of their work (p. 14).

Limited Collegiality

Teachers face a double edged sword. Although they desire information and feedback, they are scared about the ramifications of exposing their teaching to a community where requests for assistance are associated with inadequacy and poor performance (Devaney, 1987). While it is permittable for teachers to make small talk, and talk about the school and the students in general, the rule of privacy negates discussion on instruction and the goings within classrooms (Lieberman and Miller, 1985). As a result, teachers cannot ask for help or express their uncertainties to another teacher. The lack of professional dialogue perpetuates the anxiety teachers have
about being good teachers (Feiman-Nemser and Floden, 1986; Lieberman and Miller, 1985).

Similarly, teachers are reluctant to offer assistance to their peers (Feiman-Nemser and Floden, 1986). Since teachers are unwilling to violate the sanctity of the classroom boundaries, unsolicited offers of assistance are unwarranted. In some schools, teachers see their peers as competitors (Lortie, 1975). Barth (cited in Devaney, 1987) writes, "Adults in schools have a strong reluctance to make their craft knowledge available to others who are competitors for scarce resources and recognition." (p. 13). In commenting on the significance of this, Barth (cited in Devaney, 1987) states, "No profession can survive, let alone flourish, when its members are cut off from others and from the rich knowledge base on which success and excellence depend" (p. 13).

Summary

Given the many factors which influence their work, it is clear that teaching is a very difficult occupation. The fact that teachers experience uncertainty about their work, teach without support or guidance, and regularly face demanding work loads and time schedules further contributes to the already difficult task of helping students learn. The lack of support and isolation most teachers experience creates a teaching world which is both lonely and lacking in guidance and assistance. Within this context, most teachers are forced to
face the challenges of teaching alone.

SCHOOLS AS SOCIAL ORGANIZATIONS

The social organization of schools has the potential to strongly influence the pattern of teacher interactions and relationships. This section reviews two studies which examined school social organization and teacher interactions.

In a study focusing on six urban desegregated schools, Little (1982) provides insights about how social organization influences teacher involvement in formal or informal occasions of learning on the job. Little (1982) found that schools distinguished themselves by the nature of the interactions which were "encouraged, discouraged, or met with some degree of indifference" (p. 331). The most successful schools, where ongoing professional learning existed as a natural part of the social organization, maintained a learning environment where:

1. Teachers engage in frequent, continuous, and increasingly concrete and precise talk about teaching practice;

2. Teachers are frequently observed and provided with useful (if potentially frightening) critiques of their teaching;

3. Teachers plan, design, research, evaluate and prepare teaching materials together;

4. Teachers teach each other the practice of teaching (Little, 1982, p. 331).

In the most successful schools, collaborative enterprises and collegial experimentation occur frequently in training sessions, faculty meetings, grade or department meetings,
hallways, classrooms, offices, workrooms, and teachers' lounges (Little, 1982). From these interactions, teachers develop a shared technical culture which helps them improve their teaching by providing a common language from which to share their knowledge (Little, 1982).

Their experiences lead us to conclude that the more concrete the language known to and commanded by teachers and others for the description, analysis, interpretation, and evaluation of teaching practice, the greater the probable utility of the interaction and the greater the potential influence on teachers' practice (Little, 1982, p. 334).

Little (1982) argues that the frequency of these interactions, given that they require time in an environment where time is a precious commodity, provides strong support for their importance. However, Little (1982) also reports that in schools where teachers are in doubt about the usefulness of these interactions, frequent involvement leads to a reduced commitment to future involvement.

Other factors which contribute to the degree to which teachers collaborate are: principal support, the degree to which all members of the school community are encouraged to initiate and participate, and the knowledge and skill of the teachers. Little (1982) reports that teachers' technical skill and knowledge "tend to establish boundaries on their latitude to initiate, participate in, or lead collegial work" (p. 337). However, Little (1982) also states that the collegial relationships fostered by the social organization
of schools are instrumental in leading to professional improvement.

We are led from a focus on professional improvement as an individual enterprise to improvement as particularly an organizational phenomenon. . . . To the extent that school situations foster teachers' recourse to others' knowledge and experience, and to shared work and discussion, teachers are likely to favor some participation in staff development; to the extent that they foster a belief that there is nothing to learn from others or that each teacher must pursue his independent course, staff development holds little appeal (Little, 1982, p. 339).

Rosenholtz (1989), in studying elementary schools in eight school districts in Tennessee, found a strong correlation between school social organization and the degree to which teachers collaborate. Her research supports the notion that teachers' uncertainty about technical culture and their instructional practice can be changed, and in fact, overridden by school social organizations which:

1. Emphasize achievement by providing teachers with positive feedback, encouragement, and nurturing inspiration to persist in their instructional efforts;

2. Emphasize that performance success requires teacher collaboration;

3. Utilize organizational resources to assist teachers in acquiring greater technical knowledge as they confront the non-routine problems found in teaching (Rosenholtz, 1989, p. 137).

In such schools, the social organization can create a technical culture which teachers depend on for help and contribute to by sharing their teaching knowledge.
Rosenholtz (1989) used the following assessment variables in examining the social organizations of schools: shared goals, teacher collaboration, teacher learning, teacher certainty, and teacher commitment. After defining behavioral indicators for each of these categories, Rosenholtz then categorized each school as being either high, moderate, or low for the given variable, depending on the behavioral patterns of the school's teachers. Thus, the patterns of teacher behavior identified the category to which each school was designated for each variable. After survey analysis and teacher interviews, Rosenholtz concluded that school social organizations can have profound effects on the ways in which teachers perceive and experience teaching. A brief summary of Rosenholtz's findings for each variable follows below.

**Shared Goals**

High consensus schools, moderate consensus schools, and low consensus schools are the categories to which schools were designated.

In high consensus schools, the greatest predictors of shared goals are teacher socialization and teacher evaluation. Through teacher socialization, novices gain knowledge of school goals and incorporate them into their own vision and understanding of teaching. Through meaningful evaluation, teachers develop greater commitment to school goals because they see that the criteria by which they are evaluated is "central to their work, and capable of being influenced by
their own effort" (Rosenholtz, 1989, p. 27).

In high consensus schools, teachers have a sense of cohesiveness which binds them together, sharing similar conceptions of what is desirable and important (Rosenholtz, 1989). "Teachers see themselves as equal partners in the school enterprise, share greater outcomes, and create collegial pressure on those who deviate from them" (Rosenholtz 1989, p. 27). The stronger the teachers' cohesiveness and goal clarity, the more willing they are to address student conduct at the school level, as opposed to only in their own classrooms (Rosenholtz, 1989). This often results in fewer discipline problems, freeing teachers to direct more of their efforts and energy towards instruction (Rosenholtz, 1989).

Teacher Collaboration

Collaborative schools, moderately isolated schools, and isolated schools are the categories to which schools were designated.

In Collaborative Schools, teachers see teaching as inherently difficult work, which makes the process of asking for assistance an accepted part of the job (Rosenholtz, 1989). The most powerful predictor of teacher collaboration is teacher certainty. The greater the extent to which teachers experience certainty about the technical culture and their own instructional practice, the more frequently they will collaborate. A second strong predictor of teacher collaboration is shared goals. When teachers share
responsibility for specific teaching outcomes, they are more likely to depend on one another for advice and assistance.

Rosenholtz (1989) found that teachers in collaborative settings take part in mutual sharing of teaching and problem solving strategies in an effort to reduce their uncertainties. The process of talking together about technical dimensions of teaching is "the taken for granted, natural thing to do" (Rosenholtz, 1989, p. 52). The principal in collaborative settings is instrumental in facilitating collaboration by providing knowledgeable advice, needed assistance, and by being accessible and involved in classroom affairs (Rosenholtz, 1989). Through the principal's efforts, "norms of collaboration become a portent, a symbol, a landmark in the new pedagogical journey of teachers' work-aday worlds" (Rosenholtz, 1989, p. 61).

Teacher Learning

Learning enriched schools, moderately impoverished schools, and impoverished schools are the categories to which schools were designated.

In learning enriched schools, goal setting provides the strongest influence on teacher learning. Instructional goals which are shared by both principal and teachers provide direction for teachers in their efforts to improve (Rosenholtz, 1989). Teacher evaluation provides the next strongest influence on teacher learning. Where principals include teacher improvement goals in an evaluation system
which uses clear guidelines to monitor student and teacher progress, principals are better equipped to provide knowledge and meaningful assistance (Rosenholtz, 1989).

The extent to which teachers share instructional goals also contributes to teacher learning. If teachers are not in agreement with instructional goals, it is unlikely these goals will be implemented with success. "Shared goals about teaching render legitimacy, value, and support, or if, need be, collaborative pressure to conform to school norms" (Rosenholtz, 1989, p. 79). Another potential contributing factor to teacher learning is teacher collaboration. "Learning may be the direct outcome of collaboration, as teachers request from, and offer colleagues, new ideas, strategies, and techniques" (Rosenholtz, 1989, p. 79). Collaboration may also contribute to learning through the influence of teacher leaders whose creativity and willingness to experiment serves as a source of energy which pulls teachers into the process of sharing and experimenting (Rosenholtz, 1989). However, collaboration is not always embraced and can be difficult to sustain where teachers value autonomy and the privacy of their classroom.

Rosenholtz (1989) found that in learning enriched schools, teachers' conceptions of what they do best are more narrowly focused on some area of academic content. Rather than seeing teaching as being more of an instinctive ability, these teachers believe they can acquire and develop their best
professional skills (Rosenholtz, 1989). When asked how they acquire new teaching strategies, the majority of these teachers cited their colleagues as being their major source of renewal (Rosenholtz, 1989). It is not surprising, then, that teachers in learning enriched schools see assisting their colleagues, especially younger colleagues and troubled colleagues, as a responsibility to be shared by all faculty members.

Teacher Certainty

Non-routine technical cultures, moderately routine technical cultures, and routine technical cultures are the categories to which schools were designated.

In non-routine technical cultures, positive feedback has the greatest effect on the degree of certainty teachers have in their technical culture and their instructional practice. Teacher collaboration also provides a strong influence on teacher certainty. Where teachers share their ideas, offer and request assistance, and interact substantively with greater numbers of colleagues, teachers expand their teaching options and decrease their uncertainty (Rosenholtz, 1989).

These findings suggest that in schools where uncertainty is reduced, there is a technical culture of teaching, codified base of professional knowledge which is ever expanding because of new problems, fresh goals, and either serendipitous or calculated discoveries of alternative teaching practices (Rosenholtz, 1989, p. 111).
Teachers in non-routine technical cultures, when referring to the progress of low achieving students, saw few limitations to student growth (Rosenholtz, 1989). Non-routine instructional practices encourage teachers to see their students "as far more malleable and less stratified academically" (Rosenholtz, 1989, p. 119). Non-routine practices encourage teachers to see potential in every student and to believe that every student can perform satisfactorily, leading to higher levels of teacher efficacy. In this belief, teachers in non-routine technical cultures more freely seek assistance from the principal and parents to enhance student learning.

Teacher Commitment

Moving schools, moderately stuck schools, and stuck schools are the categories to which schools were designated. (Moving schools possess teachers who "recognize and use more of their skills" and are forward thinking about their plans and their goals (Rosenholtz, 1989, p. 149). Moving teachers more readily take risks which facilitate growth. Stuck schools possess teachers who have been demoralized by the challenges of their work, and as a result, are limited in their attempts to try new strategies. Stuck teachers feel no sense of progress, and attempt to secure their safety by following a cautious and routine path (Rosenholtz, 1989).

In moving schools, task autonomy and discretion is one of the strongest predictors of workplace commitment. When
teachers are given the autonomy to make discretionary decisions in the workplace, their contributions are more significant. Psychic rewards also contribute strongly to teachers' workplace commitment. When teachers feel a sense of pride in their success, they are more willing to put forth greater amounts of effort in the future. When asked about future academic plans, teachers from moving schools more readily included plans which "expanded their professional talents and repertoires in subject-specific areas" (Rosenholtz, 1989, p. 150).

**Summary**

The importance of Little (1982) and Rosenholtz's (1989) research is monumental. This research indicates that the social organization of schools and the components of teacher collegiality can dynamically affect one another. By changing a school's social organization, the dynamics of teacher collegiality can be dramatically changed. At the same time, by changing the way teachers collaborate, a school's social organization can be altered in ways which make it easier for teachers to assist and learn from their peers.

Rosenholtz (1989) argues that since a school's social organization has the potential to affect the ways in which teachers experience shared goals, teacher learning, teacher collaboration, teacher certainty, and teacher commitment; and since a school's social organization is directly affected by the nature of teacher interactions, learning opportunities,
and principal leadership; the process of changing a school's social organization will have the potential to change the way its teachers experience teaching. One of the most important ways that a school's social organization can be changed is by enhancing opportunities for teacher collaboration.

**TEACHER COLLEGIALITY**

Opportunities for collegial enterprises in schools have occurred primarily in induction programs where beginning teachers and experienced teachers join together to form mentor-inductee relationships. In such programs, teacher leaders, known as mentors or master teachers, attempt to ease the difficult transition period experienced by beginning teachers by helping them with their teaching.

A more recent development in teacher collegiality has involved teachers working together as "peer coaches" to learn and implement new teaching techniques. In peer coaching programs, teachers enter into the process with no explicit status differentiation as they coach one another in the delivery of a new teaching technique.

In addition to reviewing mentoring and peer coaching programs in greater detail, this section will discuss the concept of teacher leadership by reviewing the lead teacher position. The lead teacher position, created by the Carnegie Commission (1986), involves a small group of elite teachers who take on leadership roles in order to enhance teacher collegiality and experimentation.
Mentoring

Traditionally, mentors have been recognized as trusted guides, counselors, or teacher-guardians (Galvez-Hjornevik, 1986). Anderson and Shannon (1988) describe the role of a mentor as one which has involved nurturing, support, protection, and the sharing of acquired wisdom. In education, mentors have been recognized as "experienced teachers who are selected to assist beginning teachers adjust to their first year(s) of teaching" (Howey, 1988, p. 209).

More recently, mentors have been ascribed many different titles by several researchers. Schein (cited in Zimpher and Rieger, 1988) describes mentors as coach, positive role model, developer of talent, opener of doors, protector, sponsor, and successful leader. Bird (cited in Zimpher and Rieger, 1988) has characterized mentors as master teacher, teacher advisor, teacher specialist, teacher researcher-linker, and teacher consultant. Borko (cited in Zimpher and Rieger, 1988) refers to mentor teachers as colleague teacher, helping teacher, peer teacher, and support teacher.

In examining these various titles, Zimpher and Rieger (1988) state that the appropriateness of the title is really not at issue. Instead, Zimpher and Rieger (1988) look to the function and meaning ascribed from these titles. In this context, the titles indicate whether mentoring is seen as a "casual support system, in contrast to mentoring as an educative function and ultimately, in some situations, as an
evaluative function" (Zimpher and Rieger, 1988, p. 177).

Anderson and Shannon (1988) have weeded through the plethora of titles, roles, and responsibilities associated with mentoring and arrived at a definition of mentoring which is accompanied by five mentoring functions and related behaviors. Their work also has pointed out some basic mentoring activities and necessary dispositions (Anderson and Shannon, 1988).

Anderson and Shannon (1988) define mentoring as:

A nurturing process in which a more skilled or more experienced person, serving as a role model, teaches, sponsors, encourages, counsels, and befriends a less skilled or less experienced person for the purpose of promoting the latter's professional and/or personal development. Mentoring functions are carried out within the context of an ongoing, caring relationship between the mentor and protege (p. 40).

Their definition includes: a) the process of nurturing, b) the process of serving as a role model, c) the five mentoring functions: 1) teaching, which includes modeling, informing, confirming/disconfirming, prescribing, and questioning; 2) sponsoring, which includes protecting, supporting, and promoting; 3) encouraging, which includes affirming, inspiring, and challenging; 4) counseling, which includes listening, probing, clarifying, and advising; and 5) befriending, which includes accepting and relating; d) the focus on personal and/or professional development, and e) the ongoing caring relationship (Anderson and Shannon, 1988, p. 40).
The process of nurturing involves facilitating development by providing "appropriate growth-producing activities" (Anderson and Shannon, 1988, p. 40). By being role models, mentors "provide the proteges with a sense of what they are becoming" and, in the process, "stimulate growth and development in their proteges" (Anderson and Shannon, 1988, p. 40). Unlike Zey (cited in Zimpher and Rieger, 1988), who states that mentors can be selective in the mentoring functions to which they are willing or capable of offering, Anderson and Shannon (1988), along with Kloph and Harrison (1981), believe that mentors must be able to provide any or all of the five mentoring functions of teaching, sponsoring, encouraging, counseling and befriending. In this light, mentoring involves professional and/or personal development. Mentors are first and foremost, concerned about the comprehensive welfare of their proteges (Anderson and Shannon, 1988).

**Mentor Preparation**

The importance and breadth of the mentoring functions cited above supports the notion that training and professional development should be a necessary part of mentoring programs. Borko (cited in Zimpher and Rieger, 1988) has provided a conception of training which includes: content oriented preparation from the effective teaching literature, classroom organization and management, teaching and learning styles, problem solving processes, and process-oriented preparation.
involving techniques for working with beginning teachers.

Such professional development is necessary for mentor teachers in order that they may look critically at their own expertise and knowledge about teaching and the abilities needed to convey such knowledge to beginning teachers (Zimpher and Rieger, 1988, p. 179).

Howey (1988) believes that mentoring can enhance the professionalism of teachers by increasing the degree to which teachers become involved in the continued and ongoing study of teaching. Howey (1988) states that teachers often do not meet the standards of professionalism because they have insufficient knowledge in the scholarly principles underlying their skills and methods and because they are not committed to the continued study of their work. Mentoring programs can address these problems by encouraging teachers to become inquiring professionals who contribute to the knowledge base of teaching. "Professional teachers use 'reflection in action,' in effect becoming active inquirers about the practice in which they are engaged" (Howey, 1988, p. 211).

Using this notion of teacher as inquiring professional, The Franklin County Induction Program in Columbus, Ohio has implemented a mentoring program which draws on three knowledge domains: a) research supported classroom processes, b) multiple means of classroom observation and analysis, and c) instructional (peer) supervision (Howey, 1988). The program concentrates on facilitating and promoting high quality instruction with the assistance of a mentor (Howey, 1988).
The guiding image of the teacher in this induction program is one of an inquiring professional. Good teachers continue to grow along several dimensions not only in terms of their subject matter knowledge and their general teaching competence but more broadly as persons and as professionals. A disposition toward further learning and continued growth is promoted by the ability to engage in systematic inquiry into classroom practice (Howey, 1988, p. 212).

The thrust of this program focuses on processes and events in the classroom, which are examined in reference to the current knowledge on patterns of effective teaching and classroom management (Howey, 1988). Significant attention is focused on helping teachers with their questions and/or concerns about school policies and norms, specific curriculum materials, and instructional and disciplinary expectations (Howey, 1988).

Training opportunities for mentors and teachers are provided by a cadre of lead teachers who work together with college faculty in designing and providing educative experiences (Howey, 1988). The assistance they provide utilizes:

1. Recent studies of classroom processes including patterns of "effective" teaching, research-derived principles of management, student thinking, and social mediation;

2. Classroom observation focusing on such aspects of instruction as patterns of verbal discourse, how expectations are differentially communicated by teachers, student engagement, and social dimensions of the classroom;

3. Variations on instructional supervision including purposes and procedures that focus at various times
on the teacher's technical, clinical, and personal competence as well as a more critical perspective of schooling (Howey, 1988, p. 212).

**Peer Coaching**

Similar to mentoring, peer coaching programs foster teacher collegiality as teachers learn, practice, and then implement new teaching skills in their classrooms. Joyce and Showers (1982) have described the process of peer coaching to include four phases: 1) Study of the theory and rationale supporting the teaching method, 2) Observations of the teaching methods by experts, 3) Practice and feedback on the teaching methods in protected conditions, and 4) Coaching peer teachers as they work the new teaching methods into their repertoires. Joyce and Showers (1982) state that this process (studying theory, observing demonstrations, and practicing with feedback) is sufficient to enable most teachers to learn and use a new teaching model successfully.

As conceptualized by Joyce and Showers (1982), peer coaching attacks the transfer problem which exists when teachers learn new teaching methods.

Unfortunately, the development of skill by itself does not ensure transfer; relatively few teachers, having obtained skill in a new approach, will then transfer that skill into their active repertoire and use the new approach regularly and sensibly unless they receive additional information (Joyce and Showers, 1982, p. 5).

By establishing a relationship where teachers coach each other in the acquisition and implementation of a teaching method,
teachers are more likely to build these new methods into their teaching repertoires (Joyce and Showers, 1982).

Even with effective training, the acquisition of new teaching methods involves a period of discomfort where teachers experience uncertainty and difficulty (Joyce and Showers, 1982). Peer coaching facilitates the transfer from training to effective implementation in the following ways: 1) Provision of companionship; 2) Provision of technical feedback; 3) Analysis of application; 4) Adaption to the students; and 5) Personal facilitation (Joyce and Showers, 1982).

Showers (1988) states the purposes of peer coaching as follows:

1. Building communities of teachers who continuously engage in the study of their craft;

2. Developing the shared language and set of common understandings necessary for the collegial study of new knowledge and skills;

3. Providing a structure for the follow up to training that is essential for acquiring new teaching skills and strategies (p.44).

In most cases, coaching teams of six teachers are organized during the training phase.

The teams study the rationale of the new skills, see them demonstrated, practice them, and learn to provide feedback to one another as they experiment with the skills (Showers, 1988, p. 44).

Thus, the training phase serves as a way for teachers to learn both the teaching method and the coaching process. During
this phase, teachers use Clinical Assessment Forms to provide feedback about the presence or absence of behaviors associated with the teaching method (Joyce and Showers, 1988).

Since all the teachers learn to use the forms during initial training sessions and are provided practice by checking their own and each others performance with these forms, they are prepared to provide feedback to each other during the coaching phase (Showers, 1988, p. 44).

Once teachers have attained reasonable proficiency with the given teaching method, their work together advances to the "mutual examination of appropriate use of a new teaching strategy" (Showers, 1988, p. 44). The process of applying learned skills to the teacher’s actual teaching becomes one of the more difficult challenges teachers face.

For example, when teachers master inductive teaching strategies, such as concept attainment and inductive teaching, they have little difficulty learning the pattern of the models and carrying them out with materials provided to them. However, many teachers have difficulty selecting concepts to teach, reorganizing materials, teaching their students to respond to the new strategies, and creating lessons in areas in which they have not seen demonstrated directly (Showers, 1988, p. 44).

During this phase, coaching conferences are used to identify problems and plan lessons (Showers, 1988). Coaching conferences also involve an element of exploration as teachers search for curriculum alternatives, anticipate potential learning outcomes, and design lessons (Showers, 1988). Following conferences of this nature, the coaching process moves back to the classroom so the coach can observe as the
Joyce and Showers (1982) believe peer coaching should be a regular part of a school's organizational culture. For this to occur, creative leadership from the principal and teachers is a necessity. The principal must establish priorities, allocate resources, and manage the logistics of enabling teachers to work together, while also providing "substantive and social leadership" (Showers, 1988, p. 47). The teachers must be willing to look to new alternatives which will enhance opportunities for collegial enterprises and break down barriers maintaining teacher isolation. However, without definitive leadership from the principal, teachers have little chance of institutionalizing peer coaching (Showers, 1988).

Principals must work to establish new norms that reward collegial planning, public teaching constructive feedback, and experimentation. Professional growth must be seen as valuable and expected. Where coaching has flourished best, principals have taken very active roles in helping teams form, supporting them, providing teaching and planning, and providing help for team leaders (Showers, 1988, p. 48).

Alternative Forms of Coaching

Two alternative forms of coaching have been documented which utilize persons designated as peer coaches to perform the coaching function.

Moffett, St. John, and Isken (1987) provide details of a coaching program which included training in assertive discipline, clinical teaching, reading, and instruction in language and math curriculums. The foundation for instituting
this program, targeted for first and second year teachers, rests on the following premises.

1. Monitoring a teacher's early work in the classroom will enhance the chances that the teacher will develop a professionally satisfying style that is consistent with district aims and philosophy.

2. It is important to follow the presentation of content with demonstration, practice, and individual teaching so that application of the new teaching skills will occur.

3. When teachers coach other teachers, a support system can be established which encourages teacher improvement (Moffett et al., 1987, p. 34).

Teachers and coaches involved in this program found it to be a positive experience. The teaching methods were useful and effective, and the coaches were seen as being very supportive colleagues who provided valuable assistance.

Teachers see their coaches as sympathetic colleagues with whom they can share doubts and frustrations. Almost without exception new teachers view coaches as helpful, understanding, and available when they need them. Moreover, working with a coach usually generates little stress, since the coaches do not supervise teachers. Their exclusive function is to help teachers assimilate and use what they have learned in the training sessions and to feel more productive and competent (Moffett et al., 1987, p. 35).

Nuebert and Bratton (1987) implemented the "team coaching" program because of the difficulty they encountered in arranging schedules when trying to implement peer coaching. They selected two school based language arts coordinators who had flexible schedules with reduced teaching loads to be coaches. Like the other coaching programs, coaches and
teachers received training. Unlike the other coaching programs, the coach and the teacher team taught the classes. Using quantitative and qualitative data over a two year period, Nuebert and Bratton (1987) identified five characteristics which promote effective team coaching partnerships. They are: knowledge, credibility, support, facilitation, and availability.

**Teacher Leadership**

Zimpher (1988) has outlined a professional development plan for teacher leaders which includes five knowledge domains: assessing the needs of beginning teachers in the local district, developing the interpersonal capacities of mentor teachers through knowledge of theories of adult development, understanding classroom processes and school effectiveness, utilizing instructional supervision, observation, and feedback capacities, and fostering a disposition toward inquiry and reflectivity.

In discussing teacher leadership, Howey (1988) advocates a formalized teacher leadership role where designated teacher leaders orchestrate the collective efforts of a school's faculty in addressing workplace problems. These teacher leaders must not be external to the school. They must continue to teach, while also possessing knowledge and skill which extend beyond their own teaching (Howey, 1988). Zimpher (1988) states that teacher leaders must possess significant and exemplary experience in the classroom, knowledge of
current developments in the delivery of instructional processes, and interpersonal skills which allow for effective communication in the teacher leader role. Howey (1988) has defined teacher leadership of this nature as "coalescing others to act when they otherwise might not have" (p. 28). The lead teacher position, as designated by the Carnegie Commission (1986), is an attempt to create this kind of teacher leadership.

The lead teacher position is filled by a cadre of elite teachers whose objectives are to:

Advance the professionalism of all teachers in the school, so that individually, in their work with students, teachers will be more effective and will feel more rewarded; and so that as a staff, in interaction with each other, teachers will evidence cooperation and mutual help, participation with administrators in the school's major instructional decisions and in innovations to improve services to students (Devaney, 1987, p. 22).

While maintaining classes of their own, lead teachers are provided with time and resources to assist their peers. Thus, in addition to improving the effectiveness and commitment of all teachers, lead teachers must work towards "transforming teaching from the teacher's individual task to the faculty's communal endeavor" (Devaney, 1987, p. 19).

After interviewing teachers, Devaney (1987) found that a clear picture emerged as to the criteria teachers use to assess the effectiveness of school reform. Teachers want the following things:
1. More time to prepare for and attend to individual students' unique learning needs;
2. More frequent, practical feedback - both affirmation and correction - on teaching technique and classroom organization and management;
3. Immediate, constructive help for teaching problems;
4. More relevant and stimulating opportunities for professional improvement -- from observations of each others' teaching within the school to instruction provided outside;
5. Informal, continuing exchanges with other teachers about what they have learned from experience as well as new information they have garnered, and about new materials or projects they can develop together for their own classrooms or for the whole school;
6. A voice in the school's organization, course of study, school day, schedule, budget, student policies, and plans for improvement (Devaney, 1987, p. 16).

The lead teacher position addresses these desires by facilitating "teachers' collaborative participation in the instructional improvement of individual schools" (Devaney, 1987, p. 25). Lead teacher functions may include:

1. Mentor new teachers and coach regular teachers for improvement and innovation;
2. Appraise and critique individual teachers' performance, and help them design their professional improvement plans;
3. Design, organize, and conduct inservice activities at the school site;
4. Facilitate teachers curriculum reviews, selection, adaption, development;
5. Plan and lead regular, frequent reviews by the staff of their overall teaching practice and the status of students' learning throughout the school (Devaney, 1987, p. 21).
Since collegiality and experimentation can evolve from a faculty's shared experiences, the lead teacher must work to create opportunities for teachers to work together, both informally and in more structured committee work (Devaney, 1987). Additionally, the lead teacher must create a "schoolwide pattern of coaching observations and discussions" so the lead teacher's efforts are seen as serving the school's entire faculty as opposed to pockets of individual teachers (Devaney, 1987, p. 25).

Summary

The strategies mentioned in this section directly address the problem of limited collegial interactions among teachers within schools. Mentoring, Peer Coaching, and the Lead Teacher position all provide structure for collegial relationships to occur. The structure these programs provide for collegial collaboration is critical because teachers have been unable to create these professional relationships without it. The next section examines the process of reflective thought and its use as a strategy for teachers to work on improving their teaching.

REFLECTION

During the last several years considerable research has focused on using reflection to help beginning teachers and, to a limited extent, more experienced teachers become better teachers. Although significant disagreement exists about
appropriate uses of reflection, there is a shared belief in its potential for helping teachers improve their teaching. Many of the current perspectives on reflection are grounded in the writings of John Dewey (1933) and Donald Schon (1983).

**Reflective Thought**

Dewey (1933) describes reflective thought as a process where one carefully observes, collects, and examines evidence when facing a perplexing situation in order to understand and respond to it. When confronting a problem or entanglement, "there is a goal to be reached and this end sets a task that controls the sequence of ideas" (Dewey, 1933, p. 6). According to Dewey, ideas are possible alternatives for action which one contemplates based on the observed facts. Ideas take the place of immediate action, allowing an individual to reconsider the facts of the situation in reference to the proposed idea and its possible consequences (Dewey, 1933).

In explaining the reflective process, Dewey provides an example of a man walking in a woods where there is no regular path to follow. As long as there are no problems and the walk proceeds smoothly, there is no need for the man to concentrate on his walking, since the practice of walking has become a formed habit. But when confronted by a wide ditch, the man is provided with an opportunity for reflection. Dewey (1933) describes how reflection might occur in this situation.

You think you will jump it (supposition, plan); but to make sure, you survey it with your eyes (observation), and you find that it is pretty wide and the bank on the
other side is slippery (facts, data). You then wonder if the ditch may not be narrower somewhere else (idea), and you look up and down the stream (observation). You do not find any good place so you are thrown back upon forming a new plan. As you are casting about, you discover a log (fact again). You ask yourself if you could not haul that to the ditch and get it across the ditch to use as a bridge (idea again). You judge that idea is worth trying so you get the log and manage to put it in place and walk across (test and confirmation by overt action)(p. 105).

Dewey (1933) states that beliefs gained from inquiry and reflection "rest upon careful and extensive study, upon purposeful widening of the area of observation" (p. 8). The process of reflection begins when a person inquires about the relationship between "what suggests and what is suggested (Dewey, 1933)" (p. 12). Through reflection, one is able to more confidently assert that the facts of the situation support the suggested idea.

Through this reflective process, facts are analyzed in a way that enables one to test ideas and reach subsequent conclusions on the basis of evidence. Belief is established from a definite relationship between the facts in the observed situation and the ideas which the observed facts suggest (Dewey, 1933). Dewey defines reflective thought as:

Active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it leads constitutes reflective thought (Dewey, 1933, p. 9).

Thus, the reflective process involves both a state of doubt or perplexity which initiates thinking, and the act of
inquiry which attempts to resolve the doubt and eliminate the perplexity. Dewey sees the problems which initiate reflective thought as extending "to whatever perplexes and challenges the mind so that it makes belief at all uncertain" (Dewey, 1933, p. 12). This notion of the perplexing situation broadens the substance of reflective thought and allows for its frequent use throughout one's life.

In situations where reflection is employed effectively, observation and inference "form the two indispensable and correlative factors" of the reflective action (Dewey, 1933, p. 104). The act of inferring builds on what is observed to speculate on what is possible. "It proceeds by anticipation, supposition, conjecture, and imagination" (Dewey, 1933, p. 104). However, in moving from the actual to the possible, it is necessary to test the worthiness of inferences.

Dewey describes a double testing procedure. In the first test, the idea serves as the impetus for reexamining the facts of the case to check that they remain as initially observed. The second test involves implementing the idea so that it can be confirmed, modified, or refuted (Dewey, 1933). In this process, reflective thought creates an important connection. "It is an objective connection, the link in actual things, that makes one thing the ground, warrant, evidence for believing in something else" (Dewey, 1933, p. 12).

Dewey uses the example of a traveler who is forced to make a decision at a fork in the road to illustrate how
reflective thought is utilized. Facing this perplexing situation, the traveler, if she is to make a reasoned decision, will have to "inquire into the facts, whether brought to mind by memory, or by further observation, or by both" (Dewey, 1933, p. 13). Dewey explains how the traveler may climb a tree or wander part way down one of the roads in order to find signs which will provide factual evidence for taking one road as opposed to the other (Dewey, 1933).

The foregoing illustration may be generalized. Thinking begins in what may fairly enough be called a forked road situation, a situation that is ambiguous, that presents dilemma, that proposes alternatives. As long as our activity glides smoothly along from one thing to another, or as long as we permit our imagination to entertain fancies at pleasure, there is no call for reflection. Difficulty or obstruction in the way of reaching a belief brings us, however, to pause. In the suspense of uncertainty we metaphorically climb a tree; we try to find some standpoint from which we may survey additional facts and, getting a more commanding view of the situation, decide how the facts stand related to one another (Dewey, 1933, p. 14).

Dewey identifies five steps involved in the reflective process from the time that a perplexing situation arises until it is resolved. The five steps follow below.

**Suggestion**

When confronting a perplexing situation, the natural tendency of acting directly is arrested, replaced by a suggestion or idea. The idea becomes a substitute for direct action (Dewey, 1933). Where two or more ideas surface as alternative forms of action, further inquiry proceeds in order to decide which suggestion is the best alternative. Dewey
writes, "Some inhibition of direct action is necessary to the condition of hesitation and delay that is essential to thinking" (Dewey, 1933, p. 108).

Intellectualization

Although perplexing situations are regularly confronted, clear identification of the problem often requires contemplation. The process of considering suggestions creates the need to reexamine the conditions that are being confronted (Dewey, 1933). This analysis allows for the intellectualizing of the difficulty or perplexity so that the problem can be more clearly identified (Dewey, 1933).

Hypothesis

A hypothesis is arrived at after examining and reexamining the facts of the case as they are observed in reference to the proposed suggestion. Both the situation and the suggestion influence one another until the problem is clearly identified and the suggestion is ready for testing.

In the degree in which we define the difficulty, we get a better idea of the kind of solution that is needed. The facts or data set the problem before us, and insight into the problem corrects, modifies, expands the suggestion that originally occurred. In this fashion the suggestion becomes a definite supposition or stated more technically, a hypothesis (Dewey, 1933, p. 109).

Reasoning

Through reasoning, accepted suggestions are thoroughly analyzed before gaining acceptance. Reasoning provides opportunities to pursue the hypothetical in order to determine
what consequences will result from a given idea (Dewey, 1933). Even when reasoning does not lead to the rejection of an idea, the reasoning process more fully develops the idea so that it is more directly relevant to the problem. The degree to which reasoning is able to extend knowledge depends, in part, on what is already known.

In more complex cases, there are long trains of reasoning in which one idea leads to another idea known by previous test to be related to it. The stretch of links brought to light by reasoning depends, of course, upon the store of knowledge that the mind is already in possession of. And this depends not only upon the prior experience and special education of the individual who is carrying on the inquiry, but also upon the state of culture and science of the age and place (Dewey, 1933, p. 11).

Testing the Hypothesis by Action

The testing of a proposed idea occurs when the idea becomes an overt action which can be verified or refuted based on the outcome of the interaction between action and situation. Dewey points out that failure to verify a suggestion serves as an instructive guide for future action.

For a failure indicates to the person whose thinking has been involved in it, and who has not come to it by mere blind chance, what further observations should be made. It suggests to him what modifications should be introduced in the hypothesis upon which he has been operating. It either brings to light a new problem or helps to define and clarify the problem on which he has engaged (Dewey, 1933, p. 114).

The importance of reflective thinking is found in its relationship to behavior. Reflection enables us to direct our activities toward the future with a sound understanding
of their desired outcome. When one uses reflection, actions are not routine nor are they impulsive. Reflection provides for planning and deliberation in the attainment of goals based on "ends-in-view" (Dewey, 1933, p. 17). "By putting the consequences of different ways and lines of action before the mind, it enables us to know what we are about when we act" (Dewey, 1933, p. 17).

For all of its benefits, Dewey (1933) warns of the ease in which reflection can be put aside when we confront facts which run counter to our beliefs. People often see what they want and believe what they choose without rigorous inspection or reflection.

Any observant person can note any day, both in himself and in others, the tendency to believe that which is in harmony with desire. We take that to be true that which we should like to have so, and ideas that go contrary to our hopes and wishes have difficulty in getting lodgement. We all jump to conclusions, we all fail to examine and test our ideas because of our personal attitudes (Dewey, 1933, p. 28).

Dewey also describes a natural tendency for people to believe in things which are suggested unless there is overwhelming evidence which refutes them. In addition, once a wrong theory gets support and acceptance, people will go out of their way to defend it instead of letting go and studying a new direction (Dewey, 1933).

Therefore, Dewey (1933) believes people must have certain dominant attitudes in their character. It is not enough to know appropriate methods of thinking, one must be predisposed
to inquiry by possessing the attitudes of openmindedness, wholeheartedness, and responsibility.

**Openmindedness**

Dewey (1933) defines openmindedness as being free from prejudice and other habits which close off the mind to the processes of reflection. By being receptive to new ideas and information, openmindedness does not allow for the exclusion of new intellectual contacts which are a necessary part of learning (Dewey, 1933). Openmindedness includes:

An active desire to listen to more sides than one; to give heed to facts from whatever source they come, to give full attention to alternative possibilities; to recognize the possibility of error even in the beliefs that are dearest to us (Dewey, 1933, p. 30).

Dewey acknowledges it is difficult to be openminded where beliefs which are important and central to our understanding are concerned.

Self-conceit often regards it as a sign of weakness to admit that a belief to which we have once committed ourselves is wrong. We get so identified with an idea that is it literally a "pet" notion and we rise to its defense and stop our mental eyes and ears to anything different. Unconscious fears also drive us into purely defensive attitudes that operate like a coat of armor not only to shut out new conceptions but even to prevent us from making a new observation (Dewey, 1933, p. 30).

**Wholeheartedness**

Wholeheartedness relates to the degree to which one's full attention and concentration is focused on the process of thinking. When thinking is divided, the ability to be fully
reflective is diminished. If not fully aroused and ensconced with the subject at hand, attention is diverted and the capacity for keen observations and creative inferences are limited (Dewey, 1933).

When a person is absorbed, the subject carries him on. Questions occur to him spontaneously; a flood of suggestions pour in on him; further inquiries and readings are indicated and followed; instead of having to use his energy to hold his mind to the subject (thereby lessening that which is available for the subject, itself, and creating a divided state of mind), the material holds and buoys his mind up and gives an onward impetus to thinking (Dewey, 1933, p. 31).

Responsibility

Responsibility serves as a monitoring function which identifies the consequences which follow from our beliefs (Dewey, 1933). Responsibility involves understanding the meaning of our beliefs as they are tied to their consequences so that we are able to ask ourselves what it means to hold a certain belief.

To be intellectually responsible is to consider the consequences of a projected step; it means to be willing to adopt these consequences when they follow reasonably from any position already taken. Intellectual responsibility secures integrity; that is to say, consistency and harmony in belief (Dewey, 1933, p. 32).

In commenting on these attitudes necessary for reflective thought, Dewey speaks of a readiness to consider.

No one can think about everything, to be sure; no one can think about anything without experience and information about it. Nevertheless, there is such a thing as readiness to consider in a thoughtful way the subjects
that do come within the range of experience—a readiness that contrasts strongly with the disposition to pass judgment on the basis of mere custom, tradition, prejudice, etc., and thus shun the task of thinking. The personal attitudes that have been named are essential constituents of this general readiness (Dewey, 1933, p. 34).

In considering Dewey's notion of reflection as it pertains to teaching, it becomes apparent that teachers often do not have appropriate amounts of time in which to reflect before they must act. Teachers face perplexing situations all day long to which they must usually respond swiftly. The opportunity for consideration of suggested ideas is not a luxury teachers experience. However, Dewey does suggest that reflecting on actions after the fact is a very important learning process for future situations of similar perplexity or orientation.

Even in the moral and other practical matters, therefore, a thoughtful person treats his overt deeds as experimental so far as possible; that is to say, while he cannot call them back and must stand their consequences, he gives alert attention to what they teach him about his conduct as well as to the non-intellectual consequences. He makes a problem out of the consequences of conduct, looking into the causes from which they probably resulted, especially the causes that lie in his own habits and desires...When things have come out wrong, it is, however, a wise practice to review the methods by which the unwise decision was reached, and see where the misstep was made (Dewey, 1933, p. 115).

In regard to seemingly intuitive judgments made in the midst of action, where little or no time is available for reflection, there is support from Dewey that these judgments can be intelligent judgments.
Long brooding over conditions, intimate contact associated with keen interest, thorough absorption in a multiplicity of allied experiences, tend to bring about those judgments which we then call "intuitive"; but they are true judgments, because they are based on intelligent selection and estimation, with solution of a problem as the controlling standard. Possession of this capacity makes the difference between the artist and the intellectual bungler (Dewey, 1933, p. 124).

Donald Schon (1983), using ideas very similar to Dewey's ideas about reflection, more directly addresses this issue of judgments made in the context of practice by what he refers to as knowledge-in-action and reflection-in-action. Schon believes that it is not necessary for thought to precede intelligent action; knowledge can be found in the act of doing.

Knowledge-in-action refers to the notion that practitioner knowledge is often found in the act itself. Schon believes that practitioners possess a kind of tacit knowledge which guides their actions. While it is often difficult to articulate or explain how a specific act is carried out, the understanding exists in the action.

Common sense admits the category of know-how, and it does not stretch common sense very much to say that the know-how is in the action—that a tightrope walker’s know-how, for example, lies in, and is revealed by, the way he takes his trip across the wire, or that a big league pitcher’s know-how is in his way of pitching to a batter’s weakness, changing his pace, or distributing his energies over the course of a game. There is nothing in common sense to make us say that know-how consists in rules or plans which we entertain in the mind prior to action. Although we sometimes think before acting, it is also true that in much of the spontaneous behavior of skillful practice we reveal a kind of knowing which does
not stem from a prior intellectual operation (Schon, 1983, p. 50).

Reflection-in-action describes the process of thinking while acting. The practitioner experiments with the situation by acting and interpreting consequences which follow. Schon believes the ability to reflect-in-action is especially important when confronted with unique situations which are characterized by uncertainty and unpredictability.

If common sense recognizes knowing-in-action, it also recognizes that we sometimes think about what we are doing. Phrases like "thinking on your feet," "keeping your wits about you," and "learning by doing" suggest not only that we can think about doing but that we can think about doing something while doing it (Schon, 1983, p. 54).

The opportunity to use reflection-in-action extends to the "action-present," which is the amount of time where one's action can still make a difference to the situation (Schon, 1983). After the action-present, the practitioner must reflect-on-action after the fact in preparation for future situations similar in nature.

Schon's work focuses on the context of professional practice which he defines as performance in a range of professional situations (Schon, 1983). Within a given profession, practice includes repetitive themes which surface with regularity, and more unique occurrences which have no prior precedent.
In reoccurring situations, familiarity with a "family of cases" provides the practitioner with a repertoire of "expectations, images, and techniques" which help him respond to the challenges of the situation (Schon, 1983, p. 60). In unique situations, recognition of familiar themes is less likely to occur. Schon (1983) believes that in both cases, reflection can be a critical dimension of professional practice.

In situations which are more familiar, the practitioner has a tendency to narrow his focus and limit the range of his perceptions. The practitioner "learns what to look for and how to respond to what he finds" (Schon, 1983, p. 60). However, practitioners have a tendency to overlearn and, as a result, their knowing-in-practice becomes increasingly routine and less exposed to consideration.

As practice becomes more repetitive and routine, and as knowing-in-action becomes increasingly tacit and spontaneous, the practitioner may miss important opportunities to think about what he is doing. He may find...that he is drawn into patterns of error which he cannot correct. And if he learns, as often happens, to be selectively inattentive to phenomena that do not fit the categories of his knowing-in-action, then he may suffer from boredom or "burn-out" and afflict his clients with the consequences of his narrowness and rigidity (Schon, 1983, p. 61).

When facing repetitive situations in professional practice, reflection can help the practitioner consider and criticize understandings that have developed through repetition. In addition, the practitioner can become more
open to recognizing uncertainty and uniqueness within situations previously treated as routine.

In unique situations, often characterized by complexity and uncertainty, the practitioner may construct a new way of seeing the situation to better understand it. He may reconsider his initial understandings of a situation by attempting to see it from another perspective. The "possible objects of his reflection are as varied as the kinds of phenomena before him and the systems of knowing in practice which he brings to them" (Schon, 1983, p. 62).

Schon describes the process of reflection as the attempt to understand and respond to complexity and uncertainty by examining the situation of practice. In addition to solving problems, the professional practitioner must be able to uncover problems within the context of situations. Problems do not come ready made; they must be "constructed from the materials of problematic situations which are troubling, puzzling, and uncertain" (Schon, 1983, p. 40).

The practitioner engages in a "conversation with the situation" in order to restructure or "reframe" it in order to gain new understandings and subsequent ideas for changing it (Schon, 1983). Schon (1983) calls this process "problem setting" since it establishes the focus of inquiry and the boundaries to which the practitioner directs his energy. Schon (1983) explains problem setting as the "process by which we define the decision to be made, the ends to be achieved,
and the means which may be chosen" (p. 40).

When approaching a unique and uncertain situation, the practitioner, although recognizing its uniqueness, relies on a repertoire of previous experiences and acquired knowledge to reframe the situation.

The practitioner's repertoire includes the whole of his experience insofar as it is accessible to him for understanding and action. When a practitioner makes sense of a situation he perceives to be unique, he sees it as something already present in his repertoire (Schon, 1983, p. 138).

The process of using familiar situations as metaphors or exemplars allows the practitioner to see the unique situation "as both similar to and yet, different from the familiar one" (Schon, 1983, p. 138). By using metaphors and exemplars, the practitioner gains insights on possibilities for action. However, since these ideas are still only inferences whose utility is yet to be confirmed, the practitioner must test them through on the spot experiments (Schon, 1983).

In this reflective conversation, the practitioner's effort to solve the reframed problem yields new discoveries which call for new reflection-in-action. The process spirals through stages of appreciation, action, and reappraisal. The unique and uncertain situation comes to be understood through the attempt to change it, and changed through the attempt to understand it (Schon, 1983, p. 132).

It is this ability which Schon sees as artistry. The artful practitioner is able to see unique situations as having elements of his own repertoire and make sense of their
uniqueness without reducing them to "instances of standard categories" (Schon, 1983, p. 40).

Reflective Research

Schon argues that in many cases "professional knowledge is mismatched to the changing character of situations of practice" which are increasingly filled with uncertainty, uniqueness, and value conflicts (Schon, 1983, p. 14). As researchers and practitioners become alienated, so does theory and practice (Schon, 1983). Schon believes that reflection can create professional knowledge which is relevant to the changing demands of professional practice because it is gained by practitioner-researchers through their own practice.

Research is an activity of practitioners. It is triggered by features of the practice situation, undertaken on the spot, and immediately linked to action. There is no question of an "exchange" between research and practice or of the "implementation" of research results when the frame or theory-testing experiments of the practitioner at the same time transform the practice situation (Schon, 1983, p. 308).

In addition to research conducted during reflection-in-action, Schon provides examples of reflection-on-action which can be used to enhance the practitioner's capacity for reflection in action in the future (Schon, 1983). Examples include virtual worlds, framing experiments, and research on the process of reflection-in-action.

Virtual Worlds

Virtual worlds are "constructed representations" of professional practice which provide opportunities to
experiment with chosen dimensions of professional practice (Schon, 1983). Virtual worlds provide opportunities to enhance one's reflection-in-action by creating practice situations closely resembling professional practice. Examples of virtual worlds include role playing situations, recreations of incidents or situations through stories, case studies, and conversations about practice situations, both real and hypothetical, where alternative actions and consequences are considered.

Virtual worlds are contexts for experiment within which practitioners can suspend or control some of the everyday impediments to rigorous reflection-in-action. They are representative worlds of practice in the double sense of "practice." And practice in the construction, maintenance, and use of virtual worlds develops the capacity for reflection-in-action which we call artistry (Schon, 1983, p. 162).

**Frame Analysis**

When practitioners develop an awareness of how they frame situations and problems, they enter into the process of considering alternative ways of looking at their situations. Alternative perspectives on practitioner roles, responsibilities, and problems in professional practice encourage practitioners to consider "the ways in which they construct the reality in which they function" (Schon, 1983, p. 310).

When a practitioner becomes aware of his frames, he also becomes aware of the possibility of alternative ways of framing the reality of his practice. He takes note of the values and the norms to which he has given priority,
and those he has given less importance, or left out of account altogether. Frame awareness tends to entrain awareness of dilemmas (Schon, 1983, p. 310).

Research on the Process of Reflection-In-Action in Teaching

The way to study reflection-in-action is to observe someone engaged in action (Schon, 1983). The contextual dynamics which influence reflection-in-action cannot be brought to life through recollection or recreation in a way which compares to the actual reflection-in-action. Schon believes that through observing reflection-in-action, it is possible for teachers to help other teachers build the capacity and inclination toward reflection-in-action (Schon, 1987).

Schon describes three levels of attention which are addressed when one teacher attempts to help another in her reflection-in-action.

1. The kid's interaction with some phenomenon.

2. The teacher's interaction with the kid's interaction with the phenomenon: how does she see and interpret what the kid says and does? How does she think about it, explore it, test her understandings, draw lessons for what she will say and do next?

3. The coach's interaction with the teacher: how the coach understands and responds to the teacher's understandings, feelings, ways of inquiring (Schon, 1987, p. 22).

The three levels can be represented in the following way: COACH [TEACHER (KIDS' PHENOMENA)] (Schon, 1987, p. 22). Schon explains the three levels as being layered relationships which
coaches must pass through from outer relationships to inner ones. In the case above, "a coach gets to the teacher’s interaction with kids (and their interaction with phenomenon) only through the medium of an interaction with the teacher" (Schon, 1987, p. 22).

In the third level, teachers can often experience vulnerability, anxiety, and defensiveness (Schon, 1987). Reflective supervision opens the teachers knowledge-in-action to scrutiny and to the confusion and uncertainty which follows. "Surprise and puzzlement are at the heart of reflective teaching. But this means not having a ‘right answer,’ at least for a time" (Schon, 1987, p. 22). Since teachers are often not accustomed to acknowledging this uncertainty to their peers, reflection can be disconcerting.

Schon describes the coaching of reflective teaching as involving a threefold task:

1. To make sense of, and respond to the substantive issue of learning/teaching in the situation at hand;
2. To enter into the teacher’s way of thinking about it; particularizing one’s description or demonstration to one’s sense of the teacher’s understanding;
3. To do these things in such a way as to make defensiveness less likely (Schon, 1987, p. 23).

In all such examples, the three components of the coaching task must be combined. The coach joins a teacher in her reflection on her own reflection-in-action, seeks to enter into a kind of collaborative on-the-spot research, and creates a hall of mirrors in which coaching illustrates what it is about (Schon, 1987, p. 23).
Schon describes the research issues in this kind of reflective supervision as follows:

-- The nature of kids' spontaneous understandings and know-how, the substance of their confusions, difficulties that arise at the juncture of everyday knowledge and school knowledge.

-- The structures, strategies, and styles of reflection-in-action involved in reflective teaching; the logic of a teacher's on-the-spot experimentation, the forms of rigor appropriate to it.

-- Sources of defensiveness and bases for responses effective in reducing defensiveness (Schon, 1987, p. 23).

Schon states that this kind of research can be conducted in the action present or after the fact, where practice is documented in a way which allows for reflection-on-action (Schon, 1987). Research of this nature can result in two kinds of usable knowledge:

-- Carefully documented stories that contribute to usable repertoire.

-- Theories that offer perspective on practice; to be tested in the next instance of reflection in action (Schon, 1987, p. 24).

Applications of Reflection to Teaching

There have been a number of different applications of reflection to the practice of teaching. In an effort to conceptualize these different forms of reflection, Tom (1985) uses the following three dimensions.
**Arena of the Problematic**

While there is wide support for the process of making teaching problematic in order to question what is accepted or taken for granted, there is no consensus as to which aspect of teaching should be the "object of problematic thinking" (Tom, 1985, p. 37).

**Model of Inquiry**

Models of inquiry, which explore areas of the problematic, vary based on their scope of inquiry (a focus on knowledge versus a focus upon action and knowledge), their rigor (commonsense inquiry versus disciplined inquiry), and their intended outcomes (Tom, 1985).

**Ontological Status of Educational Phenomena**

The ontological status pertains to the degree to which educational phenomena are seen as objective or socially constructed.

Van Manen (cited in Zeichner and Liston, 1987)) has identified three levels of reflectivity, each of which corresponds to a different notion of knowledge and its use in practice.

**Technical Rationality**

The first level, technical rationality, is concerned with ends-means questions where the focus pertains to the application of research findings for use in practice. In technical rationality, knowledge is used to direct practice (Grimmett et al., 1990). Grimmett et al. (1990) refer to this
level of reflectivity as "Reflection as Instrumental Mediation of Action" (p.23).

From this perspective, the purpose of reflection is instrumental in that the reflective process is used to help teachers replicate classroom practices that empirical research has found to be effective. The knowledge source in this type of reflection is usually that of an external authority (Grimmett et al., 1990, p. 23).

Interpretive

The second level of reflectivity, which is interpretive in nature, focuses on understanding the situation of practice and deciphering between alternative forms of action based on their consequences. Grimmett et al. (1990) refer to this level of reflectivity as "Reflection as Deliberating among Competing Views of Teaching" (p. 25). Teachers must deliberate and choose among competing versions of good teaching (Grimmett et al., 1990). Although external authority is seen as a source of knowledge, teachers practicing this level of reflectivity use their context to assess the appropriateness of a given strategy. Research is used to inform rather than to direct practice (Grimmett et al., 1990).

Critical Theory

Van Manen’s third level of reflectivity uses a critical orientation to guide teachers in the process of seeking new understandings, both in the practice setting and in society at large, which lead to a transformation of beliefs, practices, and outcomes. Moral and ethical concerns are
central to critical reflection. Teachers reflect on their practice to examine the underlying assumptions, values, and beliefs which control practice and influence both understandings and action (Zeichner and Liston, 1987). In this process, teachers can begin to identify connections between the classroom and the many conditions (social, economic, political) which influence classroom practice (Zeichner and Teitelbaum, 1982).

At this level the central questions ask which educational goals, experiences, and activities lead towards forms of life which are mediated by concerns for justice, equity, and concrete fulfillment, and whether current arrangements serve important human needs and satisfy important purposes (Zeichner and Liston, 1987, p. 25).

Grimmett et al. (1990) describe this level of reflectivity as "Reflection as Reconstructing Experience" (p. 26). In this process, the teacher reflects on knowledge found in the context of the action setting and on personal knowledge in order to transform practice.

Understanding a situation is often a matter of "seeing as," a process in which practitioners recast, reframe, and reconstruct past understandings in such a way as to generate fresh appreciations of the puzzlement or surprise inherent in a practice situation. In this perspective, knowledge, including personal understandings of practice situations, is used to transform practice (Grimmett et al., 1990, p. 27).

Grimmett et al. (1990) provide three methods by which teachers transform practice: reconstructing action situations, reconstructing self-as-teacher, and reconstructing taken for
granted assumptions about teaching. It is in the final method where critical theory can be practiced for the purposes of "identifying and addressing the social, political, and cultural conditions that frustrate and constrain self-understanding" (Grimmett et al., 1990, p. 32). In this sense, critical reflection encourages changes which lead towards a more just and equitable society.

Programs utilizing reflection in teaching are not numerous, but do extend over the range of categories as described by Tom (1985), Van Manen (cited in Zeichner and Liston, 1987), and Grimmett et al. (1988). What follows is a description of specific programs and/or ideas about the use of reflection in education moving from technical rationality to critical theory.

Reflective Teaching

Cruickshank and Applegate (1981) have implemented a form of simulated teaching at The Ohio State University which they call Reflective Teaching. Reflective Teaching "provides opportunities for teachers to teach and then reflect on the teaching experience with the intention of improving practice" (Cruickshank and Applegate, 1981, p. 553). The goal of Reflective Teaching according to Cruickshank and Applegate (cited in Gore, 1987) is to allow teachers to consider their teaching more "thoughtfully, analytically, and objectively" so they can become wiser teachers in the future (p. 33).
Reflective Teaching involves four steps. In step one, teachers are divided into groups of six persons with one person in each group designated as the teacher for that group. In step two, the teachers are given an identical Reflective Teaching Lesson to teach in front of their group members. These reflective lessons do not include traditional academic subjects.

Reflective Teaching Lessons have been carefully constructed with several points in mind. They must be capable of being taught in fifteen minutes or less. They must be interesting to teach and interesting to learn. Their content must be relatively unique, not normally a part of academic subjects with which the learners would already be familiar. Finally, they must assess student learning and student satisfaction (Cruickshank and Applegate, 1981, p. 553).

In step three, teachers teach the lesson. Following the teaching session, the designated teachers assess student achievement using evaluation techniques or selected instruments. In step four, the teachers and students reflect on the teaching.

Here teachers discuss openly with their peers what the teaching and learning processes were like for them. First the small groups discuss the lesson: how difficult or easy the content was, what the teachers thought about as they prepared to teach, how the learners felt about their accomplishment or lack of it, or how teachers got the students interested in learning (Cruickshank and Applegate, 1981, p. 554).

Following the small group sessions, the entire group of teachers meets to discuss their experiences, with particular attention to alternative teaching methods. During this
discussion, teachers have the opportunity to raise questions, describe their experiences, and reflect on any dimension of the teaching session.

Despite its effectiveness in bringing teachers together for the purpose of reflecting, Reflective Teaching has been rejected by some because of its technical approach which "divorces subject matter from teaching method" and which emphasizes means more than ends (Gore, 1987, p. 33).

**Reflective Inquiry Teacher Education (RITE)**

The RITE program encourages students to speculate on their teaching development by blending technical skills with broader conceptual skills (Freiberg and Waxman, 1990). "The students are encouraged to reflect on their reading, coursework, and experiences and to consider ways they could be more effective teachers" (Freiberg and Waxman, 1990, p. 119).

The RITE program utilizes four primary methods to build the students' reflective capabilities: 1) systematic classroom observation, 2) self-assessment of student teaching, 3) journal writing, and 4) simulated teaching. The program consists of three phases which correspond to three semesters. In phase one, students explore what it means to be a teacher by observing and reflecting on actual teaching in different schools and different classrooms. As a part of this phase, students engage in research projects which involve detailed studies of communities. These studies then provide substance
for discussions pertaining to the ways which community factors affect students' attitudes toward school. Students also become familiar with research on classroom management, direct instruction, cooperative learning, and the effective use of time.

Systematic classroom observation can provide a common language for describing effective teaching. Such observations enable prospective teachers to focus on specific teaching skills studied in their pedagogy courses. Unless prospective teachers actually observe the effectiveness of these behaviors in classroom settings, however, they may not acknowledge the value of these teaching skills (Freiberg and Waxman, 1990, p. 121).

In phase two, students examine the relationship between learning theory and curricular methods through simulated teaching exercises. Students gain information regarding their own progress through self assessment and from feedback provided by their peers. Their assignments include analysis of their lesson design and of their actual teaching. As students take part in this phase, they keep a dialogue journal where they are encouraged to record their experiences and raise questions about their teaching. The journal then establishes opportunities for dialogue with instructors who read and comment on their journal entries.

In phase three, students enter the student teaching experience and are expected to demonstrate their ability to "synthesize their previous studies into viable instruction of their students" (Freiberg and Waxman, 1990, p. 120). In
addition to feedback provided by their cooperating teacher, students are provided with two additional sources of feedback to assist their reflection: 1) instruction via audiotape analysis of low-inference self-assessment measure (LISAM), and 2) feedback from systematic classroom observation, e.g., Stallings Observation System (SOS). These instruments assist students as they assess the technical dimensions of their teaching.

**Peer Collaboration**

Pugach and Johnson (1990) have outlined a reflective process emphasizing collegial dialogue with peers, which encourages teachers to consider problematic situations in order to arrive at new understandings and alternative approaches. Through peer collaboration, one teacher assists another teacher's reflection by using structured dialogue.

The development of reflective patterns might enable teachers to step back from their routine ways of approaching problematic classroom dynamics and consider alternative instructional and management choices in the classroom and the impact those choices might be expected to have on students struggling with learning and behavior problems (Pugach and Johnson, 1990, p. 186).

Pugach and Johnson (1990) based their ideas on research pertaining to the acquisition of metacognitive strategies, "which suggests that complex and more reflective patterns of thinking are fostered in socially interactive settings" (Pugach and Johnson, 1990, p. 188). They see structured dialogue as a strategy which bridges the gap between technical
rationality and critical theory by encouraging reflection on "day-to-day instructional and management choices and, more broadly, on curricular and philosophical choices" (Pugach and Johnson, 1990, p. 188).

In peer collaboration, two teachers, the initiating teacher and facilitating teacher, rehearse specific strategic thinking patterns through structured dialogue by following four steps. In this process, the initiator addresses a problem of practice and the facilitator guides the initiator in using each strategy appropriately (Pugach and Johnson, 1990). The four steps of the peer collaboration process are:

1. Clarifying problems of practice by self-questioning in a guided learning situation, a strategy in which particular questions are posed and responded to as a means of reframing the nature of those problems;

2. Summarizing the defined problem;

3. Generating possible solutions and predicting what might happen should they be utilized;


The practice of structured dialogue helps teachers clarify problems of practice by generating alternative explanations, which can lead to alternative forms of action (Pugach and Johnson, 1990). Through this process, teachers are encouraged to seek alternate frames for problematic situations instead of relying on routine thinking.
Moral Deliberation

Liston and Zeichner (1987) discuss the concept of moral deliberation, which places morality as a lens through which teachers are to deliberate on their actions and responsibilities as teachers. In this sense, beginning teachers are encouraged to see teaching situations, practices, and behaviors as moral dilemmas which require deliberation and thoughtful action (Liston and Zeichner, 1987). This position criticizes more critically oriented reflection for assuming that all current systems (educational, political, economic, etc.) are inherently unjust and for taking "an oppositional stance" to the present system of schooling (Liston and Zeichner, 1987, p. 3).

Elementary Student-Teaching Program at the University of Wisconsin, Madison

The goals of the Wisconsin program address all three levels of reflection as outlined by Van Manen (cited in Zeichner and Liston, 1987), placing significant emphasis on the critical orientation. The goals of the program, as described by the elementary-area faculty at Wisconsin, are to develop students who possess:

1. Technical competence in instruction and classroom management--knowledge concerning the content to be taught and competence in the skills and methods necessary for the realization of their classroom intentions;

2. Ability to analyze practice--to see how classroom and school behavior (including their own actions) flows from or expresses purposes and goals both anticipated and unanticipated;
3. Awareness of teaching as an activity that has ethical and moral consequences, and ability to make defensible choices regarding their classroom and school behavior;

4. Sensitivity to the needs of students with diverse intellectual, racial, physical, and individual differences within their classrooms and schools (Zeichner and Liston, 1987, p. 25).

The program utilizes the following five components in preparing students: teaching, inquiry, seminars, journals, and supervisory conferences. Each component will be reviewed below.

**Teaching**

Students are exposed to all aspects of the teacher's role inside and outside of the classroom, with particular attention to curriculum development and interactive dialogue about the roles and responsibilities the student teacher will assume (Zeichner and Liston, 1987).

Although student teachers are expected generally to follow the curriculum guidelines of their schools and the curricular programs in their classrooms, they are also expected to be aware of and be able to articulate the assumptions which are embedded in curricula that are adopted with little or no modification (assumptions about learners and the role of the teacher; to show evidence of adapting and modifying curricular plans and materials beyond those specified in a given set of materials (Zeichner and Liston, 1987, p. 30).

**Inquiry**

The inquiry component emphasizes the need for students to understand the cultures embedded within the classrooms and schools, and to consider the relationships between these
school contexts and social, political, and economic influences affecting them (Zeichner and Liston, 1987). As a part of their work at the schools, the students complete at least three observations outside of their home classrooms and undertake an ethnographic study, action research project, or curriculum analysis project.

The goal of this component is to have the classroom and school serve as social laboratories for study rather than as merely models for practice (Zeichner and Liston, 1987, p. 31).

**Seminars**

The emphasis of the seminars centers on broadening teaching perspectives and on facilitating students' growth by considering "the rationales underlying alternative possibilities for classrooms and pedagogy" (Zeichner and Liston, 1987, p. 32).

While this course is related to, and in fact builds upon, the students' classroom experiences, it is not intended to provide students with specific methods and techniques for direct application to specific classrooms; nor is it to serve as a forum for the discussion of only classroom-specific experiences (Zeichner and Liston, 1987, p. 32).

**Journals**

The journals serve as a means of communication between students and supervisors. By reflecting on their experiences, students provide opportunities for their supervisors to see how they are thinking about their teaching and the contexts in which they are situated. The supervisors then respond in
writing to the students' journal entries, creating a dialogue between student and supervisor (Zeichner and Liston, 1987).

**Supervisory Conferences**

The supervisory conference, which follows observations of student teaching sessions, adheres to the model employed in clinical supervision. Following the preconference, the supervisor takes detailed narrative notes which are shared during the postconference with the student teacher. However, the supervisors divert from the clinical model in the following ways.

1. In addition to focusing on observable behaviors, supervision includes analysis and consideration of student teacher intentions and beliefs. Moreover, it emphasizes the analysis of relationships between intentions and the theoretical commitments which are embedded in classroom actions.

2. Since the supervisor seeks to develop the rational analysis of teaching at all three levels of reflection described above, the institutional form and social context of teaching are frequently viewed as problematic and as legitimate topics for analysis.

3. The supervisor gives explicit attention to the content of what is taught in addition to analyzing teaching processes (for example, direct and indirect behaviors). Questions related to the justification of particular content for specific groups of children are of primary concern.

4. The supervision goes beyond consideration of whether or not the student teachers' objectives have been achieved, and places an emphasis on the analysis of unanticipated outcomes and the "hidden curriculum" of the classroom. Here the concern is with understanding those dispositions and attitudes which are fostered (often as "side effects") by particular forms of curriculum, classroom social relations, and instructional practices (Zeichner and Liston, 1987, p. 33).
Summary

The various programs reviewed in this section have highlighted differing perspectives on how reflection should be utilized to prepare student teachers and facilitate the professional development of practicing teachers.

Although not mentioned in these summary accounts, Pugach and Johnson, (1990); Wildman and Niles (1987); and Zeichner and Liston (1987) all addressed the problem of not having enough available time within the school day to use reflection. In addition, the process of reflection has been described as labor intensive, time consuming, and demanding of those teachers using it. All of this suggests that without fundamental changes in the teaching day, reflection stands little chance for success as a way for teachers to enhance their teaching ability. Chapter III reviews three teachers' attempt to use reflection in the context of their school setting. The focus of their reflection was not determined in advance. The teachers were asked to use reflection for the purpose of enhancing their teaching.
CHAPTER III

METHODOLOGY AND IMPLEMENTATION OF PEER REFLECTION PROGRAM

This inquiry involved three high school teachers at an independent school in the midwest who observed each others' classes, met for weekly discussions, and reflected on their experiences. As this program unfolded during its eight week duration, the researcher learned about the teachers' experiences through naturalistic investigation and described them in detail so that others will have knowledge about these experiences.

The researcher entered this inquiry with the belief that the process of having teachers work together for the purpose of improving their performance would be beneficial and enjoyable. It was expected that teachers would learn a great deal from their peers while also gaining support and recognition for their efforts in the classroom. Since veteran teachers rarely enter into the process of working together to help one another improve, there is still much to learn about this process.

PURPOSE OF INQUIRY

The purpose of this inquiry was to learn from the teachers' experiences in the peer reflection group at The Perkins School (a fictitious name for the school). By having
direct access to their experiences and insights about these experiences, the researcher gained information which created experiential knowledge. Through the process of reconstructing the multiple realities as lived by these teachers, the researcher will describe these experiences so that others will be able to understand what happened and what was experienced in this program.

The researcher hopes what is learned from this inquiry will provide information which others will find interesting and important. However, there will be no attempt to generalize what is learned in this inquiry. The primary focus is the teachers experiences and the context in which they occur.

The fact that this program was carried out in the natural setting of The Perkins School is crucial. In the naturalistic paradigm, phenomena take their meaning as much from their contexts as they do from themselves (Lincoln and Guba, 1985). The researcher must take into account all factors and influences in this context in order to more fully understand this experience in its wholeness. After doing so, the researcher creates a rich and thick description of the context and experiences so that others will feel they, too, had privileged access (Lincoln and Guba, 1985).

DATA COLLECTION

The methods of data collection employed in this study were observations, interviews, audio recordings of discussion
sessions, and participant journals. Several other reflective tools were introduced but not utilized by the teachers.

DATA ANALYSIS

Inductive data analysis is the method used in naturalistic inquiry. Through inductive data analysis, variables emerge from the inquiry by unitizing and categorizing (Lincoln and Guba, 1985). In this process, units of data are identified and then examined in a way which allows the units to create the categories to which they are placed. The specific methods of inductive analysis utilized in this inquiry were the Constant Comparative Method and the File Card System. (Note: The Constant Comparative Method was used for the first four weeks of the inquiry and the File Card System was used as the inquiry culminated.)

Constant Comparative Method

The Constant Comparative Method is an ongoing analysis of data starting as the inquiry is implemented. In this process, units of data are identified and written down on cards. These units of data are then compared with other units and placed into categories based on a "feels right" or "looks right" basis (Lincoln and Guba, 1985). The importance of making comparisons is emphasized by Glaser and Strauss (cited in Lincoln and Guba, 1985) in the following statement:

This constant comparison of the incidents very soon starts to generate theoretical properties of the category. The analyst starts thinking in terms of the full range of types or continua of the category, its dimensions, the conditions under which it is pronounced...
or minimized, its major consequences, its relation to other categories, and its properties (p. 341).

Once the category has a sufficient number of units of data, the investigator can start the process of uncovering the properties of the category (Lincoln and Guba, 1985).

Knowledge of properties makes it possible to write a rule for the assignment of incidents to categories that will eventually replace tacit judgments of tacit "look-alikeness" or "feel-alikeness" with propositional rule guide judgments (Lincoln and Guba, 1985, p. 341).

After the categories have been assigned propositional rules, a shift in process occurs from comparing units with other units to comparing units "to the primitive versions of the rules (properties) describing the category" (Lincoln and Guba, 1985, p. 342).

The process not only becomes more rule oriented but at the same time tests the properties; if new incidents fail to exhibit some of the properties, perhaps they ought not to be used to define the category, perhaps a subcategory is needed, or perhaps the category needs to be redefined. It is this dynamic working back and forth that gives the analyst confidence that he or she is converging on some stable and meaningful category set. The test is two-edged, exposing both incident and category to searching criticism (Lincoln and Guba, 1985, p. 342).

As the process of identifying category properties and rule definition takes place, the investigator moves towards a more global vision of the inquiry. "Relationships become more evident and the category set becomes more coherent" (Lincoln and Guba, 1985, p. 342). The process of data analysis becomes less segmented and more holistic, leading to
a construction of the situation at hand (Lincoln and Guba, 1985).

**File Card System**

In the first step of the File Card System, data are pulled together and read over several times. During this process, a preliminary list of coding categories is developed (Bogdan and Biklen, 1982). After the preliminary coding categories are generated, they are assigned numbers. Then, the data are again read over and units from the data are assigned the numbers of their corresponding categories. Bogdan and Biklen (1982) describe units of data in the following way. "By 'units of data' we mean pieces of your fieldnotes, transcripts, or documents that fall under the particular topic represented by the coding category" (Bogdan and Biklen, 1982, p. 165).

The first attempt to assign the coding categories to the data serves as a test to see if the categories are workable. After assigning the units of data to their corresponding categories, "the coding categories can be modified, new categories can be developed, and old ones discarded during this test" (Bogdan and Biklen, 1982, p. 165).

After a new list of categories has been generated, the categories are tested again by going through the data and assigning units to their corresponding categories. This process can continue until the investigator feels comfortable that the list of categories encompasses the relevant
information of the inquiry.

When the list of categories has been limited to its fixed number for the given inquiry, the units are once again assigned to their corresponding categories. At this point, note cards with each category and number at the top are assembled so that the units from the data within each category can be located within the text. Bogdan and Biklen (1982) explain this process in the following way. "You then go through the data recording on the cards on what page in the data and on what lines on that page units of data relevant to the category can be found" (p. 169).

**ESTABLISHING TRUSTWORTHINESS**

As with conventional research, trustworthiness in the findings of a naturalistic study is extremely important. The inquirer must be able to persuade her audiences that findings of an inquiry are worthy of their attention (Lincoln and Guba, 1985). Conventional research uses standards of internal validity, external validity, reliability, and objectivity to assert that findings are trustworthy. Although naturalistic researchers have chosen not to use these conventional standards of trustworthiness because of their inappropriateness when applied to naturalism, they have established four corresponding naturalistic analogues which more logically and directly relate to the tenants of naturalistic research (Lincoln and Guba, 1985).
The four naturalistic analogues are: credibility (internal validity), transferability (generalizability), dependability (reliability), and confirmability (objectivity). A brief description of each analogue, coupled with the methods by which each is achieved follows below.

Credibility

Since the naturalist sees reality as a multiple set of mental constructions, the naturalist must show that she has represented these constructions adequately. The naturalist establishes credibility by showing that the reconstructions arrived at via the inquiry are credible to the constructors of the original multiple realities (Lincoln and Guba, 1985). The task of establishing credibility is two fold. First, the naturalist must carry out the inquiry in such a way to enhance the probability that findings will be found to be credible. Second, the naturalist must demonstrate the credibility of findings by having them approved by the constructors of the multiple realities being studied (Lincoln and Guba, 1985).

There are several techniques which help to increase the probability that credible findings will be produced. Five techniques which were utilized in this inquiry are prolonged engagement, persistent observation, triangulation, peer debriefing, and member checks. Lincoln and Guba (1985) describe these techniques below.

1. Prolonged Engagement

Prolonged engagement is the investment of sufficient time to achieve certain purposes: learning the culture,
testing for misinformation introduced by distortions either of the self or of the respondents, and building trust (Lincoln and Guba, 1985, p. 301).

Prolonged engagement renders the inquirer open to the multiple influences - the mutual shapers and contextual factors - that impinge upon the phenomenon being studied (Lincoln and Guba, 1985, p. 304).

2. Persistent Observation

The purpose of persistent observation is to identify those characteristics and elements in the situation that are most relevant to the problem or issue being pursued and focusing on them in detail. If prolonged engagement provides scope, persistent observation provides depth (Lincoln and Guba, 1985, p. 304).

3. Triangulation

One often encounters phrases such as, "No report was credited unless it could be verified by another person" or "The information forthcoming in interviews was discounted unless it could be checked in the available documents" (Lincoln and Guba, 1985, p. 305)

In the example above, two or more sources were required before a statement was to be considered credible. In addition to using sources, two or more methods and two or more investigators can be used to triangulate. The process of triangulation enhances the credibility given to a particular finding or interpretation. Webb et. al. (cited in Lincoln and Guba, 1985) believe that the use of different methods (interview, questionnaire, observation, taped discussions) is particularly valuable in enhancing credibility because it makes data believable.

Once a proposition has been confirmed by two or more measurement processes, the uncertainty of its interpretation is greatly reduced. The most persuasive evidence comes through a triangulation of measurement
processes (p. 306).

4. Peer Debriefing

Peer debriefing is a process of posing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might remain implicit within the inquirer’s mind (Lincoln and Guba, 1985, p. 308).

This process helps keep the inquirer honest by exposing himself or herself to questions about the inquiry (Lincoln and Guba, 1985, p. 308).

It also provides opportunities to sound out working hypotheses and to develop and initially test next steps in the emerging methodological design (Lincoln and Guba, 1985).

5. Member Check

Of all the techniques used to enhance credibility, the member check is the most crucial. Lincoln and Guba (1985) explain the member check as:

A process whereby data, analytic categories, interpretations, and conclusions are tested with members of those stakeholding groups from whom the data were originally collected (Lincoln and Guba, 1985, p. 314).

If after doing the member check, those stakeholders agree that the investigator’s reconstructions are adequate representations of their own realities, an important step has been taken in establishing credibility (Lincoln and Guba, 1985).

The investigator who has received the agreement of the respondent groups on the credibility of his or her work has established a strong beachhead toward convincing readers and critics of the authenticity of the work
Transferability

The aim of naturalistic inquiry is to develop an idiographic body of knowledge in the form of working hypotheses that describe the individual case (Lincoln and Guba, 1985). The naturalist then creates opportunities for others to determine whether the findings are "transferable" to their own contexts. Anyone seeking to make a transfer must know both sending and receiving contexts so that she can make a determination about contextual similarity (Lincoln and Guba, 1985). "The responsibility of the original investigator ends in providing sufficient descriptive data to make such similarity judgments possible" (Lincoln and Guba, 1985, p. 298).

The method by which the naturalist enables others to conclude whether or not a transfer can be made is through thick description.

The naturalist can only set out working hypotheses together with a description of the time and context in which they were found to hold. Whether they hold in some other context at some other time, is an empirical issue, the resolution of which depends upon the degree of similarity between sending and receiving (or earlier and later) contexts (Lincoln and Guba, 1985, p. 315).

Dependability

The standard of dependability provides assurance that the inquiry process was carried out appropriately. Unlike conventional inquiry, where reliability is often established
by replication, naturalistic inquiry assumes that reality is "ephemeral and changing" (Lincoln and Guba, 1985, p. 299). Noted instabilities are "at least as much a function of what is being studied as of the process of studying" (Lincoln and Guba, 1985, p. 299). Although the naturalist concedes that the human instrument can be suspect to instrumental unreliability, she is unwillingly to accept charges of unreliability because of changes in the entity being studied or because the emergent design changes as insights grow and working hypotheses appear (Lincoln and Guba, 1985).

**Confirmability**

The standard of confirmability provides assurance that findings of the inquiry are confirmable. By using the standard of confirmability, the naturalist shifts the focus of objectivity away from the investigator and places it on the data. "The issue is no longer the investigator's characteristics but the characteristics of the data: Are they or are they not confirmable" (Lincoln and Guba, 1985, p. 300)?

**Inquiry Audit**

The naturalist often establishes the dependability and confirmability of the inquiry through the inquiry audit, which models the fiscal audit. Through the inquiry audit, the auditor attests: a) to the dependability of the inquiry by asserting that the inquiry process was carried out appropriately; and b) to the confirmability of the inquiry by asserting that the findings are supported by the data (Lincoln
and Guba, 1985). Thus, the inquiry audit affirms or disconfirms that the inquirer did what she claims to have done and reported accurately from the data what occurred during the inquiry.

**Addressing Trustworthiness In This Study**

In this inquiry, most of the above mentioned techniques for establishing trustworthiness were implemented satisfactorily. However, the duration of this inquiry, combined with scheduling difficulties encountered during the final four weeks of the inquiry lessened the degree to which the standards of trustworthiness were fulfilled. Nonetheless, the credibility of the inquiry was enhanced by using the five techniques of prolonged engagement, persistent observation, triangulation, peer debriefing, and member checks. Each of the these techniques will be discussed individually.

**Prolonged Engagement**

The eight week inquiry provided a sufficient length of time to learn about the teachers’ experiences in the Peer Reflection Program. In addition to working with the participating teachers, the researcher worked as an intern with the Dean of Students during the months of January, February, and March which provided opportunities to learn about the Perkins School community. The internship enabled the researcher to observe the school community at close proximity and become acquainted with many students and teachers. Although an inquiry of longer duration would have
been more desirable, the eight week period was sufficient.

**Persistent Observation**

The opportunity to observe the teachers' classes, listen to their discussions, and conduct interviews with each teacher provided opportunities to focus on the most relevant variables and issues. Although more time and more repetitions of the observation and discussion sessions would have been desirable, the eight week duration of this inquiry was an adequate amount of time to do this.

**Triangulation**

The technique of triangulation was utilized primarily by using different sources and methods. The individual teachers served as the different sources and the various data collection techniques served as the different methods. Throughout the inquiry, similar experiences, feelings, perceptions, and beliefs were often triangulated by the teachers. These same experiences, feelings, perceptions, and beliefs were also triangulated by different methods of data collection.

**Peer Debriefing**

The process of peer debriefing was utilized effectively during this inquiry. On two occasions, once during the fourth week and once during the seventh week, the researcher met with Mary Daniels, a professor not involved in the inquiry, to talk about what was going on. Mary read the transcripts of the group discussions, fieldnotes, and personal reflection notes.
During the discussions, Mary asked questions about the methodology, purposes, and outcomes of the inquiry.

**Member Checks**

The member check will be conducted at the conclusion of the inquiry. At an appropriate time, the teachers will read the researcher's description and interpretations of their experiences in the Peer Reflection program. If there is disagreement between the researcher's account and the teachers' accounts, the particular point or points of disagreement will be discussed for the purpose of reaching "negotiated outcomes." Lincoln and Guba (1985) explain negotiated outcomes in the following way.

By the phrase "negotiated outcomes" we mean to imply that both facts and interpretations that will ultimately find their way into the case report must be subjected to scrutiny by respondents who earlier acted as sources for that information, or by other persons who are like them. Of course, not all negotiations can end in agreement, and one cannot expect an inquiry to produce findings that everyone could or would accept. But everyone does have the right to provide input on the subject of what are proper outcomes, and the inquirer has an obligation to attend to those inputs and to honor them so far as possible (p. 211).

**Inquiry Audit**

One departure from the standards of achieving trustworthiness as established by Lincoln and Guba was the decision by the researcher and committee members not to have an inquiry audit. This decision did not affect the inquiry in any way since it was implemented so that an inquiry audit could be performed if necessary.
DESCRIPTION OF PEER REFLECTION PROGRAM

What follows is a description of a) the context in which the teachers worked together in the Peer Reflection program, b) the process by which this program was conceptualized, c) the process by which this program was implemented, and d) the chronology of what happened during the eight week inquiry.

This section of the methodology will be written in first person since the researcher was directly involved with the teachers in the program's implementation. The names of the teachers and the school have been changed to maintain their anonymity.

Context

Perkins, an independent school located in a midwestern city, is a K-12 boys school which enrolls 650 students and employees 55 teachers. The school is divided into three divisions, the lower school (100 students), the middle school (200 students), and the upper school (350 students). Although each division has its own separate building, the buildings are contiguous. This arrangement allows the different divisions to share common facilities such as the theatre, cafeteria, and gymnasiums. Although several teachers have teaching responsibilities in two divisions, most teachers teach solely in one division. The work done in this study occurred in the upper school.
Students at Perkins

Perkins is a highly competitive school where high expectations exist for both students and teachers. Students face high expectations, both academically and athletically at Perkins. In addition to demanding schedules, which can often extend from 8:00 AM to 6:00 PM each day, students are given an average of three hours of homework each night.

Despite these demands, most students enjoy their experience at Perkins. The students are well liked by their teachers and, on most occasions, are treated with respect and trust. They are also provided with many opportunities, both academic and extracurricular, which are valued and appreciated.

Students at Perkins regularly achieve and witness success. The students achieve high S.A.T. and A.P. Test scores, admission to highly selective colleges, individual and team championships in athletics, and acclaim within and beyond the school community through the expanding Fine Arts department. For the many students who do not achieve the highest levels of academic success, there is an understanding that Perkins is a competitive school. It is assumed that average work at Perkins is well above average at most other schools.

In the last two years, there has been a small faction of juniors and seniors who have not been happy about decisions made by Reed Johnson, the Head of the Upper School, which have
more narrowly defined the dress code (collared dress shirts that are suitable for a tie and dress slacks with belt loops) and eliminated the senior lounge. When talking together in the college counseling room, which is connected to the dean’s office, these students expressed feelings of bitterness about the school’s new direction. They felt that everything was fine and much more relaxed the old way; and they resented that they were the unlucky ones who had to deal with the new changes. Most students, however, did not appear to be bothered by these changes.

**Teachers at Perkins**

Most teachers at Perkins are committed and talented teachers who believe in the education which Perkins provides to its students. They enjoy working with their students and gain much satisfaction from these interactions.

The teachers face demanding schedules which require them to put in long hours as they attend to their teaching and extracurricular responsibilities. Although some teachers take on more extracurricular responsibilities than others, all teachers are expected to contribute their time and energy to extracurricular activities, whether in athletics, fine arts, service activities, or clubs. Despite feeling exhausted and stressed on occasions from the amount of time and energy they expend, most teachers enjoy their work and are happy to be teaching at Perkins.
Within the structure of each academic department, each teacher is able to create his or her own curriculum and teach using his or her preferred teaching style. Despite a more active evaluation process during the last two years which has involved more frequent class observations and direct critiques, teachers at Perkins still maintain a great deal of autonomy in their classrooms. (Although the faculty has not accepted the new evaluation process with open arms, the teachers have been more accepting of Reed Johnson's efforts in this area. Reed believes the faculty has responded favorably to his efforts to provide more positive feedback and obtainable goals.)

**Academic Schedule at Perkins**

The daily academic schedule at Perkins starts at 8:15 every morning. On Monday and Friday, the upper school meets in the school theatre for homeroom. This session, directed by the senior class president, provides a time for attendance, announcements, recognition of student and team accomplishments, and communication about important issues or problems which need to be addressed with the entire upper school. Both students and teachers are active in this meeting.

On the remaining days, the homeroom teachers meet separately with their respective homeroom class. Because the homeroom classes are small (10 to 15 students), teachers are able to check on their students' academic progress and address
any problems or concerns expressed by students or fellow teachers.

Eight academic periods and one activity period, each lasting forty minutes, follow the homeroom period. Most teachers teach five classes each day. This leaves one period for lunch and two free periods. The activity period is used for club meetings, intramural sports, special programs, junior speeches, class meetings, and monthly faculty meetings. Most extracurricular programs start immediately following the activity period and can last as late as 6:00 PM. On days when athletic teams travel, their arrival back at Perkins can often extend beyond 6:00 PM.

The Peer Group

The teachers who participated in this program teach in different academic disciplines. The peer group was comprised of Sarah Thompson, a Latin teacher with five years of teaching experience, Bill Smith, a English teacher with twenty-four years of teaching experience, and Gene Walters, a Math teacher with six years of teaching experience. The teachers were asked individually by Reed Johnson if they would be interested in becoming involved in a program where teachers work together by observing and being observed in the classroom by their peers. Reed believed that it was important to shoot for success in the initial phase of this program. Consequently, he selected teachers whom he knew to be competent and whom he assumed would enjoy and benefit from this experience.
This particular group of teachers was friendly and collegial. They enjoyed their relationships with each other prior to this experience and had positive feelings about the idea of working together in the peer group. Their one main reservation about this endeavor pertained to the amount of time and energy they could afford to devote to it, given their other responsibilities.

All three teachers had different demands on their time, but Sarah and Gene were especially concerned about their schedules. Sarah was teaching six Latin classes which involved five different preparations. The sixth class, (an additional class Sarah was teaching because the other Latin teacher left Perkins in December), met several times each week during the activities period. In addition, Sarah often provided individual help to her students before school, after school, and during her free periods.

Gene had just started his first season as varsity swimming coach. This position required a great deal of his time, and much of his energy and concentration throughout the day. Although Gene's teaching load was not any different than normal, his schedule had become extremely demanding as the regular schedule of swim meets began.

The teachers explained this information to me during the introductory meeting, which was designed to establish agreement on the details of the program. What follows is my account of how this program unfolded from start to finish.
Following my account, the teachers' constructions of their experiences in this program will be reported for the purpose of learning and understanding how they experienced this program.

CONCEPTUALIZING THE PEER REFLECTION PROGRAM

Although this program was conceptualized during the year prior to its implementation, my belief that teachers could benefit from working together was established during my three years of experience as a high school teacher.

As a young teacher, I wanted to see what some of my peers were doing in their classes but I never asked to observe their classes. In speculating on this, there were at least two reasons for my hesitance. First, I was concerned that my peers would not want me to observe their classes. Second, I was uneasy about the possibility that one of my peers would reciprocate my advances and request to observe my classes.

Despite having the reputation as being a very good teacher, I was not confident in my own mastery of much of the material I taught. This created a sincere feeling of insecurity which made both the thought and process of being observed unsettling. Although I felt the process of observing and being observed would be beneficial, I never initiated it. Strangely enough, visitors to the school were often sent to my classes by the head of the upper school, and these classes always seemed to go reasonably well.
Thus, it was my own experience which lead me to come up with a program which created structured opportunities for a school's entire faculty to take part in peer observation. In this program, faculty members would form peer groups of three or four teachers of related academic disciplines. The teachers would then meet twice a week during a designated academic period. One of the class periods would be designated for peer observations and the second period would be designated for discussion sessions. During the discussion session, the teachers would talk about the observed class and provide feedback to the observed teacher.

This program was to be combined with a student and faculty activities period held during the same academic period on the remaining three days of the school week. For example, the program would take the following form on the daily academic schedule during third period each week.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
</table>

IMPLEMENTING THE PEER REFLECTION PROGRAM

After finding research which was supportive of my ideas, I decided to try to find a school which would be willing to give it a try. Knowing that it was unlikely that a school would commit its entire faculty, I decided that one or two peer groups would be a successful first step.

During the summer of 1989, I called The Perkins School to speak with Reed Johnson, the head of the upper school at
Perkins, to see if he would be interested in this program. I had met Reed at a soccer coaches clinic in 1985, and then bumped into him during a teachers employment fair in Philadelphia during the Spring of 1987. From these contacts, I established a good relationship with Reed.

When I called the school in late July Reed was on vacation, so I asked to speak to the headmaster, Charles Sanders. Although I did not know Charles, he listened as I explained what I was interested in doing. After hearing my ideas, he requested that I send him some information about my proposal.

As requested, I sent both Charles and Reed a paper which explained my ideas. The paper was accompanied by a letter which outlined my plan and requested that we meet to talk at an appropriate time. After talking to Charles on the phone in early September, we set up a meeting which was held on September 20th. At this meeting I met with Charles and Reed in Charles’ office. During this meeting, I explained my ideas and expressed my desire to have one or two peer groups attempt this process of peer reflection at Perkins. I also expressed my interest in working at Perkins as an intern in an administrative capacity.

It was evident from this meeting that both Charles and Reed were interested in my ideas and believed that the area of professional development was deserving of creative approaches such as this. However, they both expressed
Charles was concerned about the effect that having two or three observing teachers in a small classroom would have on the dynamics of teaching and learning. Charles did not want to undermine the quality of class instruction. In response to his concern, I stated that the dynamics of the class would definitely change, but with time, the students and teachers would feel more and more comfortable.

Reed was concerned about how the teachers would respond to being asked to do extra work. Although, I had not really considered this point prior to our meeting, I stated that the program was designed so that teachers would not have to give up their free periods. He responded by saying that the teachers would still be asked to do extra work while working on the project. After hearing this, I agreed with Reed.

At this point, I explained the specific details of how the implementation of one or two peer groups would take place at Perkins. I explained that the one sticking point was the need to cover the observing teachers' classes when they observed their peer teach. This meant that each week, two class periods would need to be covered. I recommended that administrators or department chairpersons cover these classes. Charles and Reed then agreed they could work this out. (Although I initially thought the teachers would need coverage when they met for their discussion session, it was decided at this meeting that the discussions could be held during the
activities period or after school.)

After talking about these issues, Charles expressed his interest in going ahead with one or possibly two peer groups and Reed concurred. Charles then asked Reed whether there were teachers in the upper school who he thought would be interested in this endeavor. Reed responded affirmatively and said he would talk to some of them about being involved in this program.

It was my intention after this meeting to start the program as soon as Reed gathered the teachers. However, after one of my committee members recommended that I do more research before proceeding, I decided to wait until January. I approached Reed about this possibility one week after our meeting and he thought it would be fine to wait. He then told me he had talked to several teachers who had expressed interest in working on this project. We then agreed to talk again in early December to iron out the details of the Peer Reflection program and to address my potential internship responsibilities.

During the months of September, October, and November I researched the areas of collegiality, teacher leadership, schools as workplaces, and reflection. From this research I learned that most programs which have teachers work together are more technical in their focus. These programs concentrate on a particular teaching technique or program and then work on carrying out the given strategy. I decided that the
teachers at Perkins should examine their teaching in a more holistic way by incorporating their own reflective thinking as they work together. Their reflections could center on their teaching, their experiences while working together with their peers, and their thoughts and feelings about teaching.

As December approached, the specific details of the peer reflection program were complete. The teachers would follow the same observation and feedback schedule as outlined initially. Additionally, the teachers would reflect on their experiences by keeping a journal and by doing other reflective reporting such as conference reports, one minute papers, and critical event reports.

**Major Methodological Change**

This was the situation until a significant misunderstanding was revealed during a short meeting in early December with Reed Johnson. This meeting followed directly after a meeting with Glen Davis, Dean of Students, Reed, and myself where we agreed upon the details of my internship. When I sat down with Reed to go over the details of the implementation of the Peer Reflection program, I learned that Reed and I were at odds on how we remembered our initial meeting.

When I asked him how he planned to have the administrators cover the observing teachers' classes, he said it would not be possible to do this. Although I restated our agreement as I remembered it, Reed was uneasy about this and
said that regardless of what transpired during our meeting, the use of administrators to fill classes would not be feasible.

At this point, Reed was becoming frustrated and I began to think quickly about alternative options which could salvage this program. I suggested the possibility that we bring teachers together who shared a common free period so they could carry out the program on their own time. (Although this idea was in direct opposition to my earlier plans, I had no other choice.) Reed immediately pulled out the notebook which possesses every teacher's schedule. We then checked the schedules of the teachers whom he had originally talked to about participating in this program and two of the four teachers shared common free periods. (Unfortunately, the physical education teacher's schedule did not coincide with the other teachers' schedules, and thus, was excluded from consideration.) While Reed thought about potential replacements, I asked about Bill Johnson. (I had just met Bill in the faculty mail room earlier in the day and he seemed like an interesting guy.) Reed nodded his head up and down and then checked his schedule. It turned out that Bill shared a common free period with the other teachers, so Reed agreed to ask him if he would be interested in taking part in this program.

When I called Reed the next day, I learned that Bill had agreed to participate. If nothing else, this assured me
there were now teachers who knew for certain they would be taking part in this program, whose starting time was scheduled to coincide with the start of the new academic interim period on January 22nd. Since it was only early December, I decided to wait until January to meet with the teachers.

**Introductory Meeting**

When the teachers returned from their winter holiday vacation on Thursday, January 4th, a letter which outlined the rational and details of the program was waiting in their mail boxes. In the letter, I informed the teachers that I would contact them on the following Monday or Tuesday to arrange a time for our first meeting.

On Monday, the first day of my internship with the Dean of Students, I was introduced to the upper school during the homeroom period. Following the homeroom period, I was introduced to Sarah Thompson and Bill Smith by Reed Johnson outside of the theatre.

Prior to this introduction, I saw both Sarah and Bill speak with Reed at the end of the homeroom session. They appeared apprehensive to me and I assumed they were speaking to him about the letter they received about the program. (It was my feeling at the time that it would be a miracle if I were able to implement this program at Perkins.) When I met Sarah and was reacquainted with Bill, I could see there was some physical uneasiness. At this encounter, I told Sarah and Bill that I would see them later in the day about setting up
a time for our first meeting. I also indicated to Sarah that the details of the program which were explained in the letter were not fixed in stone. I said that I really wanted to be flexible and come up with a program that was good for everyone.

As I walked back from the homeroom session with Reed, he informed me that I had to be careful. I had gotten off on the wrong foot with Bill by misspelling his name in my introductory letter. Instead of Smith, I spelled it Smyth. Additionally, the teachers had expressed concerns to him about not wanting to get involved in something which was going to be demanding of their time and energy.

I talked to each teacher on Monday, January 8th, and arranged our first meeting for Thursday, January 11th during 7th period. The meeting was held in Bill's classroom. I arrived first, followed by Sarah, and then Gene. Once we were all present, Bill pointed to the pile of teacher evaluations on his desk, which had been completed by students, and reached out to hand several of them to me. At this point, both Gene and Sarah chimed in that the only reason Bill attempted to show me the evaluations was to show off that he gets terrific evaluations from his students. Gene then said that he was going to get "dinged" on his student evaluations for not getting papers and tests back on time. He explained that once swimming gets started, everything gets put on hold because there are tremendous demands on his time.
At this point, I started the conversation about our work together in the peer group. As I started to talk, I was concerned and apprehensive about how the teachers would respond to my comments. Consequently, I was very careful about the way I presented the possibilities for their work together.

I stated a brief explanation of the program and then passed out a two page document which explained the potential options for their work with reflection. Before reading this, Bill spoke for Gene and Sarah by voicing concerns about time commitments and the extensive demands on their time. (It was clear that Bill was assuming a leadership role within the group. Our physical arrangement in the room did nothing to refute this as Bill remained behind his desk while the rest of us sat in a semi circle facing him.)

I responded to Bill’s comments by saying that I shared an understanding of what they were up against based on my three years of teaching experience in a boarding school. I then restated that it was my desire that this project be meaningful, not burdensome. After these comments, I suggested the teachers read over the reflection options in order to see how they felt about them.

After reviewing this material, which explained the following reflection options: the journal, the critical event report, the conference report, and the one minute paper, Gene said the one minute paper would be very manageable since it
required only a minute or two at the end of each class. Following Gene's comments, there was a period of silence. After waiting for what felt like thirty seconds, I requested that the teachers consider keeping a journal. Bill then asked whether it would be helpful to me if they were to keep journals. I responded by saying that it would be helpful because the journal would provide a sense of continuity throughout the duration of the program. After saying this, Bill said it would be fine. Gene followed by saying he could manage it. However, Sarah remained silent. So I asked her whether this was agreeable to her. She then responded affirmatively, although not with a great deal of enthusiasm. Following this exchange, Gene asked how much writing I would want them to do in the journal. I responded by requesting at least two entries per week.

Although the other reflection options remained, I chose not to ask if the teachers would agree to do them. Instead, I explained each one and said I was hopeful they would attempt them as the program got underway.

We then went over the observation schedule I had provided. During this discussion, the schedule was amended as a result of Gene's request that he not be observed when teaching his Quest class because of the personal nature of the discussions. This situation created initial problems because Bill would no longer be able to observe any of Gene's classes. However, Bill said that he could observe Gene's class during
8th period when he tested his own class.

Following this meeting, I sent the teachers a memo which confirmed what was agreed to in our meetings. The memo outlined the program and reviewed the details of their responsibilities.

The duration of the program was to last for eight weeks. During this time, each teacher was to be observed three times by each of his or her peers. Each week, the observations were to be followed by a discussion session to be held on Thursdays during 7th period. In addition, the teachers were to keep a journal and use the other reflection options at their disposal when time permitted.

**CHRONOLOGICAL SUMMARY OF PEER REFLECTION PROGRAM**

This study clearly can be divided into two halves. The first four weeks, which proceeded very smoothly, and the remaining four weeks, which were filled with scheduling difficulties. These difficulties affected the study by limiting the number of observations to two instead of three, and by limiting the number of discussions from eight to six. Five of these discussions followed teaching observations. The sixth was a final discussion in which I was a participant.

**Week 1 (January 22 - January 26)**

In planning for the implementation of this program, I decided to provide the teachers with a memo at the start of each week which would serve as a reminder of the week's observation schedule. My memo detailing the first week's
schedule was in the teachers' mailboxes on Monday morning.

Bill's first observation of Sarah's teaching was scheduled for Tuesday during 3rd period. On Tuesday morning, I saw Bill in the hall immediately after 1st period. He informed me that Sarah's class was going to be held in a different classroom than where it normally meets. After explaining the location of the classroom, Bill told me he was planning to bring in a cup of decaffeinated coffee and that he had cleared this with Sarah.

As I waited in the hall outside of Sarah's 3rd period classroom, located across the hall from her office, I had a short conversation with her while she was in route from her second period class to her office. I made a poor attempt at small talk by asking if she had gotten the material I had left in her mail box. After informing me that she had received my memos, Sarah told me that the classroom where she would be teaching was very small. She said that although it would be crowded, I would be welcome to observe the class if I desired.

At Perkins, 2nd Period is followed by a ten minute break where students can buy doughnuts and breadsticks. Since I arrived immediately after second period, I sat for several minutes in the back of the classroom before anyone entered. As the start of class approached, the students trickled in one or two at a time. Of the five students who entered, only two students seemed surprised by my presence. Bill entered in the midst of the students, carrying a legal pad, the goal
statement Sarah had provided for the class, and a cup of coffee. Sarah then entered the class as the period was about to start.

After the bell rang, Sarah had to wait for the last of her six students who arrived thirty seconds late. She then immediately started the Latin IV class. During class, Bill took some notes, and on one occasion, answered a question which the students did not answer. I also had a legal pad and occasionally took notes. Following class, I thanked Sarah and left. Bill had left before me and appeared to thank Sarah as well.

Excerpts from my fieldnotes follow.

Throughout the seemingly difficult process of translating the latin, students freely asked Sarah whether or not they had a correct translation. She would respond as needed. Usually, she would ask them a question which would help them answer their own question. Other times, when students were close to being correct but not entirely correct, she would state the proper tense immediately following their small error. After the first student was finished with this process, Sarah then selected another student and replicated the same process.

Sarah was very impressive in her teaching. While being straight ahead and driven to accomplish a certain amount of work, she also allowed herself to follow her students’ questions and thoughts. Whether the students were doing the work orally or following along, they seemed to be together in their focus. There was hardly any dialogue between students. Everyone seemed to have their head buried in their work, probably because they were all working so hard.

There was very little eye contact demonstrated by the students. When they talked with Sarah, they sometimes looked up from their books and sometimes did not. The class seemed unaffected by my and Bill’s presence in the classroom. The relationship between Sarah and the students seemed to be very good. They
enjoyed being in there and Sarah seemed to be enjoying teaching them.

Gene's first observation of Sarah's teaching was scheduled for Wednesday, 3rd period. As I was on my way to attend Sarah's 3rd period class on Wednesday, I saw Gene walking in the hall. When I asked him where Sarah was going to be teaching her 3rd period class, Gene informed me that he was going to observe during 9th period instead of 3rd period so he could observe the same class Bill observed. I then commented to Gene that it was my intention to observe all of the classes and I would try to attend 9th period. Following my comment, Gene suggested that it would be interesting to compare how he felt while teaching when I was present with how he felt when only one of his peers observed his class. I thought this point had merit and told him that I would consider it.

After considering Gene's suggestion, I decided to go with it. As it turned out, I had already committed to attending a discipline meeting during 9th period on Wednesday and would have been unable to attend anyway. However, I felt good about this change in the structure of the program. Although it was not a dramatic change, I thought it might give me some needed credibility with the teachers.

The first discussion was set for Thursday, 7th period. Since I had decided I would not be a part of these discussions, I made arrangements to tape them. On Thursday
morning, I showed Bill how to operate the tape recorder. I then arranged to pick up the tape recorder at the conclusion of the discussion in front of Bill's classroom prior to 8th period.

The discussion went off without any hitches. The teachers' conversation touched on several topics and issues. Both Gene and Bill provided Sarah with positive comments about her teaching. In addition to Sarah's teaching, the teachers talked about the assigning of work, keeping students accountable for their assignments, individual students, the difficulties faced by the students when studying Latin, and the process of teaching Latin. When talking about teaching Latin, Sarah explained how she set up the course and the strategies she used when teaching.

Week 2 (January 29 to February 2)

As with the first week, I provided a memo on Monday which reminded the teachers of the observation schedule for the week. Sarah was scheduled to observe Bill during 8th period on Tuesday and Gene was scheduled to observe Bill during 4th period on Wednesday. I decided to observe with Gene on Wednesday. In this memo, I informed the other group members that I had agreed to Gene's suggestion that I only observe one class each week. I then requested that the teachers share any other suggestions as they continue with the program.

In the concluding part of the memo, I stated my desire to photocopy each teacher's journal entries on the following
Tuesday, February 6th. I stated that if agreeable, I would pick them up on Tuesday morning and return them Tuesday afternoon.

On Wednesday, I arrived at Bill’s class a couple of minutes early. Upon my arrival, Bill provided me with the book of poetry that would be used during class. Bill had planned that I share this book with Gene, but he arrived a few minutes late and ended up sharing with another student. Excerpts from my fieldnotes follow.

Bill started class with an introduction which was a reiteration of a theme that had been talked about in a previous day’s class, that being the paradoxical relationship between religion and love as it is used in the work of John Donne in the poem *Canonization*. Bill quickly went over that and had it written up on the board.

One of the initial observations that I have of Bill’s class is the sense of freedom that exists with him and also with the students. It’s almost as if the class has taken on the personality that Bill assumes and this is demonstrated in a willingness to use humor, a freedom to comment, and a general feeling of being relaxed as the difficult work is underway. Very serious stuff they are working on and there was still a lightness to the class which was very refreshing.

As the class proceeded, there was a dialogue, or let’s say an interchange between Bill and the class collectively. And yet there was also a dialogue between students, among students, as this dialogue between Bill and the collective class took place. They were happening in some cases, simultaneously, and Bill let this happen within reason. And the students did not push it so that it was disruptive. Very interesting from my point of view. A really good thing in my mind.

Also part of the class was an element of risk taking as prompted by Bill’s questioning and selecting students to answer. Now, risk taking being that the material was difficult and the answers were not revealed easily, so it required students to use a couple of things,
preparation, intuitive analysis, and a process of on the spot configuration of ideas into a possible answer, solutions, response to the questions.

The discussion which was scheduled for 7th period on Thursday took place as scheduled. In addition to providing Bill with positive comments about his teaching, the teachers talked about the students, the assignment of work, whether or not the material being covered was too difficult for the students, testing strategies, student preparation, and accountability. When talking about student accountability, the teachers shared their ideas and strategies on ways to facilitate student preparation. During the conversation, Bill also asked Sarah and Gene whether he was directing his students' learning rather than allowing them to learn through their own discovery.

Week 3 (February 5 to February 9)

The third week started with a conversation with Gene on Tuesday morning. (I did not attend school on Monday due to my grandfather's death.) At the conclusion of the second week, I decided that it was no longer necessary for me to provide reminders each week about the observation schedule. During the first two weeks, the teachers firmly established that they were making the decisions about the observation schedule. Instead of reminding the teachers of the week's schedule, I went to Gene to find out what observation schedule the teachers had arranged for the week. Gene informed me that Sarah was observing 8th period on Tuesday and Bill was
observing 1st period on Wednesday. I told Gene that I would observe on Wednesday.

During this conversation, I mentioned that although I had said I would pick up the journals on Tuesday morning, I had decided to wait until a latter time to do this. Gene responded positively to this decision, saying that it would give him a chance to write about the experience of being observed before I collected the journals.

My reasoning for waiting was fairly simple. I was almost certain that neither Sarah nor Bill had done any writing in their journals. Rather than ask them for nothing, I decided to wait, hoping that they would start to make journal entries.

Later in the afternoon on Tuesday, I ran into Bill in the copying room. He informed me that he was having trouble figuring out when he was going to get in to see Gene’s class this week. He told me he would not be in school on Friday, which was making his week hectic. But as he left the copying room he told me that one way or another, he would work it out and get into see one of Gene’s classes.

On Wednesday, I observed Gene’s first period class by myself. Evidently, Bill had decided that another period would work out better for him. Excerpts from my fieldnotes follow.

Gene opened class with a quick paced reading of the announcements and some "italian talk" as he read the menu for the meal of Italy during Language Week. Gene created an environment in the classroom where the students were encouraged to have some fun before the work was underway. But as the focus changed to geometry, John continued to use his personality to energize the class while work was
underway. Students seemed to be alert and relaxed at the same time. I liked it.

Gene started the class by walking around and checking each student's homework. After doing this, he reviewed the answers to the homework, moving quickly. Then, he asked the students which problems they wanted to see done on the board. It was during this process where Gene did the technical teaching of geometry. The students were open and desiring of demonstration on several of the problems. John seemed to have created an environment which fosters a comfortableness felt by the students to ask questions without threat or contempt.

In the process of going over the homework problems, Gene also asks questions which make each student think about the problem, and also, review their working knowledge of geometry which must exist to do geometry successfully. Gene rarely singled a student out to answer his questions, but many different students willingly offered answers to his questions.

The discussion was held on Thursday during 7th period. The teachers again provided positive comments about the observed teaching. However, there was more emphasis on students, student preparation, the process of observing friends teach, evaluation, and the S.A.T. The teachers expressed the feeling that they were predisposed to see good things when they observed their peers' teaching.

Week 4 (February 12 to February 16)

As the fourth week started, the teachers had completed one full cycle of observations. At this juncture, I actively entered into the dynamics of the group by sharing some of my observations with the teachers. I expressed my thoughts in a memo which was distributed on Monday morning. I first expressed how much I had enjoyed observing their classes and listening to the discussions. I then requested that the
teachers consider several suggestions as they approached their next round of observations. I suggested that they: 1) Examine their own teaching and the teaching of their peers with the thought of trying a new or different teaching strategy which could enhance what they already do in the classroom, 2) Ask for more specified feedback from their peers, and 3) Attempt to find a way to write in their journals and try the other reflection options (conference report, one minute paper, critical event report) in order to enhance their reflection. I concluded the memo by requesting that the teachers allow me to interview them for thirty minutes during the next week.

Since the fourth week of the observation schedule repeated the first week's schedule, Bill was scheduled to observe Sarah during 3rd period on Tuesday and Gene was scheduled to observe Sarah during 9th period on Wednesday. Although I would have liked to observe with Gene on Wednesday, 9th period, my schedule did not allow this. Instead, I planned to observe during 3rd period on Tuesday.

On Tuesday, I arrived for class early and waited in the back of the class until the students started entering the classroom. Bill also arrived for class early, sitting next to me in the back corner of the very small classroom. Excerpts from my fieldnotes follow.

Sarah's class today started a little differently than the first class I saw. She started off by telling the class that Sam had indicated to her that the homework was very
difficult. Sarah then asked the class as a whole whether they felt the same way. She then asked Tom how he had done with the homework. From these questions about the homework, a short dialogue developed.

Once again, Sarah demonstrated a great deal of patience and provided encouragement to her students as they worked with very difficult material. Comments such as "there you go" and "very good" and "perfect." Sarah also had each student read a section in meter. This was something that Sarah had said in an earlier discussion that she had given up on. But on this occasion, she seemed encouraged by the students' performance.

During this class, I saw how difficult the study of Latin can be. I'm certain the students can become frustrated because of the nature of this subject and because of its difficulty. It seems that the students can never let their guard down. I am interested to know whether Sarah does anything to change up the pace or create a diversion. It would seem that this might be something to consider.

The class was business like, still production oriented, but in a positive way. There was a freshness in this class and a limited freedom for students to move out from the regular process of read, translate, and understand.

The discussion on Thursday occurred again without any problems. The teachers' conversation during this discussion focused more on personal stories and experiences than did their conversations during earlier discussions. The teachers also talked about the two class sessions which were observed during the week. During the discussion, Gene talked about the teaching innovation Sarah implemented during his observation, and Bill talked about Sarah's use of reading in meter during his observation. Sarah shared her observations about these classes, while also giving a detailed account of an encounter with one of her students.
Week 5 (February 19 to February 23)

The observation schedule for the fifth week repeated the second week’s schedule. Sarah was scheduled to observe Bill during 8th period on Tuesday and Gene was scheduled to observe Bill during 4th period on Wednesday. I decided that I would observe with Sarah during 8th period this week, instead of during fourth period.

Unfortunately, Bill’s 8th period class on Tuesday was not held because most of his students were on a field trip with the Fine Arts department. I then decided to attend Bill’s 4th period class on Wednesday. (Although I do not have notes on this class, it was another very impressive class.)

Although Sarah’s schedule on Wednesday did not allow time for her to observe any of Bill’s classes, I was hopeful the teachers would still meet for their weekly discussion on Thursday. However, when I saw Bill in the hall on Wednesday afternoon, he told me that because Sarah had not been able to observe his class, they would not be meeting for the discussion. Bill then said they all had a lot of work to take care of as well.

This turn of events disappointed me, but I did not feel I had much choice. In retrospect, I wish I would have suggested that Sarah observe Bill on Thursday and postpone the discussion until Friday. However, at the time I did not feel it was my right to attempt subtle persuasion or coercion. Bill had communicated a decision to me and I respected the
decision.

On a more positive note, I was able to interview all three teachers. I met with Gene on Thursday morning before school and with Bill and Sarah on Friday during 7th and 8th period respectively. The interviews with Gene and Sarah were focused and uninterrupted. The interview with Bill was more uncomfortable for me because Bill was preparing a slide show upon my arrival. Although we were able to talk for twenty-five minutes, it appeared to me that the interview was more of an imposition for Bill than for Sarah or Gene.

Week 6 (February 26 to March 2)

At the start of the sixth week, I provided a memo to the teachers which reminded them that the discussion session was scheduled for Wednesday instead of Thursday. The reason being that Gene would not be in school on Thursday or Friday because of the district swim meet. When Gene had informed us of this during the introductory meeting, we made arrangements to have the discussion on Wednesday instead of Thursday. (Both of the observations had already been scheduled for Tuesday.) In addition to reminding them of the change in schedule, I asked them in the memo to "hang tough" through the final weeks of the program.

Then, as luck would have it, the week was completely washed out when Gene missed school on Tuesday due to a scratched retina. Although powerless in this situation, I was demoralized by this. The only positive outcome which I could
identify was the accurate portrayal of the unpredictability and sudden changes which can affect a teacher’s daily school schedule.

Week 7 and Week 8 (March 5 to March 16)

At the start of week seven, I provided the teachers with a memo which outlined my plan for the program’s remaining two weeks. In this memo I informed the teachers that week seven would be Gene’s second observation. I then requested the final week be used for two discussion sessions in place of observations. In the first of these discussions, the teachers would discuss and assess their experience in this program. In the second discussion, I would be present during the discussion in order to ask questions about their experiences.

In addition to these requests, I expressed my desire to have another interview with each teacher. I concluded the memo by saying that it was important that Gene’s observations and discussion go as scheduled. I emphasized this by saying I really needed this one so the program concludes with a sense of balance. At the bottom of the memo, I informed the teachers that I would be attending the annual conference of the National Association of Independent Schools from Wednesday through Sunday.

Before I left for the NAIS conference, I observed Gene’s 1st period class on Tuesday. Excerpts from my fieldnotes follow.
Gene's class today was excellent. The class served as a review session for a test tomorrow by reviewing a quiz that they had the day before. Gene started the class by handing the quizzes back and by saying that they were "puke." This was a light hearted comment which also had a grain of seriousness. The students realized that they had to prepare for their test tomorrow.

Gene used a lightness again effectively to provide breaks in the action. He used colored chalk when drawing real life diagrams and talked about who was going to buy doughnuts for tomorrow. And the students did the same. One student asked Gene to make the top of the street light yellow instead of the normal chalk color. Other students contributed comments which were light in nature within the framework of doing work during the class.

It was a class where the students were actively working on the problems which John went over. They were working with Gene. Gene seemed very relaxed and comfortable. I thought the class was excellent.

Upon my return to Perkins on Monday, I had my fingers crossed that everything went as scheduled. When I picked up the tape recorder from Gene on Monday morning, I learned that the observations went as scheduled but the discussion session did not occur. As I understand it, the teachers postponed the discussion from Thursday to Friday, but were unable to meet on Friday because of a school assembly.

After hearing this news, I still tried to set up two discussions for the final week. Unfortunately, the teachers only had time for one discussion, which focused on Gene's class session. We then decided that we would hold the final discussion when the teachers returned from their Spring vacation.

If enough bad news had not already occurred during the final four weeks of this program, the final blow, as far as
I am concerned, occurred prior to the group's discussion on Thursday during the final week. As 7th period approached, I went outside to get some fresh air and to reflect on the program's conclusion. When I returned inside fifteen minutes into 7th period, I learned that Sarah was looking for me. When I found Sarah, she informed me that the tape recorder which I had provided for the discussion had been stolen out of Gene's desk. Thus, as I was sitting outside, the teachers were inside trying to find another tape recorder.

If I would have known this prior to 7th period, I could have given the teachers my extra tape recorder. As it turned out, the teachers were finally able to have a discussion with my back up recorder, but its duration was substantially shorter than it would have been otherwise. The teachers' conversation focused on Gene's teaching strategy of having students work in pairs, the merits of having students work together in groups, a technique Bill uses to have students work together, and individual students.

**Final Discussion**

The final discussion, in which I was a participant, was held on Tuesday, April 24th, during 7th period. (I arranged this discussion after the teachers returned from their Spring vacation.) The purpose for arranging the discussion was to have the teachers express their thoughts and feelings about their experiences in the Peer Reflection program. I lead the discussion by asking a number of questions. Their comments
focused on the following issues: the work demands and time pressure faced when teaching; the cyclic nature of the academic year; the process of observing peers in the classroom; the difference between being observed by one's peers and being observed by the headmaster; the relationships and chemistry among the participating teachers; the relevance of a group's composition of members; and the group members' unwillingness to provide critical analysis to their peers.

**Final Interviews**

Following the final discussion, I arranged times for interviews with each teacher. As with the earlier interviews, these were loosely programmed so that I was able to ask certain preplanned questions and follow up on the subjects which the teachers discussed during the interviews. I used the interviews as a way to probe further about issues already talked about during the discussions and to gain new information about how the teachers experienced this program.

The interviews concluded my work with the teachers at Perkins. I informed the teachers that upon the completion of my writing, I would provide them with my findings for the purpose of performing the member check.
CHAPTER IV

FINDINGS OF INQUIRY

Much was learned about the experiences of the three teachers who participated in this study. This chapter will recount their experiences and describe what occurred while they worked together. It will include the following sections:

a) the nature of peer interactions, b) the content of the teachers' discussions, c) perspectives on weekly discussions and peer observations, d) selected perspectives on the experience of being a teacher, and e) the complexity involved in doing the peer reflection program. As reported in Chapter II, these categories emerged from the inquiry through the Constant Comparative and File Card techniques of data analysis.

A. THE NATURE OF PEER INTERACTIONS

The teachers' interactions were an important part of the Peer Reflection program. While working together, the teachers: 1) provided positive comments to the observed teacher, 2) provided specific feedback to the observed teacher, 3) suggested teaching strategies, and 4) shared and asked questions about teaching strategies. This section will summarize these interactions.
1. The teachers provided positive comments to the observed teacher.

The teachers regularly provided positive comments to the observed teacher about the things they liked about his or her teaching. The teachers freely provided these comments and experienced little trouble finding good things to say to each teacher. These positive comments were usually judgments which pertained to a particular dimension of teaching. For example, Gene made the following comment to Sarah. "I thought you were outrageously patient and helpful with the boys." Bill then affirmed this by saying, "I thought the same thing." Later on in the same discussion, Bill made the following remarks to Sarah.

Among the many things that I thought were interesting were the encouragements. And I was particularly interested in what you got out of Randy Jones. He did a good job.

During the second discussion, Gene provided positive comments to Bill when Bill questioned whether he had provided too much direction to his students while uncovering the meaning of a particular poem. Gene answered by saying, "I think you were leading them, but you were leading them in amazing ways. The relationships that you saw and the way you related them. I have down in my notes, king of relationships." Sarah commented that she felt the more contemporary references which Bill provided when examining the poem provided the students with a vehicle from which to better
understand the poem. Sarah later expressed excitement when describing her perceptions about the class.

I was in there thinking, "God, these kids are all right with you, and they know what's going on, and they can pick up on what you're saying, and they can draw personal experiences in." Or if they don't know the answer, they kind of banter around between them. They don't feel like they are not allowed to talk to each other.

In another example, Bill made a positive comment which addressed Gene's perception that the classes which Sarah and Bill observed had been "teacher oriented" classes. Gene commented, "I would say that I erred in being teacher oriented." Bill responded by saying,

I think that's being a little unfair because you got responses from a shit load of people including Will Daily twice in the front row. Allen Bateman a couple of times. He came up as a star.

To this comment, Gene responded by affirming that Allen Bateman had performed well. He then commented on the entire class. "These guys were tough. I was surprised, pleasantly."

2. The teachers provided specific feedback to the observed teacher.

The teachers regularly provided specific feedback by recounting what the teacher had said and done in class. This also served as an effective method of providing positive comments, but it was more specific because it involved a repetition of the exact words or actions as initially delivered by the observed teacher. Bill used this technique in the following comments directed to Sarah during the first
discussion.

This is when you were doing your routine on sinistere. "Randy, good job!" And then to Tom, "Very good." And Sam got a very good, and Tim, I don’t know if he got a very good or not, but he was helped through his... so each guy was given a lot of encouragement.

Gene also used this technique when recounting a decision Bill made during the class Gene observed.

When we went to Jordan 1, you had someone read it and then you went on and asked for some responses and none came. And I was expecting you to say, "Well, come on, let me give you some hints." But instead, you said, "Okay, let's go on to Jordan 2." And you weren't going to give them any hints. And then someone said, "Okay, I'll give it a shot." And they raised their hand and that started the discussion. I liked it.

Although Sarah used this technique less frequently, she used it very effectively when describing Bill's demonstration of how a compass works.

I liked the thing with Doug Turner. The give me five and they did the compass. You were the moving foot and Doug was the stationary foot. And it was great because they have Geometry and they understand that, but it is also great because you got up there and touched somebody besides just them sitting and you standing or them getting up to the board.

Gene did not receive much specific feedback of this kind from Bill or Sarah. The only comments which approximate it were shared by Sarah when she recounted Gene's strategy of going over homework.

I liked that you just go through and say, "Which one didn't you understand? Put that one on the board and
let's do that one." And then you can almost see the light bulb go on and they say, "Oh God! How did I miss that?"

In the following comments, Bill provided positive comments and specific feedback together in a more general statement about Gene's teaching.

I liked, here I'm noting, you wrote formulas on the board, you move around the board like a mathematician. Your coat was off, the things appeared on the board quickly. It was as if the blackboard was an extension of speech.

The use of specific feedback by the observers was the primary method of sharing what they saw as they observed. In almost every case, this technique was used to make a positive comment to the observed teacher.

3. The teachers suggested teaching strategies to be implemented.

On two occasions, teachers suggested a specific teaching strategy to one of their peers. In both cases, the strategy was implemented with considerable success. One suggestion involved using an overhead projector to review the assigned Latin translation instead of having the students use their own books. Gene made this suggestion to Sarah, who then tried it the next time Gene observed her class. The results of this innovation were very successful. Both Gene and Sarah felt the class environment changed in a positive way because the students were forced to keep their heads up to the screen rather than "buried" in their books. Gene reported that there
was more dialogue between students and more of a cooperative atmosphere among the students. Sarah mentioned in the discussion that she thought the students enjoyed the change. She commented that they seemed to be much more relaxed. Gene commented further about the difference in class atmosphere.

The thing that I noticed most about yesterday was they seemed to be a little more goal minded, I mean the group, about having everyone understand. That was the one thing that I was going to say that was the nicest new item. At one point someone said, it may have been either Tom to Sam or Sam to Tom, "God, that's great! Good job!" And it was a real nice feeling. And I definitely did not see that the first time that I was there. It was a little more of a team.

Another strategy had students read in meter on a day when several students acknowledged before class that they were not prepared. Bill made this suggestion to Sarah just prior to the class. Sarah implemented the idea to read in meter, and received positive comments from Bill after doing so.

I love the fact that they did the reading in meter with such near deliberation and you can't miss it. I was kind of doing it along with them. And I think David was too.

After Sarah commented that she tried to pick a line that was reflective of how Virgil uses meter, Bill commented that he thought the reading in meter was a "neat thing."

4. The teachers asked questions about their peers' teaching strategies and shared their own teaching strategies with their peers.

During the length of the program, the teachers solicited and shared information about teaching strategies. Their
questions usually pertained to more general teaching concerns such as: the ways teachers handled the assigning of work, the checking of students' preparation for class, and the strategies used in the classroom. Some examples of these questions are listed below.

Did you assign these poems the night before for them to read?

Do they go to the board and do some problems?

How many times or how often do you do this group activity stuff?

At this time of year, do you teach to the A.P.?

What do you do if a kid is not preparing but he is getting translation rendered?

In addition to answering these questions, the teachers freely shared their own strategies with one another. They did this by recounting what they had done to address specific problems or by recounting the strategies they had implemented in certain situations. Some examples are listed below.

There's going to be a day of reckoning tomorrow morning because I'm going to give them a quiz which will actually be a bitch of a test on portions of stuff that they've seen from both of these poems but some heretofore unseen Donne. Which they can handle. We're going to see how much they've ingested, whether it means something or whether it's gobblygook.

I don't even know how you could enforce the preparation. I have started in my Latin 4 class now, because there were two who were consistently not preparing, making them have a translation, written out, and a word list every day.

Well, any day on a random day I can check homework to see if they have them for completion. I can pick a certain problem. I won't ever pick a real difficult one, some
sort of problem for them to get quizzed on. So that’s how I make them sure. You saw me check homework.

I pick a target guy. And instead of having a quiz, today we are going to target Tom Leonard or the exchange student. "Today we are going to target Juan Carlos. Here’s what’s going to happen. You’ve got two guest teachers. One is Todd Reich and the other is Gerald Warner. I’m going to ask you five questions in five minutes and your teachers will prepare you on pages 1-62 of Hard Times by Charles Dickens. If you cannot answer 4 out of 5 questions, I’m going to send green slips home to Gerald Warner and Todd Reich." So they, in a sense, are targeted as well. I let them prepare for five minutes and then I ask them the questions. It’s terrific.

Summary

The teachers' interactions focused primarily on technical dimensions of teaching. Although the teachers freely shared and asked questions about their teaching strategies and provided feedback to one another about their teaching, they were unwilling to provide constructive criticism or critical analysis to their peers. As a result, the impact of their positive feedback was diminished. Each teacher recognized that only positive aspects of their teaching were addressed.

B. CONTENT OF THE TEACHERS' DISCUSSIONS

The teachers' weekly discussions initially involved a significant amount of conversation about specific students and students in general. Later discussions included individual teaching experiences, academic subjects, and issues in teaching. When reflecting on the content of the discussions, Bill made the following comments.
Well, apart from talking about individual kids, which I notice we did an awful lot. I think we talked about differences in approaching and addressing a class. The pattern of talk in the classroom. How much the teacher wants to control. How much the uninvolved can be involved, the quiet student, the diseffective student.

In the following section, the content of the teachers' discussions will be examined more closely.

1. Discussion About Students

The teachers often talked about the interactions they had with their students and about their own perceptions of their students. When talking about individual students, the teachers discussed the student's abilities, the amount of effort the student exerted, the degree of difficulty the student had with the subject, the attitude the student brought to the class and to the work, the contribution the student made to the class environment, and the special or unique circumstances faced by the student. The teachers also discussed students in a more general sense, without focusing on one specific individual. Examples of the teachers' discussions about students follow below.

During the first discussion which followed Sarah's class, Gene made the following observation about a student named Ron, who is of Indian descent.

The poor guy doesn't even know english very well. I was under the impression as I listened to him that he was having definite troubles making heads or tails of english. My assumption when I heard him speak and try to translate was that he was speaking a different language at home.
In response to these comments, Sarah supported Gene's perceptions and also added her insights on how teaching him is different than most other students.

He has a hard time also because he is raised in a traditional Hindu family. He’s not allowed to date. He doesn’t go to movies. He does not do a lot of the things that the other kids do and it’s very hard for him when you are trying to make ties with present day things, American, Ohio white bread culture. When you’re trying to do that, he doesn’t have those points of reference and you have to find something else for him to relate to.

He has a hard time connecting his thoughts and you can see it in all of his translations. He knows all of the grammar. He can tell you the case of every word in the sentence. He knows everything, what it is. But when you try to string it along, he has a very hard time doing that. And he has a hard time keeping track of the details of the story although he works very hard at it. He probably is the hardest worker in there.

Sarah then compared Ron to another one of her students, Sam, who offered a different challenge.

On the other hand, we have Sam who can whip this stuff off as fast as he could if he worked at it and he doesn’t. And he is annoyed at me because he can’t get higher than a B or a Bt in my class. And he told me, 'I studied seven hours for this exam.' I said, the key to this class is working everyday at it and not just memorizing seven hours of all sorts of material.

Later in the same discussion, Sarah expressed her feelings that her students did not prepare for class as well as they could. She also expressed her understanding about the significant work demands facing students at Perkins.

I personally don’t think they prepare as well as they could. But I think when you have thirty minutes allotted
for each subject, and you’re talking about 2 1/2 hours
of work every night, that this goes by the wayside. And
I know in Tim’s case, he was having a terrible time in
the beginning and he would work and he would memorize
everything but he didn’t have any idea how to apply what
was going on. And he was very angry with me and
disturbed with me that I said, "You’re just memorizing
this." He responded by saying, "Well, that’s what I have
to do." And I thought, no, you have to learn to go
through this and not just memorize it.

The issue of holding students accountable for their
assignments and having them approach their work with the
desire to learn the material was mentioned several times
during the discussions. During the second discussion which
followed Bill’s observation, Bill said, "I think that the
question of accountability is an important one for juniors
because they carry some of the bad habits of not being
accountable into the senior year. They play games."

Bill stated that many average students, when faced with
difficult material or challenging questions, usually do not
meet the challenge. "The average kid, if he isn’t prepared
for that degree of difficulty will say, ‘What does this mean?
I have no idea?’ Which I hate."

When talking about the students in his eighth period
class, Bill spoke positively about their abilities and their
enjoyable personalities. He referred to many of them as
"comedians." The dialogue which followed Bill’s comments
expresses the teachers’ admiration for a particular student,
Ben Smith, and the understanding that all students do not have
the same capacity to handle difficult challenges.
G: I mean when Ben Smith was asked a question he obviously did not know. You asked him, what is the definition of canonization? That was the question.

B: He didn't know shit from shinola.

G: He was ready to try to figure it out.

B: Which I love.

G: Which was good. And he starts out with, "Well, let's look at the Latin." The whole class recognized what he was doing. He's a bright enough boy that...

S: He's just got enough...what's the word I'm looking for?

B: Hutzpah!

S: Hutzpah! That's a good one. To try and run with it. If you had asked Dave Thompson to do that...

B: Dave, he would have melted. I'm worried about him because he sees himself falling behind with the other bright guys and I'm afraid he takes his competitive lights from other oriental bright kids, which I suppose is inevitable. But he's better than he thinks he is.

When Gene was asked about the progress of two foreign students in his class, he expressed his assessment of their performance.

Pierre has a much easier time. I think the language barrier there is not as bad, and he is a very quick study. He smiles when I tell a joke so I know that he's getting it. And he has even offered a little bit; he offered six times this year.

Jose has a real hard time with the language and it is clear. Pierre can do word problems without any trouble, but Jose, if it is a word problem, he will very often have difficulty. And it's hard because I don't want to point him out to the kids to make sure that he specifically understands. He's great about coming in for extra help.
In addition to the above conversation about students, the teachers also shared accounts of their interactions with students. These accounts will be included in the next section.

2. The Sharing of Personal Stories Pertaining to the Teachers' Experiences

During the fourth discussion session, which followed Sarah's second observation, the sharing of personal stories dominated the teachers' conversation. The stories mostly pertained to a significant interaction with a particular student. However, three stories, which were shared during other discussions involved interactions with other teachers.

The stories which involved students were usually detailed and spirited. In the following example, two related stories, one told by Sarah and one by Bill, intertwined throughout a stretch of the conversation which also dealt with a teaching innovation Sarah had implemented. The discussion started with Sarah trying to remember which class Bill had observed.

S: It's hard to remember when you were there.
B: I was there the day...
S: Ah, when I was really mad at Tim.
B: Tim was not as well prepared as he usually is?
S: Tim is on my shit list.
B: Do you want some inside dope?
S: Mm.
B: I went to open church last night and I had Sam Lee and Chris Pattonson went with me and Sam described you as a
wonderful teacher! Wonderful! And I said, "Well Sam,...you have a nice sense of freedom in that course. Let's say that you are not as prepared as you would like to be on a given day. Let's say you are not as well prepared as Tim." And he said, "Tim! Tim is the loosest prepared person in there." And I said, "Let's say Ron." He said, "Ron is like a Latin robot but I think the best guy in there is Tom Taylor."

S: Yes! That's right. Gene and I were talking earlier.

B: And I said, "Well, that's very interesting." I talked briefly about the concept of shared responsibility for preparing the translation over a long passage. He said, he was talking now in terms of his personal observations, that he's really decided that he's going to go for broke because he had a talk with Charles Sanders (headmaster). And then he took me to task. He said, "I heard you chewed out Ben Smith." And I said, "That's right." He said, "I can't believe you did that." And I said, "Well, if you saw Smith sometimes in class, maybe you could believe it." And he said, "Nobody wants to be anybody's punching bag in class." And I said, "You're describing exactly the opposite of what occurs in Mrs. Thompson's class. Because nobody is ever going to be a punching bag in there. But I'm going to tell you something. Once in a while it doesn't hurt to see what it can feel like to be a punching bag if in fact there are such lapses that affect the whole group."

After recalling the above dialogue, Bill made the following comments.

In a boys' school, you have to make certain things abundantly clear. Now the error comes when you step on toes and make a guy feel lower in front of his peers. I think I did that with Smith. Then we talked about the...he got on our neighbor across the hall and how he is absolutely mean despite being a marvelously rich teacher. So we talked about meanness for a while and to make a long story short, he came on as a conscience for me. I was certainly not going to kiss his ass, Smith's I mean, but he made points that had registered.

After explaining the teaching innovation which she implemented during her class, Sarah said that one of the
reasons the class went well was that it was not held in one of her fellow language teacher's classrooms, where the class sometimes meets. The dialogue went as follows.

S: But I think they really enjoyed it. And Gene, I think, when he was there, they were much more relaxed, the lights were off and they were all over the place.

G: They had a little more sense of humor throughout the day, at least more than the first day. I think, I, myself, was more relaxed.

S: Well, the lights were off. And the other thing, I am very apprehensive about using Lee's room, as I have told you.

B: Jesus! I mean, I know you are, but God damn it, nobody owns anything here.

S: By the same token, she can make me so miserable.

B: How? By coming in and putzing around?

S: Yeah. It's just not worth, it's nice that we meet someplace else a couple days a week.

B: Well, did you meet someplace else, is that the point?

G: Yeah, in Ralph's old room. We met in that room down in the corner and I think that makes a big difference.

B: I guess it would.

S: It's ninth period and they are pretty tired by then and they are more relaxed. When you came, Tim had cut my class on Monday. He'd forgotten we meet on Monday and Wednesday ninth period because of my new teaching schedule. He'd forgotten, it was the third time he had forgotten. Not only had he forgotten but he was not prepared and I was ready to lose it right there.

G: There's a good chance he didn't forget, Sarah.

S: I didn't know. I just told him and so, I was going to chew his ass out right there.

B: Why didn't you?
S: Well, the reason I didn’t was I thought that Tim is the kind of kid who is looking for a fight.

B: Is he?

S: Mm.

G: Yeah.

B: His brother was, but I am not sure he is.

S: He is with me, at least. He’s looking for a fight with me. So I thought, I’m not going to do that...

After Sarah explained how she then went ahead with the strategy to read in meter because several students were not prepared for class, she returned to talking about Tim by saying, "Tim was brought into the office after class and told." Bill then affirmed this statement by repeating what Sarah had just said. Bill said, "A definite subject. You brought him into the office." Sarah then elaborated on the actual encounter and on the history of her relationship with Tim.

Mm. I brought him into the office; sat him in that chair; sat down and told him in this very same tone of voice, "miss my class again, come to my class again unprepared, you’re out for an entire week. You receive a zero for everything; test, quiz, anything. Understand me?" That was it.

And no conversation, that’s it, you’re out. And I should explain. He got a Ct from me 1st interim because he had a C on his test but he had not turned in two written assignments, and his oral work and been really good so I gave him a Ct. Well, he came in here and he was just...with me. And he said, "I need a Bt. You kept me off first honors." I said, "Nobody kept you off first honors except you. Look, it figures right out, it’s a 75%. You don’t have two homework assignments, zero, zero." I said, "I gave you the Ct because you’ve done such a good job in class. You’ve been enthusiastic, and
you’ve tried. I’m not giving you a B-." And then his work went down. Completely awful.

Following these comments, both Gene and Bill responded with comments. Bill said, "What a competitor!" Gene followed by saying, "With a few of the kids, you can’t even give an inch. Tim, I think, is a boy who needs lines drawn. If he steps over the line, you have to hammer him." Sarah then continued with more details of the recent history of her teacher-student relationship with Tim.

Well, as a matter of fact...then he took a test and he happened to receive a 47% on the test. He had an 85% on the first one and a 47% on the second. And I was just going to give him a D, I was so angry with him for being such a jackass. And I saw his mother at the mall and I was talking with her, and I told him, "you will take this test. After Christmas break you come back and you will take this test." Come back after Christmas break and he got the same damn score. 47%! I was absolutely ready to just kill him. Talked to his mother again and she assured me he had been sick all over break, and I brought him in here and said, "We are now going to start on a clean slate. I know you were angry with me about the Ct. I will pass you this time. If it continues you will not be passed." Then he starts this shit with cutting my class. So then, that’s why the extreme.

There was only one regular weekly discussion which followed the fourth discussion, and its short duration allowed the teachers only enough time to focus on the class which was observed. However, during the final discussion, which I attended, Bill recounted the most self disclosing story shared by the teachers when he recalled the experience of being observed by the headmaster.
When responding to my question about what it was like to perform in the classroom in front of one's peers, Bill responded with the following remarks.

There is an expectation of seeing good things and saying good things. I'm not saying that there is no risk of screwing up on the part of the teacher in front of the classroom. But I don't think that the risk is terribly great. It's not as great as if the headmaster says, "I'm going to come in to selected classes." And you say, "Gee Charles, I'd like you to come to my second period senior class and we will be discussing (a selection of literature of which I could not understand the name)," and then you piss down your leg. You try to do all of the talking. And the kids freeze up and your brightest kid, who is Tom Peters, doesn't put his hand in the air at all. He is disinclined to anyway. And you come late to class for some unknown reason. You know when the class is but you have to xerox something off. You overworry, and overprogram and over plan.

And then, because you've risked so much, and in your own eyes, you've lost so much of what might have been. You know what could have happened. In part, you have a real sense of, you're like a little kid who wanted to produce something worth while for the sake of adults in a world that adults control, and missed the chance. And like a little kid, you know that you will get another chance but this is one you wanted naturally to occur and you can only blame your own personality. So the class is over and a day or two later you say, "Charles, you didn't see me at my best. I'm sorry." And he says, "I was fascinated with that remark you made about Charles Manson being somewhat like Dionysus in the Bokie or The Last Temptation of Jesus. That was really good." But, tactfully, he doesn't mention all of the gaffes, the students inattention, and the fact that one kid actually had his head down on the desk.

Another story, which was shared during the group's organizational meeting, surfaced when the teachers described their heavy work schedules to me. Since this session was not taped, my field notes from the meeting follow.
Then the conversation switched to Sarah's schedule and the fact that she picked up an extra class because a teacher left the school at mid year. Bill asked Sarah to go over her schedule, knowing that it was demanding but not knowing the details. Sarah then detailed her teaching schedule and explained how she had taken over one extra course. After hearing this explanation, Bill asked her if she was getting extra compensation. Sarah responded by saying that she had not thought about that. She explained that she was given the option of giving up one of her classes, but that it was her best class. Because she was unwilling to give this class up, she took on the additional class. As Sarah explained all of this, her peers listened intently and quietly expressed their support for her. Bill then expressed his feelings that these demands were too great.

3. Academic Subject

The conversation about a specific academic subject occurred primarily with Latin. The teachers commented on the uniqueness of teaching Latin and compared it to other subjects. In the first discussion session, Bill started the conversation with a comment about the Latin class he had observed. What follows is the comment, and the ensuing dialogue.

B: Well, no, I'd forgotten how, I won't say boring, but I will say how slow paced the study of Latin is. I'd forgotten that, but I'd also forgotten how important that pace is. So that was my first impression. That was absolutely the first thing that got me. The fact that the pace of the fourth year Latin class is not the pace of most other classes. Whether that's true for other foreign languages, I don't know.

S: I think that in other foreign languages there is enough practice of speaking that reinforces the reading ability first of all, and secondly, there is enough practice in speaking that you can do something else besides sit and translate. Many of the Latin programs are going to a verbal conversation in the introductory years like in 7th and 8th grade latin and trying to introduce conversational latin to get auditory kids better
B: What do you think about that stuff?

S: I don't have any problem with that in the first couple of years and I don't really have any trouble with them reading aloud or trying to speak a little bit. But if you're going to study Virgil, it is also a literature class and a literature based curriculum, and you can't just have them try to whip this stuff off because half the class doesn't know what the other half is saying. They have to listen so carefully and work so long.

As the conversation continued, Sarah explained the structure of the course, the basic work requirements, and her testing procedure. As with other teachers at Perkins, the Advanced Placement Test strongly influences her practice in the classroom.

The structure of the class is A.P. oriented but it is not A.P. mandatory. And so, for the A.P., they must also read books in English in addition to reading books 1, 2, 4, and 300 lines in 6 in Latin and we have an allotted amount of English reading that they have to do outside of class.

Later in the discussion, Sarah explained and defended her testing strategy when she recalled her response to a student who thought that the tests covered too many lines.

And I said, "You need to have a larger body so you don't just memorize." Now I can memorize 2000 lines of Latin. I've worked at it long enough I can do it, pick it out and tell you almost everything. But they can't memorize 200 lines. They can't memorize 300 lines. They can memorize portions of it and what's going on and remember about what it is but they really need to know more about it than just memorizing all of those lines. And they don't like some of the testing that I give where I give them two lines out of the whole thing picked throughout the 300 lines and say, "Whose speaking and to whom?" Or "What's going on here?"
After Bill commented on how difficult that would be and Gene wryly added, "I can see why they don't like you," Sarah explained why she teaches the course in this manner.

That's the way the A.P. is written and those who are taking it need that type of practice. Secondly, it tells me if they can really translate some of those lines and remember the context in which they fit. Some of them start to memorize and they memorize the first two and the last two lines in a long passage but they don't have any idea what's going on. They have just caught the two ideas and kind of write it down on paper and it's the end of it. That's part of the reason that I give them the lines and ask them whose speaking.

During the fourth discussion, which followed Sarah's observation, Gene attempted to point out the uniqueness of teaching Latin by comparing it to Algebra.

It's not even like doing an Algebra problem, even if it is a nice long problem which has a lot of ins and outs. The continuity is something I find exciting.

During the first discussion, Bill also compared Latin to other subjects when he talked about how the students in the Latin class communicated together about class preparation.

I don't think you can make the same judgments and assume the same sort of negotiation in either a Math class, based on Math recitation, or certainly an English class, even if you are dividing it up so that certain guys are going to handle certain poems or certain sections of a novel. I don't think you can make the same assumption. This is a whole different ballgame, or somewhat of a different ballgame. By negotiations among themselves I meant the possibility of checking with each other on whether they've done certain lines or certain amounts of lines. Because we were talking about big blocks of time here in preparing for a mere class on the part of those kids and therefore you have to have certain expectations and they have to internalize, and also you can say,
mutualize, share those expectations so that they are prepared.

4. Issues In Teaching

During the duration of their work together the teachers shared opinions on specific dimensions of teaching. There was little disagreement among the teachers as they expressed their views on the following topics: student accountability for daily preparation, the learning environment, the S.A.T. and A.P. Exam, student learning in groups, teacher dominated teaching, and peer observation.

Student Accountability for Daily Preparation

The following dialogue addresses the practice of using testing as a device for enhancing student preparation.

B: Beyond a certain point, I don't want to take up more than five or six minutes with a quiz. If I do, suddenly the class is something else.

S: Well it is.

G: The next three minutes you're talking about the answers to the quiz and before you know it, a quarter of your class period is gone.

S: Oh, I agree. That's a very hard thing to pursue with them and beside that, you have to start picking little...

G: You have to change the quiz.

S: You have to pick out little gradeable things.

B: Here's the deal. I don't know what I'm going to do for tomorrow. I've got a rough idea what I'm going to do but, well I have three different sections.

S: Who is in your other sections?

B: The section I worry about is the one with Jim Kendig in it, fourth period. Peterson, he's good. Jim Kendig, Brian Peters, Sam Richards. And I just kind of think I
have to change the quizzes so I have to have three different quizzes, which I can do. But do I want to do that everyday? No! If I'm not going to quiz every day, when I have an hour test, if it's an important test, I damn well have to have three different hour tests. So what you do is on a bigger piece of work you put more questions together than you need and just divide into threes. And have vaguely different essay questions if you have time for an essay.

S: Otherwise, I don't know how you would pursue it. Unless you wanted to try something like Ray does (regular detailed quizzes), but I personally don't know even if that would work.

Later in the conversation Gene expressed his feelings about the problem of student accountability after Bill mentioned that students sometimes "play games" with daily preparation.

Well sure, you're going to have a few and that's a problem without spending the whole day or an inordinate amount of time trying to keep four or five kids in line in terms of daily prep. I don't know how you guys feel but it's just a virtual impossibility trying to track the same people each and everyday. But sometimes I do that.

The Learning Environment

Following the first observation of Bill's class, Sarah commented that the students were impressive in his class. She then expressed her perceptions of how the students interacted with one another.

They don't feel like they are not allowed to talk to each other; that they have to only talk to you. They kind of talk to each other too, which I think is encouraging. That's what they should do.
Bill then responded to Sarah’s comments by saying, "That’s what they should do in that size class. I think that is what we should be more about."

The S.A.T. and A.P. Exam

Gene talked about the S.A.T. and its impact on his Geometry class after Bill repeated comments made by Robert Coles during a lecture at the university.

B: Robert Coles said the other night, "Who are these absurd people that make up these ridiculous multiple choice questions? Who are the people of the Educational Testing Service?"

G: It’s a fair question. There is an outrageous amount of emphasis put on the test that you take three hours of your life as a junior or senior. But because there is the pressure...

S: Especially in this environment here.

G: Well sure, once we cover a topic that’s on there (the test), I’m going to try to give the kids a fair advantage.

Sarah expressed similar attitudes about preparing students for the Advanced Placement Test.

I feel a duty to the kids. The kids who have committed the energy, and the time, and the money, all of those things to doing this and who have taken them on, I feel a commitment to prepare them as fully and thoroughly as they can be.

Now sometimes it is not fair to the other kids in the class. I know that. I think, just because you chose a goal and you have A.P. as a goal here, that is not necessarily always fair to Johnny over here who has no desire to have A.P. as a goal, and we’re just marching him through this stuff. He’s bored and it is hard on him. And I think, well, I have to find some happy medium. Generally it depends on the percentage of the class. This year, it is two out of six. Last year, it
was six out of twelve. It's been a good percentage of kids who have been taking it, so I feel a real compulsion to serve them.

**Students Working Together in Groups**

Following Gene's second class observation, where he had his students work together in pairs on Geometry problems, Bill cited research which supports this learning technique.

Brad Hechinger, in *The New York Times*, he is a regular educational columnist, said that research proves that kids in college, at places like Yale, Amherst, University of Vermont, Middlebury, have better results studying in groups than in solitary, traditional fashion. The solitary scholar study method is a big myth. And further more, they learn more if they are able to give feedback to their teachers about what they have learned and about the manner of teaching. This was in *The New York Times*. That's hot stuff.

**Teacher Dominated Teaching**

Bill addressed the issue of teacher dominated teaching by asking the following question about his own teaching.

Do we feel, now this is something that comes up, that material like Donne's *Valediction* is too difficult at that age. Do we have a feeling that the teacher, a teacher, this teacher is resigned to, if he is to have a symmetrical lesson where you can get to a certain point after stating certain goals, providing the answers and talking out the poem sort of pretending that the answers are being elicited from the kids?

Although this issue was not widely pursued, it identifies a concern expressed by the teachers about being too heavily involved in the students' learning. In an earlier discussion, Gene expressed similar feelings about his own teaching by saying that he had erred in his class by being too "teacher oriented."
Peer Observation

During the third discussion, which followed the observation of Gene's class, the teachers discussed their feelings about working together in the peer reflection program and, more generally, about peers observing and evaluating each other. This conversation was initiated by Bill who posed the following question.

Let me ask a deep philosophical question. What are the implications of watching your friends in teaching situations as peer evaluators, as opposed to a) watching strangers, b) God forbid, watching those who are not your friends but those whom you don't feel warmly towards?

This question generated dialogue which focused on the meaning of the word, colleague. From this conversation the teachers went on to describe the experience of observing each other teach.

B: Well, the word colleague, I think in the best sense, well I don't know. Does colleague necessarily include, I almost understand it to include at least the inclination, a predisposition for...

S: Friendly rapport.

B: Friendly rapport as opposed to something else.

S: When I think of colleague I think of inhabiting and sharing the same students, environment...

B: I agree, colleague has a positive... I think there are several questions imbedded in this but clearly, in the best of all possible worlds, the people with whom one teaches are in the best sense colleagues. We do not necessarily live in the best of all possible worlds although it is a pretty good one. The set up we have is a pretty good one.
I've been in your class. I've been in your class. Okay, we've completed a complete cycle. There's no doubt in my mind that I am prepared to see good things and hear good things when I go into your classroom, same with Gene. Does that skew any sample? Does that affect what we say that goes on the tape?

S: I think to a certain extent, it probably does.

B: I mean, I'm honest, I forgot how deliberate sometimes Latin translation can be. On the other hand, the thing that follows from that are observations about decision, teaching pace, reinforcement, encouragement, Tim, Ron, Josh, Tom. So I think that's good. However, what are the larger implications of observing colleagues as opposed to observing coworkers. I presume I would go into another class predisposed to...

G: To read slow and deliberate as something else.

B: Yes.

S: As boring and tedious, and not challenging enough, and ponderous.

B: So the short term conclusion that I come to very quickly, it may be wrong, is that this is a very subjective thing and maybe there should be something in it, some other ingredients in it. And I don't know what they are. If I'm prepared to hear and see good things in your class and vice versa all around the triangle, perhaps there have to be other controls or check points, or something.

This dialogue lead to a conversation on how the concept of peer observation could be incorporated into the actual evaluation process in a school. The teachers then discussed the process of teacher evaluation at Perkins.

Summary

The teachers addressed many subjects during their discussions, with the bulk of their conversation centering on students. Although the focus on students may have resulted, in part, from the teachers' unwillingness to confront their
own teaching and their peers' teaching, it was clear that students are the most important and central part of their teaching.

Time did not permit the teachers to continue the sharing of personal stories which began during the fourth week of the inquiry. The change in focus from technical aspects to personal teaching stories occurred very naturally and most probably would have continued if time had permitted.

C. TEACHER PERSPECTIVES ON WEEKLY DISCUSSIONS AND PEER OBSERVATIONS

Despite factors making this experience complex, the teachers acknowledged that they enjoyed the weekly discussions and valued the opportunity to observe their peers' teaching.

1. Weekly Discussions

The teachers felt their conversation together focused on important issues pertaining to teaching. Bill made the following comments about the discussions.

I think the best parts of the experience are when we get together on Thursdays and talk. I think those discussions were important and I think if you could magnify those experiences that I remember from those discussions across an entire faculty, which is very idealistic of course, I think that could yield, at least good understandings and maybe solid first hand research.

When asked to comment on the group's discussions and the extent to which similar discussions had occurred prior to the onset of this program, Gene shared the following comments.

It's a little bit forced when we get together, but the three of us have a very good rapport. Definitely not the
same focus with discussions (prior to this program with fellow faculty members). It is wonderful to get together and talk about education in a positive way. I mean, whenever you go down to lunch, half the time they just start bitching. It’s rare that there’s an intellectually stimulating, even if forced, discussion about education in a positive way. It’s not common to come away from lunch feeling like a good thing just happened.

When asked, "Do you feel that way (that a good thing just happened) after you’re done with the discussions?", Gene responded as follows.

Yeah! Oh yeah! We’re talking about our profession in a positive way, not in focusing on the negatives necessarily. Focusing on ways to make it better. We’re not talking about student X who is a jerk. We’re talking about ways to deal with student X to try to help him. Or help the other kids.

In reflecting on the discussions, Bill commented on an underlying theme which may have guided the group’s discussions.

And in the largest possible sense there was an acknowledgement of the classroom as a place where things can happen. I may be off base here, but I think behind every discussion that we had there was a sense that it was not an automatic. That the classroom is a place where the unexpected could happen, and the expectations one holds on the part of the kids at least, but certainly on the part of the teachers in the classroom is a place where unexpected good things and examples of growth can occur. I think that was an assumption behind every meeting. And we were moving towards that, whether we ever said it or not, I think that was behind it.

2. Peer Observations

The teachers also valued the opportunity to observe their peers’ teaching and felt they were affected positively by this experience. In talking about the positive effects, Gene made
the following comments.

It makes me realize, without question, there are different teaching styles.

One thing that is exciting for me about peer evaluation is sitting in on a class like Bill's. It asks me how much I can do to try to generate the same kind of item in here. And it also pumps me up a little bit because it gets me more excited about education.

And as I got into it, the first couple of weeks were real exciting. The first go round was great. Seeing Sarah in the classroom. Watching Bill's creative juices flow. And then just seeing how I was reacting when they were in my classroom was very interesting. Some sort of critical operation going on inside of me instead of just trying to pass on information to the kids.

So I think that I was challenged at least to start thinking about education in a different way for a while again. We all get so caught up in the day to day stuff that we don't spend time thinking about education, and our individual philosophies, and this kind of thing.

Sarah also expressed positive feelings about observing her peers' classes.

It's a nice opportunity to go in and see all sorts of things that are going on. To find out what the kids are saying and see what they're talking about. To see what the teacher is talking about.

I have the same kids, it's funny, I have the same kids second period as Gene has eighth period. Almost exactly the same class. And some of the kids act very differently in my class than in his class. And that's real interesting to see. Some of them in here are a real pain in my neck. Some of them in here are in a different group and they react differently within the kids. So that's interesting to see. He has a much looser style. And last year I ran a very strict classroom.

Sarah indicated that she gained a sense of security and assurance after observing her peers' classes. When expressing
her concern about changing from being very strict last year to being more relaxed about discipline this year, Sarah explained how the experience of observing Gene's class eased her mind about her own teaching.

I have loosened up and I've been kind of leery about it this year. But I go into his classroom and I'm thinking, "Ah, it's not a problem." So it's nice to see that and it's nice to see that there are other people who have a little chaos, not a lot of chaos, but a little chaos that goes on. And that it is acceptable, and that there is not a problem with it.

Sarah also gained a degree of confidence about pursuing her interest of seeing other teachers in the classroom.

I've been thinking about the new Latin teacher, Ann. I want to go in and see what she does. And so I feel a little bit more confident now that I've been a part of this that I'm just going to do it. I'm going to tell her that I'm coming. And I'm sure that it will make it a little nervous for her but I want to see what she does in her classroom...I also want to see what kind of classroom she runs because I want to steal some of her ideas if they work and I hope that she would want to come into my classroom and see what goes on in mine....And I think with teachers of the same subject, that should go on a good deal more than it does. Especially for teachers who get the same kids.

When asked to explain how the experience of working with her peers most affected her, Sarah provided the following answer.

Gene's ideas have been good and that's been nice... something different to do. Seeing his classroom and seeing other ways that things go on have been beneficial to me in supporting what I do and the decisions I make. So I think that the experience as a whole has been beneficial because I have drawn upon it when I need to support myself.
When Bill was asked specifically whether the opportunity to see other people in the classroom served as a reassuring, supportive factor that says, "I am an effective teacher," he provided the following response. "Certainly it can and certainly it does with the experience we had. I think that."

Summary

The teachers had good feelings about the discussions. They believed the opportunity to take part in regular dialogue which focused on their teaching and their experiences was enjoyable and beneficial. The teachers also valued the opportunity to observe their peers' teaching despite being uncomfortable about assessing a peer's teaching performance. In addition to gaining new perspectives about teaching, the teachers gained assurance about their own teaching effectiveness from observing their peers.

D. SELECTED PERSPECTIVES ON THE EXPERIENCE OF BEING A TEACHER

In the context of their work in the peer reflection program, the teachers provided insights about how they experience being a teacher. Two of these insights pertained to teacher vulnerability and professional isolation. A third insight, concerning the pressures associated with time and work demands, will be covered in the final section of this chapter.

1. Teacher Vulnerability

The teachers expressed feelings which indicate that they experience vulnerability that is rarely shared or discussed
with others. Although feelings of uncertainty and vulnerability were generated by the teacher who experienced them, they were sometimes evoked by the teacher's perception of how others perceived them or might perceive them if they were to have observed a certain class. Bill made these comments about the vulnerability attached to being observed by visitors to his class.

And often a teacher can feel very vulnerable if he or she is put on the line and there's no, I guess the psychological term is affect, animation, no sign of response from one or two visits.

The teachers sometimes questioned and assumed others questioned their own teaching effectiveness when they were observed during the school year. Part of this vulnerability comes from the fact that the teachers feel their teaching wholeness is measured only in slices (individual classes) which are often not indicative of normal classes. Bill explained his recollection of a class the headmaster observed.

A new headmaster came in and sat down (in my class), I guess a year ago. A perfectly friendly guy, and I had perfectly friendly relations with him. He sat down there and it was a terrible lesson. The kids were trying to talk too much about the wrong things. I had to cut them off because I had some sense of the symmetry and the direction of the lesson. And it's not reassuring. I had to say to myself, "I'm something other than an effective teacher for this class."

And this is the vulnerability of the profession. I went and I talked to him, I think the same afternoon and said, "Hey, I'm sorry. You gotta come back again." You know, like a broadway performer or something. The tap dance and the juggling and the shtick, the routines, the timing was a little off. That's phony! Why should
I have to do that? Why did it happen? Because of the situation in which it occurred. Evaluation! It was not a reassuring presence. It was something more un reassuring.

More evidence of teacher vulnerability surfaced when the teachers expressed feelings about the uncertainty associated with teaching. Gene expressed the fact that sometimes he is uncertain about what role he is to assume as a teacher.

It's hard to differentiate. At times I feel like being a teacher means passing on information, and then at other times, it is much more important to hit the other... how to get along, how to work through a problem, getting into a process of solution.

Sarah alluded to experiencing uncertainty by explaining how she had been very hard on herself by second guessing decisions she had made while teaching.

Last year I would chastise myself and chastise myself. "Oh, I didn't do this right and, oh my God." I would just tear myself apart all of the time. "Oh, I shouldn't have done this." And then I thought after a while, you know, it's not all your fault.

When talking about how he assesses his classes, Gene explained that he measures each individual class against an ideal which he holds in his mind.

I guess what it is, and this may be one of the reasons I find it hard to give criticism to them, I don't think that my classes routinely will go as some ideal that I have in my mind. Even my best class could in some ways be better.
Despite the acknowledgement that most classes will fall short of this ideal, the teachers seemed to put pressure on themselves to create a great class on demand. This inherent conflict has the potential to create tension, nervousness, and ultimately, feelings of vulnerability. And it helps to explain why the teachers were uncomfortable being observed and disinterested in pursuing feedback. Bill described this in the following way.

I think there are levels of protectiveness or coyness which sometimes say, "Hey, we understand what the feedback is going to be here," and yet, clearly we want feedback, want approval. The teacher is nothing if the teacher is not teaching effectively. He is something else. And what you want, you don't want to be confronted with the fact that you are something else. If you are something else, what are you?

We're not talking about a paranoid teacher either. A chance remark, another teacher saying, "I can't imagine a boy leaving Perkins without reading Melville." And the sudden recognition that you don't teach any Melville. Suddenly, you're in a category. Teachers, like a lot of other human beings, put themselves into categories. "Oh, I'm in the wrong category. How do I get out of the category?" So I think we try to ease out of the categorization and out of the act of asking for feedback by some protective devices. And I think it works, because they (the other teachers) are or will be in the same position.

The teachers also intimated that until there is a belief on the teacher's part that the observer knows of his or her capabilities in the classroom, the teacher expects the observer to extend his or her judgement of a single class to his or her teaching capabilities in general. Both Gene and Sarah talked about the difference in being observed by people
who are already a "known quantity."

The first time through, the first time that Bill and Sarah were in the class I felt even more nervous, personally than I am when Reed (Upper School Head) comes in. Only because Reed is a known quantity. He already knows. He teaches, or has taught Geometry. Especially, I think because he already knows and understands what I am doing.

Sarah's comments compare her feelings about being observed by Charles Sanders, the headmaster, and Reed Johnson, the head of the upper school. Her recollection of the headmaster's observation follows.

I have Charles' son in my class so with him observing me, not only is he your boss, but he is also a parent. And that was very stressful. Not only did he observe the section which his son was in, but he observed me on my birthday, and the day that was parents night. It was three weeks into the year. It was about the worst experience I ever had in my life. I was just a mess. But I think that was because he was new; I was new; I had his son in my class.

Sarah then commented that she hardly notices and is unaffected when Reed Johnson observes her class. "Reed has been in enough and said enough positive things that I don't even bat an eyelash anymore." Sarah then indicated that she gains a greater sense of comfort "the more somebody comes in and I know what their reaction has been."

2. Professional Isolation

The teachers explained that they teach in isolation from their peers. Teachers rarely enter other teachers' classrooms and despite their desire to know what their peers are doing
in the classroom, they rarely share teaching strategies. Sarah provided her observations about this issue.

And I'll tell you, and you know this, you never get invited into other people's classrooms. It just doesn't happen. Part of it is out of just not having the time. Part of it is out of some kind of unwritten code that you don't go into somebody else's classroom. Part of it is that sometimes you just don't think about it at all.

When speculating on why she was chosen to participate in this program, Sarah explained that she had expressed interest in seeing what goes on in other classrooms on her evaluation.

That's, I'm sure, part of the reason I was asked to do this. I wanted that experience. We are awfully isolated. There's a lot of literature about teachers being isolated. We are awfully isolated because we sit in the same room and we do the same thing all of the time. And we go home an we grade papers, and everything, in many ways is subject oriented. Even though we talk about the kids, we still have certain things that are not common. And we are isolated.

Gene provided additional information about professional isolation when he mentioned that the teachers in the Math department all had different teaching styles. When asked if he had been in to see them teach, Gene responded, "I haven't been in; I stand outside and watch and listen." When asked whether the notion of sharing and observing each other is an accepted thing or something which is not talked about, Gene said, "We really don't talk much about it."

Summary

Despite the fact these teachers were recognized as being very good teachers at Perkins, each teacher experienced
vulnerability about his or her teaching effectiveness. Even though the teachers all believed they were effective teachers, they periodically questioned their methods and decisions when teaching. The fact that each class session provides opportunities to succeed and fail makes the process of being observed threatening and disconcerting. For this reason and several others, teachers at Perkins teach in isolation from their peers.

E. COMPLEXITY INVOLVED IN DOING THE PEER REFLECTION PROGRAM

Working together in the Peer Reflection program was complex in many ways. This section describes the complexity of this experience.

1. Observation

As observers, teachers recorded and remembered teaching strategies and teaching behaviors perceived as being effective. This information was later shared in discussions which occurred on Thursday afternoons during 7th period. The teachers believed that when observing their peers' classes, they were predisposed to look for "good things." They did not actively search for areas which needed improvement or where alternative strategies could be employed.

The teachers expressed uncertainties about what they were to observe when sitting in on their peers' classes. (The teachers were not given specific instructions on what responsibilities the observer was to assume when observing.) In some cases, the observing teacher became involved in the
class by answering questions. Most often, the observing teacher observed quietly, taking notes or just listening. During the group's final discussion, Bill indicated he was not sure where the observer was to focus his or her attention when observing. He expressed his uncertainty when questioning the value of multiple observations of the same teacher.

But I also think that the prospect of doing a second and a third version of what we did during the initial round of observations may have diluted some of the enthusiasm. In that, perhaps there was the reaction, "what am I going to see new that I don't know from knowing Gene or Sarah as a office mate or office neighbor, or from already having been in class? Am I going to watch the subject of the day or am I going to be concerned with relationship between teacher and the kids?"

2. Offering Judgments

During discussions, the teachers provided positive feedback to the observed teacher. The teachers did not provide constructive criticism or critical analysis to the observed teacher despite being encouraged to do so. The encouragement took the following form in a memo from Dave Potter after the third week of the program.

In the discussion during the third week, you talked about being predisposed to see good things when you observe one another. Your comments questioned what might happen if you were not predisposed. After listening to this conversation, I got the indication that you may feel this experience involves too much patting each other on the back, and not enough of the feedback which prompts you to seriously examine what you do in the classroom, what you choose not to do, and what you could do differently. Am I correct in this assessment? Do you desire to create a more critical focus in the observation by maintaining a more detached perspective when you observe each other? If you do, one way to start this process could include
a ten minute period at the start of the discussion where the focus and purpose is to raise questions and direct feedback in a more critical way. This process could first be initiated by the person who was observed, and then continued by the observing teachers.

Bill suggested that because the teachers were predisposed to look for good things, there was a missing element to their work together. He described this missing element as a form of opposition or challenge. In an interview with Bill one week after this discussion, he reiterated this concern.

William Blake says the truest opposition is the truest form of friendship. If you can't fight somebody a little bit, you're not going to grow. And I think that this sort of enlightened, beneficent opposition which William Blake is talking about; the sort of opposition that will force someone to examine his or her own goals and means, is quite rare.

Having said this, Bill expressed his opinion that the teachers who were working together in the peer reflection program formed a special group. He indicated that despite the need for opposition, their relationships inhibited opposition from surfacing. He stated, "One aspect of this group's specialness is that it might be very difficult for me to push Sarah, or for Sarah to push me, or either of us to push Gene, or vice versa."

Fellow group members were also unwilling to push their peers and expressed wariness about giving and receiving feedback which could be construed negatively. The teachers did not feel it was their role to provide this kind of feedback to their peers. Gene expressed his concerns about
providing feedback which is critical.

Number one problem is I don't feel very comfortable with the idea of criticizing another colleague's work. If I can go about it in an around about way to suggest something after the fact, a few days later, then it's good. I mean, I've been at this now, this is my sixth year. I can't imagine feeling very comfortable saying, "you're doing it wrong."

What you're ending up doing is saying to the person, "You're not getting the job done here. X, Y, and Z may be met but W is still missing." I guess I feel that recommendation is going to be a hard thing for me to do.

The teachers were also concerned that providing criticism could have a negative effect on their relationships. The teachers worried about their peers and themselves as they wrestled with this issue. Sarah made the following comment:

I think that the reason we are kind to each other is that we know in the long run we are going to have to continue to work with each other in this situation. If it is being pragmatic not to burn your bridges, well then it is. But they're your friends...and because I had the opportunity to come into your class, I hope that it will make our friendship more binding, rather than create a rift in it.

Gene expressed similar feelings by saying, "Half of me feels that I don't get paid enough to make someone upset and jeopardize that relationship. It may be a good professional relationship." Bill described this by saying that the group members did not want to fight each other. "Maybe we came into the thing knowing that a lot was not going to be evaluatively riding on it. That we did not want to fight each other."
3. Receiving Judgments

The teachers reluctantly accepted positive feedback from their peers. Although they were not comfortable accepting compliments, they usually acknowledged their peer's remarks and expressed thanks. On one occasion, Bill deflected positive comments about his teaching by talking about the talent of his students. After Gene commented that all of the students had followed Bill as he lead them through some difficult material, Bill responded by saying, "Yeah. That's good! Well it's a good group. It's a very, very tough group."

When considering the prospect of receiving critical feedback, the teachers expressed their desire to avoid it. During their work together, they rarely requested feedback from their peers. Sarah made the following comments about requesting and receiving feedback on her teaching.

I don't know if I want to hear anything too critical because I'm thinking, "I don't want to have to deal with that. I don't want to have to deal with criticism." If it was really bad, I'm sure somebody would have said something.

Gene described the giving and receiving of critical feedback as follows:

I mean, this is our profession. If I make a serious criticism, level a serious criticism against someone's teaching....if someone said, "Gene, you're no good." I'd say, "Whoa!" Either I would say that the person doesn't know didally. Or, I would say, "Is that right?" and I would start to question the whole reason I'm in education.
Bill supported the feelings of both Gene and Sarah in his attempt to generalize about how most teachers see the process of receiving criticism.

There's something very conservative and something paranoid, I think, in many teachers. Not all, not necessarily most, I won't say public or private, but I see it here, I see it in myself; people get extraordinarily bent out of shape if they think their turf, which is usually imaginary turf, is being stepped on. They tend, many, not to want to change; not to change their way of looking at things. They're quite wary of criticism of all sorts.

4. Evaluation

Despite efforts to separate the peer reflection process from the process of evaluation, the teachers saw this experience as a form of evaluation. When observed, they felt that evaluation was taking place. When Sarah was asked whether she was involved in an evaluation process, she gave the following answer.

Oh, I think I'm in some kind of evaluation process. I think that anytime somebody walks into your classroom and they make any kind of comment, they are in some way, they are incorporating some sort of value system. Somebody walks in, there's a new variable. You think about that person. If you don't think about the person and ignore him completely, there is still a change.

Gene also indicated that he experienced the Peer Reflection program as evaluation. He did so by mentioning that it might be better to call this process a TIP (Teacher Improvement Program). Gene extracted the words value and validate from the word evaluation to support his perception
that the experience involved evaluation.

5. Teacher Comfort and Classroom Environment

When observed, the teachers were cognizant of a difference in their own comfort and in the classroom environment. While each teacher experienced his or her own degree of nervousness varying from some nervousness to very little nervousness, none of the teachers enjoyed the process of being observed. Gene expressed his feelings about being observed in the following way.

I would definitely say that I feel less free. It would vary from person to person who was in. Obviously, if Charles (the headmaster) comes in I'm going to be a little nervous. On the other hand, if another Math person comes in I feel very free. I feel comfortable with what I'm doing and I am always ready to hear how someone else does it.

I don't like the idea of this going on. I've got to say that. There are plenty of times, and I got nervous both days when Bill was in here, and when Sarah was in, for an unknown reason.

The teachers did not like the fact that students noticeably changed their behavior when an outside observer was in the class. Bill cited two students, one who went into a shell and one who acted out, whose behavior changed when people observed his classes. Bill made the following comments about the changes in student behavior and classroom environment as seen by the teacher.

I mean if you have one or two or three visitors in a room, that can be slightly disconcerting. Not for the least of reasons is that the kids are aware that there is something different. "This is not the normal
classroom situation so what is expected of us?" I think that after a while a reflex develops in which you pretend that the classroom which is reserved, whether by one or two or three people, is a normal classroom. Because the teacher wants to be relaxed when teaching. He values the possibilities of free association, give and take with the classroom, and dreads the fact that he alone is the only consciousness in the classroom.

Gene described his perspective of the change in class chemistry when an outside observer enters his class.

It's a real difficult thing. The kids suddenly don't know why this person is here. They could be here for evaluation. I don't even know what other reason. They assume that I'm being tested. Here's the teacher's test. Out of respect, as soon as someone bops in the kids are much more attuned to decorum, much more worried about making the teacher look good. At the same time, I think the kids tend to be much more reserved. They won't offer a solution which is not correct, which tends to be a big part of what I like to do.

Despite these feelings, the teachers reported that the difference in class chemistry which occurred when they were observed by their peers during this program did not disrupt or change these classes to the point that they became markedly different from a "normal class." Bill commented, "Because I think that these things that we shared were pretty much, I don't have too much doubt that they were really legitimate class sessions." When talking about this, the teachers made a distinction between being observed by their peers and being observed by the headmaster. In the latter case, the teachers felt that classes observed by the headmaster were not truly representative of normal classes because of their own tenseness and the different behavior exhibited by the
students.

6. Devoting Time and Energy to Peer Reflection

The teachers found it difficult to direct time and energy to the Peer Reflection program, especially during the second half of the eight week period. In many ways, the program became a chore. Although the teachers had committed to do this work, there were times when they regretted this commitment. In addition, changes in the daily academic schedule created by school assemblies, field trips, athletic contests, and absences made it difficult to always adhere to the observation and discussion schedule. It is a certainty that their work together would have stopped if it were not for my presence and their desire to uphold their commitment to participate in this study.

There are several factors which help to explain the difficulties experienced by the teachers. First, when the teachers' individual schedules became more demanding, it became increasingly difficult for them to devote time to the Peer Reflection program. The teachers explained that their workloads change depending on their individual extracurricular responsibilities and on the specific time of year. For example, when student comments, interim grades, and college recommendations are due, the pressure experienced by the teachers increases to the point where extra demands and responsibilities become burdensome. Bill explained this during the group's final discussion together.
First, it is difficult for someone who does not teach the school day, as we do, to appreciate the actual time crush. And the time seems unrelenting, unappeasable, inevitable. You see, it builds up certain weeks, certain days.

Gene spoke of experiencing resentment as a result of dealing with these demands.

You've got this stuff to do over here. You've got this stuff due over here. You've got to do all of these different options, all of these different opportunities to spend time, and you know, at some point something has to give. There were times when there were resentments.

When Bill was asked whether this experience was an invasion of his privacy, he spoke instead about the issue of time.

David, the whole question, I don't think has much to do with invasion of privacy. It simply has to do with the landscape in which we live, which is time. And time seems to be too much of a problem around here. I believe that this can be done. But if we do other versions of this, I mean on our own, we've got to get some break from the schedule.

Sarah expressed similar concerns about the problem of time.

When you teach six classes, and you have kids coming in after school and before school for extra help. And meetings, and parents who call every week and who want a written comment on their child that they want every week. You know, I just don't know, something has to give and sometimes I'm not as prepared in class as I should be. I know that. I go in and think, "I'm not ready to do this."
Second, the fact that the teachers worked on peer reflection during their free periods contributed to the difficulty they faced. This did not create overwhelming scheduling problems, but it did contribute to the teachers' feelings of not having enough time to devote to this experience. The problems manifested during weeks five and seven when the teachers chose not to meet for discussions because they had other work to accomplish.

The teachers spoke about their desires to use free periods for their own devices. Sarah made the following comments about using free periods.

I would rather get some of my tests graded so that when I go home I won't have to grade all twenty tests. Or I would rather go xerox all of this off; do some sort of other work; have some kid come in and see me. Or I might just go in there and take my shoes off and sit down for fifteen or twenty minutes, and just say "ahh!"

Third, the teachers' did not demonstrate total commitment to their work in peer reflection, in part, because their participation was not entirely voluntary. Although the teachers did express interest and willingness to be involved when solicited by Reed Johnson, they had concerns from the outset about the amount of time they could devote to this. These concerns, communicated during our initial meeting, continued to be a factor throughout the length of the study. Consequently, when the teachers were confronted with competing demands, they more easily neglected responsibilities pertaining to the peer reflection program.
7. Group Composition

Group composition was mentioned several times as being an important factor which could potentially make or break the process of peer reflection. The teachers believed their own group composition contributed heavily to the enjoyment and meaningfulness of their experience. However, they also believed it contributed to their unwillingness to provide the kind of critical feedback which helps teachers examine their teaching. In the context of their interviews, the teachers speculated that the peer reflection process would become, at the very least, different, and at worst, extremely difficult depending on the group's composition. Bill expressed his feelings about group composition.

And this is awful to say, but I think one would have to be very careful with how one put together these cadres, because I can go up and down this hall and I can see immediate problems. What Reed put together and what you got was, I think, a rather special group. And if you took out one of the components and put in somebody else, I think that the whole mix would be changed.

Both Sarah and Gene speculated about what it would have been like to have worked with other teachers. Their respective comments follow.

If I had been asked to do this with somebody else, I don't know. If I had not already had some existing bonds with them, but I had been asked to do it with x and y, with whom I don't have any real relationship, I don't know what would have come of that. I would have felt more of a bond, I would think so. I mean, you can't go into somebody's classroom and watch what he does everyday, and think about what you do everyday, and not have some kind of mutual respect derive from it. But if you go in and find that things are bedlam, or by the same
token, so rigid, then you think, well, your feelings are going to change about that. So I don't know what the other would have been.

If I don't have a relationship with teacher X, and I'm sitting in on teacher X's class, I would feel very uncomfortable. I won't necessarily have the time or the presence of mind to go and say to the guy one on one, "Have you tried this?" Or, "Why did you do that?" I would not feel the same vested interest. I feel that with Sarah and Bill I have an interest.

Summary

The information cited above points out that the process of having peers work together to focus on their teaching can be complex. The teachers working together in this study experienced difficulty immersing themselves in the peer reflection process for a number of reasons. First, the teachers faced heavy work loads and time commitments during certain times of the study which affected the amount of time they were willing to devote to this work. Second, the teachers were unwilling to offer critical judgments to their peers. Third, the teachers were unwilling to seek out feedback and critique from their peers. Fourth, the teachers were concerned about the affect that offering critique would have on their friendships. Fifth, the teachers did not enjoy being observed.
CHAPTER V
SUMMARY AND CONCLUSIONS

This chapter will summarize the teachers' experiences in the Peer Reflection program. It will also include conclusions about the significance of what occurred, and recommendations for future inquiries. The chapter will consist of the following sections: 1) Summary of inquiry, 2) Analysis of research questions, 3) Analysis of findings as compared to relevant research, 4) Assessment of methodology, 5) Assessment of intervention, 6) Recommendations for future inquiries, and 7) Thoughts about teaching and the teaching situation.

SUMMARY OF INQUIRY

As described in Chapter IV, the teachers' experiences in the Peer Reflection program were affected by several factors. While the teachers clearly became involved in a collegial work arrangement which provided several beneficial interactions, the teachers were also constrained by factors which limited their involvement and willingness to fully enter into this process. The positive and negative aspects of the teachers' experiences while working in the Peer Reflection program follow.
Positive Aspects

The teachers' work together involved many positive interactions. The teachers:

1. Provided positive feedback to each other;
2. Suggested and shared teaching strategies;
3. Engaged in extensive dialogue about students;
4. Shared personal stories about their teaching experiences;
5. Discussed specific aspects of teaching.

The teachers had good feelings about these interactions. They believed the opportunity to take part in regular dialogue which focused on their teaching and their experiences was enjoyable and beneficial. However, the teachers did not put much credence on the positive comments they received since all of the feedback was heavily skewed towards the positive.

The teachers valued the opportunity to observe their peers' teaching despite being uncertain about what to observe and uncomfortable assessing a peer's teaching performance. The teachers did not particularly enjoy being observed, mostly because of the disruption and tension associated with this process.

Negative Aspects

The teachers provided feedback which focused only on positive dimensions of their teaching. The teachers were unwilling to provide constructive criticism or critical analysis to each other; and they were unwilling to examine
their own teaching by questioning what they do and don't do in the classroom. Unfortunately, the teachers did not overtly pursue reflection unless it occurred within the context of their discussions. The reflective tools at their disposal (journal, critical incident report, one minute paper, conference report) were not utilized. Although two teachers attempted journals, their entries were sparse and, in one teacher's case, void of substance.

The eight week duration of the Peer Reflection program did not provide enough time for the teachers to develop a sense of rhythm in their work together. A longer duration may have allowed for different kinds of interactions, resulting in more exploration and experimentation. The limited time available to the teachers during the daily academic schedule simply did not foster reflective thought. However, limited time was not the only factor which inhibited reflection. The teachers were adverse to entering into the reflective process and most probably would have avoided it even if time had been available.

ANALYSIS OF RESEARCH QUESTIONS

The research questions posed at the outset of this inquiry will be addressed below.

1. In what ways will the Peer Reflection program enhance or inhibit peer interaction?

The discussion sessions created an opportunity for the teachers to talk about their teaching experiences. The
discussions facilitated a focused dialogue among teachers and also provided interactions which enabled the teachers to get to know one another better. Both Bill and Sarah mentioned closer relationships as being a positive outcome of their work together. Conversely, the teachers restricted their feedback to solely positive comments for fear of jeopardizing their existing friendships. The teachers expressed apprehension about providing critique and felt their role as teachers did not include this kind of communication with their peers.

2. What will be the focus of the teachers' discussions and interactions?

The teachers' weekly discussions initially involved a significant amount of conversation about specific students and students in general. Later discussions included individual teaching experiences, academic subjects, and specific issues on teaching. The discussions addressed the following subjects: students, personal teaching stories, specific academic subjects, student accountability for daily preparation, the learning environment, S.A.T. and A.P. Tests, students working together in groups, teacher dominated teaching, and observing peers in the classroom.

3. How will the teachers feel about the peer observations and weekly discussions? Will their work together change or temper their notion of good teaching?
The teachers experienced mixed feelings about peer observation, mostly because of the tension associated with being observed. The teachers simply did not enjoy being observed. When observing their peers, the teachers felt it was helpful to see how other teachers interacted with students within the classroom. As a result of the observations, Sarah became more secure about maintaining a less rigid classroom environment and Bill saw the value of having patience in the classroom.

The teachers valued and enjoyed the opportunity to talk about their teaching experiences during the discussions. However, they did not significantly change or temper their notion of good teaching.

4. What will be learned about the experience of being a teacher? Will the experience of being a teacher change while participating in the Peer Reflection program?

Teachers face challenging schedules and significant responsibilities which make their work very demanding. The teachers indicated they experience feelings of vulnerability, uncertainty, and tension, especially during particularly busy times throughout the academic year.

The experience of being a teacher did not change significantly for the teachers while they participated in the Peer Reflection program. Although the program provided opportunities to observe their peers' teaching, the most noticeable change concerned the addition of an extra time
commitment and responsibility to already demanding schedules and responsibilities.

5. How will the teachers experience the practice of peer reflection? Will they continue to use reflection after the inquiry is completed?

The teachers reflected on technical dimensions of teaching and especially on understanding individual students. However, the teachers did not reflect on what they do as teachers for the purpose of examining and questioning their teaching strategies. The teachers rarely examined the intention, purpose, or philosophy of their teaching. Although the teachers saw potential in working with their peers, they did not intend to continue working together after the program’s completion.

ANALYSIS OF FINDINGS AS COMPARED TO RELEVANT RESEARCH

This section will address the findings as they compare to research documented in Chapter II. The analysis will involve the following categories: 1) Time Pressures/Work Demands, 2) Professional Isolation/Collegial Support, 3) Technical Certainty/Assessing Effectiveness, and 4) Classroom Dynamics.

1. Time Pressures/Work Demands

The time pressures and work demands facing teachers in this inquiry support research findings which state that academic schedules and teaching responsibilities at most schools do not facilitate teacher collaboration (Devaney,
The teachers reported they felt pressured by the limited time available for completing all of their work. The demands associated with class preparation and administration, extracurricular responsibilities, meetings, seeing students outside of class, writing student progress reports, and writing college recommendations make teaching a series of compromises, according to Bill Smith. The teachers feel they face too many responsibilities with too little time to fulfill them. In response to time pressures and work demands during this inquiry, the teachers limited their involvement in peer reflection to what they perceived as an acceptable commitment.

2. Professional Isolation/Collegial Support

The teachers' experiences at Perkins support research findings which state that most teachers in most schools face professional isolation and have limited collegial support (Devaney, 1987; Feiman-Nemser and Floden, 1986; Lieberman and Miller, 1984; Lortie, 1975; Rosenholtz, 1989). Although these teachers all had colleagues to whom they confided, they did not freely share their teaching experiences with their peers. With the exception of one week earlier in the year when Sarah and another teacher became students in a Philosophy class taught by a close colleague, the teachers had not observed any of their peers' classes. And none of
the teachers had been observed by their colleagues.

The degree of collegial support experienced by the teachers was reasonably good. The teachers were all associated with the same informal group of teachers who socialized occasionally outside of school and who talked together during the school day about aspects of school life and, particularly, their students. However, this group of teachers rarely worked together or discussed their teaching with specificity, which supports research findings for the majority of schools.

3. Technical Certainty/Assessing Effectiveness

The teachers' accounts of their teaching experiences provide limited support for research findings which state that teachers experience technical uncertainty and have difficulty assessing their effectiveness (Devaney, 1987; Lieberman and Miller, 1984; Lortie, 1975; Rosenholtz, 1989). The teachers discussed the following areas of uncertainty: 1) How does the teacher balance her involvement in student learning? 2) How does the teacher create effective student accountability for assigned work? 3) How does the teacher deal with the demands of preparing for standardized testing? 4) How does the teacher balance the need for technical learning with other seemingly more relevant learning? and 5) How does the teacher reach or handle particular students?

The teachers expressed some uncertainty about their effectiveness. On several occasions, the teachers questioned
the effectiveness of a particular class session. They also questioned the way they handled particular teaching situations involving individual students. The teachers seemed willing to question their own effectiveness for particular situations, while still maintaining positive feelings about their overall effectiveness. However, the teachers reported that evaluations and comments by their peers can cause them to question their effectiveness.

4. Complexity of Classroom

The teachers' accounts of their teaching experiences support research findings detailing the complexity of classroom life (Devaney, 1987; Feiman-Nemser and Floden, 1986; Lieberman and Miller, 1984; Lortie, 1975; Rosenholtz, 1989). The teachers found the classroom to be a place with great potential and great uncertainty. The challenge of maintaining student interest, encouraging student participation, and finding a balance between discipline and freedom make the classroom a complex place. During discussions, the teachers spent a significant amount of time talking about individual students. Their interest and concern for individual students supports research findings stating that teachers are more concerned about individual students than they are about their students as a collective group (Devaney, 1987; Rosenholtz, 1989).
ASSESSMENT OF METHODOLOGY

The methodology in this inquiry proved to be manageable and effective. The methods of data collection (observations, interviews, audio recordings of discussion sessions, and journals) were carried out successfully, with the exception of the journals, which the teachers did not pursue. Explanations for the teachers' failure to keep journals include: 1) The time required to write thoughtful entries, 2) The fact that journal entries were to be read by the researcher and the other teachers, 3) The invasion of the teachers' privacy, 4) The difficulty of thinking introspectively and expressing feelings which are personal and not often communicated with others, and 5) The imposition of work which directly threatened their teaching autonomy.

The methods of data analysis (Constant Comparative Method and File Card System) were extremely effective. Although time consuming, these techniques provided a systematic and structured process to uncover the important themes and patterns embedded in the data. Although the standards of trustworthiness as described by Lincoln and Guba (1985) were adhered to in this inquiry, the researcher would have preferred an inquiry of longer duration. This would have strengthened the techniques of prolonged engagement and persistent observation. Nonetheless, trustworthiness was established, both by the process of the inquiry and by the member check, where the participating teachers fully
supported the accuracy of the findings. The transferability of this inquiry to other teachers in other schools is difficult to predict. The importance placed on teaching autonomy in many independent schools may make it difficult to initiate and sustain teacher collaboration on the direct delivery of teaching in the classroom. Future attempts to implement programs similar to the Peer Reflection program will help to answer this question.

ASSESSMENT OF INTERVENTION

Although this inquiry fell short of what was hoped, it still provided important information to carry forward in future attempts to make peer reflection a useful and beneficial avenue for teacher collaboration.

1. Specific Observations About This Inquiry

It is clear from this inquiry that the teachers and their workplace presented obstacles which made peer reflection difficult to implement and sustain. The teachers were not enthusiastic about becoming involved in a time consuming activity; they were not comfortable opening their teaching and their person to the scrutiny of others; and they were not willing to provide analysis or constructive feedback to their peers. Relevant variables will be discussed below.

Time

The daily academic schedule and teaching responsibilities made time the most predominant factor from the teachers' perspectives. Given their responsibilities and
the limited time available outside of class, it was difficult for the teachers to work together during their free periods. **Recognition**

Unfortunately, the teachers did not gain recognition by being observed by their peers, despite receiving positive comments about their teaching. The group appeared to take on the role of an individual teacher, remaining isolated from the rest of the faculty. **Reflection**

Although the time variable influenced the teachers' work and inhibited reflective thinking, the teachers showed a reluctance to enter into the process of examining their teaching. The teachers' uncertainty about reflection and reluctance to become introspective with other teachers contributed to their lack of reflection. The teachers seemed especially uneasy about exploring their own teaching. Although thinking about teaching was thought to be worthwhile, the teachers did not make time for it during the inquiry. **Discussions**

Nonetheless, the discussion sessions provided enjoyable and valuable experiences for the teachers. As the inquiry moved into the fourth week, the focus of the discussions moved from the observed class session to personal teaching stories. The sharing of these stories allowed the teachers to expose a more personal dimension of themselves and their
teaching experiences. Unfortunately, scheduling difficulties during the second half of the inquiry negated further opportunities to continue this kind of interaction.

Academic Schedule

Although scheduling problems significantly limited the teachers' work during the second half of the inquiry, these problems provide evidence of the uncertainty and unpredictability which teachers encounter. Despite administrative attempts to establish a systematic academic schedule characterized by regular routines, teachers often deal with unexpected changes which directly affect their work. The factors which created problems in the second half of the inquiry were: absences, school programs, field trips, athletic contests, and excessive work.

Teaching Autonomy

An additional explanation for the limited success of the Peer Reflection program centers around the issue of autonomy, which is a fundamental aspect of teaching at many independent schools. The fact this program directly threatened the teachers' autonomy by disrupting their classes and imposing schedules and work requirements created feelings of resentment among the teachers. Although the faculty at Perkins shares a sense of community which closely resembles that of a family, their notion of community does not infringe on teaching autonomy. The high degree of importance which teaching autonomy holds for teachers at Perkins contributes
to a conception of teaching professionalism which does not include collaboration on the direct delivery of teaching.

General Comments

In the context of their experiences together, the teachers focused much of their attention and most of their reflection on students. Understanding their students is clearly a central part of teaching for these teachers, as evidenced by the degree to which the teachers enjoyed the opportunity to reflect on their students with other teachers.

The teachers' reluctance to offer assistance or critique indicates that teachers need to redefine their role in schools. Teachers need to change the way they perceive the receiving and offering of both assistance and critique. The fact that these teachers worried about how critique might affect their friendships provides evidence of the close association between teaching performance and identity, and of the fragile nature of teacher interactions which address individual performance.

RECOMMENDATIONS FOR FUTURE INQUIRIES

This section will include specific recommendations for the next attempt at implementing peer reflection with a group of teachers from the same school.

A. Introduce teachers to reflection as described by Dewey and Schon. The teachers will be encouraged to use reflection to examine both technical dimensions of teaching and more philosophical issues such as intentions, purposes, goals, and values.
B. Establish a mechanism within the discussion sessions for providing critique by creating a defined role which teachers step into in order to provide critical analysis to their peers. Prior to receiving critique, the observed teacher will offer a self critique. This change will be a regular part of the discussion sessions.

C. Have several peer groups work together simultaneously during the school year in order to create a forum for each group to share their experiences together with other teachers. This forum of several peer groups coming together on a monthly basis will attempt to create a community of teachers and, hopefully, generate feelings of recognition among individual teachers.

D. Attempt to secure more time for participating teachers by reducing participating teachers' teaching loads by one course. Funding could be attained in the form of a grant to offset expenses of hiring extra teaching personnel.

E. Encourage teachers to keep a journal for their own use as they reflect on their teaching experiences. Teachers will be encouraged to discuss their journal entries with their peers.

THOUGHTS ABOUT TEACHING AND THE TEACHING SITUATION

Teachers face difficult challenges as they approach their work. The demands of teaching as many as five classes each day, combined with associated responsibilities and extracurricular responsibilities, force teachers to make choices about where to direct their time and energy. As a result, teachers are regularly left scrambling to fulfill their responsibilities, often feeling unsatisfied with their performance.

Teaching could easily be a full eighteen hour a day job. Since most teachers are unwilling to let their job take over their life, they are forced to draw a line about acceptable
amounts of time and work. By drawing this line, teachers make compromises and sacrifices which affect their teaching and the way they feel about it.

The fact that teaching involves regular performances makes each class quantifiable in the sense that the teacher judges both the class and her performance. On many occasions, the teacher enters the performance with limited preparation. Although these situations can evoke creative performances and wonderful class sessions, teachers feel they are expected to be prepared. They feel creative, intuitive teaching is not valued.

In the midst of this situation, there is a sensitivity about linking performance to teaching ability. For many teachers, teaching ability is closely tied to who they are as people. The thought of being an ineffective teacher is discomforting and scary. As teachers attempt to meet their many responsibilities, while living with their performance and accepting their reality, they do not want others to judge them by this kind of teaching. Thus, many teachers willingly seclude themselves for protection from the judgment of others.

One result in schools where teachers remain isolated from one another is the absence of a "faculty team." On most teams, whether in sport, family, or other dimensions of work, each team member's contribution is openly recognized. The best teams are usually the ones where individuals work
together to improve both individual and team performance, and where individuals make each other better through unified effort and healthy competition. In schools where teachers are isolated, the contributions of individual members are relatively unknown. In these schools, teachers exist as individual republics, individually pursuing their work within the larger union of the school. There is no team concept for teachers when they are isolated from their peers.

The question is how do we create faculty teams whose teachers: work together, feel close to each other, freely assist each other, willingly turn to each other for help, and make each other better through their teamwork? The answer involves structural changes to the daily academic schedule which provide teachers with more time during the day to work on their teaching, both individually and jointly. It also involves support from the principal and "lead teachers" who facilitate teacher development by generating a communal sense of belonging and sharing among the entire faculty.

Teachers need resource people who they can freely consult and who can provide them with new ideas, strategies, and methods. Teachers need time to assess their teaching and to continually work on developing and growing. Teachers need to believe in the possibilities generated by continued professional development.

Eventually, I believe schools will need to change their philosophy about having large numbers of course offerings,
classes which meet five days a week, and school days which last until 3:00 p.m. every day. Schools will need to allow their students more freedom to pursue individual learning projects under the guidance of their teachers; and they will also need to aggressively pursue strategies which facilitate teacher collaboration and the building of teaching communities.

The following changes will help to improve schools and the experiences of their teachers: 1) provision of more time during the school day designated for teachers to improve their teaching (created by a change in philosophy about the value of ongoing professional development and corresponding structural changes in the daily academic schedule), 2) more collaborative opportunities provided by the recognition that teachers can learn a great deal and can improve by working together, and 3) greater guidance and facilitation from lead teachers who work to create a faculty team whose members are concerned about their own performance and the performance of their peers.

Peer reflection is one alternative available to schools as they attempt to improve by changing the nature of teacher interactions. Although this inquiry concluded with mixed results, the findings support future experimentation with peer reflection. Peer reflection is a viable strategy in the search for ways which facilitate teacher improvement and encourage teachers to grow professionally during their
teaching careers.


teaching (pp. 505-524). New York, NY: Macmillan.


