ACTION RESEARCH AND REFLECTION IN
PRESERVICE TEACHER EDUCATION

DISSERTATION

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ABSTRACT

This study took an in-depth look at the year-long relationships of student teachers with cooperating teachers engaged in action research and explored how prominent action research and reflection were in those relationships. The study was conducted in the form of three case studies and was influenced by phenomenological hermeneutics. Interviews, participant observation, and document analysis were used to collect data throughout the nine months of the 1996-1997 school year in an elementary school of a large midwestern metropolitan school district. The study participants were part of a non-traditional preservice teacher education program that culminates in a master's degree and is part of a Professional Development School Program at a large midwestern university. The program emphasizes collaboration and reflection.

The student teachers participating in this study all viewed reflection as important in education and reflected throughout the school year on how to help their students learn with understanding by using a variety of teaching methods. All three preservice teachers were also involved to varying degrees in their cooperating teachers’ action research projects.
At the end of the school year, none of the student teachers had a complete understanding of the action research process; two of them had a partial understanding. All three reported a desire to continue professional development, but did not have a clear understanding that action research is a form of professional development that is undertaken by teachers to improve their practice. The cooperating teachers did not mentor their student teachers in the action research process.

Study findings suggest that if a preservice teacher education program values reflection and action research, a formal requirement needs to be in place to have student teachers become involved in action research projects in some way, possibly by becoming co-researchers with the cooperating teachers. University supervisors and cooperating teachers could act as coaches for reflective, inquiring teaching practice. A framework for reflection would be helpful in these endeavors.
Dedicated to Dr. Gail McCutcheon,
who first introduced me to action
research, and then urged me to
pursue a doctoral degree
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CHAPTER 1
RATIONALE

Introduction

Recent reform movements in teacher education stress that teachers need to be reflective practitioners (Howey, 1996; The Holmes Group, 1986). More specifically, teachers should be thoughtful, "reflect on the moral and ethical consequences of school policy and classroom practice" (Howey, 1996, p. 153), and "acquire the ability and disposition to critically inquire into their practice" (p. 164).

Such reflection and inquiry are essential elements of action research, a form of research undertaken by practitioners to better understand and improve their practice (McCutcheon, 1995). It can therefore be argued that action research can contribute to the development of teachers as reflective and inquiring professionals at any time in their career.

Introducing teachers to action research right from the beginning of their education is a practice that several preservice teacher education programs in the United States
engage in (McCutcheon, 1995; Noffke & Stevenson, 1995). These programs have specific requirements for student teachers to complete an action research project before graduation.

Other teacher educators argue that preservice teachers are preoccupied with learning the basics of the profession, and that reflection, inquiry, and action research should be introduced to teachers at a later stage in their career (Gilliss, 1988; Noffle & Stevenson, 1995).

This difference of opinion over when and how to introduce teachers to reflection and inquiry points to the need for further studies in this area.

Statement of the Problem

This study was conducted in a preservice teacher education program that does not have a formal requirement for student teachers to do action research. However, most of the cooperating teachers in the program were involved in action research projects during the 1996-1997 school year.

Three case studies were done to describe year-long relationships of student teachers with their cooperating teachers and to explore how prominent the cooperating teachers' action research projects were in those relationships. The role of the university supervisor was also explored.
The main focus of this study was how the student teachers experienced the relationships with the cooperating teachers and what meanings they made of the latter's action research endeavors. The possibility that being in a long-term relationship with a cooperating teacher involved in action research may have different kinds of influence, or no influence, on the student teachers' development as reflective and inquiring professionals was also explored.

In order to gain a better understanding of these phenomena, semi-structured interviews, participant observation, and analysis of participants' journals were employed to gather data.

**Research Questions**

The following research questions were developed after the review of relevant literature on action research, teacher education reform, and preservice teacher education programs:

1. How prominent is the cooperating teachers' action research in the year-long relationships with student teachers?
2. How do preservice teachers experience year-long relationships with their cooperating teachers?
3. Does being the student teacher of a classroom teacher engaged in action research help the former become more reflective?
4. Does it help the student teacher develop the disposition to inquire and reflect and engage in teacher research in the future?

5. What exactly is my role (the university supervisor's) in this relationship and the student teachers' reflective practice?

Purpose of the Study

Action research is a form of inquiry that places heavy emphasis on reflection. It is therefore an excellent vehicle for promoting inquiry and reflection in education.

There are several teacher education programs in the United States that assign an action research project to the student teachers as part of their preservice program (Noffke & Stevenson, 1995). One study described by McCutcheon (1995) found that a collaborative action research project undertaken by the classroom teacher, student teacher, and university supervisor was successful.

In the above programs the student teacher is either totally or at least partially responsible for the action research project and has direct involvement in it. There seems to be a gap in the literature on the topic of more peripheral involvement of preservice teachers in action research.
I hope that my study will help fill this gap and inform the discourse on the possible benefits and limitations of the student teachers' indirect, peripheral involvement in action research.

I further believe that by focusing on an in-depth look at the preservice teachers' year-long relationships with cooperating teachers who are doing action research my study adds a dimension to the issue of action research in preservice teacher education that has not been explored extensively. I therefore hope that my study will spark discussion on the different types of student teacher/cooperating teacher relationships and the prevalence, or lack, of action research in these relationships. This could possibly lead to further studies in this area.

Definition of Terms

Traditionally, terms are defined here that the researcher determines to be foundational for the understanding of the document presented. These terms will be described in greater detail and in context in later sections and chapters, however, an initial clarification of terms and certain distinctions made among them is presented here.

Action Research

Systematic and rigorous endeavor undertaken by practitioners to better understand and improve their practice (McCutcheon, 1995). It involves continuous
application of the action research spiral - posing a question, planning, implementing action, observing, and reflecting (Kemmis & McTaggart, 1988). The learning resulting from each loop is used as a basis for further reflection, planning, and acting.

**Reflection**

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 consequences to which it leads (Dewey, 1933).

**Technical Reflection**

A form of reflection that is concerned with efficiency and effectiveness of method in obtaining ends that themselves remain unexamined (Van Manen, 1977).

**Practical Reflection**

This is a higher level of reflectivity than technical reflection and is concerned with clarifying meanings and assumptions underlying teaching activities. It is assumed that teaching is based on a value commitment to some interpretive framework. Education is seen as establishing communication and understanding (Van Manen, 1977).

**Critical Reflection**

This is the highest level of reflection according to Van Manen (1977). It is concerned with equity, justice, emancipation, and the elimination of bias in schools and society.
Reflective Practicum

This is a term used by Schon (1987) to describe a type of professional education that combines training in skills with inquiry and reflection to help students become more proficient in evaluating solutions for "messy, indeterminate problems" (p. 4), the type for which there is no one right or predetermined answer. Students are coached by experienced professionals and practice considering and evaluating alternative solutions to problems of practice.

Reflection-in-Action

Schon's (1987) term for an on-the-spot experiment and reflection. It is done in the midst of action when a professional realizes that the originally planned course of action is not working as intended, and that professional quickly decides on an alternative action and then monitors the results and consequences.

Reflection-on-Action

Schon's (1987) term for reflecting on a course of action or an experience after it has been completed. This involves considering antecedents, consequences, and possible alternative courses of action.

The Need for Reflection and Inquiry in Education

As mentioned at the outset, recent teacher education reform movements advocate preparing teachers as reflective and inquiring practitioners. Is there really a need to
educate future teachers who are willing and able to reflect on, and inquire into, their teaching practice, and also issues in teaching and learning in general? I assert that the answer is a resounding yes, and propose the following three arguments as key reasons:

1. Teachers need to inquire and reflect in order to create meaningful learning experiences to meet all their students' needs, because teaching is more than a simple transmission of knowledge or the filling of empty vessels.

2. According to Dewey (1938), learning is based on reflected upon experiences. If teachers are to provide such experiences and opportunities for reflection and inquiry for their students, then the teachers themselves need to possess those skills and model them.

3. Teachers need to engage in critical reflection to empower all of their students and so that schools and society can move towards greater equity, justice, and fairness.

The Case for Meaningful Learning Activities

The point that children are not empty vessels to be filled and that teachers should be more than technicians who transmit knowledge and assign workbook pages is not new. For centuries, many educators and philosophers such as
Rousseau, Montessori, and Dewey (Maxim, 1993) have advocated authentic, student-centered learning, because children construct knowledge. The more recent work of Piaget and Vygotsky has added support to this argument.

Construction of Knowledge in Theory

The term constructivism is associated with Piaget, who has shown that young children construct knowledge by active, hands-on exploration of the physical environment. They assimilate information gathered through direct sensory experience and then accommodate, that is modify existing knowledge structures called schema, to deal with new information (Santrock & Yussen, 1992). Older children also learn from visual and printed information and from vicarious experience. Any novel information causes cognitive conflict in the individual, thought processes are stirred, and the assimilation and accommodation done to resolve the conflict make cognitive structures more integrated and more differentiated (Woolfolk, 1995).

While Piaget focuses on the individual learner, Vygotsky states that children learn through social interaction and that language plays a powerful mediating role in such learning. Knowledge initially exists on the social plane, and is then gradually internalized by children. Vygotsky also stresses the value of having adults
or more knowledgeable peers scaffold learning for children, that is using the Zone of Proximal Development (Woolfolk, 1995).

Construction of Knowledge Across the Content Areas

The need to provide children with learning activities that let them construct knowledge, either individually or socially in cooperative learning groups, has recently been emphasized by educators and experts in the content areas. Mathematics is no longer seen as mere memorization of algorithms. Rather, students are urged to engage in mathematical reasoning and problem solving and to apply mathematical knowledge to real life situations (Cobb, 1994; Kennedy & Tipps, 1994).

Along the same lines, science is no longer rote memorization of isolated facts, but a construction of scientific knowledge by children who engage in scientific processes. Hands-on activities that allow students to observe, make predictions, collect data, experiment, and test hypotheses, are advocated. There is also an emphasis on learning about underlying scientific principles and big ideas (Driver, Asoko, Leach, Motimer, & Scott, 1994; Wassermann, 1990).

With the increasing popularity of the whole language approach it has been stressed that learning to read and write is much more than simply decoding or copying words.
Rather, reading and writing are active thinking processes in
which the reader uses strategies to construct meaning from
print and the writer constructs a message for the purpose of
communication (Routman, 1995; Short, 1991).

There thus exists a general consensus across the
content areas that children need to be provided with
opportunities to construct knowledge in meaningful ways.

The Holmes Group Position

The Holmes Group (1986) agrees that children need to
construct knowledge in meaningful ways and asserts that this
necessitates reforming teacher education. Specifically, the
group calls for preparing teachers who can inquire into and
reflect on their practice to provide such learning
experiences for children.

The group criticizes the widely held view that teaching
is simple work, the passing of content knowledge that can be
done by any fairly well-educated person. The Holmes Group
points out that there is much more to good teaching than
merely preparing a well-organized lecture and delivering it
to students who are seen as fairly passive, empty vessels.
Such a view means "blithely overlooking one of the most
critical aspects of quality teaching - the extent to which
the lesson is appropriate for particular students ..." (The
Holmes Group, 1986, p. 28).
One of the group's reform goals is "to make the education of teachers intellectually more solid" (The Holmes Group, 1986, p. 4). In addition to good subject matter knowledge, teachers need to have a good grasp of pedagogy, the knowledge about how to teach so that all students can understand and learn. Teachers need to be able to provide appropriate materials and time to facilitate children's construction of knowledge. Teachers also need to become more thoughtful students of teaching and its improvements.

**The Hermeneutic View of Education**

The hermeneutic view of education also believes that teaching is more than filling empty vessels with information. Proponents of this view are concerned with the understanding students develop as they learn and what meanings they make of these learning experiences.

Exactly how students learn and construct knowledge and meaning depends in large part on their background, abilities, and prior knowledge (Woolfolk, 1995). With a diverse student population, there can never be just one general method of instruction applied across the board, a general body of content knowledge transmitted to a generic student. System-wide applications of school curricula have failed to demonstrate gains in cognitive achievement (Van Manen, 1977). Therefore, teachers need to be able to inquire into students' backgrounds and reflect on how various teaching approaches might help all students learn.
Since the attempt to turn education into a science where objectivity and generalizations reign has so far had only very limited success, many educators and curriculum specialists believe in the value of a hermeneutic approach to education. According to Van Manen (1977), the most significant aspects of a curriculum are not training in skills and memory, but "orientations" (p. 211). This means teachers should help students acquire deeper understanding and become more critical. In this view teaching becomes communication, encounters, and investigation into the life-world of students, grasping the inner realities of the human world.

This means that teaching involves inquiring into what meanings students make of learning situations and reflecting upon them to create further meaningful and challenging learning environments so that students can gain deeper understanding. This is especially true since no two students and no two classes are ever alike, so a teacher cannot productively use the same materials and approaches year after year. Instead, each student's individual needs and learning styles need to be considered (Gardner, 1983, 1995; Lazear, 1991). Only inquiry, reflection, and modification of plans and methods will result in optimum learning for each unique student.
It follows from the above discussion that teachers need to provide meaningful learning activities so that children can construct knowledge and gain understanding of concepts and ideas. In order to do this productively and appropriately for each unique student's needs, developmental level, and learning style, teachers need to engage in continuous inquiry into and reflection on their teaching practice.

**Education, Reflection, and Inquiry are Inseparable**

If education is more than simple transmission of knowledge, then thoughtfulness, reflection, and inquiry are not afterthoughts, but essentials.

**Dewey's View of Education**

The influential philosopher and educator John Dewey describes education as experience that is undergone, reflected on, and inquired into (Dewey, 1938). He explains that positive growth and learning result from experiences that are thoughtfully considered in light of antecedents and possible consequences and used as the basis for further inquiry. Therefore, according to Dewey, reflection, inquiry, and education cannot be separated, and they lead to greater breadth and depth of understanding as well as more intelligent action. By contrast, the lack of reflection leads to unproductive trial and error, routine, and possibly capricious behavior (Dewey, 1916).
This means that classrooms should be places where children can undergo meaningful experiences, reflect on them, and use them for further inquiry. It is the teacher's responsibility to create such an atmosphere and create a classroom culture that supports and facilitates such endeavors. Children who have not had much exposure to reflection and inquiry will need some direct teaching of these skills as well as lots of opportunities for practice with the guidance of the teacher. The latter should also model the skills, as we know from research that children learn from good models (Bandura, 1977).

Teachers, then, need to be proficient in the use, teaching, and modeling of reflection and inquiry that Dewey describes.

Having addressed the first two reasons for preparing teachers who are willing and able to inquire and reflect, I now turn to the third reason, the one addressing the need for critical reflection in preservice teacher education.

**Equity and Justice Through Reflection in Education**

The discussion of reflection, inquiry, and education so far has centered on broad humanitarian aims of helping students achieve higher levels of learning and understanding. Some educators believe that education should serve social and political reform with the goal of achieving greater equity, justice, and fairness in schools and society.
at large. Noffke and Stevenson (1995) point out that schools should truly help all students learn and examine the concept of democracy itself, because it has the potential for excluding minority voices.

These authors believe that critical inquiry and reflection are needed to uncover bias, political and economic injustice, and to emancipate the disempowered. They advocate discourse in schools that follows Habermas' ideas of moving towards greater social wisdom, self-determination, and community through free dialogue that participants enter into on equal terms, without power imbalances. According to Van Manen (1977), Habermas calls for a constant critique of repressive forms of domination and authority. This is achieved through "radical and critical reflection" (p. 227). Therefore teachers need to be able to engage in critical inquiry and reflection.

I am in agreement with Dewey's view that reflection and inquiry are essential elements of quality education. I further believe that society needs to move towards greater equity, justice, and humane treatment of all it's members, and that schools have a vital role to play in these reform efforts. We therefore need teachers who are both able and willing to reflect and inquire into a variety of educational, social, and political issues, and who take a critical look at school policy and curriculum. This leads to the issue of adequate preparation for teachers.
Reflection and Inquiry in Preservice Teacher Education

Having established the need for inquiry and reflection in the teaching profession, I now turn to the important question: How and when do we best prepare future teachers for such endeavors? For the 'when' part I propose the following answer: We need to involve teachers in reflection and inquiry right from the start, during preservice teacher education, for the two main reasons discussed below.

Dewey's View on Learning to Reflect and Inquire

As discussed above, Dewey's (1938) definition of good education centers on experience that is the basis for reflection and further inquiry. As people engage in these endeavors, they develop ever greater breadth and depth of understanding and a predisposition to learn from related experiences in the future.

I would therefore argue that if student teachers are introduced to the practice of inquiry right from the start, they can begin to accumulate knowledge and skill with each experience, become at least somewhat proficient at it by the time they go into their first year of teaching, and hopefully stay motivated to do so throughout their career.

Reflection and Critical Inquiry in Teaching

Support for this argument comes from the work of Schwab that Van Manen (1977) describes. The former approaches the issue from another angle and points out what happens when
teachers are not introduced to the practice of inquiry and reflection as an important part of their early professional development and experience. His studies show that reflective practice and critical inquiry is not something that comes naturally to most teachers. Schwab found that teacher talk about their practices and the curriculum seldom displays the levels of "deliberate reflectivity" (p. 206) one would hope for, and teachers plan and evaluate "largely uncritically and unreflectively" (p. 206). I would therefore conclude that it is of the utmost importance to make reflection and inquiry part of preservice teacher education, as they may not encounter these otherwise.

Noffke and Stevenson (1995) move the argument into the arena of critical theory and assert that student teachers need to be made aware of, and be able to practice, critical inquiry and reflection, because most beginning teachers do not enter the profession to become political activists or change the school system to achieve greater equity and social justice. The authors state that some object to their advocacy of early introduction to critical reflection, asserting that it amounts to political indoctrination.

I personally concur with Noffke and Stevenson (1995) that exposure to critical theory is necessary, and I would argue that, by definition, exposure to critical reflection can never be indoctrination. Critical reflection involves
open discourse that is free from dominance, repression, and inequality. In other words, all views are given critical consideration. Indoctrination, on the other hand, involves a deliberate attempt to have people hold a particular view without presenting alternatives, and to present beliefs and contestable statements as facts. Indoctrination is closing minds, rather than opening them, by "putting particular viewpoints beyond challenge" (Chambers, 1983, p. 36).

An interesting argument opposing the early introduction of reflection and inquiry into preservice teacher education comes from Gilliss (1988). She asserts that student teachers are much too busy trying to grasp the rudiments of the teaching profession, and are therefore not ready to reflect. The appropriate time for a reflective practicum is at a later stage in a teacher's career.

I argue that precisely the opposite is true - student teachers are perfect candidates for the introduction of reflective inquiry. First of all, preservice teachers are usually perplexed by many things they encounter during student teaching, and it is precisely in this state of being bewildered, puzzled, or surprised that people are ready to reflect, according to Dewey (1933). The latter points out that people engage in reflection to find the materials to resolve their doubts and overcome their bewilderment.
In addition, adults are able to learn from vicarious experience, and student teachers can observe experienced teachers, or be presented with case studies of teaching episodes in their methods classes, and be asked to reflect on these vicarious experiences. This would be most valuable with the guidance of a professor, university supervisor, or experienced, reflective classroom teacher.

Having established the need for introducing student teachers to inquiry and reflection from the very beginning of their preservice teacher education, I now turn to the question of how this might best be accomplished.

**Situated Practice**

Many professions apprentice newcomers to their field. Beginners watch master craftsmen or other experienced professionals, talk to them, and engage in some form of practice. Lave and Wenger (1991) describe how beginners move from initial peripheral to eventual full participation in a profession under the guidance of, and often in dialogue with, an experienced practitioner. The authors call this "situated learning" (p. 1) and argue that it has been highly successful in various fields for centuries.

While I firmly believe that teaching, reflection, and inquiry are more than a craft, I do believe that being apprenticed in reflection and inquiry in the widest sense of the term can be of value for student teachers. It has been
well documented in the literature that people learn from good models (Bandura, 1977). In addition, moving from initial attempts to more full-scale efforts, both in methods classes and in the field, is useful, especially for preservice teachers who are unaccustomed to critically reflect and inquire. An 'apprenticeship' would offer time to construct knowledge in these areas and also plenty of opportunity for practice.

**Mentoring Preservice Teachers**

While apprenticeships usually take place under the guidance of an expert in the field, specific mentoring is not always a part of the experience (Lave & Wenger, 1991). The particular elements of mentoring student teachers found in the literature, including recent efforts in mentoring in the area of reflection (Richardson-Koehler, 1988), are now presented.

In addition to learning from good models of reflective and inquiring practice, student teachers also need to be mentored in these areas. The student teacher and cooperating teacher relationship and the mentoring of the former by the latter has been studied extensively (Grimmett & Ratzlaff, 1986; Hopkins & Moore, 1992; McIntyre & Morris, 1980). The literature points out that preservice teachers generally regard their student teaching experience as the most important part of their education, and they believe that
they learn most from their cooperating teachers, and many preservice teachers in traditional programs end up teaching in ways similar to their cooperating teachers.

Many researchers and educators agree that mentoring of student teachers necessitates careful selection and training of cooperating teachers (Hopkins & Moore, 1992; Metcalf, 1991; Richardson-Koehler, 1988; Schempp, 1988). Those who receive such training are more proficient at the skills of mentoring, these authors point out. This includes a willingness to share knowledge and resources, working with student teachers in identifying areas of concern, providing constructive criticism and feedback on a regular basis, encouraging student teachers to try new ideas, observing the student teacher regularly, evaluating cooperatively, and critiquing themselves. In addition, mentors who have good communication skills and who attend to the student teacher's attitudes as well as actions and provide empathy and unconditional positive regard, have been successful (Hoover, O'Shea, & Carroll, 1988).

The student teaching literature emphasizes that student teachers are usually preoccupied with concerns of classroom management, lesson planning, and implementation (Hopkins & Moore, 1992; Schempp, 1988), and cooperating teachers spend a great deal of time helping preservice teachers with day-to-day teaching matters.
The focus of this study, reflection and inquiry in preservice teacher education, has only recently gained attention in the teacher mentoring literature. However, a few studies on mentoring student teachers in reflective practice have been done, as Richardson-Koehler (1988) points out. She criticizes these for a lack of adequate conceptual and operational definitions of reflection. In her own study, she defined reflection as "the degree to which a teacher could provide an articulate analysis of his or her teaching" (p. 32).

She found that those cooperating teachers who spent a great deal of time reflecting together with student teachers were successful. More specifically, this included focusing on the student teacher's understanding of teaching and learning issues instead of only managerial issues, giving preservice teachers the freedom to act on their reflections and make changes in the classroom, and sharing one's own reflections with the student teacher. Those cooperating teachers who did not engage in these practices, or who were not reflective themselves, had student teachers who experienced difficulty and even failure with lessons and classroom management.

It seems that mentors of reflection and inquiry need to be fairly proficient in these endeavors themselves. In addition, they need to invest time and share their expertise
and reflections in an open atmosphere that aims at understanding, constructive criticism, and changing practice.

**Schon's Reflective Practicum**

Schon (1987) is also concerned with the need for reflection and inquiry in professional education. He stresses the need to improve professional schools, including the education of teachers, and advocates a reflective practicum. He speaks of the usefulness of a coaching model where master practitioners teach novices the skills of the profession and also act as coaches to help students reflect on issues of practice. Schon proposes that students of a profession should become proficient in reflection-in-action, an on-the-spot reflection in the midst of action, as well as reflection-on-action, the more traditional type done after an event.

The particulars of this approach to teaching reflection and inquiry to preservice teachers will be discussed in greater detail in the literature review chapter of this dissertation.

**Action Research and Preservice Teacher Education**

One way to meaningfully engage student teachers in a reflective practicum is to expose them to action research. As stated at the outset of this chapter, action research is a form of inquiry that relies heavily on reflection and can
be undertaken by teachers to better understand and improve their classroom practice. Action research is therefore an excellent vehicle for introducing preservice teachers to reflective and inquiring practice. If student teachers become involved in action research, they will be introduced to, and be able to practice, inquiry and reflection in useful ways.

Background of this Study

For the past three years, I have been working with an innovative teacher education program that emphasizes reflection and action research. The ECC/PDS (Educators for Collaborative Change Professional Development School Program) at a large midwestern university has been in existence for six years. Its overall goal is to bring university and schools together and bridge the gap between theory and practice according to the recommendations of The Holmes Group (1986). The ECC/PDS places particular emphasis on collaboration and dialogue.

The ECC/PDS shares the following three-fold goal with other PDS programs (a) professional development, (b) teacher education, and (c) inquiry. For the first few years, the members of the ECC/PDS met weekly to discuss books and articles related to issues of collaboration. They also worked on designing and implementing an innovative preservice teacher education program.
While this latter endeavor is an ongoing project, the PDS members decided during summer planning 1995 to focus their professional development on action research. This type of research is described in greater detail in the next chapter. For purposes of the PDS teachers, who are all experienced classroom teachers, it is basically a form of research undertaken by them to better understand and improve their own teaching practice.

In the fall of 1995, the ECC/PDS members engaged in some introductory reading and discussion of action research and then formed action research project groups according to teachers' interests. Some focused on bringing more technology into the classroom, others on early literacy and the implementation of a whole language approach, for example. The groups met weekly to discuss issues and to formulate a question to guide their research. Some teachers started data collection in their classrooms, and in the spring of 1996, the groups shared findings and insights gained from their efforts.

The teachers found their work with action research both informative and enjoyable, and they decided to continue the project groups for the 1996-1997 academic year. Some teachers formed new groups or switched their focus and question, but the basic involvement with action research and weekly meetings in project groups continued through this year.
I was a TA (Teaching Assistant) and university supervisor of student teachers in the ECC/PDS program while I conducted this study. I had the opportunity to attend many of the 1996 project group meetings and witness the teachers' progressive involvement in action research. I also talked to them about their efforts and observed their classroom practice during the 1996-1997 school year.

The student teachers in the ECC/PDS program have year-long placements with their cooperating teachers, but no program requirement to undertake an action research project. If the cooperating teacher is involved in action research, then the opportunity exists for the preservice teacher to observe this endeavor, discuss it with the former, or even become involved in the research project.

I therefore decided to take a closer look at the relationships of student teachers with cooperating teachers who are doing action research. I wanted to see if and how the student teachers became involved in the action research projects. I also wanted to explore how the preservice teachers experienced these relationships and the cooperating teachers' action research and what meanings they made of these experiences.

Significance of the Study

As mentioned in an earlier section, there seems to be a gap in the preservice teacher education literature providing
detailed descriptions of relationships of student teachers in a PDS program who are placed with cooperating teachers involved in action research in the absence of a requirement for the student teacher to become involved in the research. How preservice teachers experience indirect or peripheral involvement in action research, and whether or not this seems to help their development as reflective and inquiring practitioners, are phenomena worth exploring. So is the role the university supervisor can play.

I hope the in-depth look that this study took at the above phenomena will spark discussion and add to the discourse in this area. I further hope that this study will help inform teacher education programs and add to the knowledge base of how to introduce preservice teachers to reflection, inquiry, and action research.
CHAPTER 2
REVIEW OF RELATED LITERATURE

Introduction

The purpose of this chapter is to present selected relevant literature. There are numerous articles and books on reflection and action research, therefore this review cannot be comprehensive. My purpose was to find literature that would help me define my research questions and to come to a better understanding of the role of reflection and action research in education.

I will first present Dewey’s ideas on education, reflection, and inquiry, and then Van Manen’s writings concerning the content of reflection. I will then turn to Schon’s ideas of implementing reflection in professional schools.

In subsequent sections I will give an overview of action research and its relation to education. I will then briefly present Giddens’ ideas regarding social structure and change.

Education as Meaningful and Reflected-Upon Experience

In order to understand why recent reform movements in education, including The Holmes Group, so strongly emphasize
the need for teachers to be able to reflect and inquire, we need to start at the basis, or the beginning, and describe what good education is, and what role reflection plays in it.

Dewey's writings are numerous, and have had a significant influence on education (Dewey, 1919, 1933, 1938, 1964, 1990). According to Dewey, education, reflection, and inquiry are interrelated. He defines reflection as "an 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 consequences to which it leads" (1933, p. 9).

Good education is described by Dewey (1938) as experiences that are reflected upon and used as a basis for further inquiry. Dewey (1964) also describes the role of reflection in education as somewhat complex. Reflection must be used if learning is to be meaningful, yet at the same time students need to be explicitly taught how to reflect. These two roles impact on each other, but they are slightly different, and therefore now considered in turn.

**Using Reflection to Learn**

Dewey (1938) states that "education is a development within, by, and for experience" (p. 17). The more meaningful experiences a person undergoes and reflects on, the wider and deeper understanding becomes. In addition, such
experiences let a person accumulate knowledge and meanings and predispose the individual to learn from similar experiences in the future. Ideally, reflected-upon experiences lead to positive growth, and the wider the array of experiences, the more productive this process becomes.

In order for educational experiences to be meaningful, they need to be authentic, and in some way related to the student's life. Good examples are cooking, sewing, metal or woodwork, because they let students problem solve and reflect and inquire into underlying scientific principles and historic developments (Dewey, 1990).

On the other hand, presenting students with a multitude of subjects or disconnected facts to memorize without providing the opportunity for reflection is not meaningful, productive education, and tends to leave students "mentally mixed" (Dewey, 1964, p. 227).

Dewey (1938) also points out that not all experiences are of equal educational value, and that "experience and education cannot be directly equated to each other" (p. 13). He terms any experience that arrests or distorts the growth of further experience "mis-educative" (p. 13). Examples would be experiences that are only immediately enjoyable, but do not lead to better understanding or further investigation. Also, teaching people highly specialized
skills in one area may land people in a rut, and such narrow or limited experience is unlikely to lead to wider and richer experience and learning.

Dewey (1964) contends that there is no guarantee that reflection always leads to positive results. In fact, it "may develop in positively wrong ways and lead to false and harmful beliefs" (p. 216). He explains that some people use little reasoning and instead simply follow others, or act according to their passions. Such blind faith or largely impulsive behavior may not have positive outcomes. Others have too little knowledge or experience to reflect optimally and Dewey quotes Locke here who says these people "have a pretty traffic with known correspondents in some little creek, ... but will not venture out into the great ocean of knowledge" (p. 220).

If reflection is used optimally, it "emancipates us from mere impulsive and routine activity" (Dewey, 1964, p. 212). It leads to learning, more critical inquiry and intelligent living, and enriches our lives by giving greater meaning to objects and events, according to Dewey.

In order to be able to engage in this productive way of reflecting, people need to possess certain attitudes. Dewey (1964) emphasizes the importance of true open-mindedness, that is a person should be willing to actively consider new ideas and be as free as possible from prejudice and
partisanship. This includes a willingness to recognize that even one's most cherished beliefs may contain errors. Dewey then speaks of the role of "whole-heartedness" (p. 225). This attitude lets a person become so absorbed in the subject that further questions and inquiry come almost naturally. Last, Dewey lists intellectual responsibility, a quality that lets the person concentrate and unify thoughts. This leads to harmony in thinking and reflecting and helps people truly follow through in thinking, that is it helps them be aware of logical consequences that follow from their beliefs and to accept those consequences.

Dewey (1916; 1964) asserts that the ultimate aim of living should be intelligent action, rich and meaningful experience that has the potential for continuous growth, and freedom from being a slave to instinct, impulse, and routine. The latter are conditions that animals live under, and it is our ability to think and reflect that sets us apart from animals.

In order to achieve the above goals, reflection needs to be practiced in its optimal form. This, Dewey (1964) points out, does not happen naturally. People are not born reflective, and as described earlier, many only reflect little, or in wrong ways.
Learning to Use Reflection

Therefore, reflection needs to be explicitly taught in school. This includes the attitudes just mentioned as well as the more technical skills involved in thinking and reflecting. The former without the latter would be a god first step, but not ultimately productive. Technical skills without the attitudes described by Dewey (1964) might even be dangerous, he contends, as they might lead to prejudice, distortions, or false beliefs, such as when a narrow-minded person considers only limited possibilities and consequences. What is needed, Dewey asserts, is to teach attitudes and skills together, "to weave them into unity" (p. 228).

Dewey (1964) goes on to explain that the debate over what schools should teach first, or concentrate on, facts or thinking skills, is non-productive. Merely having students memorize and store up information does not necessarily lead to good judgement, and may "make the pupil what has been called a 'cyclopedia of useless information'" (p. 237). On the other hand, students need something to think and reflect about in order to practice those skills. Only information that is reflected on and put to logical use in real life situations leads to good judgement and ultimate wisdom.
Dewey (1964, 1990) criticizes schools for teaching children disconnected facts and having them amass information for use in later life. This is futile. Only information reflected on and used to recognize and solve immediate problems leads to a more reflective, intelligent way of life.

What schools also need to teach children is how to transfer reflective thinking skills from one subject, or one situation, to another. This means that children need to recognize common elements in these and attend to them in a conscious way. Dewey (1964) points out that for most situations, and especially for young children, these common elements are human ones, and "they furnish the material best suited for developing generalized abilities of thinking" (p. 241). This is why it is so important to have a good connection between home and school, and to capitalize on the young child's experiences in the home with parents.

Dewey states:

One reason why much of elementary schooling is so useless for the development of reflective attitudes is that, on entering school life, a break is suddenly made in the life of the child, a break with those of his experiences that are saturated with social values and qualities (Dewey, 1964, p. 241).

This implies that if we want to avoid the above from occurring, we need teachers who can connect learning in school to the child's home, let the child reflect, and help him/her develop the generalized thinking abilities Dewey
speaks of so that students can ultimately reflect and inquire in productive ways on their own. Teachers need to create a classroom culture that supports reflection, teach the necessary skills and attitudes explicitly, and model them. This means that we need teachers who are proficient in reflection and inquiry themselves. The question concerning good ways to help preservice teachers develop these skills and attitudes was the major focus of this study.

Van Manen's Domains of Reflection

Dewey's work speaks to the process of reflection and deals with the content in general ways, such as reflecting on subjects or beliefs. Van Manen (1977) proceeds from this broad basis and deals with the content of reflection in more specific ways. He describes three domains of reflection.

Technical reflection is a concern with the effectiveness and efficiency of methods in achieving predetermined goals. These goals are not questioned. It is assumed that one best way to transmit subject matter knowledge to students can be found. Van Manen (1977) states that this form of reflection is representative of "the instrumental rationality of empirical-analytic theory" (p. 226).

As soon as educators realize that there are alternatives to what needs to be, or should be, taught, and that students learn in different ways, they move to a higher
level called practical reflection. The concern here is with what is good for students, and it is assumed that educational choices are based on certain value commitments. The educator analyzes and clarifies underlying assumptions and possible prejudgments. The aim is to engage students in meaningful learning activities that deepen their understanding of learned material. The teacher tries to develop dispositions in the students towards questioning and reflective thinking. "Curriculum and teaching-learning are seen as processes of establishing communication and common understanding" (Van Manen, 1977, p. 226).

In order to deliberate the ultimate worth of educational goals and possible ways to achieve greater equity, justice, and fairness in schools and society at large, the highest level, critical reflection, needs to be engaged in. This involves a constant critique of social, economic, and political dominance and repression. The aim is to eliminate bias and to empower all students so that they can help create and enjoy self-determination, freedom, and life in a community characterized by equity, justice, and compassion.

Four Forms of Action to Help Reflection

A similar focus on the content of reflection is presented by Smyth (1989), who asserts that reflection should result in certain actions taken by teachers. The
first step involves teachers simply describing in narrative form what they do when they teach. The second action is called informing, and it involves teachers asking themselves what their teaching means and trying to explain the pedagogical principles behind what they do. This would be similar to Van Manen's (1977) analysis and clarification of assumptions and principles and an element of practical reflection.

The third action Smyth (1989) describes is called confronting and involves teachers trying to situate their teaching practices in a larger socio-cultural and political context. They try to clarify the values and assumptions underlying their philosophy. They also ask why they hold them, and whose interests are being served. The fourth and last step is reconstructing. Here teachers reconceptualize their theoretical stance and align the social and/or political context in which they operate with these beliefs. This last step is not merely a modification of a teaching method. Step three and four are therefore similar to critical reflection.

The ultimate aim of these four actions is to change the conditions of teaching to promote a less oppressive and more just, humane, and dignified society. A study by Emery (1996) of teachers engaging in professional dialogue revealed that teachers did a lot of describing of their teaching and
informing colleagues about their pedagogical principles, but confronting and reconstructing was less well developed and done infrequently.

Both Van Manen's (1977) and Smyth's (1989) descriptions of different aspects of the content of reflection can be used as models to identify what kinds of reflection teachers, including student teachers, are engaging in. They can also be used as guides or frameworks to help teachers engage in all types of reflection.

The preceding sections described the process and content elements of reflection and its role in education. The importance of reflection and inquiry in good education was established. I now turn to the work of Schon (1983; 1987) for a discussion on how reflection can be taught to preservice teachers.

Schon's Work on Educating Reflective Practitioners

Schon's (1983; 1987; 1988) work advances the argument that a move away from technical rationality and toward reflective practice in the professions would be beneficial. He explains that practitioners already possess a great deal of knowledge, even though it is often held tacitly, yet can be brought to the surface of awareness and be made more explicit through reflection. This knowledge can then be used to build up a repertoire of carefully documented stories that can help inform subsequent practice. Such knowledge can
also be used to inform theories that offer perspectives on practice and can then be tested in subsequent teaching, or other professional practice (Schon, 1983).

**Schon's Criticism of Technical Rationality**

In his book *The Reflective Practitioner* Schon (1983) states that:

According to the model of Technical Rationality - the view that professional knowledge that has most powerfully shaped both our thinking about the professions and the institutional relations of research, education, and practice - professional activity consists in instrumental problem solving made rigorous by the application of scientific theory and technique (p. 21).

The underlying assumption in this model of technical rationality is that there exists a hierarchy of knowledge. The underlying discipline or basic science component upon which the practice rests is at the top, an applied science or engineering component from which many day-to-day diagnostic procedures are developed is in the middle, and the actual practical skills and services to the client are at the bottom. Schon (1983) points out that in this paradigm, the forms of knowledge are thus arranged in a hierarchical order of derivation and dependence. The application of basic science yields applied science, which in turn yields problem solving techniques that are applied
in the actual delivery of services. This paradigm assumes that the more general and basic the knowledge, the higher the status of its producer.

Schon (1983) goes on to explain that the goal of technical rationality is to have a solid body of professional knowledge, namely applied science that is derived from general scientific principles and theories. This applied science consists of cumulative, empirical knowledge about means best suited to chosen ends, that is best ways to solve predetermined problems. Professional practice thus becomes instrumental problem solving. Schon (1983) refers to Glazer's explanation that this works well in the major professions, which the latter lists as medicine, law, and engineering. This is the case because these professions operate in stable conditions and are disciplined by unambiguous ends. The problems to be solved are clear and known, and scientific knowledge yields the best methods to solve them.

Schon (1983) criticizes this model of rationality on several grounds. First, a systematic professional knowledge base that is firmly bounded and standardized is largely inoperable in professions such as social work, education, and psychiatry, as these professions involve complex human relationships. Professional practice therefore resembles art
more than science and deals with ambiguous and possibly changing ends, and problems that are not well defined, or if they are, there may be controversy over which ones are worth solving. In addition, there are competing views about the nature of practice and the role the practitioner should play. Furthermore, each individual and situation is in many ways unique, and therefore general, standardized solutions cannot work.

Schon (1983) also argues that practice that relies on technical rationality is often limiting and problematic even in medicine, law, and engineering. It can lead to a routine, mechanized application of standardized methods where the practitioner deals only with problems and data that fit into predetermined categories. The practitioner then carries out practice with blinders on and is kept from exploring alternative avenues and solutions and possible new discoveries. While Schon agrees that there are areas in these 'major' professions that are "high, hard ground where practitioners can make effective use of research based theory" (p. 42), he points out that there is also a lot of "swampy lowland where situations are confusing 'messes' incapable of technical solution" (p. 42).

Schon (1983) goes on to explain that there are zones in the 'major' professions that resemble those in social work and education. That is problems are not well defined, and/or
the way or value of their solution is questionable. He gives
the example of engineering that may seem elegant from a
narrowly technical point of view, but may carry unacceptable
risks to human environmental safety. Large-scale industrial
agriculture may be efficient in one sense, but it also
destroyed the peasant economies of developing countries.

Professionals as Reflective Practitioners

Schon (1983) poses the question of how professionals
should take account of issues as these. Is there a good
alternative to technical rationality that prevents one from
sinking in the swampy lowlands, or being condemned to
eternal and haphazard trial and error in problem solving in
professional practice? Schon answers in the affirmative. He
asserts that professionals already possess a substantial
amount of professional knowledge that can be used as the
basis for reflection and the generation of a more systematic
knowledge base that can inform practice. Schon proposes that
professionals can and should reflect in, as well as on,
action to build up a usable repertoire of cases or even
theory to be used in subsequent practice.

Reflection-in-Action

Schon (1983) argues that we should put aside the model
of technical rationality that he criticizes and instead
think that intelligent practice is always an application of
knowledge to instrumental decisions. We should embrace the
idea that there is a kind of knowing in intelligent action, a "knowing-in-action" (p. 50). This means practitioners have a great deal of knowledge that is revealed in the spontaneous behavior of skillful practice and does not stem from any prior intellectual operation. Good jazz musicians, for example, can improvise together, because they have "a feel" (p. 55) for their material and where the music is going, and they make on-the-spot adjustments.

Schon (1983) goes on to explain that:

... the workday life of the professional depends on tacit knowing-in-action. Every competent practitioner can recognize phenomena - families of symptoms associated with a particular disease, peculiarities of a certain kind of building site, irregularities of materials or structures - for which he cannot give a reasonably accurate or complete description. In this day-to-day practice he makes innumerable judgements of quality for which he cannot state adequate criteria, and he displays skills for which he cannot state the rule or procedure. Even when he makes conscious use of research-based theories and techniques, he is dependent on tacit recognitions, judgements, and skillful performance (pp. 49-50).

As Schon (1983) points out, much of this knowledge is tacitly held, but it is also the case that practitioners often do think about what they are doing, sometimes even while they are doing it. This usually happens, just as Dewey (1916) states, when the practitioner is stimulated by surprise - there is something puzzling, troubling, or interesting in the situation that causes the practitioner to think about the knowing that is implicit in action.
Practitioners may ask: "What are the criteria by which I make this judgement?" (Schon, 1983, p. 50). Or they may ask: "How am I framing the problem that I am trying to solve?" (p. 50). This means that knowing-in-action has become reflection-in-action, according to Schon.

When engaging in reflection-in-action, practitioners try to make sense of the puzzling or interesting phenomenon. They reflect on the understandings which they surface, criticize, restructure, and embody it in further action. Schon (1983) states that "it is this entire process of reflection-in-action which is central to the 'art' by which practitioners sometimes deal well with situations of uncertainty, instability, uniqueness, and value conflict" (p. 50). Such situations are common in daily practice, and in these situations problems do not readily present themselves to the practitioner. This is why technical rationality and instrumental problem solving do not work here - they depend on fixed and clear ends.

When ends are unclear or confused, practitioners must make sense of the situation by engaging in the non-technical process of framing the problem so that eventually ends and means to achieve them can be clarified and organized. One way to achieve this is by reflection-in-action. Schon (1983) describes the structure of this process in detail. The first step is that practitioners draw on their professional
knowledge to make some sense out of the perplexing situation by framing or reframing a problem that suggests a direction for reshaping the situation and possible action. They then take the reframed problem and conduct an experiment to discover what consequences and implications follow it.

This is done through a web of moves, discovered consequences, implications, and further moves. In essence, practitioners conduct an "on-the-spot experiment" (Schon, 1983, p. 141) by trying out an action. This produces intended as well as unintended changes and consequences.

The situation talks back, the practitioner listens, and as he appreciates what he hears, he reframes the situation once again ... 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 (pp. 131-132).

This reflection-in-action goes on in the midst of practice, in the thick of the action. The practitioner may pause for a brief moment when confronted with the puzzle, such as an unexpected answer from a student, and quickly try to recall similar instances from the past or some relevant piece of pedagogical knowledge that would inform the present situation. The practitioner would then modify the line of questioning or a subsequent lesson and see if this on-the-spot experiment yields desired results and student understanding.
Reflection-on-Action

Not all reflection that practitioners engage in goes on in the immediate context. Some of it is done after a perplexing event. Schon (1983) terms this kind "reflection-on-action" (P. 61). This type of reflection is also valuable, but it is different from reflection-in-action in that it is done after the fact, "in the relative tranquility of postmortem" (p. 61). This type of reflection is done to think back on a project or a situation and the understanding brought to, as well as gained from, that event. Practitioners may do this in a moment of idle speculation, or in a deliberate effort to prepare themselves for future cases. In the latter case, reflection-on-action would follow the same basic steps of reflection-in-action. A problem would be framed, an experiment carried out, and understandings evaluated.

Schon (1983) argues that these two types of reflection use basically the same logic of experimental inference as a researcher, because hypotheses are put forth and then tested. The difference is that the practitioner sees his case as unique, is looking for a solution he likes better, but not necessarily generalizations that apply across contexts. In essence, practitioners build up professional knowledge, because there is "an epistemology of practice implicit in the artistic ... processes which practitioners bring to situations of uncertainty ..." (p. 9).
The Reflective Practicum

Schon's (1983) argument for such an epistemology of practice, one that starts with the competence and artistry that many practitioners already display when they are thinking about what they are doing in their daily practice, leads him to ask what kind of professional education would be appropriate for this epistemology. He provides an answer and detailed explanations in his 1987 book *Educating the Reflective Practitioner* and proceeds from the basic assertion that "professional education should be redesigned to combine the teaching of applied science with coaching in the artistry of reflection-in-action" (p. xii). He adds that in the traditional curriculum of professional schools, designed in accordance with technical rationality, research and practice are separated with no room for reflection-in-action, and this leaves students with "a dilemma of rigor or relevance" (p. xi) and largely unprepared for the many ambiguous problems practitioners face.

According to Schon (1987), professional schools should be redesigned according to the general setting of a design studio and the students' education should be done in the form of a "reflective practicum (where) students mainly learn by doing, with the help of coaching (to) become proficient in a kind of reflection-in-action" (p. xii).
The underlying idea is that an expert in the profession engages the student in certain aspects of practice and an ongoing dialogue about these practices, potential problems, and alternative solutions. Together they perform and discuss on-the-spot experiments. Thus the expert coaches the student in reflection-in-action as well as reflection-on-action.

Schon (1987) provides examples of such a reflective practicum for architecture, music, and psychoanalysis to illustrate the underlying principles and potential problems associated with a reflective practicum. However, he advocates redesigning all professional schools according to this model, including schools of education.

Reflective Coaching

Schon (1987) explains that a reflective practicum includes a "threelfold structure of the coaching task ... ('Follow Me!', 'joint experimentation', and 'hall of mirrors')" (p. xii).

The 'follow me' approach to reflective coaching is one where the expert professional takes the lead. This type resembles an apprenticeship, except that it includes an explicit emphasis on reflection-in-action as well as some reflection-on-action, and ongoing dialogue between the master and the student. In essence, though, it is the professional who engages the student in some practice, models the use of it, and explains underlying principles. It is the expert who takes the lead, commenting on what
(s)he is doing and also engaging the student in reflection on possible problems and alternative solutions.

The 'follow me' approach has the same basic elements of reflective coaching, but here it is the student who takes the lead. This is usually done when a student already has some familiarity with practice, or good ideas on a project (s)he would like to undertake. The professional then acts more as a facilitator for the student's project, but still suggests on-the-spot experiments and reflection on alternatives.

The 'hall of mirrors' approach is done to reflect realities of practice and problems back to the student. Schon (1987) provides an example of how this was done with a student of psychoanalysis. The student had encountered a problem with a patient who was projecting her fears and anxieties onto him, and the student in turn was projecting his anxieties onto Schon without being aware of what was actually happening in either situation. In role play and through dialogue Schon then tried to make the student aware of the underlying problem, and they discussed how this had contributed to the student's misdiagnosis of the patient. Together they then reflected on alternative solutions.

Potential problems. Schon (1987) admits that reflective coaching is complex and not without problems. It is important for the coach to be very explicit about each step

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taken in practice as well as reflection, and to try to understand the student's needs rather than simply following his or her own agenda.

Schon and his colleague Argyris actually studied their own attempts to advance the idea of a reflective practicum in a series of seminars for graduate students (Schon, 1987). The underlying idea was to enable the students to engage in reflection-in-action and reflection-on-action and to become reflective coaches. In order for them not to become the type of coach who simply imposes his/her own ideas on others and tries to be controlling, a type of behavior Schon (1987) terms "Model I" (p. 256), these students needed to engage in "Model II" (p. 259) behavior. Its characteristics are a commitment to shared inquiry, free and informed choice, and an open exchange of valid information even on difficult subjects and private dilemmas.

Schon and Argyris found that many of their students had problems in one or several areas. It was difficult for many students to truly open up and admit anxieties or shortcomings. Writing essays on this topic and sharing them with the group in the seminar helped some students, because they found that others shared the same doubts.

A criticism that some students voiced was in regards to the 'follow me' approach that Schon and Argyris tried to recreate in the seminar. They thought that this would be a
productive way to develop Model II behavior in the students and also familiarize them with this approach to reflective coaching. Some of the students objected to being asked to imitate a model. They thought that this limited their own choices and development and did not give them sufficient input into the learning process.

A prevalent problem that Schon and Argyris found (Schon, 1987) was that many of their students who verbally committed to the benefits of Model II behavior were unable to put it into practice. This was especially evident in situations where problems arose. Schon describes the example of one of the students talking to a business client and ending up trying to impose his own views on the client when the latter does not readily take the student's suggestions. Schon points out that despite good initial intentions, the student reverted to a controlling Model I type of behavior.

The preceding discussion implies that a reflective practicum is complex, and that becoming a reflective coach requires special attitudes and training. Schon (1987) admits that reflective coaching is not without its problems, but helping students become proficient in reflection-in-action and reflection-on-action is an ultimately worthwhile goal that professional schools should strive toward.

The kind of reflective practicum advocated by Schon (1987) would certainly be appropriate for preservice teacher
education programs, especially with the recent emphasis of
teacher education reform movements on training teachers to
be reflective, inquiring practitioners.

In the following sections of this chapter I will
describe action research as one good way to help student
teachers become reflective, inquiring practitioners, because
action research is a form of inquiry that centers on
reflection.

Action Research

Action research is not easily defined. There is a
tendency to apply the term to any investigative activity in
which practitioners are centrally involved (Grundy & Kemmis,
1988). In general terms, "action research is disciplined
inquiry participants do to understand and improve their
practice" (McCutcheon, 1995, p. 3).

More specifically, action research is a rigorous and
systematic endeavor that proceeds from a question and
involves four basic elements, according to Kemmis and
McTaggart (1988). Planning is done to implement a critically
informed action plan, it is forward looking and takes
constraints into account. Action is always deliberate, a
careful and thoughtful form of practice. Observation is done
to help collect evidence about action and to serve as a
basis for reflection. The action process, its effects, and
circumstances all need to be observed. Reflection is then

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engaged in to make sense of processes and issues. At times it is evaluative, because it requires the researcher, or researchers, to judge whether the outcomes of action were desirable. Reflection is often helped by discussion and takes into account the various perspectives as well as possibilities in the social situation.

These elements are not static steps, but rather moments in the dynamic process of action research. The latter is represented as the "action research spiral" (Kemmis & McTaggart, 1988, p. 11). The four elements - planning, action, observation, and reflection - constitute one cycle and form the basis for further planning, revised action, and more observation and reflection.

Several authors (Grundy & Kemmis, 1988; Kemmis & McTaggart, 1988) argue that going through one single loop of the action research spiral should not be considered action research. Learning results only from the continuous and judicious application of the research spiral. These authors also stress that action research is more than mere problem solving. It is a rigorous and systematic research endeavor.

This means that the initial research question is not merely a search for a more effective teaching method, but rather addresses a broad educational issue or thematic concern. Kemmis and McTaggart (1988) emphasize that this
initial problem-posing is a crucial first step in action research. They assert that a teacher's concern with having students turn in homework on time would not be an appropriate action research question. However, posing a question that would address the role that homework could play in connecting schools and home would be an example of a broad educational issue and a valid starting point for action research.

Kemmis and McTaggart (1988) assert that action research should have a critical theory focus and aim at reforming schools and society. According to them, action research is "a form of collective self-reflective inquiry undertaken by participants ... to improve the rationality and justice of their own social or educational practices (and) their understanding of (them) and the situations in which (they) are carried out" (p. 5). They stress that the approach is only action research if it is collaborative, informed by critical theory, and aimed at bringing about greater equity and justice.

This Australian view of action research is supported in the United States by Noffke and Stevenson (1995). They argue that teachers, including preservice teachers, need to be able to reflect critically and engage in action research, because schools do not yet ensure that truly all children
learn. They further stress that teachers should critically examine the concept of democracy, because there is a possibility of excluding minority voices.

Not all American educators share the view that action research needs to be always critical. Noffke and Stevenson (1995) freely admit that they have been criticized for insisting on critical action research for preservice teachers, and that their approach has been called political indoctrination by some.

Cochran-Smyth and Lytle (1993) strongly believe that teacher research should be used to develop a professional knowledge base in education, but they do not insist on critical action research. Rather, they believe that teachers have special insights from their emic perspective and also encounter problems related to theory and practice issues in their classrooms, and are therefore in a good position to research their own practice and make valuable contributions to the knowledge base of the teaching profession.

Action research does not always have to be collaborative, either. McCutcheon (1995) points out that it can be undertaken by individual teachers and contribute to that teacher's understanding and improvement of classroom practice. She asserts that such individual action research efforts have merit and should not be discounted. She provides the example of a classroom teacher's practice that
became more student centered after the teacher engaged in action research. Student motivation and learning increased.

The continuing debate over types and purpose of action research may be better understood in light of the history of action research that includes many collaborative efforts.

**Historical Overview of Action Research**

Action research as a means of understanding, changing, and improving practice, and a form of research undertaken by participants rather than outsiders, is not new. Wallace (1987) suggests that action research was originated in the United States. The term 'action research' was possibly coined by Collier in the 1930s who used action research to improve the farming practices of Native Americans. He demonstrated through case histories that when scientists, administrators, and lay people came together to respond quickly to real needs, solutions found were more useful than those discovered by detached scientific research.

Wallace (1987) goes on to describe how action research was then further developed by Kurt Lewin. This social psychologist, who is often referred to as the originator of action research (Adelman, 1993; Kemmis & McTaggart, 1988) applied it in post-World War II America in diverse settings, ranging from integrated housing to better training of youth leaders. His particular concern was to raise the self-esteem of minority groups, and quasi-experiments in neighborhoods
showed that through cooperation and action research law and order in these settings improved (Adelman, 1993; Wallace, 1987).

Lewin's work focused on action research as a group activity with a commitment to improvement. He believed that active participation of those who have the problem, group discussions, group decisions on how to proceed, progress reviews, and reflection are all essential elements of action research. Lewin described the action research process as a spiral of steps, each composed of planning, action, and evaluation, much like the action research spiral described by Kemmis and McTaggart (1988).

Lewin's ideas that practical action needs to be informed by scientific ideas as well as situation-specific knowledge spread rapidly. They were applied to education in the early 1950s by Stephen Corey, the Dean of Teacher's College at Columbia University. He encouraged teachers to engage in action research to improve their own practice (Wallace, 1987). Much like Lewin, Corey believed that participants needed to understand and define their own problems, systematically gather evidence about the effectiveness of action, and put more promising procedures into action. Corey favored collaborative action research, because to him institutional change had to involve everyone in the organization.
Noffke and Stevenson (1995) point out that some of these earlier educational action research endeavors were aimed at creating democratic classrooms. A few years later, action research was characterized by increased attention to issues of teachers' personal and professional growth. In the late 1950s, action research moved out of the spotlight in education, because rising McCarthyism and more federally funded research projects to develop discipline-based curricula did not favor action research.

Over the past two decades, action research has become more visible and accepted in educational circles again. Action research endeavors in the United States span the range from individual to collaborative efforts, and they are undertaken to inquire into a variety of subjects and for a variety of purposes.

Educational action research brings with it possibilities as well as controversial issues. Some of these issues could impact preservice teacher education programs and are now discussed.

**Issues in Educational Action Research**

Educational action research can help teachers better understand and improve their own practice, it can empower them as professionals to make changes in their classrooms or the school, and it can lead to higher student motivation and learning.
However, there are also certain controversial issues and potential problems associated with action research. Two that could have an impact on preservice teacher education programs are associated with the role of a facilitator of action research and the role of critical theory in action research. These are now considered.

**The Role of Facilitator**

The potentials and limitations associated with the role of a facilitator of action research are discussed in some of the literature. Adelman (1993) points out that in his extensive experience with action research undertaken by teachers, he has found that they often struggle in the beginning. Formulating an appropriate research question causes some anxiety, and often takes a considerable amount of time. Adelman suggests that a facilitator can be of great help here. Such a person could encourage teachers to engage in consistent reflexive thinking to clarify issues and come up with an appropriate question. The facilitator can also be of help in suggesting appropriate research methods.

Grundy and Kemmis (1988) agree that a person who is experienced in action research can be of great help in facilitating the action research process. However, they point out that this role is not an easy one. It is of utmost importance that the people undertaking the action research retain ownership of the project. The facilitator must walk
a fine line, and always be aware of the subtle difference between support and intrusion. Moreover, this demarcation constantly changes, with action researchers usually needing more help in the beginning and less as they become more engaged in the process and gain experience. This means the facilitator needs to observe the action researcher(s) carefully and reflect on his or her own role, trying to assess when to phase out the facilitation and let the group take full responsibility for the project.

Grundy and Kemmis (1988) mention that with the reality of many teachers being isolated in their classrooms, collaboration in action research with a facilitator is one way to still do collaborative action research and avoid the pitfalls of individual action research, such as operating under personal misconceptions and being ineffective in struggling against an oppressive system.

The role of facilitator could be taken by a university supervisor or an experienced cooperating teacher in a preservice teacher education program.

Critical Action Research

The preceding section mentioned Grundy and Kemmis' (1988) argument that a facilitator could help an action researcher struggle against an oppressive system. This brings up the question of whether such reform should be the aim of all action research.
As mentioned earlier, many educators value action research that is concerned with improving education for students by making the classroom a place where students can enjoy learning, and do so with deeper understanding (Cochran-Smith & Lytle, 1993; McCutcheon, 1995). This does not necessarily involve a reform agenda.

The issue then becomes whether or not preservice teachers should be introduced to action research in general, or whether an emphasis on critical action research is necessary at that stage of their development and career. Noffke and Stevenson (1995) point out that most preservice teachers enter the profession without the goal of reforming schools. These authors argue that schools need to change, because presently too many minority voices are excluded. Introducing student teachers to critical reflection and action research is necessary, not political indoctrination.

The debate over whether or not to include action research in general, and critical action research in particular, in preservice teacher training, is an ongoing one.

I personally agree with Noffke and Stevenson (1995) and believe that preservice teachers need to be introduced to critical action research so that they can help initiate and sustain much-needed school and social reform efforts.
I also believe that action research aimed at more general improvements of classroom teaching without an explicit reform agenda has value, as in the area of finding good ways to teach children about conservation and environmental protection. Noffke and Stevenson (1995) acknowledge that such individual action research efforts are fairly common. However, they argue that these are not enough, and that action research should be critically informed and that collaborative efforts are necessary to bring about social reform.

This leaves the question of whether it is possible for individuals to initiate reform, or whether action research needs to be a collaborative effort to effect change. I will use Giddens' (1984) work to show that individual reform efforts can be useful.

The Giddens Argument

While Giddens (1984) agrees that societies are constituted and reconstituted by large numbers of people, he asserts that the possibility of an individual bringing about change exists. This is only a small part of his work on social structure and change, but I will focus on it here to support my own argument that individual action research can produce social change.

Giddens' (1984) line of argument proceeds from the premise that "the conceptual divide between subject and
social object" (p. xx) is non-productive, and that "this
dualism has to be reconceptualized as duality - the duality
of structure" (pp. xx-xxi). This means that social subject
and object are interdependent, and neither predominates.
"Structure is not 'external' to individuals" (p. 25), and
societies and institutions are not "internally highly
integrated unities" (p. 27 that exist outside of people.

Rather, Giddens (1984) asserts that "the structural
properties of social systems exist only in so far as forms
of social conduct are reproduced chronically across time and
space" (p. xxi). Structure is conceptualized as "rules,
resources, or sets of transformation relations, organized as
properties of social systems" (p. 25). Institutions exist
because "social activities become 'stretched' across wide
spans of time-space" (p. xxi).

In essence, Giddens' (1984) argument is that social
systems and organizations are reproduced by people. These
are "knowledgeable agents" (p. 25) who continuously and
reflexively monitor their own actions, that of others, and
aspects of the social and physical context. Giddens makes it
clear that people are not automatons or robots that can be
completely controlled by others. In addition, Giddens
explicitly states that the structures he speaks of are
always both, constraining and enabling. They limit people's
actions in the sense that the former are expected to conform
to society's rules and norms or face sanctions, yet structures also provide possibilities and a sense of security, the reassurance that life in a particular society will basically go on as usual.

Can an individual actor change social reproduction? According to Giddens (1984), yes. He never claims that groups are the only ones that can bring about change. He later stresses that "action depends upon the capability of the individual 'to make a difference'" (p. 14).

Adding support to the above argument is Giddens' (1984) conceptualization of power. He defines power as "the ability to get things done" (p. 175). This means power can be used for positive or negative purposes, but it is not limiting in and of itself, it depends on who uses it for what. Giddens admits that power is often used for domination and repression, but their existence in society is neither inevitable nor unchangeable. Humans always have the potential to act otherwise. Even those in dependent situations can influence their superiors, according to Giddens.

Giddens (1984) also stresses that when power and domination exist over some period of time, it is the result of "regularized relations of autonomy and dependence between actors or collectivities in contexts of social interaction" (p. 16). The fact that he differentiates here between
'actors' and 'collectivities' implies that it is entirely possible for an individual actor to effect change.

Proceeding from Giddens' (1984) assertion that social systems are situated social activities that are reproduced over time-space, I can make the theoretical argument that such reproduction can be disrupted or changed by an individual. Just as production on an assembly line can be stopped or changed by one worker who refuses to do his particular part, so a social system or organization could be changed by an individual who refuses to perpetuate the traditional way of accomplishing things.

Giddens (1984) himself mentions that throughout history there have been instances when an individual tribal chief, a head of state, or a single legislator, has changed a system.

I myself would argue that Martin Luther, who rebelled against the corruption and domination of the Catholic Church in the 1500s and initiated The Reformation, was such an individual. More recently, Rosa Parks began desegregation without officially organizing large reform groups, and Tiger Woods has sparked new legislation to affirm diversity in this nation. While it is true that these individuals are in one sense the product of a particular social context and play certain roles, it is also true that they as individuals at least initiated change that was then sustained with the help of fellow human beings. However, Martin Luther, Rosa
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Parks, and Tiger Woods all started their change efforts alone, they did not first mobilize large groups of people to fight the system collaboratively.

The significance of the above argument for my study lies in the fact that, while collaborative action research has certain advantages, individual action research efforts also have merit. It is entirely possible that an individual teacher who inquires into implementing learning centers, a democratic classroom, an anti-bias curriculum, and portfolio assessment, can effect school change and/or social reform. For example, such a teacher's students may become used to having their voices valued and being empowered. These students may grow up to settle for nothing less than a voice in decision making at work, or become outright citizen activists, so the teacher would have impacted change in an indirect way. It is also possible that the teacher's above efforts may cause other teachers in the school to do the same, and the curriculum may change to include more equity and less bias, or effect other school or district wide reform efforts.

I would thus argue that action research of all types has value and needs to be introduced to preservice teachers.
CHAPTER 3

METHODOLOGY

Introduction

"Das Besondere unterliegt ewig dem Allgemeinen; das Allgemeine hat sich ewig dem Besonderen zu fügen." (The particular is always subject to the universal; the universal always has to submit to the particular) (Goethe, 1976, p. 49).

Almost two hundred years ago, the famous German writer Goethe succinctly stated what is now one of the cornerstones of qualitative research and phenomenology - each particular, unique phenomenon is in some way connected to a larger whole, yet at the same time the larger whole, and universal 'truths', become meaningful only in each situated, particular application.

This study attempted to explore the particular and connect it to a larger whole. It took an in-depth look at a particular aspect of teaching life and then connected it back to a larger context. It looked at three case studies of year-long student teacher/cooperating teacher relationships and how prominent reflection and action research were.
The study then discussed implications that can be drawn to help inform other such relationships and preservice teacher education programs.

Methodological Stance

In a sense, teaching and learning are highly situated and context dependent, in another sense, there are common elements and similarities among all teachers, students, and schools. This study was therefore done in a qualitative manner and influenced by the tenets of phenomenological hermeneutics, describing meanings of phenomena in one situation to help inform others.

I began this study with a broad question: How prominent is the cooperating teachers' action research in the year-long relationships with their student teachers and how the latter make meaning of these experiences. At the same time the related question of what role the university supervisor played was explored.

My particular stance was that it takes a combination of viewpoints and methods to arrive at a better understanding of the complexity of teaching, reflection, and action research. Interviewing, participant observation, and document analysis were used to gain an in-depth look at the phenomena studied and to obtain both emic and epic views.

The main focus of this study was the experiences and meaning making of the student teachers, because they
possessed an emic view of their development. The ultimate goal of this study was to help inform teacher education programs and to enhance the quality of education for student teachers. With the latter being the primary learners in these programs, it is of importance to include their experiences and perspectives so that program improvements will be meaningful, because the knowledge that learners construct is largely dependent on their prior knowledge, experiences, and perspectives (Dewey, 1916; Woolfolk, 1995).

The cooperating teachers and university supervisors will hopefully also learn to a certain extent from being involved in a preservice teacher education program. In addition to their emic views on their own experiences, they can also offer valuable outsider perspectives on the development of student teachers and add context and depth to the data. I therefore also explored their viewpoints and meaning making in my study.

My overriding focus was to gain entry "into the conceptual world of (my) subjects" (Bogdan & Biklen, 1992, p. 34). How they made meaning of their experiences was essential to informing teacher education programs in a productive way. In particular, this study explored three areas of the student teachers' experiences (a) making meaning of their development and relationships with their cooperating teachers, (b) their reflections on educational
issues, (c) their interaction with children.

While the emphasis was on the preservice teachers' perspectives and meaning making, those of the cooperating teachers and university supervisor also played an important part. This was enhanced by the fact that the student teachers were in year-long field placements and therefore long-term relationships that included some mentoring and coaching by the cooperating teachers and university supervisor. The ECC/PDS also has a level of collaborative work that is not usually found in traditional preservice teacher education programs, and that might have had an impact on the participants' relationships and perspectives.

My study was therefore a combination of three qualitative case studies and a small-scale action research project on my role as university supervisor to get as complete a picture as possible of the student teachers' development as reflective and inquiring professionals.

The Influence of Phenomenological Hermeneutics

One of the research questions guiding my study was: How do preservice teachers experience year-long relationships with their cooperating teachers who are doing action research? As mentioned in the preceding section, my aim was to arrive at a better understanding of the student teachers' meaning making.

These questions and concerns are typical of hermeneutic
phenomenology. This approach asks: What is this educational experience like for students? It does not usually ask questions like: How do students learn best? This is a result of its underlying tenets as expressed by Dilthey: "We explain nature, but human life we must understand" (Van Manen, 1990, p. 4).

Phenomenology and hermeneutics come from originally somewhat different traditions. Phenomenology is the study of essences, it is "grasping the nature and significance of this experience in a hitherto unseen way" (Van Manen, 1990, p. 39). It is more than mere speculation, as it always uses lived experience as a starting point and eventually returns to it. In order to better understand what meanings ordinary people make of particular events, phenomenologists use "bracketing" (Bernstein, 1976, p. 130). They look only at the phenomena under question, disregarding for the moment context and surroundings, to gain deep insights and understanding of the particular phenomenon. The experience is described in order to enrich it and understand its meaning and then re-connected with the Lebenswelt (lifeworld).

Hermeneutics has a tradition of being interested in the interpretation of text to arrive at a better and deeper understanding of its meaning (Bernstein, 1976). It is described as "the interpretive description of some aspect of
the lifeworld" (Van Manen, 1990, p. 18). The conscious description and interpretation of phenomena and experiences constitutes hermeneutics.

Phenomenology and hermeneutics can be combined, as in the approach described by Van Manen (1990). He states that it proceeds from the assumption that human life is complex and tries to offer insights and aims at "making explicit and seeking universal meaning" (p. 19). Its goal is to bring a wide range of life's phenomena to our reflective awareness.

Just as Dewey (1964) calls for reflection on experience so that we can move away from non-productive trial and error and capricious behavior to more intelligent action, hermeneutic phenomenology can be used to lead us out of the implicit, non-reflective consciousness of much of our daily lives to greater reflective awareness. For educators it means that hermeneutic phenomenology can help us "act more responsibly and responsively in all our relationships with children, youth, or with those to whom we stand in a pedagogical relationship" (p. 12).

Van Manen (1990) also stresses that:

To do hermeneutic phenomenology is to attempt to accomplish the impossible: to construct a full interpretive description of some aspect of the lifeworld, yet to remain aware that lived life is always more complex than any explication of meaning can reveal (p. 18).
This study attempted to offer as complete an interpretive description as possible of the student teachers' relationships with cooperating teachers involved in action research and a university supervisor who had a special interest in action research and reflection. In an effort to take an in-depth look at these phenomena I bracketed the rest of the teaching world at the research site and the ECC/PDS program for a while and drew implications and connected it back to other preservice teacher education programs only after final data analysis.

I believe it is of vital importance to have as good an understanding as possible of how those undergoing experiences interpret them. If student teachers interpret program experiences and assignments as non-essential or difficult, or are possibly left confused by them, then maybe the experiences and assignments need to be modified, presented in a different fashion, or changed completely. Offering student teaching experiences without taking the former's perspectives into account would be like inviting guests to a steak and potato dinner without knowing about the guests' preferences. The dinner may be well prepared and of high nutritional value, but if the guests are vegetarians, they will enjoy only part of the meal and not receive its full nutritional benefit.
It is my hope that insights gained from this study will help inform preservice teacher education programs about the types of experiences and assignments that will be optimal in helping student teachers become reflective and inquiring practitioners.

The Case for Case Studies

I chose to do my study in the form of three case studies for several reasons. First, most books on qualitative research in education advise the novice researcher, which I was, to start with a case study as a first research effort (Bogdan & Biklen, 1992; Eisner, 1991; Eisner & Peshkin, 1990). Case studies in general are easier to manage for an individual researcher than multisite or multisubject studies.

In addition, case studies often deal with some aspect of an organization, such as a specific place or group of people. The aim is to "examine a naturally existing unit of a larger organization" (Bogdan & Biklen, 1992, p. 63). The student teacher/cooperating teacher/university supervisor triad that was this study's main focus is such a naturally occurring unit in a school and the ECC/PDS preservice teacher education program.

My reason for choosing three case studies rather than one was two-fold and influenced by both professional and practical considerations. As a researcher I wanted to make
my study as rich, comprehensive, and informed as possible. Having several case studies for analysis and cross-case comparisons made this possible.

On the practical side, I wanted to ensure that I had a study, and with only one case to explore and the reality that occasionally student teachers do not finish the program, choosing three seemed a good option.

The general value of case studies in educational research lies in the fact that they are "a detailed examination of one setting, or a single subject, a single depository of facts, or one particular event" (Bogdan & Biklen, 1992, p. 62). They thus provide deep insights, rich examples, and vicarious experience, all of which makes for good transferability, the ultimate aim of a qualitative study (Bogdan & Biklen, 1992; Eisner, 1991; Eisner & Peshkin, 1990; Patton, 1990). Readers can identify with parts or even all of the case and take meanings and learning relevant to their own situation and apply it in their context.

This transferability holds true in cases that are similar to the reader's situation as well as those that are dissimilar. The former argument is advanced by Lincoln and Guba (1985), the second by Donmoyer (1990). Lincoln and Guba point out that contexts are similar, but never identical, and therefore qualitative research should be concerned with
transferability, not generalizability. If context A and context B are sufficiently congruent, then research findings, which are always only a working hypothesis, from context A may apply to context B. This means that if case A is similar to case B, findings from the former will probably apply to at least parts of the latter and provide useful information for practitioners and researchers.

Donmoyer (1990) agrees that case studies have value because they offer vicarious experiences, and adults are able to learn from these. He then goes one step further than Lincoln and Guba and argues that people learn not only from case studies that are similar to their own situation, but also from those that are quite dissimilar. Donmoyer argues that when confronted by this dissimilarity people experience what Piaget calls cognitive conflict. Thought processes are stirred, and the attempt to resolve the cognitive conflict results in insights and learning that can then possibly be related to one's own situation.

Donmoyer (1990) sums up his argument as follows: "When diversity is dramatic, the knower is confronted by all sorts of novelty, which stimulates accommodation; consequently, the knower's cognitive structures become more integrated and differentiated; ... he or she can perceive more richly, and, one hopes, more intelligently" (p. 191). This occurs, because according to Piaget's schema theory, there is a
constant interplay between assimilation (information taken in from the world) and accommodation (the reshaping of cognitive structures to incorporate new perceptions). Donmoyer explains that this makes cognitive structures more integrated and more differentiated, resulting in structures that can accommodate more items and also perceive more distinctions and subtleties.

Donmoyer (1990) then takes up Stake's notion of "naturalistic generalizations" (p. 184), the kind people make from everyday experiences. These generalizations are often tacit, but lead to expectations of how things will be later on. Since people can only experience a limited number of things directly, case studies can add to their learning and understanding by providing vicarious experience.

The most common argument against the use of case studies, Donmoyer (1990) points out, is articulated by Feinberg:

> Even though the information collected on a single classroom or group over a period of a year or more is extremely rich, the basic fact remains that for a single classroom study, N=1 ... A study such as Rist's may help to generate hypotheses about urban or ghetto schools. It does not allow for generalizations or broad conclusions (perhaps not even narrow ones) (p. 184).
Donmoyer (1990) argues that in fields that deal with complex human situations and interactions, trying to achieve the same kind of scientific certainty that the natural sciences strive for may not be a very productive goal.

It no longer makes sense to think of generalizability as synonymous with the use of large samples and statistical procedures designed to insure that the large samples accurately represent the population. In the applied fields, social science can never provide the sort of certainty Thorndike envisioned (p. 181).

In fields like social work, counseling, and education, Donmoyer (1990) argues, practitioners deal mostly with individuals, not aggregates of people. No two students or classrooms are ever identical, and the fact that human interaction and meanings are never static, but constantly being constructed and reconstructed in particular moments and situations, makes the work in applied fields highly context dependent. According to Donmoyer (1990) this means that scientific generalizability, a concept that depends on identical contexts and controlled variables, is of limited use for most research in applied fields such as education.

Eisner (1991) agrees that case studies are of value in educational research, because a case is always a case of something, and we can learn a quality or feature we have not thought of before, our consciousness is raised. This enables
us to look for this feature in future situations or lets us view past experiences in a different light, as we now have additional information and insights.

In general, case studies can raise questions or issues, expand cognitive structures, deepen our understanding, and add to the possibilities of interpretation of a phenomenon. Donmoyer (1990) points out that questions about typicality of cases are legitimate, but when we want to expand our cognitive structures, uniqueness is an asset, and "the outlier is prized, for the outlier has great heuristic value" (p. 194).

I hope that my case studies will provide vicarious experience and spark questions, thoughts, and reflections in the reader and contribute insights for those working in teacher education programs.

The Research Site

I conducted my study at City Academy, the elementary school in a large midwestern city where I was also working as a supervisor of student teachers. The school is an alternative school with a focus on physical and academic excellence and is part of a large metropolitan school system.

The school has about 40 staff members and a student enrollment that increased from around 500 students during the 1995-1996 school year to over 700 this year. Over 90%
of the students are on free lunches, which makes it a densely urban school.

Most of the students come from the surrounding public housing projects. The student population is about 85% African-American, and about 100 students come from 18 different foreign countries. City Academy has two ESL units, which is not the case in most of the other schools in this metropolitan school district.

Many of the students who need to be tested and placed in special classes and services are kept waiting, because the programs are filled to capacity. Scores on standardized tests and the proficiency test are well below the state's average. However, many of the teachers at City Academy are using innovative teaching methods to motivate students and help them achieve at higher levels.

The Participants

For reasons of anonymity and ethics in research, the study participants have all been given fictitious names. The participants will be described in greater detail in chapter IV. The following chart represents a brief introduction to the participants' education and teaching experience.
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree</th>
<th>Teaching experience</th>
<th>Current teaching</th>
<th>Action research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>B.S. in Elem. Ed.</td>
<td>Student tchg./5th</td>
<td>1st/2nd split</td>
<td>NA</td>
</tr>
<tr>
<td>Melissa</td>
<td>B.S. in Elem. Ed.</td>
<td>Student tchg./K</td>
<td>3rd/4th split</td>
<td>NA</td>
</tr>
<tr>
<td>Robert</td>
<td>B.S. in Bus. Adm.</td>
<td>None</td>
<td>3rd/4th split</td>
<td>NA</td>
</tr>
<tr>
<td>Lora</td>
<td>B.S. in Elem. Ed.</td>
<td>11 yrs. grades 1-5</td>
<td>1st/2nd split</td>
<td>Co-teaching literacy</td>
</tr>
<tr>
<td>Karen</td>
<td>B.S. in Elem. Ed.</td>
<td>10 yrs. grades 1-5</td>
<td>3rd/4th split</td>
<td>Co-teaching literacy</td>
</tr>
<tr>
<td>Diane</td>
<td>B.S. in Elem. Ed.</td>
<td>14 yrs. grades 4-6</td>
<td>3rd/4th split</td>
<td>Writing in content area/student journals</td>
</tr>
</tbody>
</table>

Table 2.1: Study Participants
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Action</td>
<td>Action</td>
<td>Action</td>
<td>Action</td>
</tr>
<tr>
<td>planning</td>
<td>research</td>
<td>research</td>
<td>research</td>
<td>research</td>
</tr>
<tr>
<td>decision</td>
<td>groups</td>
<td>groups</td>
<td>continues</td>
<td>groups</td>
</tr>
<tr>
<td>to do</td>
<td>form</td>
<td>meet</td>
<td>meet</td>
<td></td>
</tr>
<tr>
<td>action</td>
<td></td>
<td>Thursdays</td>
<td></td>
<td>Thursdays</td>
</tr>
<tr>
<td>research</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Lora: Action research on literacy/switches to co-teaching

Karen: Action research on literacy/co-teaching

Diane starts action research on writing in the content area

Table 2.2: The ECC/PDS and Action Research
Data Collection

The following sections will describe general aspects of data collection methods as well as their specific use.

Methods of Data Collection

Interviewing, participant observation, and document analysis were combined in order to make this study substantive and employ what is referred to in the literature as triangulation (Bogdan & Biklen, 1992; Patton, 1990). These methods are now considered in turn.

Interviewing

The primary method of data collection for this study was interviewing. This method was most useful to ascertain the meanings constructed by my participants. The entire spectrum of interviews, from structured to unstructured, was used, with semi-structured interviews being predominant.

A definition of interviewing. "An interview is a way of finding out from people the things we cannot directly observe" (Patton, 1990, p. 278). It can be highly structured and represent one way of conducting a survey, or it can take the form of a conversation. In 1981, Ann Oakley wrote that interviewing is a lot like a marriage, a lot of people do it, but very few describe the details of what they actually do. Since that time there have been works on how to conduct good, productive interviews of all types (Denzin & Lincoln, 1994; Douglas, 1985; Patton, 1990).
Structured interviewing. A structured interview is characterized by pre-established questions, often carefully sequenced. A survey interview is an example of this type. It generally contains a limited number of response categories, and a predetermined coding scheme. The interviewer, who has been trained, controls the pace and sequence of the interview to minimize interviewer error and bias.

Highly structured interviews or surveys are useful for demographic data collection or program evaluations that operate under time constraints, and they allow for fairly systematic and therefore efficient collection of data across large samples, according to Bogdan and Biklen (1992). On the problematic side, highly structured interviews allow for little flexibility and probing, and "you lose the opportunity to understand how the subjects themselves structure the topic at hand" (p. 97).

I used a type of survey to collect the demographic data needed from the study participants. In addition, I used a fairly structured interview format at the outset of the study to ask specific questions about teaching and reflection. I used most of these same questions again in the final interviews. A pre- and post interview with regular questions allowed me to compare responses and note any changes that have taken place in the participants’ thinking and reflection over the course of the year.
Semi-structured interviewing. Semi-structured interviews, or the general interview guide approach, as Patton (1990, p. 280) terms it, involves outlining a set of basic issues before the interviewing begins. The underlying assumption is that there is common information that should be obtained from all respondents, but the questions need not be asked in any particular order. The interview guide simply serves as a checklist to ensure all relevant topics are covered.

Patton (1990) further explains that this approach is useful when there is limited time for interviewing, as it delineates topics to be discussed. It is also beneficial in group interviews to help keep talk focused.

On the down side, the semi-structured interview is somewhat less flexible than the unstructured interview, as it does put certain things in the respondent's mind and uses some prespecification of issues. Hopefully, though, a good qualitative interviewer would not stick rigidly to the outline, but let the interviewee talk about relevant related issues.

Most of my interviews were in the semi-structured format, because my goal was to arrive at a good understanding of how the student teachers made meaning of and reflected on experiences and action research. I therefore had a focus, and it would not have been productive
to let the participants simply talk about any issue or classroom event. On the other hand, I wanted to refrain from imposing my ideas or preconceptions on the interviewees. I therefore had a few general questions in mind for the interview, but was also willing to listen to relevant issues the participants brought up.

Bogdan and Biklen (1992) point out that: "Good interviews are those in which the subjects are at ease and talk freely about their points of view" (p. 97). Patton (1990) emphasizes that "the quality of information obtained during an interview is largely dependent on the interviewer" (p. 279), who should possess certain skills and attitudes. A good qualitative interviewer communicates a genuine interest in the interviewees' perspectives as well as caring about their views, which are assumed to be meaningful and valuable. The interviewer also needs to be an attentive and respectful listener (Bogdan & Biklen, 1992; Douglas, 1985; Patton, 1990).

The assumption is that participants talk more freely when they are at ease. In order to establish and maintain good rapport, semi-structured interviews often start out with small talk or easily answered, non-controversial, non-threatening questions (Bogdan & Biklen, 1992; Patton, 1990). The interviewer should remain respectful, neutral, and non-judgemental throughout the interview. Patton points
out that neutrality does not have to interfere with good rapport, as the latter is a stance toward the person, whereas neutrality is a stance toward the content of what is being said. Showing shock, anger, or embarrassment should be avoided by the interviewer.

The above recommendations are supported by Ann Oakley (1981), who criticizes traditional interviews for replicating the unequal power structure in our society with the interviewer usually representing the dominating male, and the interviewee being put into a submissive position. Douglas (1985) goes one step further in his writings about creative interviewing and states that at times it is helpful for the interviewer to put himself or herself into an inferior position and freely talk about mishaps, mistakes, and embarrassments, so that the interviewee may feel comfortable enough to also talk about these human weaknesses and reveal possibly important information.

A warm conversational atmosphere alone, however, does not make for a successful interview. The quality of questions being asked is of utmost importance. Patton (1990) stresses that clear, singular questions yield good responses, while multiple questions or those calling for 'yes' or 'no' answers should be avoided. This same author also advises the interviewer to use 'why' questions
sparingly, as these can put a respondent on the defensive, because they may imply doubt about the validity of the latter's perspective.

Even when a good relationship has been established and questions are well thought out, the interviewer may occasionally need to probe to get more detail about a particular topic. Patton (1990) advises using phrases such as "that's interesting, I'd like to hear more about that" (p. 324), providing illustrative examples of similar situations, or inviting the interviewee to role play by saying: "Suppose I was new to this program and asked you what I could do to do well in it, what would you tell me?" (p. 319).

Sometimes subtler methods than direct probing are sufficient to keep the conversation going. A smile, a nod, an 'uh-hu' at the appropriate moments, or taking notes, all communicate interest and active listening on the part of the interviewer. Should the interviewee stray from the topic, the interviewer should gently remind him or her to talk a little more about the topic under question.

Unstructured interviewing. In the unstructured interview there is usually no predetermination of topics or wording, according to Patton (1990). There may be a broad area of interest, such as Douglas' (1985) studies on the relation of love and beauty, but Patton points out that in
this type of interview the questions generally emerge from the immediate context and are asked in the natural course of the conversation.

The unstructured interview allows for an in-depth exploration of an individual's perspective and meaning making, as no predetermined questions or categories are put into the respondent's mind. It allows for great flexibility and spontaneity and lets the interviewees express feelings and views in their own words.

A weakness of this approach is that it often takes time to build up a trusting relationship, and this usually takes several conversations, each building on each other. Oakley (1981) suggests equaling the power relationship by being warm and responsive and allowing the respondent an active question asking part. Douglas (1985) explains that it is useful to set up a "situated friendship" (p. 77) and suggests using a comfortable location for these talks rather than the formality of an office where the interviewer possibly sits behind a desk and communicates superiority.

I used information from several such unstructured interviews to inform my study. The above shortcoming was not really a problem for me, as I needed to build up a good rapport with the preservice and cooperating teachers, anyway. I had plenty of opportunities throughout the school year to engage in informal conversations with the participants.
Participant Observation

"One observes in order to see what one would not see if
one did not observe" (Wittgenstein, 1992, p. 76e). This
philosophical statement had an important impact on my
study. Good qualitative studies use triangulation, or a
combination of methods, to ensure high quality, depth, and
completeness. It was therefore not enough for me to let
participants tell me about their reflections and probe their
thinking. I also did extensive participant observation of
the student teachers’ involvement with the cooperating
teachers’ action research and the children in the classroom.
This provided additional insights and helped me assess how
their level of reflectivity translated into classroom
practice.

Different kinds of participant observation. Gold (1958)
discusses a spectrum of possible roles for the observer to
play. At one end is the complete observer who does not
participate in activities in the setting and either
literally or figuratively looks through a one-way mirror. At
the other end of the spectrum is a researcher who gets so
involved that one can hardly tell the researcher from the
people studied.

Bogdan & Biklen (1992) state that most field workers
stay somewhere between the two extreme ends of the spectrum.
The amount of involvement can even vary in the course of one study. The observer may be on the sidelines in the beginning, but then become more highly involved as the study progresses and relationships develop. Type and amount of involvement depend on the researcher's purpose and constraints or possibilities at the site. There is no correct amount of participation. A researcher who wants to study a classroom from the students' point of view, for example, may choose to participate with the students and their activities more than with the teacher.

**Potential problems.** Bogdan & Biklen (1992) point to the danger of overparticipation, or "going native" (p. 88), as anthropologists call it. The researcher could potentially get so involved at the site that original intentions get lost. The researcher may too strongly identify with certain participants and/or issues and lose sight of multiple perspectives. This may result in an advocacy piece or propaganda rather than a good qualitative study.

How the researcher participates may define him or her in a particular way and influence findings. Bogdan & Biklen (1992) point out that a researcher who acts like a teacher will be viewed differently by the students from an adult who acts as a classroom aide. The students' behavior towards the researcher may thus be different, so may be the information they share in interviews. There may be pressure on the
researcher to act in some capacity at the site, such as a classroom helper, and thus give something back to the site.

Bogdan & Biklen (1992) further emphasize that gender is an organizing identity in the United States. Therefore, male and female researchers may be treated differently by study participants and come to know somewhat different aspects of the world and the study context. Female researchers may be viewed as cute, or air heads, in all male settings, but are often able to establish close relationships with female participants. This trust and comfort may lead women to disclose information they would not divulge to a man.

The type and amount of participation of the observer ultimately depends on his or her values, purpose, and personality (Bogdan & Biklen, 1992; Patton, 1990). The researcher needs to keep in mind that his/her primary purpose at the site is data collection, but socializing with participants and developing better relationships could prove to be highly valuable and lead to great insights.

Participant observers are advised to be discrete and not to share confidential notes (Bogdan & Biklen, 1992; Patton, 1990). If possible, researchers should retreat to a private place after some observing and jot down field notes. The above authors also advise against conspicuously walking about the setting with a pencil and notebook. The fact that people may act differently when they know they are
being studied is always an issue, but in a long-term qualitative study the researcher may blend into the setting after a while and participants may forget that they are in fact being studied and display 'normal' behavior.

**Possibilities of participant observation.** The purpose of participant observation is to gain insights and an in-depth understanding of the site, or some aspect of it, such as the culture, relationships among people, or people's interactions and experiences (Bogdan & Biklen, 1992; Eisner, 1991; Patton, 1990). Researchers can develop trust and gain knowledge and insights of which participants may not always be aware themselves. Balancing observation and participation provides opportunities for understanding from a distance, or outside in, as well as from the inside out. A participant observer can come away with a rich understanding of the site, and many teachers find participant observers an interesting addition to their classroom (Bogdan & Biklen, 1992). An additional adult may be of help in the classroom and also help the teacher develop greater awareness and understanding of teaching practice and issues.

**My Role**

Qualitative research proceeds from the assumption that reality is constructed, and that there are multiple points of view, not one ultimate truth (Bogdan & Biklen, 1992; Eisner, 1991; Patton, 1990). Most qualitative researchers
also agree that the knower impacts the knowledge, in other words, data are never "raw", but rather always at least "medium rare" (Eisner & Peshkin, 1990, p. 196). They do not pass unhindered through the researcher, but are always to some degree interpreted by the researcher, who is a human being with certain biases.

While this could be seen as a liability, this is typically addressed by the current trend to deconstruct, that is making researcher bias and perspectives explicit, and also including the study participants' multiple voices. Eisner (1991) argues that viewing data through a particular lens can be extremely valuable when data is interpreted by an expert in the field. This adds richness and deep insight to the study. When educational qualitative research is done and written by an expert in education, a person Eisner calls an educational connoisseur, the reader may benefit from the latter's expertise and informed insights.

These considerations are interesting, and I agree with C. Wright Mills who writes that "authors of the best social science present themselves as people rather than depersonalized automatons" (1970, p. 242). I had no aspirations to serve as a 'neutral' information collecting machine during the course of this study, and I have already made my own viewpoint and preferences concerning action research and reflection in education explicit in chapter I.
While I do not consider myself an expert or a connoisseur in the fields of action research and reflection, I have and am engaged in both, and I have also done extensive reading in these areas. This study was therefore informed and necessarily influenced by my own knowledge and interest in action research and reflection. It was further impacted by my dual role as both researcher and university supervisor of the participants. I was far from being a detached observer and researcher, and the complexity of my role provided certain luxuries as well as limitations. These will now be discussed.

**Luxuries.** To start out on the positive side, the fact that I was working as a university supervisor with the participants of this study provided several advantages. I was part of the student teacher/cooperating teacher/university supervisor triad, a well-known and established element of teacher education. I therefore had automatic access to the study site, and no one questioned my presence. In effect, I was expected to be present and interact with students and teachers, and was therefore quite inconspicuous and was not seen as an outsider. Nor was I viewed with suspicion or questioned about my role in the school.

In addition, I had worked in the same capacity at City Academy during the 1995-1996 school year, so I was familiar with the site, the student population, and the teachers.
I had already established a relationship with the cooperating teachers and did not have to spend several weeks familiarizing myself with the site. A good part of the initial work of a qualitative study, gaining access and getting to know the site, had already been done, and I could concentrate on my data collection and analysis.

One important thing left to do was to establish a good relationship with this year's student teachers, but since I enjoy this part of my work and had been successful at it in the past, I did not expect, and did not encounter, any major problems. Part of developing a relationship is spending time with the student teachers and talking to them, and I had plenty of opportunity to do that during our weekly focus group meetings as well as formal discussions after observations and more informal talks. Meeting at least once a month for an extended period of time for the individual interviews with them and engaging in a good deal of participant observation also helped.

During the course of the year the preservice teachers spent increasingly more time teaching, and it was my responsibility as their supervisor to observe their teaching regularly and discuss their lessons and related issues. Again, this made my presence at the site a natural part of school life, and I had considerable time and opportunity to both observe and interview student and cooperating teachers.
I even had the luxury of overhearing informal talk between student teachers and student teachers and their cooperating teachers that gave me insight into their views of action research, reflection, and my role.

**Limitations.** My position and involvement at the research site afforded me many luxuries, but at the same time brought with them certain limitations that I needed to be keenly aware of. Even though the ECC/PDS program is non-traditional and collaborative, I was the university supervisor of my student teachers. In that capacity I needed to observe their teaching, provide support and feedback, but also ultimately evaluate them and write a letter of recommendation. There was a certain power imbalance in the relationship, and I did have considerable influence over them.

This brings up the issue of how much they wished to please me to get along with me and receive a good final evaluation. I needed to constantly scrutinize their comments and even facial expressions when I interviewed them. The possibility that the student teachers were not entirely open and honest, but were trying to tell me what they thought I wanted to hear, was ever present.

I was very explicit about my study from the outset and tried to keep it separate from my supervisory role as much as possible. However, the two did overlap, and for practical
reasons and time constraints, I often combined feedback on the lesson observation with questions related to my study. I tried to keep the two somewhat separate and do the feedback part first, then go to interview questions.

I made it a habit to remind the students that each time we talked about my study that this was separate from my supervisory duty, that I wanted them to be open with me, and that what they revealed to me in interviews or journals in no way impacted my eventual evaluation of their teaching and my recommendation. I received plenty of frank responses to my questions, so it seems that this practice worked quite well.

My action research project, researching my own role as a supervisor and reflective coach, was more challenging. While I tried to collect informal comments that students shared with me or each other, I thought a formal question about my role during the school year would not yield reliable results. I seriously doubted that any student teacher would have told me that I was not performing my role well, or that I was not being helpful, before receiving their final evaluation or securing a teaching position.

I was also a little concerned about asking the student teachers leading questions about action research and reflection. I wanted to get a good sense of what occurred naturally, how they developed and reflected without any
outside imposition from me. I therefore kept my own views on the value of action research and reflection to myself, but the mere fact that I was studying these topics may have indicated to the study participants that I felt these topics were important and may have influenced their responses.

**Document Analysis**

The data collection methods discussed so far, interviews and field notes from participant observation, are produced largely by the researcher, as Bogdan & Biklen (1992) point out. Materials not produced by the researcher are personal and official documents. The latter include written communications and files from organizations and include newsletters, policy documents, students' records, codes of ethics, and others. These were not of importance in my study.

Personal documents are "first-person narratives that describe an individual's actions, experiences, and beliefs" (Bogdan & Biklen, 1992, p. 132). They are self-revelations of that individual's views and experiences. As these were a major focus of my study, personal documents produced by the participants were of value to me.

Bogdan & Biklen (1992) list diaries, personal letters, and autobiographies as important personal documents. It was doubtful that the participants' personal diaries or letters would contain much reflection related to teaching, so these
were not used in my study. However, student teachers and cooperating teachers had kept personal and interactive journals in the past that they found quite helpful. The ECC/PDS has no formal requirement for student teachers and cooperating teachers to keep personal or interactive journals, but it is highly recommended.

I had no control over the student and cooperating teachers' decision to keep an interactive journal, but I could ask the preservice teachers to submit reflective journal entries that I could then analyze, and I decided to request such entries. I thought that these would add to the insights and findings gained from the interviews and participant observations.

For a detailed time line of data collection please refer to Appendix C.

The Particulars of Data Collection

Throughout this study I tried to be as systematic and thorough with my data collection as possible. However, at times the realities of doing research at a large urban alternative elementary school interfered with my best intentions. There were several occasions when I had interviews scheduled with student or cooperating teachers only to find out when I arrived at the school that teachers
had to accompany their children to an assembly scheduled at the last minute, or that the teacher had to fill in for a sick colleague and take over his or her lunch or recess duty. In almost every case I was able to re-schedule missed appointments.

Gaining Entry to the Research Site

As mentioned earlier in this chapter, one of the advantages of doing research at the site where I was also supervising student teachers was that I had to spend only very little time and effort to gain entry to the research site. I had already worked at City Academy during the 1995-1996 school year, so I was familiar with the site, the staff, and the students.

The principal at the site had been supportive of the ECC/PDS program in the past, and I had developed a good working relationship with him during the 1995-1996 school year. On August 28, 1997, I went to City Academy to introduce myself to the student teachers who were at the school for their early field experience. Even though it was the first day of school, the principal agreed to talk with me for a few minutes. When I asked him about the possibility of doing my dissertation research at City Academy he replied that he would love for me to do that.

Permission from the participants. At the ECC/PDS 1996 summer planning meetings I had learned that three of the
cooperating teachers at City Academy were going to be involved in action research projects for the 1996-1997 school year. Both Lora and Karen had been doing action research on early literacy the previous year and had also co-taught the literacy methods course. They were planning to co-teach again this year, and both of them shifted their action research to studying their role in their student teachers' classroom implementation of the early literacy framework. Diane was starting a new action research project on writing in the content area this year. I had hoped that one of my case studies would be in a Kindergarten classroom, because early childhood education is my area of expertise, but that teacher was not going to be actively involved in action research.

I approached these three cooperating teachers in early September about the feasibility of doing my dissertation study on action research with them and their student teachers. They all agreed verbally. I conducted initial interviews with them to ascertain details of their action research projects, their general beliefs about teaching, and their ideas on how to involve their student teachers in their research projects. My hope was that the preservice teachers who were eventually placed in these teachers' classrooms would also agree to participate in my study.
In early October, as soon as final student teaching placements had been decided, I approached each student teacher to tell him or her that I was planning to have them involved in one of my case studies and received verbal permission for participation. I then immediately obtained the university's consent forms for participation in research and also typed letters explaining the general goal and prospective data collection involved in my study for the cooperating teachers.

I had each participant sign the consent forms. I explained to the student teachers that I was interested in studying how their cooperating teachers were conducting action research and how they would involve their student teachers. I did not provide any more detail, because I did not want to bias the study participants towards my point of view. I clearly stated in individual talks with each participant that I would periodically check with them to obtain permission to quote directly from their interviews or journals, and would also check with them to ascertain how they viewed the results of my analysis and interpretation of data.

**Interviewing**

As mentioned earlier, interviewing was a major part of my data collection, because it would provide me with insights into the student teachers' thinking, perceptions, and reflections. I prepared several guiding and also
possible probing questions for the initial interviews to obtain a good picture of how the preservice teachers viewed good teaching and the importance of reflection. I also decided to assess the student teachers' ability to reflect critically by asking them about a scenario involving their integrated unit and preparation for the proficiency test. My goal was to have them speak to the issue of test bias and possibly the larger issue of the role of schools in society, should they teach only measurable skills, or prepare students for lifelong learning?

After the initial interviews, I did monthly in-depth interviews with each student teacher individually. These were semi-structured interviews. I always had a few questions prepared in advance, often open-ended ones about their thoughts on a lesson they had just taught. At these monthly interviews I also checked on the student teachers' involvement in their cooperating teachers' action research project. In addition, questions to clarify issues from previous interviews or observations were often included in these interviews.

I had initially intended to also conduct monthly formal interviews with the cooperating teachers. This turned out to be impractical because of the teachers' extremely busy schedules. The little bit of free time they occasionally did have was spent in conversation with their student
teachers, and I did not want to take away from that valuable enterprise. In addition, I gained a lot of useful information on their action research and the student teachers' progress from weekly informal talks with the cooperating teachers. We usually engaged in these when I visited the classroom for observation of the student teacher.

These informal talks also proved to be very productive with the student teachers. We often engaged in these after my weekly observation, or sometimes when I ran into the student teacher in the hall. Their spontaneous comments and questions on teaching and classroom discipline were informative and provided insights into their thinking and reflection about these issues.

Transcribing Interview Tapes

I tried to transcribe the interview tapes as soon after conducting the interviews as possible. On occasion, this was impossible, because I had to attend a PDS meeting or teach a class. However, most of the time transcribing was done the afternoon or evening after the interview. This way details were still fresh in my mind. I tried to be meticulous in this process and transcribe everything on the tapes, even repeated words and phrases and pauses made by the interviewee. I had learned in a class on the language of education that the silences in people's talk can be quite
significant. As my study focused on reflection, I thought that these pauses and repetitions may indicate that the interviewee was possibly thinking or reflecting rather than offering a superficial response to a question.

In addition, I tried to note important statements or interesting insights the interviewees had offered while I was transcribing. I then re-read the entire transcript and did some preliminary coding, noting any statements related to reflection or action research. In the later interviews, the ones done in March, April, May, and June, I also looked for indications the interviewees made concerning their relationship with their cooperating teacher, or student teacher, as these relationships had now been in existence for several months, and anything related to them had become one of my major coding categories. Also, any questions I had after reading transcripts, or things that needed to be clarified, I noted in my own journal and either discussed with the interviewees as soon as I saw them again, or at the next formal interview, depending on the importance of the issue and availability of time.

Participant Observation

In addition to interviewing, participant observation was an important source of data for this study. It was something I needed to do anyway as the student teachers' supervisor, and I had planned to do it more extensively for
my case study students. I explained this to both the preservice teachers and the cooperating teachers in the beginning, and reiterated it before full-time student teaching began, so that they would not feel singled out or suspect a problem was the reason for my frequent visits.

I visited the student teachers once a week during the fall and winter quarters when they were in the schools two mornings, one afternoon, and one full day a week. During the ten weeks of full-time student teaching in March, April, and May, I tried to visit each classroom at least twice a week at different times of the day to get a good insight into how the student teachers were planning and conducting their lessons, and how they were interacting with children.

I had originally planned to observe each student teacher in my case study for extended periods of time, possibly even to spend the entire day with them, for the above reasons. However, as I had three other student teachers to supervise, PDS meetings to attend, and a university course to teach in the spring, my time for participant observation was more limited than I had intended. I did manage to spend an entire morning or afternoon on occasion, and this actually turned out to be quite productive.

I had already seen each student teach the morning literacy block, math, science, and social studies lessons
numerous times in the fall and winter quarters. While it is true that I might have gained additional insights from more and longer observations, it had also become quite evident that I was at what the textbooks on qualitative research call the saturation point of data collection (Bogdan & Biklen, 1992; Eisner, 1991; Patton, 1990). I found that the preservice teachers acted pretty much the same each time they engaged children in shared writing, or hands-on science activities, and repeated visits during those time periods would have left me with similar fieldnotes, other than the change in the content of the lesson.

During participant observation I at times acted like a traditional supervisor, sitting in the back of the classroom observing and taking notes. At other times I acted more like an aide or another teacher, circulating the room and helping individual children. During those times I took mental notes and committed them to paper as soon as possible, sometimes even in the school parking lot in my car.

Fieldnotes

This brings up the topic of taking fieldnotes. As just mentioned, many times I tried to take the advice of textbooks on qualitative research and attempted to be as inconspicuous as possible during participant observation and not even take notes (Bogdan & Biklen 1992; Patton, 1990). At times this worked quite well, such as when I tried to see
what types of activities the student teachers were engaging the children in, or whether or not they displayed any gender bias in their teaching. At other times I felt I needed to take detailed notes and quotes right at the time of the observation, such as when I looked at examples of their higher order questioning. How they worded their questions was of importance then, and I was not sure I could remember details two hours later, or possibly at the end of the day after several observations.

There were times when I was free to immediately do some preliminary coding of these fieldnotes. On other occasions I barely had enough time to jot down a few notes and then proceed with other observations. I tried to also write as much about the relevant context as possible to help later interpretations. I recorded fieldnotes on paper and added these to each case study's file folder, at other times I recorded them in my personal journal. The latter was usually done when I had seen similarities among the students and wrote down observations that pertained to all of them.

Document Analysis

This turned out to be a more important part of my study than I had anticipated. I thought that the journals kept by participants and the papers written by the student teachers might add some additional information or a few details to my study. This was the case with the students' papers written
as assignments for methods classes. During fall quarter I asked them for copies of these papers. However, they provided little information about the student teachers' reflections and their involvement in action research. The pedagogy paper was a traditional research paper and therefore not a rich source of students' reflections.

The journals, however, proved to be an invaluable source of rich data. The interactive journal kept by Adam and Lora was my primary source of information concerning their year-long relationship. They recorded their thoughts, feelings, reflections, doubts, and questions, and those provided insights into their thinking and conceptual worlds that would have been impossible to obtain from mere observation.

The weekly journal entries I had the student teachers submit to me also turned out to be a richer source of data on reflection than I had originally thought. My idea to initially ask them to reflect on any topic of their choice provided me with good insights into their meaning making—the priorities they had, their thinking about educational issues, and their preoccupations. In the winter and spring I occasionally asked them to respond to a more specific topic, but no longer insisted on regular weekly entries, because the student teachers had little time for anything other than full-time student teaching. Implications of this change will be discussed further in chapters 4 and 5.
Coding the Data

As action research and reflection were of major importance to my dissertation study, I decided at the outset that I would use Van Manen's (1977) three domains of reflection - technical, practical, and critical - as one of the frameworks for coding my data. I therefore started my coding process with this template approach, initially highlighting everything in the data that was related to reflection and action research.

By Christmas it had become apparent that I needed subcategories for 'action research'. The student teachers were all involved to some extent in their cooperating teachers' projects by then, and they knew about the general content the latter were concerned with, such as co-teaching and early literacy, and children's writing in the content area in response journals. However, at the December focus group interview, none of the preservice teachers knew what action research was. I therefore decided to use 'involvement in action research', 'knowledge of action research process', and 'knowledge of action research project content', as subcategories developed by me in future data coding. I also reread the data I already had and added these additional categories.

I had originally planned to use different colored highlighters for each coding category, but this process
became cumbersome as highlighters ran dry. I quickly
switched to drawing pen or pencil lines, depending on what I
had available when I was reading through transcripts,
journals, or fieldnotes. I marked the left or right margins
next to important statements and wrote the coding categories
next to the lines. I did such preliminary coding wherever
possible, at times right while I was jotting down
fieldnotes, another time while my university students were
taking a midterm exam.

At first I used more general coding categories, such as
'action research' and 'reflection'. In the fall I had not
yet decided on subcategories for 'action research'. In
addition, I had initial difficulty in always clearly
distinguishing between practical and critical reflection, so
I usually marked both, the 'critical' with a question mark,
to remind myself to re-read Van Manen's (1977) criteria for
the categories, and also to probe the student teachers'
thinking further to obtain additional reasons for their
statements.

By early spring the student teacher/cooperating teacher
relationships had been in existence for several months, and
with the preservice teachers doing more and more teaching
and planning, and spending the entire week rather than only
a few days in the classroom, the relationships became more
important. In the early interviews I had asked the
-preservice teachers about these relationships only as they
related to the action research projects, because that was
the major focus of my study. However, with the intensity of
full-time student teaching, the possible intensity and types
of relationships became an essential part of the student
teaching experience.

I had no predetermined categories for coding the
relationships, as I was interested in looking at how they
developed naturally in the non-traditional ECC/PDS program.
Furthermore, I did not want to come to the data with certain
expectations, or read things into the data that were not
actually there. Reading through Adam and Lora's interactive
journal was very helpful in developing coding categories. I
initially coded for reflection and action research, and also
took a look at their relationship. Certain categories
virtually jumped out at me. There was open and honest
communication, questions were raised, feelings and doubts
described, explicit supportive statements made, and all this
was done on an almost daily basis throughout the year. This
made their communication regular and frequent.

It became apparent that most of these elements of a
good student teacher/cooperating teacher relationship are
listed in the literature (Hopkins & Moore, 1992;
Richardson-Koehler, 1988). The chart following this section
will provide more specific references and examples.
In the next few weeks I re-read interview transcripts, fieldnotes, and journal entries to code them with relationship codes. 'Open communication', 'honest communication', 'support', 'feelings', 'role model', 'expectations', and 'co-learners', were used. During this process the lack of some of these qualities, or infrequent use, led me to decide on two of my own categories, 'unspoken assumptions' and 'miscommunication'.

I thought for quite some time about additional ways to productively analyze my data and finally decided to use what Bogdan & Biklen (1992) call "process codes" (p. 169). "Process codes refer to coding words and phrases that facilitate categorizing sequences of events, changes over time, or passages from one status to another" (p. 159). As my study looked at the student teacher/cooperating teacher relationship and the prominence of action research over the course of the school year, this way of coding turned out to be extremely useful. As I read through my data that I had collected for nine months, certain themes related to time sequence emerged quite readily.

With the student teachers' increasing involvement in teaching and the cooperating teachers' action research projects, certain significant changes took place. Other themes remained more constant, yet the fact that they remained largely unchanged was telling in itself.
One of these crucial times turned out to be the December focus group interview when none of the student teachers had any idea yet what action research is, even though they had been involved to some degree in the content part. Adam and Melissa were doing some interactive and shared writing, and Robert had looked through some of his students' response journals. Another interesting time was January and the preservice teachers' return to the classroom after a long holiday break. Of particular interest, of course, was full-time student teaching, the three-way conferences held mid-way, and the final interviews at the end of student teaching.

It therefore made sense to start analyzing my data by looking at phenomena that were present initially, those that were present at the end, and certain ones that were present, or emerged, at certain times in-between. In early June, with most of my data coded, I began to pull out themes that were emerging and quotes to support them. This framework was useful for looking at the data in a chronological fashion.

I looked at Adam's final interview first, because I had just transcribed it, and details were fresh in my mind. I then looked through the rest of my data to fill, and add to, this initial frame by filling it in with more quotes, or
at least summarized important points that the study participants had made related to that particular theme. For a detailed description of the coding categories please refer to the tables on the following pages.

**Coding and Interpreting the Data**

I decided to combine process, activity and event codes to adequately describe the chronology, or sequence of events, related to reflection, action research, and the student teacher/cooperating teacher relationships over the course of the 1996-1997 school year. The changes in the relationships and activities, and certain constant elements, such as Adam and Lora's continuous open and honest communication, could not have been adequately captured without the context of a time line.

Initially, I coded the data with broad categories, using a template approach. I marked interview and reflective journal entries with the pre-established categories of 'action research', 'reflection', and 'relationship'. By Christmas it had become apparent that I needed subcategories to differentiate what the students knew about the content of their cooperating teachers' action research versus the process involved in this type of teacher research. I also went back through the data and started differentiating between technical, practical, and critical reflection.
I contemplated using some kind of numerical analysis, possibly converting the number of reflective statements the student teachers had made into percentages. However, this did not turn out to be productive for my study for several reasons.

First, my data sets were not comparable. Some student teacher interviews were quite lengthy, others ten pages or less. Their reflective journal entries were also of differing lengths, and one student teacher turned them in weekly, others more sporadically in the winter and spring. Furthermore, the number and length of informal talks with the preservice teachers varied considerably.

In addition, there were not enough differences among the student teachers in most categories to warrant numerical analysis. All three displayed practical reflection to a considerable degree throughout the year, and differentiating between three or four practically reflective statements made by different students, or from one interview to the next, did not seem productive. In other instances, the differences were so obvious that a quantitative analysis would have been redundant. The absence of spontaneous critical reflection was a case in point.

Overall, the kinds of reflection the student teachers engaged in, or the fact that none of them came away with a good understanding of the action research process, were significant. I believe a numerical analysis would not have added more productive insights to my study.
<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR</td>
<td>Initial category for action research, the following three (ARK, ARI, ARC) are subcategories</td>
<td>Anything related to action research according to the definitions by Kemmis and McTaggart (1988) and McCutcheon (1995) provided in chapter 1</td>
</tr>
<tr>
<td>ARK</td>
<td>Knowledge of action research as a process, Kemmis and McTaggart's (1988) action research spiral</td>
<td>Student teacher's description of the action research process; posing a question, planning, acting, observing, reflecting</td>
</tr>
<tr>
<td>ARI</td>
<td>Student teacher's involvement in action research</td>
<td>How frequently the student teacher was involved in the cooperating teacher's action research: example: how many times a week Robert looked at or worked with the students' response journals</td>
</tr>
<tr>
<td>ARC</td>
<td>Awareness of action research content</td>
<td>The student teacher's ability to describe what the cooperating teacher was researching; example: Robert's statement that Diane was &quot;looking at her kids' writing in the response journals&quot; (RK, f, 11-25-97)</td>
</tr>
</tbody>
</table>

Table 2.3: Action Research Codes
<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>Technical reflection</td>
<td>Efficiency of methods in achieving predetermined goals (Van Manen, 1977); example: &quot;How do I get my kids to walk down the hall quietly?&quot; (RK, f, 11-2-96)</td>
</tr>
<tr>
<td>PR</td>
<td>Practical reflection</td>
<td>What is good for students and how they learn with understanding (Van Manen, 1977); example: &quot;How do I make charting more meaningful for first graders?&quot; (RK, f, 2-7-97)</td>
</tr>
<tr>
<td>CR</td>
<td>Critical reflection</td>
<td>Concern with equity, fairness, justice, empowerment of students, elimination of bias (Van Manen, 1977); example: &quot;Tests are culturally biased&quot; (A, i, 10-9-96, p. 6)</td>
</tr>
</tbody>
</table>

Table 2.4: Reflection Codes
<table>
<thead>
<tr>
<th>Code</th>
<th>Category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>REL</td>
<td>Relationship of student teacher and cooperating teacher, general category, the following are subcategories</td>
<td>What student teacher and cooperating teacher discussed, how the two interacted, how student teacher was mentored</td>
</tr>
<tr>
<td>OC</td>
<td>Open communication</td>
<td>Frank discussion of many issues, many questions asked</td>
</tr>
<tr>
<td>HC</td>
<td>Honest communication</td>
<td>Constructive criticism given and requested (Hopkins &amp; Moore, 1992)</td>
</tr>
<tr>
<td>FC</td>
<td>Feelings communicated</td>
<td>Emotions, anxieties, doubts expressed and discussed (Richardson-Koehler, 1988); example: &quot;I started to question my desire to teach&quot; (A &amp; L, ij, p. 27), Lora asked if he meant desire or ability (p. 27)</td>
</tr>
<tr>
<td>EX</td>
<td>Expectations</td>
<td>Expectations student and cooperating teacher had of themselves and each other</td>
</tr>
<tr>
<td>RM</td>
<td>Role model</td>
<td>Cooperating teacher viewed as good example of teaching and professional practice; example: &quot;I see Lora do everything she presents in literacy class&quot; (FK, f, 11-25-97)</td>
</tr>
<tr>
<td>UA</td>
<td>Unspoken assumptions</td>
<td>Something was expected but not explicitly stated</td>
</tr>
</tbody>
</table>

Table 2.5: Relationship Codes
Member Checks

I did not do a great deal of even preliminary data analysis until I had a substantial amount of data in the spring of 1997. I had told the study participants from the outset that I would check with them about using quotes from their interviews and journals before doing the final write-up, and that I would also share my interpretations of the data with them.

The first time this became an issue was in March when I introduced Van Manen's reflection categories to the students. At that time I presented them with a clean copy of their initial interviews and let them code their own statements. In almost all instances their coding matched mine. In a few instances they were unsure and did no coding.

An important occasion for member checking presented itself after the March 13 interview with Adam. He reported reading three stories a day to children now, something he had never thought he would do. I interpreted this as a change in belief, but decided to check with him. He told me it was not, because his earlier opinion was more tacit and not a consciously held belief. This is discussed further in chapter V.

All study participants were offered copies of a draft of chapter IV. Four of them agreed to read the conversation part, two reported having no time. At this point two of the students have read the draft and reported agreeing with it and enjoying it. Specifics will be discussed in Chapter IV.
Writing Chapter IV

In essence, the research text is a tool (Barone, 1990). Qualitative researchers write to communicate their research findings and analyses. Such an endeavor entails making certain choices concerning the author's stance regarding his or her own voice in the text, the voices of study participants, and consideration of the intended audience.

Traditionally, these choices were comparatively easy, because the accepted format for writing up qualitative research was what Van Maanen (1988) calls the "realist tale" (p. 45). Upon return from the field, the researcher wrote up his or her findings "in a dispassionate, third-person voice" (p. 45). The assumption here is that the researcher is a well-educated, well-trained individual, and his or her authority to interpret the data collected is largely left unquestioned. The material is organized according to certain topics and problems the researcher found important, and is communicated in what appears to be an objective manner. Van Maanen points out that "a studied neutrality characterizes the realist tale" (p. 47). This often results in a "flat, dry, and sometimes unbearably dull tone (in these tales)" (p. 48).

The past few decades have been characterized by a growing acceptance of qualitative research in diverse fields including education, nursing, public health, and
social psychology (Wolcott, 1990, p. 11). This has brought with it a questioning of the implicit agreements about writing realist tales, and has led to the fact that "new voices are audible, new styles are visible, and new puzzles are being put forth" (Van Maanen, 1988, p. xi).

A fairly recent form of writing in qualitative research is the "confessional tale" (Van Maanen, 1988, p. 73). These result from an attempt to demystify fieldwork and describe some of the hardships endured and problems encountered during fieldwork. They are usually first person accounts and complement rather than replace realist tales. Van Maanen states that in confessional tales "the omnipotent tone of realism gives way to the modest, unassuming style of one struggling to piece together something reasonably coherent out of displays of initial disorder, doubt, and difficulty" (p. 75).

Another recent trend has been to write up qualitative research in story or poem format, or "impressionist tales" (Van Maanen, 1988, p. 101). The attempt is to startle the audience with a striking tale, or at least "evoke an open, participatory sense" (p. 101) in the reader. The stories usually deal with something out of the ordinary, and they are often told in dramatic or suspenseful fashion to draw the reader in, relive the tale with the fieldworker, and work out problems as they unfold. Van Maanen points out
that authors of impressionist tales often seem to say "here is the world, make of it what you will" (p. 103).

These impressionist tales are written with literary standards in mind, so they may contain metaphors, allusions, rich language, puns, and detailed descriptions as well as spoken lines for individual characters to make them come to life. However good the tale, though, it must be believable and coherent (Van Maanen, 1988, p. 105). Barone (1990) supports this point and asserts that good writing needs to have "aesthetic substance" (p. 308). This means it should not be total fantasy, but neither should it be too "rigid (and) closed" (p. 307). Barone believes that the verbal imagery of literature offers "positive options for the future" (p. 301) of writing up qualitative research.

For my own study I tried to find a balance when it came to writing chapter IV. Dissertations are by and large still fairly traditional pieces of academic writing, and I wanted to show that I can write a conventional piece that is clearly organized according to coding categories and themes. On the other hand, I did not want to write simply another fairly rigid and dull account of qualitative research.

My decision to write part of my data and findings in a conversation format was influenced by several reasons. First, I thought that having the study participants talk to each other would be a productive way of bringing out
important similarities and differences among the three cases. Having one student relate an experience, and then having another student immediately confirm it, or speak of a dissimilar one, would help clearly illustrate similarities and differences.

An additional benefit would be that the importance of the study participants' voices would be emphasized. My ultimate aim was to explore their perspectives and meaning making, and a conversation among them would show the possibility and importance of multiple viewpoints and interpretations of events and experiences. My voice was added at certain points in the conversation to communicate my thoughts and interpretations, my understanding of phenomena from the perspective of someone experienced in education and action research, but they were never more than my own analyses and interpretations. They were not the ultimate truth.

A further reason for presenting part of my data and findings in a conversation format was that conversations were so much a part of the study participants' lives in the collaborative, non-traditional ECC/PDS program. Even though they never met exactly as described in chapter IV, the reconstructed conversation resembles the ones the student teachers, and the student teachers and I, had many times this year.
In essence, then, the reconstructed conversation is a result of the hermeneutic phenomenology that my study was influenced by. The conversation is reconstructed, a slice of life that has been interpreted to describe certain phenomena and explicate their meaning, yet the conversation preserves some of the complexity and multiple voices of real life.
CHAPTER 4
CROSS CASE ANALYSIS

Introduction

The main focus of this study was to take an in-depth look at the year-long relationships that preservice teachers in the ECC/PDS program had with their cooperating teachers who were engaged in action research and how prominent those research projects were in the relationships. My aim was to describe these phenomena and gain a better understanding of what meanings the preservice teachers made of their experiences.

I also wanted to explore how the possible indirect or peripheral involvement in action research helped the preservice teachers in their development as reflective, inquiring professionals. I used Van Manen’s (1977) three domains of reflection to describe the student teachers’ reflections. He suggests a hierarchy of levels with technical reflection at the bottom, practical reflection at a higher level, and critical reflection at the top. These will be discussed in more detail in the chapter.
I analyzed my data by combining "process", "relationship", and "activity codes" (Bogdan & Biklen, 1992, pp. 169-171). I looked at how the relationships, the student teachers' involvement in action research, and their reflections developed over the course of the school year. In addition to the obvious importance of the beginning and ending of these relationships and activities, there were also certain crucial times or turning points when the phenomena changed or stayed the same when change could have been expected. One such time was my December focus group with the student teachers, who had by then had at least some involvement in the cooperating teachers' action research projects, but reported having no knowledge of what action research is. Another important time was the beginning of full-time student teaching when the preservice teachers gradually assumed full teaching and planning responsibility and therefore also had high involvement with the cooperating teachers' action research.

I decided to present the intricacies of these relationships and involvement with action research, as well as the student teachers' knowledge of the latter, in the form of a three-way conversation among them. For the focus group interview in December I also made myself in my role as supervisor part of the conversation. I thought that this format would be a productive and interesting way to show
the developments described above and the similarities and differences among the three cases, as well as possibly interesting turning points.

Further themes that emerged from analyzing the data in relation to reflection and my role will be presented after the conversation. I believe that including too many themes in the conversation would interfere with the clear presentation of major issues.

The following is a reconstructed conversation among the three student teachers who participated in this study. It was designed to present what my data showed about the types of relationships they had with their cooperating teachers, how and what they communicated to each other, and how they became involved in the action research and developed an understanding of it. After each section I interjected my own voice to present my reflections and analysis of data. This format would hopefully be representative of the multiple voices and perspectives concerning the phenomena studied.

Throughout the remainder of this document, the following references to my data will be used:

* interviews: (name of interviewee, 'i' for interview, date, page number)

* journals: (name of author(s), 'j' for journal, 'ij' for interactive journal, date, page number if entry exceeds one page)
Introduction of Study Participants

The following introduction is designed to give the reader relevant information about the study participants.

Case One: Adam and Lora

The following student teacher/cooperating teacher pair was considered case number one.

Student Teacher Adam

Adam is a white male in his mid-twenties who has an undergraduate degree in elementary education and has student teaching experience in fifth grade. While in the ECC/PDS program, Adam was placed in Lora's first/second grade split at City Academy. Adam had requested this placement because he wanted teaching experience at a grade level different from his earlier experience. Adam mentioned an interest in coaching, and possibly getting a degree in educational administration at some point, during our initial interview.

Cooperating Teacher Lora

Lora taught a first/second grade split at City Academy during the 1996-1997 school year. She is a white female in her early thirties with eleven years of teaching experience in grades one through five. Lora has an undergraduate degree in elementary education and is currently working on her
master's degree in education with a special emphasis on literacy. Implementation of the early literacy framework has been Lora's special interest for the past two years, and has also been her action research focus. She became involved in action research for a literacy class in 1995 and with her interest mounting she decided to continue her research efforts this year, but switched her focus to co-teaching the literacy methods course for the ECC/PDS M.Ed. students. She has been a co-teacher of that course for the past two years. Specifically, her action research during the 1996-1997 school year focused on how her co-teaching would help Adam implement the early literacy framework.

Case Two: Melissa and Karen

The following student teacher/cooperating teacher pair was considered case number two.

Student Teacher Melissa

Melissa is a white female in her mid-twenties who has an undergraduate degree in elementary education. Her experience with children includes student teaching in Kindergarten, working with infants at a child care center, and working as a summer camp counselor for elementary school children. Melissa was placed in Karen's third/fourth grade split at City Academy for the 1996-1997 school year. Melissa mentioned repeatedly that she was struggling with not letting her suburban upbringing and background interfere
with teaching well in an urban setting. After Christmas
Melissa told me that she had been diagnosed with ADD and
was taking medication. She reported that this condition
interfered with her time management skills.

Cooperating Teacher Karen

Karen is a white female in her early thirties who
taught a third/fourth grade split this year. She has an
undergraduate degree in elementary education and a total of
ten years of teaching experience in grades one through
five. Karen was working on her master's degree in education
with an emphasis on literacy. She has been co-teaching the
literacy methods course with Lora for two years. Karen
started an action research project related to the early
literacy framework during the 1995-1996 school year. This
year she switched her research focus to co-teaching and
Melissa's implementation of a whole language approach.

Case Three: Robert and Diane

The following student teacher/cooperating teacher pair
was considered case number three.

Student Teacher Robert

Robert is a white male in his early thirties who has
an undergraduate degree in business administration and came
to our program with no previous teaching experience. He had
worked in human resources. He was placed in Diane's
third/fourth grade split at City Academy for the 1996-1997
school year. Robert was always very well organized and liked to plan well in advance. He spent a good deal of the Christmas holidays planning his integrated unit for the spring.

Cooperating Teacher Diane

Diane is a white female who has an undergraduate degree in elementary education and a total of 16 years teaching experience, fourteen of them in sixth grade, the last two years in a third/fourth grade split at City Academy. She is in her late thirties, is working on her master's degree in education, and has a special interest in computers. In her teaching Diane prefers a whole language approach, hands-on science, and cooperative learning. She started an action research project at the beginning of the 1996-1997 school year for a university class. Her focus was her students' writing in the content area coupled with an emphasis on science and student response journals.

Classification of Relationships

Once I had collected my data, I had to somehow describe and classify the kinds of relationships the student teachers had with their cooperating teachers so that I could address my original research focus and try to differentiate among the relationships and point to possible links with action research and reflection. I combined certain criteria from the student literature with some of my own descriptions.
Excellent Relationship

The student teaching literature (Hopkins & Moore, 1992) lists regular, frequent, honest communication, a willingness to let student teachers try their own ideas, and providing as well as accepting constructive criticism as elements of a very good student teacher/cooperating teacher relationship. Also mentioned is an attention to the student teachers' feelings and mutual reflection (Richardson-Koehler, 1988). When these criteria were met or exceeded I described the relationship as excellent. Additional features from my data were a truly open relationship that dealt frankly and consistently with anxieties and doubts, and a warm, friendly quality that included socializing outside of school.

Adequate Relationship

This category was not mentioned in any of the literature I read, but I wanted an intermediate step, not just a dichotomy between excellent and poor relationships. A relationship that had regular communication, but not as frequent or open as above, and one where discussion focused mainly on managerial issues rather than feelings, was put in this category. There was no socializing here, and expectations were not always clearly stated, so there were some unspoken assumptions and miscommunication, but overall the relationship was professional.
Inadequate Relationship

I decided to use this term for a relationship that did not fall into the above two categories. I thought the term 'inadequate' represented less of a value judgement than 'poor' or 'bad'. This type of relationship was characterized by infrequent communication, especially the face-to-face type, lack of support, unspoken assumptions, expectations held but not clearly articulated, and a student teacher who repeatedly came to work late and did not submit lesson plans as requested.

The Conversation

The following is a reconstructed conversation among the student teachers who participated in this study. The conversation was designed to illustrate what my data showed about the year-long student teacher/cooperating teacher relationships, the prominence of action research, and the student teachers' knowledge of action research.

Initial Conversation Among Student Teachers

Melissa: Yaaow! I'm extremely excited to begin my student teaching! Karen seems great! I really think we are going to get along well. I like the way she runs her room. Her third and fourth graders really enjoy learning centers, and she incorporates a good variety of literature. I can already see connections between her classroom teaching and what she talks about in the literacy methods class. Well,
that's one of the reasons I picked her as a cooperating teacher, because she's involved in co-teaching and doing some kind of research about it.

Adam: Same here. I really admire Lora. She works incredibly hard. She has so much on her plate. I mean she co-teaches, she is involved in that research stuff and those Thursday night meetings, and she has a family, and all that on top of teaching first and second grade all day, which is not easy. And she even had time to invite me out for a drink the other day. That reminds me, she said you, Melissa, and Karen already took a calendar and mapped out what responsibilities you would be taking over, and we might do that.

Melissa: Yeah, that's a good idea. It really helps me when I know what I need to plan for, gives me peace of mind.

Robert: You guys sound really organized. I have sort of mixed feelings about this year. I don't have undergrad teaching experience like you two. I haven't been in a classroom full of little kids since I was in school. I mean I think I'll learn a lot from Diane. She's really good, especially with centers and science teaching. I'm like you guys, the reason I picked her as a cooperating teacher is because she is using a lot of cutting edge methods, and she is involved in doing some research and professional development. I like that.
Adam: I second that. They're always finding out about new ways of teaching. Once you think you know everything there is to know about teaching, you pretty much sunk your own ship.

Researcher (reading through interview transcripts and fieldnotes): Several things strike me as I read over my data that I have so far. It looks like we're off to a good start. All three student teachers made the fact that their cooperating teachers are involved in ongoing professional development an important factor in their decision of a cooperating teacher, and all have at least some level of awareness of the latter's involvement in research.

I'm not sure they're clear on the concept of action research, since none of them used that term, but I'm sure they'll become more familiar with it as they talk with their cooperating teachers and see them engaged in it.

For my dissertation I wanted to inquire into how the student teacher/cooperating teacher relationships evolve naturally when the latter is involved in action research, so I had no part in the placement of student teachers. I did not start my case studies until after permanent placements had been made. For these initial data, it seems that my argument that a teacher involved in action research can serve as a role model for preservice teachers and make them aware of and get them interested in it may be supported.
Conversation in Mid-November

Melissa: I'm very excited about this year. I am confident that I will reach my goals. I feel like I'm going to get what I need from Karen. She is very open to my ideas, what a relief! I told her the other day I don't like the way the kids leave their book bags and coats on the floor, and I will give them consequences if they continue to do it. I also took it upon myself to start reading a chapter book to the class. That way Karen can leave the room sometimes and do her committee work for the school.

Robert: I wish I had your confidence. I would never dream of just doing a lesson unless Diane asks me to. I am very overwhelmed. I need time to plan a lesson and think it through. Each morning I'm here I ask what's on the agenda, and it seems like the lesson is already planned out and no room for me. I can't just be given a lesson and told to teach it in five minutes. I need time to think it through - where are the kids going to be, what kind of questions am I going to ask, do I even understand the concept being presented? Should it be my responsibility to talk to Diane several days in advance to plan something? We started e-mailing, and she says I can call her at night, but there just doesn't seem to be enough time to talk in person.
Adam: I tell you what has helped me tremendously is the interactive journal Lora and I keep. We try to talk face-to-face as much as we can, but it's like you say, there's often not enough time with us not being in school every day and having to rush off to methods classes. We can take the journal home and write in it when we have a free moment.

Robert: Isn't that time consuming?

Adam: Yeah, but it's worth it. Lora writes me like a week in advance when she wants me to do a lesson or take over a reading group. Then we get together and plan. She gives me lots of suggestions and materials, but she also gives me lots of freedom. She gives me space. She also gives me lots of support through the journal. I felt a little like you for a while, Robert. I wasn't sure of myself and what to do with first and second graders at first, because I had done my student teaching in fifth grade. I wrote about that in the journal. Lora wrote back telling me not to be so hard on myself. She said to be a risk taker, the kids would enjoy anything I do. She also reminded me that teaching is not easy, some days she even has doubts or bad days. She wrote me to please keep sharing with her. She is here and wants to support me 100%.

Melissa: Sounds like a great way to keep the lines of communication open, but I have to agree with Robert. It
would be too time consuming for me right now to keep a daily journal. Karen and I have started e-mailing, and I talk to her in school when I feel I need to. Besides, we have this really great relationship. It's like an understanding between us that this is my classroom as much as hers this year, and she knows I have worked with kids a lot, so she trusts me to do lessons and take over part of the morning. I've already planned a mini-unit on popcorn for that week in December when we are supposed to do full-time teaching.

Researcher (reading through interview transcripts and fieldnotes): I'm beginning to see some interesting similarities and differences in the relationships and ways of communicating and overcoming the obstacle of little available time for face-to-face talks in school.

Both Adam and Melissa have kept their initial enthusiasm about being in their respective placements and report having great relationships with their cooperating teachers. I see subtle differences evolving here, though. Judging from their interactive journal and my fieldnotes on observations and talks, I can safely state that Adam and Lora have established the most regular and frequent way of communicating. For right now, they are the only pair who is keeping an interactive journal, which they both like. They also report talking in school quite frequently and getting together for planning sessions, sometimes even on weekends.
and outside of school. In addition, their communication is open and honest, explicit about emotions, and Lora is supportive of Adam in her actions and writing.

The communication that Melissa and Karen have is regular, though not quite as frequent as Adam and Lora's, and the former do not keep an interactive journal at this point. Melissa reports having a great relationship with Karen, but unlike Adam and Lora's case the support is more implicit and based on more assumptions and actions rather than explicit and detailed talk or writing. Melissa is quite confident and assertive. She assumes Karen will be pleased if she plans and teaches a lesson on her own. The fact that Karen feels comfortable enough to leave Melissa alone in the classroom for a while in turn makes Melissa feel that Karen trusts her and has confidence in the abilities of her student teacher. She sees the latter as a sign of support and a good relationship.

Robert is not as assertive as Melissa, and even though he reports that he and Diane have started e-mailing and talking on the phone, their communication is not clear or frequent enough to make Robert feel as supported as Adam. Like Melissa and Karen's case, the communication is not always explicit, and the relationship is to some degree based on assumptions. In a talk with Diane she revealed that she wanted to find out how much initiative about planning,
teaching, and taking over part of the day Robert would show on his own. The only thing she had told him was that she was available if he had questions. This left Robert feeling left out and unsure of his responsibilities, as the above conversation makes obvious. He doesn't know if it is his responsibility to approach her in advance about planning a lesson, or if he should wait until she approaches him. Given the fact that Robert has no undergraduate education experience, he probably would benefit from the more explicit communication of expectations and feelings that Adam and Lora have established, as well as a lot of practical teaching advice.

Robert's case has caused me to ask some questions and do some reflecting on my own role. My study is not an intervention study, and I am trying to look at how the student teacher/cooperating teacher relationships unfold naturally over the year. However, as a university supervisor, it is my responsibility to ensure that Robert is having a productive experience. Should I talk with Diane about giving him more direct support? Then again, Robert's anxieties are not uncommon for a student teacher, and he says Diane is available to talk whenever he tells her he would like to talk, so maybe I'll wait. I'll check with him next week, and if he seems uncomfortable or depressed I'll talk to Diane.
None of the student teachers talked about their cooperating teacher's action research project. I'm not really surprised, their main concerns right now are classroom management and the research paper they are writing for their pedagogy course. However, I know they have all been in the classroom long enough to have had some exposure to the action research projects. I need to ask some productive questions about that without putting my ideas into their heads. I think I'll just ask how, and how often, they are involved, and what their thoughts are about their cooperating teachers' action research projects.

Conversation with Researcher on December 6, 1996

Researcher: You guys know I'm doing my case studies on your cooperating teachers' action research projects and how you are possibly involved in those. Before I ask anything else, does anyone know what action research is?

Melissa: No.

Adam: No clue.

Robert: No idea.

Researcher: Okay. In that case, do you know what kind of research project your cooperating teacher is doing?

Robert: Well, Diane is doing those response journals. She does science activities with the kids, and then they write in their journals what they learned, and what they would have done differently.
Melissa: Karen is doing hers on co-teaching and the early literacy framework. For a while she was trying to see how third and fourth graders respond to interactive writing. She thought that it shouldn't be just for primary, but that older kids would benefit from it, too. It's hard to do with a whole class, though. You can't keep their attention, so now we do it in a small group. I sometimes do it, but maybe only once a week. We do more shared writing, charting, Venn diagrams, that kind of stuff.

Adam: Well, as you know Lora is co-teaching, too. I think she wants to see how I do the literacy stuff, what I learn in the methods class. I've started taking over part of the morning, like carpet time, and we do interactive writing, shared writing, and she watches me and gives me feedback.

Researcher: I remember reading in your journal, Adam, that you initially had doubts about these newer methods, and you didn't remember being taught with them. You wrote that you realized that these methods were supposed to encourage writing, but you wondered about that sometimes. You thought encouraging children to use inventive spelling may make them write only parts of words and become lazy. You went on to say that you know how big a fan of the early literacy methods Lora is, and that you would like to try them and see if your students make progress. Do you still feel that way?
Adam: Yeah, pretty much. I watch Lora do interactive writing a lot, but until I do it myself and have more time with the kids, I really can't say.

Researcher: Okay, I'll check back with you in a few weeks, then.

Adam: Yeah, feel free. I'll be taking over the whole morning after Christmas and I'll be doing the whole 90-minute literacy block.

Researcher: How about you, Robert? Have you done any work with the response journals?

Robert: Well, Diane talked to me about them a while back and said she would tell me more later, because I would have to do them during student teaching. I looked at a couple of them, and I was disappointed. I mean some only had a few pages and some words scribbled in them, most of them misspelled. The other day I did an activity with estimating and counting raisins in those little boxes, and Diane said I needed to have the kids record their estimates and responses in the journals, but I left for methods classes and didn't get a chance to really look at them. I guess I'll have to do more with them in the spring, though.

Researcher (reflecting after the conversation): Here is one more similarity among the cases, and it is one that really surprised me. While I did not expect the student teachers to give me an accurate description of the action
research spiral (Kemmis & McTaggart, 1988) at this point in time, I certainly did not expect a 'no idea' answer to my question, either. Given the fact that all three student teachers were aware from the outset that their cooperating teachers are involved in action research, and that having been in the classroom for a quarter they have had some involvement with the action research projects, I would have expected them to know that action research is a form of research that teachers can do, and that it involves collecting data in your classroom. It will be interesting to see when, if at all, they gain this awareness.

While they cannot describe or define action research as a process, at least all three student teachers have some knowledge of the content part of their cooperating teacher's action research. Robert has watched the students write in their response journals several times and looked at a few of the journals. Melissa and Adam are involved with the 90-minute literacy block all three mornings they are in the school. In addition, they watch their cooperating teachers co-teach once a week. I now need to ask some questions to find out how frequently and extensively the cooperating teachers discuss the action research projects with their student teachers.

It is interesting that Adam has expressed some doubts about the content part of Lora's action research project
right from the beginning. He knows how much she values the early literacy framework, but does not accept these methods unquestioned simply because his cooperating teacher is using them. This shows that he is reflecting on the benefits and shortcomings of these methods. Educating teachers who are able to reflect and inquire rather than simply teaching like their cooperating teacher is one of the major goals of this program. At one point Adam states explicitly that while he highly respects Lora's ideas, he knows that he is not going to be a carbon copy of her, but he would still like to do some things the way she does them.

Conversation in Early February

Adam: You look tired, Melissa.

Melissa: I am feeling so overwhelmed and frustrated, I can't even begin to tell you how behind I am. I still haven't finished my pedagogy paper from last quarter, and I'm doing most of the teaching already. Karen is out of the room so much, I hardly get to talk to her anymore. I had to e-mail her the other day to tell her I really needed to talk to her. I mean I can do the mornings, the literacy stuff is no problem, but I don't really know what to plan for math. I don't know what skills my kids have and what I need to review. Karen handed me a book the other day I guess she thought would help me. I know she has that committee work here at school and her co-teaching meetings, and it's my
fault, too. She told me if I got here earlier in the morning we could talk. I just can't get it together. I'm so tired in the mornings. I can't get here any earlier. I stay here till about 7:00 pm most evenings, then I stay up late to work on lesson plans. She wants plans by Friday so we can talk about them before I teach.

Adam: Oh yeah, those written lesson plans. Lora has been on my case about that, too. They are one of the few thorns in our relationship. I mean, let's face it, I'm not Robert when it comes to planning.

Melissa: Yeah, Robert, Mr. Organized!

Robert: That seems to be the only thing I do well. Yes, I have most of my integrated unit planned, and Diane helped me quite a bit. I called her and e-mailed her so much I think she got tired of me and all my questions.

Melissa: At least you get to talk and plan with your cooperating teacher.

Robert: Well, yes and no. I mean we did the unit, and she is having me do more science lessons, at least once a week, so the kids can write in their response journals, because she needs data for her research project.

Most times, though, I'm like you, Melissa. I feel frustrated. The kids are walking all over me, and Diane told me to be more consistent, so I told her I would take recess time away. She told me she didn't believe in that,
because it also punishes her when she has to stay in with the kids. Then I walk in the other day, and all the kids are inside. Diane kept them in from recess because they were awful for her on Wednesday. Now what am I supposed to believe?

And then there was that fiasco with the report cards. I was supposed to help her do grades, but I have no idea how she assesses the kids in math and science. She doesn't give any tests, and I don't know how she assesses their journals. Then she hands me the report cards, and there is all this stuff on there I'm supposed to assess that I didn't even know was on there, and she told me I should have realized all along that I wasn't getting enough data to base grades on. Well, I probably should have been more up to speed on that, sat down with her a little more often. But I don't know much about assessment yet, and how am I supposed to ask questions when I don't even know where to begin?

Adam: See, I don't think that could have ever happened to me. I would have just told Lora, or written in our journal, that I didn't know where to begin with this, and she would have helped me. Anyway, she would have discussed this with me in advance, shown me the report cards, so I know what to expect. She never pulled any surprises on me. And almost every time she wrote in the journal she said just ask her if I need help, suggestions, or stuff. I mean she
wanted me to work on coming up with my own ideas, too, but if I was really stuck or couldn't think of anything, she'd bring out all her resources for me to use.

Then we would plan together and talk about which activities would be good, what extensions we might do, how we could group the kids, and all that stuff. And she is almost always in the room. She watches me teach, takes notes, and gives me detailed feedback. We usually talk about why something went well, or not, what I should do differently next time, and that really helps me.

Researcher (reflecting on conversation): There are some definite changes in some of the relationships. Melissa and Karen are communicating infrequently, and Melissa does not feel supported enough at this point. It seems from the data I have that their relationship has been declining for the past few weeks. I wonder if they will resume regular communication and the friendly relationship they had in the fall.

Robert and Diane also seem to have inadequate communication in certain areas. Robert is getting conflicting messages for classroom management, and the assessment issue brings up the problem of unspoken assumptions about roles and responsibilities in their relationship. Robert agrees he should have taken it upon himself to ask more questions about grading, but as I said
in a preceding section, with a student teacher who has no previous education experience, maybe Diane should have been more proactive and discussed the report cards with him. Robert never described their relationship as 'great', and I would describe it as adequate and professional, since they communicate regularly in certain areas, but don't talk nearly as frequently or explicitly as Adam and Lora, and they do not socialize outside of school.

Adam and Lora's relationship is as friendly and supportive as ever. The honest, frequent communication continues. Lora is firm when she has to be, as in her request for more written lesson plans, but also highly supportive in action and words. I gather from Adam's comments that Lora has found a good balance between giving her student teacher space to develop his own ideas and enough support for him to feel comfortable and largely successful in the classroom.

Robert is the only one at this point who mentioned his cooperating teacher's action research project spontaneously. He talked about her explicit communication about needing more data in the form of student response journal entries. I guess action research is not a priority for the preservice teachers at this point. They are concerned about the typical aspects of teaching, planning, and classroom management.
Both Melissa and Adam have taken over the morning, so they are involved in the content part of the action research. I need to make a point of asking whether they talk about the research with their cooperating teachers. I did not find any evidence of it in Adam and Lora’s interactive journal.

**Conversation in Mid-May**

Melissa: I don’t know how I survived these last ten weeks. This full-time student teaching experience has made me realize that I still have a lot to learn. It’s not that I didn’t have any good days, but they were few and far between. I bought the mice and the goldfish for my class so that the students could observe animals firsthand, and they really enjoyed that and learned a lot.

Most of the time, though, regardless of the amount of time I spent thinking about and planning my lessons, they never seemed to be organized or thought out well enough. I need to work on my time management. I really wanted to do better, for myself and my students and Karen. I mean I know our relationship kind of went down the tubes after Christmas, but I still wanted to prove to her that I can manage a class well and plan great lessons.

I know a lot of the blame is on my shoulders, I mean she asked me several times to have lesson plans for her by Friday for the following week so we could talk about them and make some changes if necessary. I think I only managed
to show her plans in advance once or twice. And she was out of the room so much, we hardly ever had time to talk face-to-face. One of the few times she was in the room while I was teaching she gave me this look like she was wondering if I was just winging this lesson, or if I had actually spent some time planning it.

And then there was the classroom management issue. I really wanted to be more positive with the kids and give them a chance to have Fun Friday instead of yelling at them so much, but Karen said I couldn't cut them that much slack, and she had already told them they didn't deserve Fun Friday for a while, so how could I establish my own discipline that way? Looking back, I wonder if I came off as an over-confident know-it-all in the beginning. I knew this year would be a learning experience, but I never dreamed it would be this hard. I could have used a little more support from Diane. I just felt little success these past few weeks.

Robert: Don't feel like you're the only one with that experience. I had this whole flight unit planned for months, and I hardly got to teach any of it. When I started full-time student teaching, Diane hardly ever set foot in the classroom. I guess she thought she had to do that so that I could establish myself, at least that's what she told Anne. I wish she had talked to me about that, because the kids walked all over me with her out of the room, and I
felt really frustrated. I am with you, Melissa, I could have used more support. The only difference between us is that I started out feeling overwhelmed, not confident like you, and I still feel overwhelmed.

It's not like Diane and I didn't communicate, I guess it just wasn't quite enough. We e-mailed and talked on the phone pretty regularly, and she was available when I had a question. She even had me start a journal where I had to write down my reflections, what I learned, what went wrong, what I would do differently, and then she responded, and I was supposed to respond to her comments. That really helped me think things through, putting it in writing like that. I agree with you, Adam, starting an interactive journal right from the beginning would have been really beneficial. It seems by the time we got ours going, student teaching was over.

Adam: Yeah, I think our journal was our lifeline in many ways. I mean our relationship wasn't always just wonderful. I remember that one time we were really angry with each other. I thought I was teaching that whole morning, but then Lora just took over. I thought I had failed or something. I didn't really want to talk to her, but she came at lunch and explained that she had to get certain things done. We both wrote about our feelings about that in the journal, and that really helped. Lora also wrote
that when I take over for my solo, the classroom will
definitely be mine, and that she would like to hear about
any new ideas I would like to implement. After I read that I
felt good about things again.

I'm really glad that Lora has been so honest and
supportive all year. She wrote that she wants to always know
that we can communicate with each other openly, and that we
are here to learn from each other the best way to teach
these little angels. Even though she is such a good teacher,
she still thinks she has things to learn. I really respect
her for that. At one time she even openly talked about her
own doubts and mixed emotions in the journal, like she
sometimes feels she is expecting too much of me, but then
again she knows I'm capable and wants me to succeed.

I wrote her that having her to give me the constant
feedback, direction, support, and friendship has given me
more than she could imagine. I mean this year wasn't easy
for me, either. I've had my share of frustrations and
discipline problems, but having Lora give me so much
detailed feedback and help me reflect has really made this a
generally good learning experience for me.

Lora was always open to any new ideas I wanted to try,
and that kept my enthusiasm going, especially after I
finally understood the whole 90-minute-block thing, you
know, that it's all integrated, all that literacy stuff.
And I never thought I'd be someone who reads three stories a day to kids, and does charting, but I've learned to see good in it. It took me a while, because I'm the type of person who needs to do things for himself to really learn it. I'm really glad Lora didn't force it on me, even though she loves all that early literacy, and she's even doing research on it.

Melissa: Oh yeah, same with Karen. She was really into whole language and her co-teaching. I have to say that was one of the valuable parts of my experience, to see things I learned in the methods class actually used in the classroom, the interactive writing, shared writing, charting, and Venn diagrams. I have to say that for Karen, she really practiced what she preached. And I know she looked at how I was applying what I was learning about literacy and if her co-teaching was helpful and might help student teachers in the future. That reminds me, Anne asked me if I knew what action research is. I guess that is what Karen is doing.

Adam: Yeah, she asked me the same thing. I have no idea. I asked her to tell me, and she said later, after the interview, because she didn't want to take up time on the tape. I mean Lora talked to me a lot about how she does interactive writing and shared writing with the kids, but she never told me anything specific about her project. I know she went to class on Thursday nights, but she didn't
tell me about what research methods she was using, or anything like that. After the interview Anne had to hurry to another appointment, so I still don't know what action research is.

Melissa: As far as I understand it, it's what Lora and Karen were doing, it's teachers gathering data in their own classrooms.

Robert: I think that's right. From what I understand it's teachers gathering data throughout the school year, from their kids, for some topic. Where it goes, I'm not sure. Actually, Diane and I haven't talked about it that much either. I mean I know the response journals are her data, because she told me I had to have the kids write entries at least once or twice a week, so she could have data for her research. I looked at the journals, especially when we did grades. I know she was looking at their writing in the content area, like science, but as far as what she did with the data, or what her results were, if she has any, I have no idea.

Adam: Well I know Lora was happy that her co-teaching was going well and seemed to be helpful, like she thought it would be. I started taking over some of the morning and the literacy block before Christmas, and then of course I did it all during student teaching. But Lora didn't have me do anything specific for her project, like Diane did with you,
Robert. I remember at one point she said I could read her paper she had written for the research class, but I didn't really have time for that. She certainly never sat down with me and talked to me about what kind of research she was doing, what phase she was in, or what methods she was using.

Melissa: Same here. Karen and I never talked explicitly about what she was doing with her research. In the beginning we talked about interactive writing with older kids, when we were still on good terms and sort of sharing the classroom. Well, I don't want to go into that.

I have to say, though, that I admire Karen for still trying to learn more about teaching. I believe that as a teacher, you're always a student, too. Learning is a life-long process.

Researcher (reading through interview transcripts and fieldnotes): Here are some more interesting developments emerging from my data. Right before Christmas, none of the student teachers had any idea what action research was. Now, five months later, two of them have at least a partial understanding of action research as a process. Adam still has no idea. The two who have gained some understanding about action research know that it is done by teachers and that it involves the gathering of data in the teacher's classroom. Robert even knows that it is a long-term process, not just a quick problem-solving method.
Again, I am surprised that the student teachers did not come away with a better understanding of the action research process. I thought that with more time in the classroom and more involvement with the content part of the action research would come more discussion about it, including the process, with the cooperating teacher. Obviously, this was only partially true. None of the three can name all four parts of the action research spiral, or describe the action research process in detail.

The two students who had daily involvement with the content part of their cooperating teacher’s action research project - the 90-minute literacy block was done every morning - both reported that there was no explicit talk about research methods, nor were they asked to do anything specific for the research project. This was substantiated in my interviews with the cooperating teachers (RK, f, 1-30-97; 6-4-97).

One of these student teachers had no idea what action research was at the end of the school year, the other knew that it is done by teachers in their own classroom. The student who came away with the most detailed understanding of action research was involved with the content part two to three times a week. In addition, he was approached repeatedly by his cooperating teacher and asked explicitly to engage the students in certain activities and have them
write response journal entries for her data collection. He also read the students' journal entries at various times throughout the year, but the cooperating teacher did not provide him with any detailed explanation of what she was doing with her data, or how she was coding them.

It is interesting to look at the type of relationship that the student teachers had with their cooperating teachers in general and how prominent the action research was. Robert, who came away with the most detailed understanding of action research of the three cases, had what I termed an adequate, professional relationship with his cooperating teacher. In general, they communicated regularly about teaching and planning. However, there were also times when Diane gave Robert mixed messages, as was the case with the discipline issue. At times, there was miscommunication. In Diane's words: "I tell him to pick up the red pad, and he comes back later and tells me I had told him to get the blue one" (RK, f, 4-8-97).

In addition, the relationship was at times based on unspoken assumptions, as was the case when Diane thought it best to completely leave the room when Robert first started full-time student teaching to give him a chance to establish himself, but didn't really communicate that to Robert. As a result, the latter felt a lack of support. Their relationship also never went beyond the boundaries of the
classroom. Diane and Robert did not socialize outside of school. However, the one thing that Diane did was talk explicitly about her specific needs for data collection with Robert.

Karen and Melissa did not engage in such explicit talk about parts of the action research process. They did talk quite a bit about the content of the research project in the beginning, and both agreed that doing interactive writing in small groups of third and fourth graders was much more valuable than doing it with the entire class, because it was hard to keep everyone's attention. Their relationship went from excellent and friendly to inadequate. In the fall, Melissa felt confident, Karen trusted her enough to even leave the room for short periods, and they were almost like team teachers.

After Christmas, this trend of Melissa doing a lot of teaching, and Karen being out of the room quite a bit, continued. This left Melissa, who was then also behind with university assignments, feeling unsupported and frustrated. From my data it seems that both parties contributed to this state of affairs. Karen was often unavailable for personal talks, but Melissa was repeatedly late for work and did not turn in lesson plans in advance to Karen. Despite this inadequate relationship in the winter and fall, Melissa came away with some understanding of the
the basics if action research - it is something teachers do when they collect data in their own classroom.

Looking at Adam's case is intriguing. He and Lora had an excellent relationship from the start. It was characterized by frequent and honest communication, both verbal and written, support, and mutual respect. Lora gave Adam detailed feedback and resources to use, yet also enough space to try his own ideas. Both described their relationship as friendly, and the two occasionally socialized outside of school. They also spent many hours planning together. Lora was always proactive and gave Adam advance notice of upcoming responsibilities, and then offered help if he needed it. In our final interview, she reported that reflecting together with Adam, especially about the early literacy framework, helped her gain insight into her own teaching and helped her learn.

This supportive and friendly relationship that often made the two co-learners and team teachers helped Adam through his periods of doubt and difficulty with classroom management and resulted in an overall positive learning experience for him. This makes it all the more fascinating that he is the one student who still has no idea what action research is. I would have thought that in a close relationship like the one he and Lora had, there would have been plenty of time and opportunity to talk about Lora's
action research project and opportunity for Adam to ask Lora about that part of her work, or for her to share her enthusiasm, progress with the project, and findings. However, my data indicate that Lora did not share her knowledge of the action research process with Adam, and he did not ask.

The question presents itself of why the cooperating teachers and their student teachers did not engage in more frequent and explicit talks about the action research project and process. To be sure, there was no formal program requirement to do so, but I would have expected dedicated professionals who were themselves so highly involved in their research endeavors to share more of their knowledge, success, and problems with the preservice teachers.

One contributing factor was a lack of time. The cooperating teachers all reported that this year’s schedule did not leave much time for them to talk in person with their student teachers. What little time was available was evidently spent on more pressing student teaching concerns, including lesson planning, classroom discipline, and record keeping.

Another contributing factor was that the action research projects were year-long endeavors, and still ongoing, or the data collection phase just being completed, when student teaching ended on May 16, 1997. Diane, the
cooperating teacher who engaged in at least occasional explicit talk with Robert about her need for data collection for her action research project, reported during our final interview that she would have shared results with Robert had they stayed together longer. At the beginning of June she was still in the process of coding her data and doing preliminary analysis, so she really had no substantive findings to share with him yet (R, i, 6-4-97, pp. 15-17).

Lora, the cooperating teacher who had an excellent, supportive relationship with Adam, was in pretty much the same situation as Diane. She was just finishing up data collection in May, and would analyze and write up her findings in the summer. Lora also reported that it was her research aim to watch how Adam would implement the early literacy framework naturally. She therefore did not give him any specific directions on what to do for her research project (RK, f, 6-4-97). In addition, Lora reported during a talk with me that she still felt very much like a beginning researcher, someone just getting their feet wet in action research, not at all like an expert (RK, f, 2-7-97).

Karen also wanted to watch Melissa implement the literacy framework naturally and reported not having talked explicitly about her action research project (RK, f, 1-28-97).

For a summary of the preceding discussion please refer to Appendix E.
A copy of the preceding conversation was offered to all study participants. One student teacher and one cooperating teacher reported being very busy this summer and trusting me with using whatever quotes from interviews and journals I felt I needed. Robert and Adam have both responded to my request for feedback by phone. Both reported enjoying reading the conversation and agreeing with the general content and my interpretations (RK, f, 6-28-97; 7-30-97). The two other cooperating teachers were completing their master's degrees this summer, and although they reported an interest in reading what I had written, they have as of today (8-2-97) not yet had time to do so.

Reflection

In addition to action research and the relationships of preservice teachers and cooperating teachers, reflection was an important focus of my study. As described in chapters 1 and 2, Dewey's (1933) definition of reflection as "an 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 consequences to which it leads" (p. 9) and the argument that such reflection is essential in education formed the basis for this dissertation. Dewey's definition refers to the process of reflection, and to content in rather broad terms.
Van Manen (1977) supports Dewey's (1964) argument that reflection is essential in education and describes the content of reflection in detail. He divides reflection into three domains: (a) technical, (b) practical, and (c) critical, each being at a higher level than the preceding one. They will be discussed in greater detail in the chapter.

With this study's goal being the description of the preservice teachers' development as reflective professionals, it was important to look at their ability to reflect upon entry into the program. As my study also aimed at gaining a better understanding of the student teachers' meaning making, it was important to ask them how they themselves viewed reflection in addition to my interpretations, and it was important to do this at the beginning of this study.

I therefore asked two questions pertaining to reflection in the initial interview. My goal was to have the students assess themselves in a way, and the other aim was to understand how important they thought reflection was in education. I asked: Would you call yourself a reflective person? Do you think reflection is important in education? I did not reveal my own opinion concerning this issue, but the fact that I asked the questions in the first place may have indicated to them that I place some importance on
reflection. The following section describes the kinds of responses that were given to the above questions.

Enter the Reflective Student Teacher

"Reflective, ... I would say yes ... I talk to myself an awful lot ... What did I do right? What would I do different?" (R, i, 10-10-96, p. 4). This student teacher's assessment of himself as a reflective person is representative of statements made by all three during initial interviews (A, i, 10-9-96, p. 3; M, i, 10-9-96, p. 3).

It is interesting that almost in the same breath, all three said "not necessarily on paper" (A, i, 10-9-96, p. 3; M, i, 10-9-96, p. 3; R, i, 10-10-6, p. 5), meaning they do not always like to write about what they are thinking. However, they all three agreed that writing thoughts and facts down to aid memory and hopefully inform and improve future teaching would be beneficial (A, i, 10-9-96, p. 3; M, i, 10-9-96, p. 4; R, i, 10-10-96, p. 6). In Robert's own words "things I should have done this way, in a year I'm not gonna remember that, so maybe I would want to write those things down" (p. 6).

In addition, all three spontaneously mentioned the value of reflecting collaboratively with other teachers or close friends (A, i, 10-9-96, p. 4; R, i, 10-10-96, p. 5). Melissa's statement is similar to the others: "I use people
for my resources, like you (looks at interviewer).... I will call ... people and say 'what do you think about this idea, or how should I do this?'" (M, i, 10-9-96, p. 3).

To my question concerning the role of reflection in education, all answered it is important. "I think it's important after you teach a lesson ... you think about what you could have done differently, what worked, what you have to accentuate, do a little more of. Yeah, it's very beneficial" (A, i, 10-9-96, p. 4). The other two students responded in similar ways (M, i, 10-9-96, p. 4; R, i, 10-10-96, p. 6).

All three preservice teachers described themselves as reflective and thought that reflection is an important part of education. I was curious whether this would make them more interested in, and accepting of, action research, of which reflection is one of the four essential elements. Having experienced teachers who place little or no value on reflection, who believe that lesson planning consists of writing down textbook pages and pulling out the same ditto year after year, I thought student teachers who valued reflection from the outset may be more motivated to become involved in action research than the just-described teachers.

It is a well-established fact that there is often a tenuous relationship between people's thoughts and actions,
and that there are many times discrepancies between individuals' self-reports of behavior and actual practice (Deutscher, 1966). This means that the fact that the student teachers had described themselves as reflective was by itself no clear indication that they actually were. My task was to look at their interview statements, journals, and teaching practice to detect evidence of reflection.

In order to give a description of developments and possible changes in the preservice teachers' reflective practice over the course of the school year, I had to do some initial assessment of their reflective abilities. I had only initial interview data available for this task.

*Initial Technical, Practical, and Critical Reflection*

I used Van Manen's (1977) three domains of reflection as categories to examine my data. I wanted to see whether or not the preservice teachers were able to reflect across all three. I scored their responses depending on their concerns. I put any statement made by the student teachers that referred to the efficiency of a teaching method without raising any questions about the predetermined ends it is supposed to achieve under technical reflection, the lowest level. The next higher level of reflection is practical, and statements referring to an attempt to achieve greater student understanding and to clarify assumptions underlying teaching practices, thereby not accepting predetermined
goals without question, I put in this category. Any statement that explicitly spoke to equity, justice, fairness, or the lack thereof, or to emancipation and the elimination of bias in schools and society, I categorized as critical reflection.

In chapter 1 I spoke to the issue of critical reflection in preservice teacher education and my belief that student teachers need to be able to engage in critical reflection, in addition to technical and practical, to help bring about greater equity and eliminate bias in schools. Noffke and Stevenson (1995) also make this argument, but point out that most teachers do not enter the profession to reform schools and society. I wanted to know if the three student teachers who participated in my study were of the type Noffke and Stevenson describe, or whether they were capable of engaging in critical reflection. I therefore looked for indications of all three domains of reflection in the student teachers' initial interviews.

**Initial technical reflection.** In his initial interview, Robert said about the proficiency test that he looks at it as "a requirement, ... there's nothing I can do about it, ... this is your job. ... And I'm gonna try to incorporate it in my lesson" (R, i, 10-10-96, p. 9). This is clearly an example of accepting a predetermined end - you have to give your students the proficiency test - without question. His
idea of incorporating test material into his lessons would be an attempt to find an effective way to help his students do well on the test, and the possible consequences of not doing this would be a poor performance rating for the teacher. "That's gonna be a reflection on you, that your kids are at the bottom of some list" (R, i, 10-10-96, p. 9).

There were no other statements in the initial interviews that could be coded as technical reflection. Both Adam and Melissa immediately questioned the role of standardized tests and their validity, as explained in the section below on critical reflection (A, i, 10-9-96, p. 5; M, i, 10-9-96, p. 5).

All three students also spontaneously stated that there was no one good way to teach, and this moves us away from the technical concern of trying to find, or believing there exists, one best method to teach something. As Van Manen (1977) points out, as soon as educators realize that the search for one best way of teaching is constraining, because educational research has "difficulty demonstrating that some curriculum approaches are more effective in the achievement of specific learning outcomes than others" (p. 226), they move into the higher level of reflection called practical reflection.

Initial practical reflection. This type of reflection assumes there exist alternative, often competing educational
principles, and choices of approaches are based on certain value commitments and the aim to help students understand. The student teachers' responses to my question of what good teaching is represent such practical reflection and its results.

Adam answered: "It involves so many things, ... being able to adjust every year to your students ... I don't think there is just one model of a good teacher" (A, i, 10-9-96, p. 1). Melissa responded in a similar fashion: "I don't know if there is one definition ... learning is a life-long process, ... you're willing to learn new things, change things, ... being open-minded, ..." (M, i, 10-9-96, p. 1).

Robert also held this view that being a good teacher is more than a technician who opens the curriculum guide and the textbook and transmits what someone else has decided is important to teach. In the initial interview he expressed his desire to "incorporate things into my class that maybe necessarily wasn't part of the course I was supposed to teach" (R, i, 10-10-96, p. 13). He went on to say that he is "a big fan of self-esteem ... if you spend 15 minutes in the morning or something, that is gonna make the kids feel good about themselves" (p. 13). This clearly shows that he has thought about what might be good for his students, and that is a value commitment to helping foster self-esteem. As such it is representative of practical reflection.
Initial critical reflection. Having read Noffke and Stevenson (1995), I concluded that the student teachers in this study might be like the teachers described by them and not offer critical reflection spontaneously. I therefore decided to present a dilemma in the initial interviews that might offer opportunities to do critical reflection. I asked the students how they might feel if their cooperating teacher asked them to stop teaching the integrated unit they had planned and instead to prepare children for the proficiency test. This dilemma presented the possibilities of talking about test bias and maybe the role of school and learning in society in general.

As it turned out, all three students initially offered answers along the lines of respecting their cooperating teachers' wishes. I followed with a probes like: What about the role of testing? What about the publication of test results? What about the role of schools in society, should they teach basic skills, or learning how to learn?

With this probing the students made some statements that could be categorized as critical reflection. Adam offered a general and sweeping criticism of the American education system:

It's not the students' fault that our educational system is in shambles, ... they're the victim of what that system has become ... I place the blame totally on the educators, the teachers, the superintendents, the school boards, the
school administrators, it's their blame. I just think our schools are set up totally wrong ... There's no continuity between the grades, ... some people go through school and they don't know what most people would consider basic knowledge (A, i, 10-9-96, pp. 6-7).

He concludes that:

I would hope ... you can do a little bit of both, ... learn a skill, at the same time get better at being a free thinker, being more open to anything else ... I mean I would hope that by the time my students leave my classroom they will be able to do both, and in an ideal world, that's what I would like (A, i, 10-9-96, p. 10).

Adam employs the language of critical theory and speaks of a system in shambles and victims. At other times his criticism is more implied, not explicitly articulated. He nonetheless criticizes the educational system as unfair, and affirmed this in a member check phone conversation on July 30, 1997. "Just look at the school funding issue, I mean it's not fair. Suburban districts do better, because they have more money... And our schools leave some students behind, they fall through the cracks" (RK, f, 7-30-97).

Adam goes on to quite explicitly criticizing standardized tests after my request to talk more about the testing issue. He states that there has to be some
reason for African-American and inner city children scoring lower on these tests. "These kids are not mentally behind everybody, there's nothing physically wrong with their minds, ... they (the tests) are culturally biased" (A, i, 10-9-96, p. 6).

Melissa also criticized standardized tests in her initial interview after I asked her about the role of tests. "I have very mixed feelings about the proficiency test, ... if I took a question that was on the test and reworded it in the way that I would teach my classroom, these (urban) kids could answer it" (M, i, 10-9-96, p. 5). This amounts to criticism of the bias in test language, even though Melissa did not use those exact words.

She went on to explain why urban children often do not perform as well on standardized tests as their suburban counterparts:

I think ... skills are taught in school, but not at home, ... a lot of girls (at City Academy) will raise their siblings. In the suburban school the kids have everything done for them, ... and they have more time to study and do homework (M, i, 10-9-96, p.8).

Robert also speaks to the fact that parent/home support may affect school and test performance and supports Melissa's implied criticism of the inequity in this area between urban and suburban schools, with the former usually having fewer advantages. "Schools have to teach more than what they traditionally have taught, ... kids, especially
here at (City Academy) aren't getting these things at home" (R, i, 10-10-96, p. 13). Robert also explains that people are used to comparing test scores published in newspapers, but that "lower scores do not mean the teaching is bad (in urban schools), or kids aren't smart" (R, i, 10-10-96, p. 12).

The fact that Robert believes that there are social and economic inequities that often lead to lower school and test performance for urban children was confirmed by him during a member check conversation on June 27, 1997. During that conversation Robert also stated that he was encouraged by the recent efforts to make school funding more equitable, but that he does not believe that money alone will solve all problems.

Evaluating initial reflection. It has become evident from the preceding presentation and initial analysis of data that the preservice teachers who participated in this study were indeed quite typical of the student teachers described by Noffke and Stevenson (1995). None of the three came into the ECC/PDS M.Ed. program with a well-articulated agenda to reform schools or society. They did not offer critical reflection spontaneously, but did offer some critical reflection in response to the dilemma presented and my questioning.
The original intent of my study was to explore what would occur naturally during the student teachers' year-long placements with cooperating teachers engaged in action research. I tried to understand the former's perspectives on action research and reflection, and their meaning making. I therefore had to be careful not to ask too many leading questions or impose my point of view on the preservice teachers. On the other hand, good interviewing usually involves asking probing questions to get a better insight into the interviewee's perspectives and opinions. I did this to some extent, but realize that the preservice teachers' responses regarding critical reflection were more general and less well articulated than they might have been if I had asked more explicitly about equity, fairness, and the elimination of gender and racial bias in schools.

What I learned from analyzing the initial interviews is that one student teacher engaged in some technical reflection, and all three preservice teachers engaged in practical reflection. Furthermore, all three had the ability to reflect critically, but did not do so spontaneously. The presentation of a dilemma and questioning from me resulted in some critically reflective statements.

Reflection Throughout the Year

I now turn to answering the following research question: Does being the student of a classroom teacher who
is involved in action research help the former become more reflective? For answers I looked at the preservice teachers' reflections throughout the school year. This included further interviews, their journal entries, my classroom observations, and informal talks. I looked at how they reflected in writing and also whether or not they put these reflections into practice in the classroom.

Had the student teachers shown very little reflection in the initial interviews, my task would have been a little easier. As it turned out, one student teacher engaged in some technical reflection, and all three preservice teachers reflected practically and critically. My task thus became one of looking at possible changes in these reflections throughout the year.

The data presented in the following sections focus on the student teachers' reflections throughout the year. The role of cooperating teachers as reflective mentors and my role as a possible reflective coach will be discussed after this section.

Technical Reflection Throughout the School Year

Truly technical reflections as seen in the student teachers' interviews, journals, and teaching practice were evident only occasionally. At times, during our talks after my lesson observation, or when I ran into them in the hall, they offered unsolicited comments about having their kids
walk quietly down the hallway (RK, f, 11-1-96; 3-7-97).

Melissa seemed especially frustrated at one point: "I was so embarrassed yesterday. Mrs. T. from down the hall had to stop my kids and quiet them down on the way back from gym. I wish I could get them to settle down like that" (RK, f, 2-7-97).

Some technical reflections about teaching subject matter were also infrequent. After reading some of the students' response journals, Robert mentioned that he was "disappointed in the quality of these kids' writing. I wish I could get them to spell better" (R, i, 12-10-96, p. 17).

Melissa at one point was wondering about "helping (her) students memorize multiplication facts" (RK, f, 2-7-97).

During our final interview, Robert emphasized the fact that the first thing he would do when getting a teaching job would be to ask: "What do you require me to do?" (R, i, 6-4-97, p. 1). He would ask for the course of study and the grade cards for that school so that he could ensure that he would teach what needs to be assessed. This is really not questioning predetermined goals and outcomes, but accepting the school's curriculum and grade cards at face value and trying to find the best way to teach the content prescribed by someone else and then assess it in predetermined ways. Thus it falls under technical reflection.
The preceding are the few clear examples of technical reflection the preservice teachers engaged in during the course of the school year. Most of the other reflective statements showed at least some concern with helping students understand and making learning meaningful and relevant for students.

These practically reflective statements were quite numerous, so I organized them in categories. The following sections will present the student teachers' practical reflections concerning classroom management, teaching subjects, and also their attempts to translate practical reflection into classroom practice.

**Practical Reflection Throughout the School Year**

The following sections will present the students' oral and written practical reflections, after that their implementation in teaching practice will be addressed. As the student teaching literature frequently describes classroom management and teaching content as related, yet somewhat distinct concerns of preservice teachers, (Hopkins & Moore, 1992; Schempp, 1988), I have divided the following sections accordingly.

**practical reflection on classroom management.** One prominent concern all three student teachers faced almost from the beginning of their student teaching in the fall and that stayed with them all year was a concern with managing
the classroom with positive discipline and gaining the respect of children. This concern represents value commitments to what is good for children and therefore falls under practical reflection.

From the outset, all three preservice teachers expressed a reluctance to yell at children or be too controlling. Melissa wrote: "My goal is never to flicker the lights or yell above voices. I hate that - it accomplishes nothing" (M, j, 10-7-96, p. l). She went on to report that she tried to talk quietly to individual children to get them back on task. "I don't believe kids have to be quiet all the time, on the contrary, but I get upset when they use group learning time to just goof off" (RK, f, 11-25-96). She also reported catching herself being negative at times, despite her best efforts, and that one of her anxieties is "keeping a positive attitude" (M, j, 10-7-96, p. 2).

This concern with establishing a form of discipline that helps children understand themselves better, respect others, and become more self-confident continued throughout the year. Melissa approached me several times about using natural consequences with her students to help them become more self-disciplined. She was also interested in giving them choices and having them learn problem solving. After a visit to a suburban teacher's third grade democratic classroom, Melissa expressed her desire to set up a similar
environment in her classroom, but commented that "my kids can't handle that many choices right now" (RK, f, 11-25-96). When I asked her if she thought it was developmental, she replied: "Sure, it's a process. I could get them there in steps, I mean the teacher next year would probably have to do it, too" (RK, f, 11-25-97). This revealed her concern with student understanding as well as their needs and developmental levels.

Adam displayed some of the same concerns about going beyond the technical concern of simply keeping children quiet, or writing them off as problems. He also tried to establish positive discipline and wrote about some of his reflections on why children might misbehave: "I don't know if some of the kids are just having a bad day, or if maybe they really don't know what they need to do" (A & L, ij, 10-28-96, p. 8). His aim, just as Melissa's, is trying to understand the students and do what's good for them.

Throughout the year Adam reflected on the benefits and limitations of having positive rewards for good behavior, such as fun activities on Friday, and consequences, such as missing recess or calling parents, for unacceptable behavior. "These kids respond really well to rewards, and I think it helps them learn that they're doing what they're supposed to. ... It helps them make good choices" (RK, f, 3-24-97; 4-11-97). During our interview on March 13 he
revealed that he had 'slacked off with the Academy Bucks, and I found out that you have to be consistent, ... or the kids' behavior, I mean we had so many more problems when I didn't do them" (A, i, 3-13-97, p. 8). In his final interview Adam stated that he did not believe in a "one-fits-all type of approach to discipline. ... I mean with some kids you have to call parents, others you talk to" (A, i, 5-16-97, p. 23). This means he did not believe in one best way to discipline children.

Robert, who came to our program with no previous teaching experience, had high ideals for fostering self-esteem in his students (R, i, 10-10-96, p. 13). He was appalled when he found himself yelling at his students so much that he lost his voice. "I had always told myself I would not yell at the kids - I didn't even get to lunch before I started yelling ... I am really upset with myself for that" (R, j, 10-28 to 11-1-96). He then wrote about his efforts to establish a respectful classroom atmosphere and his frustrations about keeping the students from calling each other names and putting each other down. "Talking to them in a normal conversation type voice" (R, j, 10-28 to 11-1-96) did not work for more than five minutes.

His reflections on how to stop yelling and how to establish a community of learners where students feel welcome and can make choices were ongoing throughout the
year. He still spoke of his concerns about building community in the classroom and doing some "Tribe activities" in his final interview (6-4-97, p. 5). He also wrote his Capstone paper on this topic. Robert's overall goal was to establish a classroom community where children feel safe, "accepted for who they are ... without criticism or judgment. ... In this type of atmosphere, students can take risks and ... experience mistakes as learning opportunities" (R, Capstone, p. 2). This can lead to higher student motivation and learning.

The fact that all three student teachers were continually concerned with establishing a classroom atmosphere with mutual respect and choices to enhance learning and also tried to understand their students' behavior rather than just control it means they were engaging in practical reflection.

**Practical reflection concerning subject matter.** All three student teachers frequently reflected in interviews and in their journals on how to make the learning of subject matter more meaningful for their students. A concern with meeting students' needs, what is good for them, and how to make learning relevant to increase student understanding was prevalent.

In the fall, Robert wrote about bringing in some Indian corn and pumpkins for a fall display to motivate students to
learn more and to "add some pizzazz to the room" (R, j, 10-14 to 10-18-96). The following week his journal revealed that he had been reflecting on his own shortcomings and how much work he still needed in "asking good probing questions to make the kids think" (R, j, 11-4 to 11-8-96). This concern with asking more than rote memory questions is a sign of practical reflection.

Robert's lesson plans during the following months revealed that his reflections had had some productive results. In a lesson on finding causes and evidence for change, he planned to have his students discover changes he had made in their classroom, create a big chart, and have them answer questions like: "What makes you think or know there was change? How did you get this evidence?" (R, lesson plan, 1-28-97). This lesson would let the students participate in a meaningful activity and let them construct their own knowledge rather than merely transmitting facts to them.

Robert's integrated unit was designed to help students gain an understanding of the history of flight, some underlying scientific principles involved in flight, and also the value of holding on to one's dreams and trying to overcome obstacles to reach goals. This is clearly a value commitment to helping his students learn with understanding develop self-esteem, and make learning relevant to their lives (RK, f, 12-18-96; R, integrated unit, 2-27-97).
Melissa's planning of her integrated unit showed evidence of similar practical reflection and concerns with deepening student understanding of concepts and topics. She discussed the possibility of buying goldfish and mice for the classroom, and actually did so a few weeks later, to have children engage in authentic observation of animals. (RK, f, 1-30-97; M, integrated unit, 2-27-97). She also deliberated on the selection of a good variety of trade books on animals for her students to meet their varying reading and interest levels.

During one of our informal talks, Melissa questioned her own use of manipulatives and visuals to help her students better understand double-digit multiplication, saying that "I don't have good ways of explaining yet" (RK, f, 1-28-97). Again, her concern was with helping students understand, not merely memorize the algorithm.

In addition, Melissa reflected quite extensively on the use of learning centers and cooperative group work as opposed to the use of ditto sheets. She admitted "I don't really feel comfortable with worksheets, but sometimes they seem to like that, ... and some of my kids use group time to socialize, so they don't really stay on task, so what do they learn?" (M, j, 1-30-97).

All the preceding practical reflections were provided by the students in spontaneous informal talks, interviews,
and journal entries. This type of reflection was evident in journal entries and interview responses from the start, so I cannot really say that the student teachers became more reflective in this area over the course of the school year. All I can say is that they engaged in a good deal of practical reflection on their own throughout the year.

Practical reflection in teaching practice. The ability to reflect practically is important in good education, but this reflection ultimately needs to be translated into teaching practice if it is to benefit students. Even though the ability to put reflection into practice was not one of my original research questions, it emerged as an important theme in the data and is presented below.

By virtue of being in a whole language classroom, Melissa was introduced to and implemented an approach to literacy that teaches reading and writing in a meaningful context and lets students construct knowledge in a purposeful environment. Students gain meaning and understanding from text, they do not merely decode words. From the outset, Melissa commented on how much she liked this approach and reflected on ways to have motivating and productive materials available in the learning centers, anything from a variety of non-fiction books to newspapers to magazines to make reading and writing more relevant to the students' lives (RK, f, 10-8-96).
Anytime I observed Melissa during the language arts block, she had centers of this type available or was doing shared writing or charting with the students (RK, f, 12-12-96; 2-7-97; 3-11-97; 4-21-97). She was thus giving students choices, time to construct knowledge, and attended to their various learning styles and needs. She did not try to find one best way to teach literacy, nor did she have everyone work on the same textbook page.

During one of my morning visits, Melissa was in the process of creating a KWL chart with her students. They were listing all they already knew, and what they still wanted to find out, about butterflies and metamorphosis. This approach thus builds on students' prior knowledge and understanding to increase both. It does not merely transmit predetermined information. This makes it an application of practical reflection.

While Melissa was in the process of reading a book about butterflies, one of her students mentioned that birds could fly just like butterflies, and then wanted to know how birds know how to fly South. Melissa replied that she had a library book on that topic, and that she and the student could look at it later to find out. Melissa, the girl who had asked the question, and another student all stayed in from recess that day to learn about birds flying South (RK, f, 4-30-97). Responding to this student's question and
helping her understand more about what she wanted to know clearly represents a value commitment on Melissa' part to help individual students learn and gain deeper understanding of subject matter.

Robert also translated his ideas about helping students understand concepts and making learning relevant to students' lives. While teaching several lessons on rocks and weathering, he brought in a current newspaper article describing the erosion of a highway. Rather than merely having his students memorize facts, he helped them understand how what they had learned about weathering and erosion in school relates to real life (RK, f, 3-5-97).

By the very nature of his cooperating teacher's action research project, Robert frequently engaged his students in hands-on cooperative group work science activities to help them construct knowledge and understanding. He also engaged them in higher level thinking. "What do you think will happen when we put our rocks (made out of play dough and filled with a water balloon) in the freezer?" (RK, f, 3-5-97). "How could they have saved the highway?" (RK, f, 3-5-97). In their response journals, students had to write what they learned, and what they could have done differently in a particular activity, thus engaging in self-evaluation and reflection. Robert also frequently engaged his students in group discussions so that students could share what they
had learned and ask questions. One frequently asked question was: "How do you think your group worked together today?"
(RK, f, 1-28-97; 2-11-97).

The science activities and student response journals that were part of Diane's action research project present an interesting case. On the one hand, this approach helps students increase their understanding of science concepts and the ability to communicate such understandings. This is in the domain of practical reflection. On the other hand, by her own admission, Diane undertook the research project in part to increase her students' scores on the proficiency test, which could be interpreted as a technical concern with the effectiveness of a teaching method to attain a predetermined goal.

A good part of Adam's teaching was also done with learning centers and hands-on activities. In the morning, students could often choose from among a variety of books, a listening center, art activities related to themes or stories, letter and word puzzles, and small reading groups with him. His idea was to offer a variety of activities at various levels of difficulty so that students could make choices and construct their own knowledge at their own pace (RK, f, 11-20-96; 12-9-96; 4-11-97).

In his interactive writing, Adam usually used an editing approach, which he thought would work well with
first and second graders to give them the confidence to express and write down their ideas and then work on the correct spelling. All this was done with the support of a small peer group, thus making use of social constructivism (RK, f, 12-9-96; 1-21-97; 3-27-97). This represented his value commitment to helping his students become literate in a risk-free yet challenging environment that offered them choices and input into the creation of a story.

I can conclude that all three student teachers started out engaging in practical reflection naturally, and continued to do so in writing as well as in practice throughout the school year.

For a short period of time in the winter, Melissa went through a 'crisis' where she struggled with classroom management, a deteriorating relationship with her cooperating teacher, and late assignments at the university. At that time this usually highly reflective student teacher moved to the lowest level of reflection—technical. Her only concern was to keep her students quiet and under control. She did little of even this technical type of reflection. She eventually returned to her reflective habits. This small exception to the general trend described above will be discussed further in chapter 5.
Critical Reflection Throughout the Year

I believe it is important for student teachers to engage in at least some critical reflection right from the start so that they can help eliminate bias and bring about greater equity in school and society. This view is in agreement with Noffke and Stevenson's (1995). My original research question concerning the preservice teachers' development as reflective practitioners implied reflection across all three domains. I therefore now turn to look at the student teachers' critical reflection throughout the year.

My data do not support an affirmative response in this area. Three years ago I had a student teacher who repeatedly approached me about reading more on gender bias in teaching and trying to eliminate it from her own practice. I had no similar discussions with the study participants this year. Nor did they ever approach me about implementing an anti-bias curriculum. None of them voiced an explicit concern for working towards greater equity and justice.

The visit to a suburban teacher's democratic classroom sparked interest in this approach and some discussion and journal entries. However, these centered on building caring learning communities and helping children understand more about problem solving rather than critical questions about equity and justice. There was no expressed concern about
empowering children or teaching them about the possible limitations of democracy. Such discussion may have been part of their social studies methods class, but these ideas were not communicated to me.

**Critical reflection in teaching practice.** The question now becomes whether the student teachers translated any of their initial abilities to reflect critically that were evident in the initial interviews into teaching practice. The answer is that they did so only to a very limited extent. For example, the preservice teachers never explicitly talked to me about gender bias, but it is a fairly easy one to detect. During my classroom observations in the spring, when the students were teaching full time, I watched for signs of gender bias.

My fieldnotes indicate that none of the preservice teachers showed signs of gender bias. They called on boys and girls fairly evenly in math and science class, they disciplined boys as well as girls for the same offenses and with the same methods, and the class helper charts were done alphabetically, so girls carried lunch box crates just as the boys did (RK, f, 3-7-97; 3-20-97; 4-11-97; 4-28-97).

I had no way of knowing when I did these observations whether this equal treatment of boys and girls was a conscious effort on the part of the preservice teachers. This was an area that I did not want to ask them about while
the study was ongoing, because I thought alerting them to the possibility of gender bias in their teaching may have changed their practice. During a member check phone conversation, Robert mentioned that he had heard of studies about gender bias by teachers and "sort of tried not to do it, but ... didn't constantly think about it" (RK, f, 6-28-97).

**Reflection in Final Interviews**

I now turn to the question of how the preservice teachers reflected across all three domains in our final interviews. Technical, practical, and critical reflection will be considered in turn.

**Technical Reflection in Final Interviews**

Robert started out his final interview with this statement representing technical reflection:

> First of all, when I go into a school district, I'm going to go in saying 'What do you require me to do?' ... Next thing I'm gonna look at is the course of study and grade cards ... and what they say I need to assess, if they work well with each other, or whatever it says on there ... (R, i, 6-4-97, p. 1).

This emphasis on finding a good way to comply with requirements someone else has determined, and not questioning these, is representative of technical reflection. There were no statements in Adam and Melissa's final interviews that I could code as technical reflection.
Practical Reflection in Final Interviews

To get a good idea of how the students reflected practically at the end of the school year, and to get comparisons and detect possible changes, I asked them the same questions as in the initial interviews.

To my question of what good teaching is, I received the following answer from Adam: "Good teaching is enabling them to learn, ... using a variety of strategies. It is knowing that you have different levels of students ... Just sticking to your plans doesn't do your students any good" (A, i, 5-16-97, p. 1). This clearly falls in the domain of practical reflection, as it emphasizes the need for a variety of methods, not simply one best way to teach. It also rejects a rigid adherence to predetermined goals and plans. This answer is quite similar to the one Adam gave in the initial interview (see p. 39), except for the addition of the last sentence.

Robert's answer still included his initial desire to go beyond the curriculum guide and foster children's self-esteem (R, i, 6-4-97, p. 5). He also stated that "good teaching encompasses so much, ... it is someone who is able to create a safe, caring, supportive environment where students are able to learn and their thoughts and ideas are valued" (p. 1). This is clearly at the practical level, not a technical one concerned with having students memorize
facts. Yet it is not really at the critical level, because it does not talk about empowering students, nor does it question why schools do not empower students.

Robert also spoke about his intent to get away from standardized tests as the sole means of assessing children. "I would maybe do mini-portfolios or something" (R, i, 6-4-97, p. 2). Adam explained that he would do likewise: "I don't believe in those tests being the best way, I would also use portfolios, like we talked about in class, ... those tell you better about the kids' progress, what they learned" (A, i, 5-16-97, p. 15). This concern with using more authentic assessment represents a value commitment to using methods that provide a better picture of the whole child and learning with understanding than multiple choice or true-or-false tests can do, and therefore falls in the domain of practical reflection.

Melissa reiterated her initial ideas that "teaching is also life-long learning. ... You have to be open to new things, I mean whole language, centers, kids have different learning styles, ... a good teacher is never finished" (M, i, 5-16-97, p. 3).

All these student responses were quite similar to the ones given in the initial interviews. Again, practical reflections were offered readily in response to my open-ended questions.
Critical Reflection in Final Interviews

The student teachers did not offer critical reflection spontaneously during final interviews. I had anticipated this and planned to repeat my dilemma concerning teaching the integrated unit versus test preparation. I also had to probe about the role of testing and that of schools in society in general to receive any critical responses from the students.

Robert said: "People focus a lot on test scores. Of course, in (suburbia) they're gonna be higher with the support from home" (R, i, 6-4-97, p. 20). In a member check conversation, Robert confirmed that these were inequities he would rather did not exist, and that school funding was also unfair, that he applauded recent moves to make it more equitable, but that money would not fix everything (RK, f, 6-26-97).

After explicit probing concerning the issue of urban versus suburban schools and the students' potential in each setting, Robert offered the following insightful comments and a poignant metaphor:

I believe that all kids can learn. But what I think is that the kids in urban settings don't get the support ... In a suburban district somebody reads to their kids every single night, ... they take their kids to the zoo, to COSI, to these places, so when you get to school you're further along. And when you go home your parents value education (R, i, 6-4-97, p. 19).
I then asked him if he believed that ultimately urban children could reach the same point, to which he responded:

Right. If I teach in a place like (City Academy) I might have to start here (moves hand closer to his body), and if I teach in a suburban district, I can probably start here (extends hand outward).
Researcher: But can they ultimately both reach here?
Robert: I think the odds are against it, but ... I think they could. But I think there's so many things going, fighting against it, ... it's like walking against a 90-mile-an-hour wind, you keep going, and you can only go so far and so fast. Yeah, you can make it, eventually. There's no reason why you can't get to that line (R, i, 6-4-97, p. 20).

I then asked Robert if he as a teacher could be the one pushing a little bit and helping children get to that line. Robert replied: "Yeah, and maybe that kid who has a really great teacher in fourth grade who got him on the right track is now graduating from college" (R, i, 6-4-97, p. 21).

The other two students also had critically reflective responses to my probing questions concerning teaching and learning in urban and suburban settings.

Adam pointed out that "a second grade in (suburbia), by their nature, you know, will probably be above this school. But that doesn't mean that those kids are smarter" (A, i, 5-16-97, p. 5). He went on to say that his teaching practice would hopefully reflect his belief that all children can learn. "I mean if I were given a job in first or second grade in (suburbia), I would probably do a lot
of the same stuff that I do here" (A, i, 5-16-97, p. 11).
In a member check conversation Adam confirmed that he
believed that all children had potential, but that "schools
aren't really set up fair, I mean the funding and the
resources. ... Sometimes even a school like (City Academy)
has more resources than maybe a rural school" (RK, f, 7-30-
97). This indicates that Adam is concerned with fairness and
does not write urban students off as less capable.

Melissa voiced a similar concern with treating all her
students in an equitable manner: "I have to remind myself to
be fair with these kids. I came to this program with all
these expectations of suburban quiet and those kids being
more advanced" (M, i, 5-16-97, p. 2). Melissa had repeatedly
discussed her concerns over not just yelling at urban
children or doing a lot of direct instruction, because that
is what some people believe is all they understand. "I think
these kids can do what suburban kids can, you just need to
give them a chance" (RK, f, 4-11-97).

This seemed to indicate that she was at least aware of
her prejudices and is trying not to stereotype urban
children. Such awareness is at least a first step in making
schools and society more just.

I was left with pretty much the same results as in the
initial interviews. All three student teachers were able to
reflect critically, but only after I asked them specific
probing questions.
Lack of Ideas on How to Apply Critical Reflection

I was curious whether or not the preservice teachers had any good ideas on how to translate their critical reflections into teaching practice. After all, they had applied their practical reflections in teaching practice, and they had shown an initial ability to reflect critically, but only very limited classroom application of the latter.

I asserted earlier from my teacher educator perspective that critical reflection during student teaching is necessary because teachers need to help move schools and society towards greater equity and justice. Being able to reflect on a theoretical or ideal level is a necessary first step, but then these ideals need to be translated into practice, or they will not ultimately benefit students. An intermediate step between ideals and practice is having ideas about concrete ways to translate the former into the latter.

I asked the student teachers questions during the final interviews to get clarification in this area. Adam, who had offered a sweeping indictment of the American education system during his initial interview confirmed that he still held those beliefs and that the system needed to be improved. When I asked him to be a superintendent and tell me what kinds of reform he would initiate, he said: "I have no idea. I mean, I honestly can't answer that. I don't know
the options available" (A, i, 5-16-97, p. 6). This indicates that a student who had quite eloquently criticized the American education system and had taught in an urban school for almost a year had no idea of how to initiate needed reforms.

This was also the case with Melissa. She had criticized the bias in test language in our initial interview, but made the following statement in the final interview: "I really dislike this whole idea of standardized testing. I wish I could change it, but I don't really know how" (M, i, 5-16-97, p. 3).

Robert spoke to the testing issue and commented that the proficiency tests were becoming more and more important and that even though they may not be fair, "it's not my battle to fight" (R, i, 6-4-97, p. 4). This indicated more of an unwillingness than a lack of knowledge concerning working for school reform. To my question of whether or not he would ever consider criticizing the tests, or writing to the Department of Education, he responded: "Some things I may disagree with, and I'm gonna send letters to actively do something to change it" (R, i, 6-4-97, p. 4).

During a member check phone conversation on June 27, 1997, Robert indicated that he really did not yet know what things he would write letters about. He would have to wait until he got into his school district to see (RK, f, 6-27-97).
During a member check conversation on July 30, 1997, Adam stated that his first concern right now was to prepare for his first year of teaching and do a good job in the classroom. He agreed that there are inequities in schools, but to my question on how to change things, he said that "I really haven't thought about that a lot. I mean people are putting like bandaids on it to fix it, like money, but that's not enough, I don't know right now" (RK, f, 7-30-97).

My repeated attempts to reach Melissa for a member check conversation have not been successful.

This showed that two student teachers had the ability to reflect critically during initial and final interviews, but no idea on how to put reform into practice. The third student teacher could also reflect critically and had a vague idea about writing letters to attempt to change things. Implications of these findings will be discussed in chapter 5.

One of my initial research questions was whether being with a classroom teacher involved in action research helped the student teacher become more reflective. The preceding sections indicate that only one student teacher made a statement representative of technical reflection in the initial and final interviews, the other two did not. This type of reflection was done only occasionally by all three student teachers throughout the school year.
All three preservice teachers made several practical reflection statements during initial and final interviews, engaged in a good deal of this type of reflection throughout the year, often spontaneously, and also translated their reflection in this area into classroom teaching practice. I can thus report that practical reflection was quite prominent and consistent throughout the year.

This cannot be said for critical reflection. All three student teachers engaged in some critical reflection during initial and final interviews, but only after I provoked such reflection by presenting a dilemma and then followed up with probing questions. The preservice teachers engaged in very little critical reflection throughout the year, did not use it spontaneously, and had no good ideas on how to translate it into practice.

Context for Reflection and Relationship with Cooperating Teacher

The question resulting from the preceding sections then becomes whether or not there seems to be a relationship between reflection across all three domains and the general context of the classroom the student teachers were in, as well as the specific relationship they had with their cooperating teacher. This relates back to my original research question of how prominent the action research, and with it reflection, was in the year-long student teacher and
cooperating teacher relationships. I will first consider context, then some particulars of the year-long relationships.

The General Classroom Context and Reflection

This was not a comparative study, so I cannot assert that being in a particular student teaching placement led to certain kinds of reflection. However, I can describe the general context of the placements and point out possible relations to student teacher reflection.

It is interesting to note that all three preservice teachers were with cooperating teachers who characterized themselves as being mainly practically reflective (RK, f, 6-4-97). In addition, all their action research projects were based on practical reflection. Diane was interested in engaging her students in hands-on science to improve their understanding of science processes and thinking as well as their skills in writing about these. Both Lora and Karen were teaching in whole language classrooms and trying to help their student teachers implement the early literacy framework.

Furthermore, all three students were in classrooms where the cooperating teachers based their practice on individual and social constructivism. This effort to help children construct knowledge in meaningful ways, either individually, or in cooperative group work, is representative of practical reflection.
Would the preservice teachers have engaged in more critical reflection if they had been in classrooms with teachers who were doing the type of critical action research that Kemmis and McTaggart (1988) describe? This is a question for another study.

In addition to being in constructive classrooms with practically reflective teachers, how did their relationships relate to reflection?

**The Cooperating Teachers' Role**

In chapter 1, I pointed to the possibilities of the cooperating teacher being a role model, a mentor, or someone who helps enculturate the student teacher into reflective and inquiring practice. The first part of this chapter showed that the cooperating teachers did not really act in those capacities with regard to action research as a process.

This section will present some data on the cooperating teachers' role with regard to the content of reflection. It was not the intent of this study to look at the mentoring process in detail. Rather, this study explored the meanings that the student teachers made of being with cooperating teachers engaged in action research, and whether their action research had any influence on encouraging reflective and inquiring practice in the preservice teachers.
The data set on the topic of the cooperating teachers' role consists largely of spontaneous comments made by student teachers, and at times, answers to interview questions.

Cooperating teacher as role model. This study looked at developments that occurred naturally throughout the school year and was not an intervention study. I did not repeatedly ask the cooperating teachers how they were acting as role models or mentors, because I did not want them to feel obliged to do something that was not part of their regular practice.

With all cooperating teachers doing action research and running basically constructive classrooms, to an extent the student teachers had role models of reflective and inquiring practice. It is impossible for me to say how frequently or explicitly the cooperating teachers actually modeled reflection. For that I would have had to observe them the entire day, every day, and that was a luxury I did not have with three case studies and three other student teachers to supervise.

Adam confirmed that Lora was such a role model when I asked him during interviews. "She has been a good role model for me. I mean she works incredibly hard, ... and is always still thinking about what to do, trying to learn more about literacy" (a, i, 2-97, p. 8). When I asked for some more
details and clarification in a subsequent interview he responded that "she is always working on her reading groups, ... I mean they're flexible, not like high and low ability always, ... and she wants the kids to learn from each other" (A, i, 3-13-97, p. 12).

**Enculturation into reflective practice.** One of my original assumptions was that student teachers can be encultured into reflective practice as described by Lave and Wenger (1991) by working under the guidance of a master in the field, participating on the periphery of the activity at first, and then gradually becoming more fully involved.

The ECC/PDS program in general emphasizes reflection and inquiry, so these are practiced by members to varying degrees, and are certainly not discouraged. Does this mean that the cooperating teachers' classrooms were set up as cultures that fostered reflection?

Adam was the only one of the three student teachers who referred to the fact that Lora had encouraged him to reflect throughout the year. "Oh yeah, Lora has continued that with me. She's really made me do that, even when I really didn't want to, because it was really tough and painful" (A, i, 5-16-97, p. 1). He went on to say that "I think I'm much stronger for it" (p. 2).
In our final interview Lora stated that "reflecting with him (Adam) has really helped me in my own teaching this year. I've learned a lot. It was really good for me" (RK, f, 6-4-97, p. 2). Adam and Lora's interactive journal also provided some evidence of reflective practice. At one point Lora commended Adam on his choice of books for a reading group. She agreed that they were right at the kids' level. "I would also like us to think about some further extension activities and give you feedback" (A & L, ij, p. 24).

Another time Adam wondered if he would be better off at another grade level and wrote that he was questioning his desire to teach. Lora wrote in the margin "desire or ability?" (A & L, ij, p. 27), thus asking him to reflect further on this issue. In addition, both asked each other questions on the benefits of teaching ideas, and Lora asked Adam to try his ideas, and she would then give him feedback and discuss possible modifications.

Robert made no such direct reference to reflecting with Diane. His early journal entries and interviews mentioned a lack of time to talk to her, and otherwise contained more managerial concerns than reflection on teaching issues with his cooperating teacher. In March, Diane had Robert start a reflective journal on his teaching. She encouraged him to reflect on his teaching in writing and wrote him weekly responses and feedback. In our final interview, Robert
said that "it would have been beneficial to start this at the beginning of the year, time consuming, but beneficial" (R, i, 6-4-97, p. 12).

My data thus indicate that Lora encouraged Adam to engage in reflection throughout the school year. Diane did not discourage reflection, but she did not actively promote it in Robert until full-time student teaching.

Cooperating teachers as mentors of reflection. Even though the ECC/PDS program emphasizes reflection and inquiry, there is no official requirement for cooperating teachers to mentor their student teachers in these practices. Mentoring involves more frequent and explicit dialogue and guidance than enculturating a novice into a practice.

According to Lave and Wenger (1991), enculturating someone into practice involves a master in the field modeling good practice and helping the novice move from partial, or peripheral, to eventual full participation in practice. This may include explicit, step-by-step instructions and a lot of conversation, or it may require the novice to observe the expert and ask questions only when absolutely necessary.

Mentoring preservice teachers in reflection, on the other hand, involves certain elements such as taking time to reflect together with the student teacher, to openly and
explicitly share one's own reflections, to attend to the student teachers' feelings, and to provide them with the opportunity to act on the results of their reflections and make changes in the classroom (Richardson-Koehler, 1988).

From the data presented in the preceding section, it seems that Lora did this mentoring well and regularly. She and Adam reflected together, she asked him questions to encourage this practice, and she also gave him the freedom to act on his ideas.

Again, the extent to which Diane did this with Robert is not clear for most of the year. Neither one of them ever mentioned it in interviews or journal entries. In March Diane had Robert start a reflective journal to help him through his full-time student teaching. He was to answer four questions: "What went right? What went wrong? What did I learn? What could I have done better?" (R, j, 4-7-97). These responses were to be written, and Diane would then respond in writing to his reflections. By providing him with these guiding questions, as well as responses, she gave him a nice framework for reflection. This represented an attempt at mentoring Robert in reflection. However, it was done rather late in the year and did not have as much impact as it could have had (R, i, 6-4-97, p. 12).

At the beginning of the school year, Melissa reported talking frequently with Karen and reflecting on the whole language approach. "She (Karen) wants to find out how
interactive writing works with third graders" (RK, f, 11-15-97). After Christmas, their relationship deteriorated to the point where they no longer had frequent communication, or reflected together. They kept a journal, even though not as regularly as Adam and Lora, but they were not comfortable sharing it with me, so I have no good data on their relationship with regard to mentoring.

The implications for the role of cooperating teacher as a mentor of action research and reflective practice will be discussed further in Chapter 5.

To Be or Not to Be Traditional in Professional Development

One of my research questions asked: Does being the student teacher of a cooperating teacher involved in action research help the former develop the disposition to engage in reflective and inquiring practice in the future? Of course, to fully answer this question, a follow-up study with the student teachers who participated in this study would have to be conducted. However, I could ask the preservice teachers about their intentions regarding ongoing professional development, or a desire to engage in action research in the future.

As I emphasized at the beginning of this chapter, all three student teachers made the fact that their cooperating teachers were involved in action research and ongoing professional development a criterion for listing that
particular placement as top choice for student teaching field placements (A, i, 10-9-96; M, i, 10-9-96; R, i, 10-10-96). The student teachers also expressed their own interest in continuing their professional development after student teaching.

To my question in the final interviews whether or not they would consider doing action research in the future, or ongoing professional development, all three offered similar, affirmative answers. Robert stated that he would have to know for what purpose he was doing research "whether maybe the district has some sort of project they are working on, or maybe for a class I'm taking" (R, i, 6-4-97, p. 17). Adam replied that he would always want to learn more, "maybe attend workshops, inservice, maybe more university classes" (A, i, 5-16-97, p. 12). Melissa reiterated her initial belief that "learning is a life-long process, I'll always do workshops or classes" (M, i, 5-16-97, p. 3). However, all three agreed that their first concern was surviving their first year of teaching.

I find it interesting that all three had traditional views on professional development - take a workshop or more university classes. It seems that their cooperating teachers served as role models of professional development, but the preservice teachers did not come away with an understanding of action research as such a possibility for teachers to undertake to improve their practice.
My Role

My last research question was one about my role. How would a university supervisor fit into the action research and relationships with the student and cooperating teachers? This student teacher/cooperating teacher/university supervisor triad has been extensively described and researched (Hopkins & Moore, 1992; Metcalf, 1991; Richardson-Koehler, 1988). The role of a traditional supervisor who visits infrequently and judges the student teacher from the back of the room by filling out a stack of forms has been criticized by The Holmes Group (1986).

The ECC/PDS program has an innovative approach to preservice teacher education. Collaboration and a non-hierarchical form of supervision are stressed, and so is reflection. I was therefore free to construct my role to a large degree. I could act at times as a teacher's aide, as a second teacher in the room, as an individual tutor of children, and of course at times as the traditional observer.

Even though my research question does not explicitly state this, I envisioned my role as being a reflective coach in the sense that Schon (1987) describes, and possibly even a participant in the cooperating teacher's action research project.

As it turned out, none of the teachers at the school where I was supervising who were also cooperating teachers were undertaking an action research project in Kindergarten or on the benefits of a play-based curriculum, my areas of expertise and interest. I therefore was not a co-researcher.
I struggled all year with my role as reflective coach. One of the 'requirements' of the program is that the university supervisor and the clinical educator in each PDS building conduct weekly focus groups with the student teachers. The cooperating teachers attend occasionally, depending on time schedules. These focus group meetings provide wonderful opportunities for discussing ideas and reflecting with a group of diverse individuals.

This year, our focus groups were not really used for that purpose. Several factors contributed to this. The time before the holidays was short. Student teachers did not have their final placements until October, and with initial introductions to City Academy, a sharing of approaches to discipline with the teachers, the students' concerns about their pedagogy paper and case studies, and the Thanksgiving holiday, not much in-depth discussion or reflection took place.

After Christmas, we were informed that the principal who had been at City Academy for several years and had been very supportive of the ECC/PDS program and was well respected in the community had left for health reasons. While the new principal tried to establish himself, some teachers were more supportive than others, and for weeks this change of command was the sole topic of discussion.
Soon after Christmas the well-meaning clinical educator was concerned with helping our student teachers obtain teaching positions for the coming school year, and the focus groups turned into resume writing and interview workshops.

I understood the student teachers' concern with these more practical issues perfectly, and reflection cannot be mandated. However, I would have preferred to spend more time discussing issues and problems in teaching and learning, but other issues prevailed. I had hoped that one of the student teacher's suggestions to visit each of their classrooms in turn and discuss teaching approaches used in that room would be a good basis for sparking reflection. However, due to time constraints these meetings turned out to be mostly 'show-and-tell' sessions, interspersed with advice from the clinical educator and some of the cooperating teachers.

I decided that my private talks with the student teachers after lesson observations and our interviews would be much more conducive to reflection. To a degree, this was true. I received a lot of the spontaneous reflections presented in the preceding sections to my open-ended questions: Tell me about your lesson, what do you think about it? How are you doing? The same was true for the initial journal entries by student teachers. All I asked of them was to reflect on something that had occurred that week or that seemed of particular interest to them. This would,
and did, provide me with great insights into their experiences and meaning making, as the data presented in the preceding sections shows.

It is interesting here that in the beginning, the student teachers repeatedly checked with me to make sure I really wanted them to write on anything they wanted and that I did not have a specific topic or question in mind. I assured them that this would come later, as they got more involved in teaching and the action research. Was this just a little anxiety on their part not to waste time writing something I really could not use? Or were there expectations associated with my role, that university people always give specific assignments?

My main concern all year was to keep the student teachers reflecting while at the same time not overdoing it to the point of turning them off, or imposing my ideas on them (RK, f, 10-12-96). At first, their spontaneous reflections, at least practical reflections, were forthcoming, and I obtained good data.

I struggled over when to introduce Van Manen's (1977) domains of reflection. I was concerned that introducing this framework would be somewhat of an intervention. Of course, any interview or talk with the study participants, or a request for a journal entry, was always a kind of intervention, because it focused their attention on certain topics, and possibly started them thinking in new directions.
I decided to introduce the categories of reflection to the student teachers individually and then let them categorize some of their initial interview statements. I wanted to see whether they would find the categories helpful, and if they agreed with my coding. I introduced the reflection categories to the students and gave each one a clean copy of their initial interview so they could code their own statements (RK, f, 3-14-97). I had quite an extensive data set on students' reflections by then, and there was still sufficient time left for them to learn more about the three categories and use them if they chose to.

Initially all three student teachers had the same reaction to the domains of reflection: "This is confusing" (RK, f, 3-14-97). Robert asked if he could take his interview transcript home, think about the categories, and respond in writing. He did, and his assessment pretty much matched mine. Melissa and Adam did their self-assessment on the spot, and in general also put their answers in the same categories as I did.

Full-time student teaching was a busy time, and the students often seemed overworked and overwhelmed. They did not mention the categories any more, so they were obviously not as helpful in thinking about teaching and learning as I had hoped. I returned to the three domains in the final interviews and asked the student teachers to tell me where
they saw themselves with regard to the three categories, and they said they engaged in all three to some extent, but "definitely a lot of practical, what is good for my students" (A, i, 5-16-97; M, i, 5-16-97). Robert said: "Yes, a lot of practical, helping students understand and learn from their mistakes" (R, i, 6-4-97). Adam also added: "When I'm planning a lesson, I definitely don't care about the whole critical reflection" (p. 3).

With full-time student teaching being such a busy and stressful time for the preservice teachers, I did not want to impose on their time any more than necessary. I regularly observed in their classrooms and talked with them afterwards. The discussions, however, often turned into counseling sessions where they talked about their worries, anxieties, and problems, and I listened.

I no longer required weekly journal entries, as I thought they would need time for planning, or just resting. As they did not mention the categories of reflection on their own as something that was of particular interest to them, I did not pursue the issue.

A few encouraging remarks about my role in being helpful in reflection were offered spontaneously. Melissa remarked during one of our informal conversations that "sitting here with you, verbalizing it, really helps me reflect" (RK, f, 2-11-97). Robert stated in his final
interview that "the journal you had me do really helped me, ...

... started my thoughts, ... you would have gotten a lot
different stuff if you had said 'Robert, give me something
each week on ...'" (R, i, 6-4-97, pp. 11-12-).

Looking back, though, I believe that I was not the
reflective coach that I had envisioned myself to be at the
outset. I could have been more persistent with reflection
assignments, but feared that this might have the opposite
effect and make students wish they would never have to
reflect again. In practice, I was more in a peripheral
position - I was not a co-researcher, not a methods teacher
who could have legitimately given assignments, or the
cooperating teacher who had constant contact with and
influence over the student teacher.

Implications of these issues will be discussed in
Chapter 5.
CHAPTER 5

DISCUSSION OF FINDINGS AND IMPLICATIONS

Summary

This study explored how student teachers experienced a year-long field placement with a cooperating teacher who was involved in action research. The aim of the study was to describe these year-long relationships between three student teachers and their cooperating teachers, the part action research played in these relationships, and what meanings the student teachers made of their experiences. This was done in the form of three case studies. The role of the university supervisor is also described.

This study was designed to fill certain gaps in the literature on action research in preservice teacher education programs. Several such programs have formal requirements for student teachers to conduct action research projects during student teaching. The ECC/PDS program currently has no such requirement. However, many of the cooperating teachers have been involved in action research projects. This study looked at the extent to which student
teachers would become involved in their cooperating teachers' action research and the extent to which both discussed the projects, without any formal program requirement to do so.

Exposure to, or involvement in, action research could help preservice teachers develop the ability and disposition to reflect and inquire. Both have been stressed as essential in recent teacher education reform movements.

Although each student teacher/cooperating teacher relationship and the latter's action research project are unique in certain ways, there are also certain similarities. The three case studies presented here offer a careful look at the development of such relationships. Valuable insights can be gained to inform preservice teacher education programs and other student teacher/cooperating teacher relationships and their action research.

This chapter will present findings from my data analysis and implications, as well as certain remaining questions. It will also discuss what has been learned from this study and what might have been done differently. These topics are now considered in turn.

Findings

Several findings resulted from the analysis of my data and are now presented. The first one is actually a non-finding, but a very important answer to my first research question.
Mentoring Student Teachers in Action Research

My first research question asked how prominent action research was in student teacher/cooperating teacher relationships when the latter was doing action research.

By early spring of 1997 it had become apparent that the cooperating teachers' action research projects were not a major focus in conversations with their student teachers. "We didn't sit down and talk about it explicitly, no, it was never like that" (A, i, 5-16-97, p. 17). "We haven't talked about it explicitly" (M, i, 1-30-97, p. 2). "She talks about it sometimes, but it's not like 'this is my product, this is what I've found', so it's like second-hand conversation" (R, i, 6-4-97, p. i4). They spoke of it only when I asked specifically, never mentioned it spontaneously, and knew very little about it.

Looking at my three case studies I can assert that the cooperating teachers did not mentor their student teachers in the action research process. This is substantiated in several ways. At the end of the school year, only two of the student teachers had partial knowledge of action research as a process - they knew that it involved teachers collecting data in their own classrooms. One student teacher had no idea what action research is. None of the student teachers could name all four elements of action research, describe the action research spiral, or name a book or journal.
article on action research that they had seen, that their cooperating teacher had talked about, or that they themselves had read.

In addition, all three student teachers, when asked by me, repeatedly stated in interviews and informal talks that there was little explicit talk about the cooperating teacher's action research project throughout the year. This was substantiated by the cooperating teachers. "I haven't talked to her (Melissa) about it explicitly, no" (RK, f, 1-30-97). "We didn't talk about it a lot. I offered my paper for him (Adam) to read, but I don't think he's had time" (RK, f, 6-4-97). "No, I haven't shared results with him (Robert) because he was gone. ... I really don't have any yet. ... Well, I told him when I needed data in the response journals sometimes" (R, i, 6-4-97, pp. 15-16).

This brings up several interesting issues and questions. Given the fact that all three student teachers from the outset reported admiring their cooperating teachers for being involved in action research, why did none of them ask any more specific questions about it? This is especially puzzling to me in Adam and Lora's case. They had an excellent relationship with frequent and honest communication about educational issues, their own feelings and occasional anxieties, and also often socialized outside of school. Adam was aware of how important Lora's action
research on early literacy and her co-teaching were to her, so why did he not ask her more specifically about what she was doing?

One contributing factor was certainly a lack of time. This year's student teaching schedule left little time for cooperating teachers to talk to their students face-to-face. The little available time was taken up with the more pressing concerns of planning and teaching lessons, and classroom management. We know from the literature (Hopkins & Moore, 1992; Schempp, 1988) that these are common preoccupations of preservice teachers.

It could also have been possible that the student teachers felt no ownership of the action research, since the projects were already under way when they were placed in the cooperating teachers' classrooms. It was the latter who had decided what to investigate, and in all cases had started some data collection by the time the student teachers entered the classroom.

What about the cooperating teachers? Did they feel no obligation to mentor the student teachers in action research? Was it particular circumstances? Was it an inability on the part of the cooperating teachers to step back and take a more detached look at research as a process? The latter is a question that I included here
simply for the sake of completeness, of exploring all or most plausible alternatives. I have no data to suggest that this was indeed the case.

In response to the second question I can say that the particular circumstances of the action research endeavors may indeed have played a part in why there was no more explicit or substantive discussion concerning them. All three projects were long term and not yet finished by the time the school year was over. Diane explicitly stated during our final interview that she would have shared results with Robert had she had any available, but she was still in the middle of data analysis.

The other two action research projects were also still in progress when student teaching ended, and data analysis had not been completed. It is entirely possible that a short-term action research project would have been more conducive to discussion. A project that extended over maybe a quarter may have been more beneficial to student teachers in terms of seeing the entire research process and resulted in better understanding and more discussions.

Of course, short-term action research projects would have offered no guarantee that the cooperating teachers would indeed have engaged the preservice teachers in more explicit discussion of the research process of gathering, coding, and analyzing data, and sharing of results. This
brings us back to the question of whether or not the cooperating teachers felt any obligation to mentor their student teachers in action research. As mentioned earlier, no such requirement was imposed on them by the collaborative ECC/PDS program. However, I would think that experienced professionals who are themselves interested in professional development and action research may have thought it important to discuss their own interests and efforts with the preservice teachers.

It is interesting to note here that Lora specifically told me during one of our interviews that she felt very much like a novice researcher, still getting her feet wet, and not at all like an expert. She also added that they had spent a great deal of time in the research group on Thursday nights trying to formulate a research question for the action research projects. Lora related to me that she understood that this was part of action research, but that her real interest was in "doing things better with my kids here in the classroom, not finding 'the perfect research question'" (RK, f, 2-7-97).

This may indicate that Lora was more concerned with the results of her action research and how it could improve her teaching, not so much the research process as such. This may help explain why she did not mentor Adam in the action research process. She described their relationship as that
of co-learners in other areas, such as some of the early literacy practices and classroom management (RK, f, 6-4-97), but this seems not to have transferred to the area of action research.

Get Them Early

One of my research questions asked whether being in a year-long relationship with a cooperating teacher engaged in action research would help the student teacher become a reflective and inquiring practitioner. The data presented in the preceding chapter showed that all three student teachers viewed themselves as reflective and also believed reflection to be important in education (A, i, 10-9-96; M, i, 10-9-96, R, i, 10-10-96).

This indicates that all three preservice teachers entered the ECC/PDS program with the desire to reflect. As Dewey (1964) points out, such willingness to reflect is only one necessary part for successful reflection, the other part is the possession of technical skills involved in reflection. As described in Chapter 4, the cooperating teachers were all role models of reflective practice to some degree, and they also mentored the student teachers in reflection to varying degrees.

This leads to the question of whether such early introduction to reflection is desirable for student teachers. In Chapter 1 I briefly discussed some of the
controversy that exists in the literature over when to introduce student teachers to reflection. Gilliss (1988) argues that preservice teachers are too preoccupied with learning the basics of the teaching profession to engage in reflection, and that the type of reflective practicum advocated by Schon (1987) should be introduced later in a teacher's career. By contrast, Noffke and Stevenson (1995) argue that student teachers need to be introduced to all three of Van Manen's (1977) domains of reflection from the start so that they will engage in reflection and inquiry on their own as professionals.

My data clearly weaken Gilliss' (1988) argument, because from the outset all three student teachers viewed reflection as important in education. Furthermore, they all engaged in a great deal of practical and some technical reflection on their own. When probed, they were also able to reflect critically. This means that Gilliss' assertion that preservice teachers are too preoccupied to reflect on any level was refuted in these three cases.

With preservice teachers who already value reflection and describe themselves as being reflective, why postpone a reflective practicum until after student teaching? Why not take advantage of already existing desire and abilities and help the student teachers refine these from the outset?
If these abilities are practiced in a safe environment, with the guidance and support of a reflective coach, as Schon (1987) advocates, it is a possibility that reflection and inquiry will become second nature for student teachers and that they will continue to employ them in their future teaching careers.

My data suggests that student teaching is a good time for student teachers to learn reflection and inquiry. Dewey (1916) emphasizes that reflection occurs when people are puzzled or surprised. Preservice teachers are usually puzzled and surprised by many things during student teaching, so using this as a basis for engaging them in reflection seems to make good sense.

All three student teachers in my study found many occasions that sparked their reflective thoughts, and they also quite readily responded to my reflection questions. If reflection during student teaching was too overwhelming, as Gilliss (1988) claims, students would have engaged in it less, or not at all, and also complained when I asked them to engage in reflection.

The question remains whether or not critical reflection should be introduced during student teaching. Noffke and Stevenson (1995) suggest that such early introduction is necessary. They argue that schools need to be changed towards greater equity and justice, yet most student
teachers do not enter the teaching profession as reformists. Furthermore, critical reflection is not a common topic of inservice training, nor do most practicing teachers engage in it. It is therefore unlikely that novice teachers would be introduced to critical reflection, or be convinced of its importance, at a later stage of their career.

Noffke and Stevenson (1995) freely admit that they have been criticized for this early introduction of critical reflection to student teachers, because it amounts to political indoctrination, and the teacher educator imposing his or her views on the student teacher.

I would personally offer two counter arguments. One is the fact that by definition, critical reflection can never be a form of indoctrination. The latter is a conscious effort to convince a person of one particular point of view while discounting or disallowing other perspectives (Chambers, 1983). On the other hand, critical reflection is based on Habermas' idea of open dialogue among people of equal power, a dialogue that freely examines multiple viewpoints. Critical theory asks questions about unequal power relations, domination, vested interests, and the elimination of bias. Once a person has learned to ask these generic questions, they can be applied to any situation. This means that students who are introduced to critical reflection can critically examine their own situation and
the preservice teacher education programs that they are enrolled in. Critical theory allows multiple perspectives and is therefore not indoctrination.

This brings me to the second counter argument to address the point that introducing critical reflection to preservice teachers amounts to imposing one's views on them. Again, by the very fact that student teachers are learning to engage in a critical examination of various viewpoints and not unquestioningly accepting their present situation, an imposition is at best difficult. It would be much more of an imposition to have a preservice teacher education program without possibilities for critical reflection. Each program carries with it a certain philosophy and certain assumptions and beliefs. Only a critical examination of these will allow students greater awareness of these, and choices.

I agree with Noffke and Stevenson (1995) that it is crucial that preservice teachers be introduced to critical reflection. I certainly believe in the value of all types of action research and by no means believe that all action research needs to be critical. Action research on how to build a caring classroom community, or how to introduce children to environmental education, has great value. However, if teachers are unable, or unaccustomed, to reflect critically, it is possible that they will perpetuate
inequities and injustice that exist in schools and society. The recent emphasis on problem solving and cooperative learning (Kennedy & Tipps, 1994; Woolfolk, 1995) is a good case in point. These approaches are supposed to help children construct their own knowledge, learn with understanding, and prepare them for a successful future in a world of work that is moving towards team management and decision making. But are problem solving and cooperative learning truly helping children become capable as well as free thinkers? Or are they producing able yet compliant workers who will contribute to increasing the profit margin of big business, workers who will make decisions with colleagues to benefit the company while never questioning the company's employment practices, overall value of the product it sells, or the company's stance on environmental safety?

I would argue that teachers who are unable to ask such critical questions may be good teachers, but they are not as good as they could or should be. Until this society, and the world in general, is characterized by equity, justice, and consistently humane conduct, we need teachers who can question the status quo, teachers who can reflect critically.
The Need for Continuous and Continued Support of Reflection

The previous sections discussed the importance of all three types of reflection—technical, practical, and critical—in education. All three student teachers in this study were able to reflect in all three areas to varying degrees. Could they have been left to their own devices to continue to practice such reflection, or does it take the ongoing support of a reflective practicum as described by Schon (1987) to help them continue to develop and refine their reflective capabilities? My data suggest that the latter is the case for the reasons discussed below.

It cannot be assumed that student teachers will regularly use their reflective abilities without guidance or support, as the case of Melissa illustrates. This student teacher was very reflective from the beginning of the study, and described herself as such (M, i, 10-9-96). Throughout the year she often stated: "I need to reflect more. I need to think more about this" (M, j, p. 11; p. 20; RK, f, 11-25-97; 1-30-97; 5-16-97). As presented in Chapter 4, she reflected a good deal on how to establish positive discipline in the classroom and how to combine a variety of teaching approaches to motivate her students and help them learn with understanding.

However, at a time of crisis in her student teaching when she had daily struggles with classroom discipline,
problems with time management, and a lack of support and communication from her cooperating teacher, Melissa almost stopped reflecting.

At that time she wrote in her journal: "My point - the issue is not the teaching method, but it is the classroom management method. I believe that African-American kids need a very strict schedule and teacher" (M, j, p. 18). She also spoke of the need to get her kids back under control, to keep them from "goofing off, acting lazy, and playing" (p. 17). She finished her journal entry with "I will hopefully come back to this topic later" (p. 18).

No longer did this usually highly reflective teacher consider short and long term benefits of various teaching methods, but her concern had turned to a technical one of keeping children quiet and on task without questioning possible consequences for children. And this was the same student who in our initial interview reflected critically and criticized the bias in test language. Later she also repeatedly reflected on finding good ways to establish positive discipline and not to let her suburban background bias her teaching in an urban school.

This turn to the lowest level of reflection - technical - and very little of it for a while, reminded me of Maslow's hierarchy of needs and how people in crisis situations revert to a concern with basic food, shelter, and belonging,
and are no longer concerned with self-actualization. In Melissa's case one could also have expected the opposite, namely that the issues surrounding the crisis would have sparked more reflection to try to come to terms with them. However, Melissa's comment about hopefully returning to the issues later indicates that she was not ready to engage in extensive reflection at the time of the crisis.

Melissa eventually overcame her crisis and began to engage in reflection, as she had done in the fall. Even though this cannot be said with certainty, I would argue that the fact that the ECC/PDS M.Ed. program stresses reflection, and that I continued to ask her questions that called for reflection, contributed to her resumed engagement in reflection.

What would have happened to Melissa in a more traditional teacher education program? What about a student teacher who is much less reflective by nature than Melissa? I am convinced that guidance and coaching in reflection need to be given to student teachers throughout their student teaching to help them use reflection and inquiry regularly.

While it is true that all three student teachers reflected on their own to a certain extent, many good reflective statements were made in response to my interview questions. In addition, my request that each student teacher write weekly reflective journal entries to reflect on topics
of their choice, or later on specific questions I asked, yielded a good deal of practical, and some technical and critical reflection. Would the preservice teachers have reflected this regularly and to this extent without my questions and support? It cannot be said with certainty that they would have without reflection being elicited from them. Two of the student teachers spontaneously remarked that talking with me and writing in the journal helped them spark their thoughts and reflections (RK, f, 1-30-97; R, i, 6-4-97).

Even further support for my claim that the ability to reflect needs to be developed and refined in student teachers comes from my data on critical reflection. Whenever I asked questions to elicit critical reflection, or repeatedly probed for it, the student teachers were able to make critically reflective statements. This underscores the importance of a reflective coach or guide to help develop the student teachers' potential in this area. This need would be even greater for student teachers who are initially less reflective than the ones in my case studies.

I regularly asked the student teachers to reflect and achieved results that I was satisfied with for purposes of this study. However, I would not describe my role in this case as that of a reflective coach that Schon (1987) envisions. Implications will be discussed in the section on what could have been done differently.
Implications

This study took an in-depth look and presented findings from three particular case studies of student teachers in classrooms with cooperating teachers who were doing action research. While this study was not designed to develop generalizations that hold true across all contexts, or to "make explicit universal meanings" (Van Manen, 1990, p. 19), certain insights gained may have implications for other preservice teacher education programs, university supervisors, and student teacher/cooperating teacher relationships. These are now presented.

Implications for Preservice Teacher Education Programs

My data show that out of three experienced classroom teachers/cooperating teachers, who were involved in action research, none of them mentored their student teachers in action research and the action research process spontaneously. Furthermore, none of the preservice teachers took it upon themselves to learn about action research, and none of the three came away with a good understanding of action research at the end of the school year.

While I would not assert that the three student teacher/cooperating teacher pairs in my study are necessarily typical of such relationships, I would argue that they are more than isolated, or totally unique cases. I therefore conclude that action research is not something
one learns casually, simply by working in the same classroom with someone engaged in action research. In addition, if left to their own devices, cooperating teachers may or may not take it upon themselves to mentor student teachers in action research.

If a preservice teacher education program is interested in promoting reflection and inquiry through action research, my findings suggest that it may be necessary to do something more formal than just putting student teachers and cooperating teachers together in the same classroom. The need for introducing preservice teachers to reflection and inquiry and the availability of action research as a good tool was established in Chapter 1.

One possibility would be to establish a program requirement similar to the one McCutcheon (1995) describes. This involves the student teacher, cooperating teacher, and university supervisor as co-researchers. However, an action research project that makes the student teacher and cooperating teacher co-researchers would suffice. Such a project would not have to be elaborate. It might even be beneficial if it were smaller and of fairly short duration, so that the student teacher could be involved in all stages of the action research cycle.

A collaborative effort would serve to introduce the preservice teachers to the action research process and the value of reflection and inquiry. In addition, it would let
the preservice teachers practice some research and reflection skills with the guidance and support of the cooperating teacher. Thus it would be less of a burden or overwhelming task. The student teacher and cooperating teacher could attend an introduction to action research together and then make the research project part of their regular conversations and journal entries. This would hopefully provide the preservice teacher with the ability and desire to continue reflection, inquiry, and action research in the future.

This idea of introducing preservice teachers to action research, or teacher research in general, is gaining in popularity. The debate seems to be over good ways to accomplish this. As Noffke and Stevenson (1995) point out, several preservice teacher education programs in the United States already have requirements for their student teachers to engage in action research.

Recently, teacher educators at Rutgers University have decided to add a course in teacher research to their program. The deliberations over how to structure this course resulted in a syllabus that advocates flexibility, yet certain common goals and learning experiences for students. Preservice teachers should become familiar with what it means to be a teacher researcher, be able to formulate a good research question, be exposed to several research
methodologies, and become a critical evaluator of teaching practice. The course includes readings and discussions on teacher research as well as the actual undertaking of inquiry and sharing of results. This is a recent effort, and there are no published research findings yet.

Specific recommendations. The above general recommendations lead to the question of how to build action research and reflective practice into the busy schedule of student teachers. The latter are usually preoccupied with classroom management and lesson planning and teaching, and adding additional assignments in the form of action research projects or reflective papers may be quite stressful, or even counter-productive. We certainly do not want preservice teachers who cannot wait to finish their university assignments in hopes of never having to undertake a similar project again.

In answer to this problem I believe there are several good ways to build action research and reflection into existing preservice teacher education programs and schedules. One way would certainly be to make the action research project short-term. Several weeks or months would suffice to make somewhat rigorous and systematic and move it out of the realm of quick problem solving. A project of fairly short duration would let the student teachers experience at least one complete loop of the action research
spiral and thereby expose them to all essential elements of the action research process – posing the initial question, planning, acting, observing, and reflecting.

Such a short-term project could be integrated with an already existing student teaching assignment of planning a lesson or unit of study. Instead of merely planning for interactive writing lessons, the preservice teacher could address the question of how to appropriately group first graders for productive interactive writing. Does heterogeneous grouping work well in all cases, or do the more advanced students dominate story creation, or get bored, instead of modeling writing for children who are less proficient in spelling and sentence construction?

This way, the action research project would not feel like an added burden, but be a built-in productive part of lesson planning that can then inform subsequent teaching. This sort of learning from one’s own research efforts to help children will hopefully motivate preservice teachers to continue to engage in teacher research.

Ideally, this action research project would be conducted in collaboration with the cooperating teacher. The latter and the student teacher would be co-researchers. This again would lessen the burden on the preservice teachers and provide support and guidance in their initial research efforts. It would also be a means for the student teacher
and cooperating teacher to talk fairly regularly about the action research project, the same way the pair talk about day-to-day teaching matters. If the action research project is part of a student teaching assignment done collaboratively with the cooperating teacher, then both will hopefully engage in regular discussions about the content and process of the action research endeavor.

In case it is a first attempt for the cooperating teacher, too, and the latter does not feel comfortable mentoring the preservice teacher in the research process, then the university supervisor or a fellow teacher more experienced in action research could act as facilitators or co-researchers. This would make the action research the kind of collaborative project that Noffke and Stevenson (1995) favor.

Reflection is an important part of action research, but what about introducing student teachers to critical reflection? Some topics lend themselves more readily to developing critical reflection, for example, action research focused on good ways to reduce gender bias in teaching, or on how to implement an anti-bias curriculum. These topics readily suggest the kind of issues that critical theory deals with, and questions of equity, justice, and the elimination of prejudice and bias are easily discussed.
Preservice teacher education programs that place student teachers in schools with diverse student populations also have a good basis for starting critically reflective discussions concerning racial and social equity. Assigning a service learning project to student teachers and having them reflect on conditions and needs of the community and its members may lead to critical reflection. In a homogeneous middle class community preservice teachers could reflect on ownership of the service project and who should be involved in the decision-making process for the project. Are there possible limitations to democratic decision making? Such questioning, analysis, and evaluation would include some critical reflection.

In my experience, a good way to motivate student teachers is to meet their personal needs. There are usually numerous occasions when they feel stressed, confused, or overwhelmed, and these are perfect occasions for engaging them in reflection, even the critical kind. This should probably be built into a conversation with the cooperating teacher or university supervisor rather than take the form of a formal written assignment, even though a more informal reflective journal entry could be suggested. The student teachers could first vent their feelings and frustrations, but then could be led to reflect on why they are experiencing these. Is the cooperating teacher/university
supervisor placing undue demands on the preservice teacher, thus taking advantage of the unequal power relationship? Is the student teacher's frustration with the school's way of disciplining children justified? Are boys and minority students disciplined more frequently and/or harshly, in effect revealing a bias and unfair treatment? Is the communication with parents difficult or stressful because they are given no real voice in school decisions concerning their children, again revealing power issues and unfair treatment of one segment of the population? These would all lead to at least some critical reflection and possibly help the preservice teacher deal with these frustrations and issues.

The preceding discussion shows that there are numerous productive possibilities for building action research and critical reflection into a busy preservice teacher education program without adding the burden of additional assignments.

Reflecting on my dissertation study and findings, I have concluded that it would also be beneficial for preservice teacher education programs to have a framework for reflection, possibly using Van Manen's (1977) three domains. A study done by O'Donoghue and Brooker (1996) to look into the rhetoric and reality of reflection in Australian schools and found that there was quite a bit of the former, but that teachers did not naturally engage in a
great deal of reflection, especially not the kind of
critical reflection on equity and fairness that leads to
necessary school and social reform, as Kemmis and McTaggart

O'Donoghue and Brooker (1996) found that teachers
readily engaged in discussions of day-to-day teaching,
lesson planning, and discipline issues. However, these
discussions were mostly descriptive, simply recounting what
had happened, or what a particular teacher was planning to
do. The discussions were not very reflective, and neither
did they examine the teachers' underlying beliefs and
assumptions to any great extent.

The authors therefore concluded that having a framework
for reflection would be helpful. Having certain questions in
each reflection category could help teachers organize and
clarify their thoughts. Having teachers ask themselves why
they teach certain content in certain ways, and whose
interests are being served or possibly neglected would be
good starting points.

My data suggest that such a framework would have been
beneficial to help the study participants reflect more
extensively and consistently. It would also have been
helpful to have a frame for critical reflection, the form of
reflection that student and cooperating teachers engaged in
very little. Most of all, my findings in this area suggest
that preservice teachers need to be given concrete ideas on
how to translate critical reflections into actual teaching practice. This is something the student teachers in my study lacked, and did not see their cooperating teachers model.

**Implications for Supervisors of Student Teachers**

Being a reflective coach for student teachers is one important function of a university supervisor. While I do not want to imply that this function cannot also be fulfilled by the cooperating teacher, my data show that the more traditional concerns of classroom teaching took up most or all of the time the cooperating teachers had with their student teachers. Even if a program allowed more time for student teachers and cooperating teachers to engage in conversation and reflection, it might be beneficial to have the university supervisor take some of that burden, or simply to add another perspective and expertise to these endeavors. This would depend on how extensively the cooperating teacher would care to become involved in reflective coaching. By nature, the university supervisor is not as highly involved in day-to-day teaching and therefore able to offer time, and more of a distanced, outside perspective.

Schon (1987) describes two productive methods for serving as a reflective guide or coach. One of them is the 'follow me' approach, where the supervisor is the expert and initiates the student teacher into reflective practice by
engaging in reflection, describing how it is done along the way, and also providing opportunities for practice for the preservice teacher. The other option can be employed with a student who already is reflective and needs to refine reflective abilities and skills. This "joint experimentation" (p. 295) involves student and coach reflecting together, but it is often the student who takes the lead with ideas and topics, and the reflective coach helps discuss alternatives or work through problems.

My argument is that enculturating preservice teachers into reflective practice early will hopefully give them the skills and enough confidence to continue to engage in reflection and inquiry throughout their teaching career. It will become second nature, so to speak. The supervisor is in a good position to serve as a reflective coach and should do so as one essential part of a good preservice teacher education program.

The supervisor could also act as a co-researcher in the cooperating teacher and student teacher's action research project. Supervisors could bring added expertise in teaching and research, alternative ideas and interpretations, as well as time and other resources to the project. Supervisors could engage in some classroom teaching and afford the student and cooperating teachers the opportunity to observe children or engage in discussion of their project.
Furthermore, if supervisors have expertise and previous experience with action research, they can act as facilitators. This would be especially useful if the cooperating teacher is just getting started with action research. The supervisor can facilitate regular meetings, offer information and advice on action research, and support the project in any way the cooperating teacher and student teacher find helpful.

This might help ensure regular and explicit talks about the action research process. It might also help a cooperating teacher who is undertaking his or her first action research project and who might not yet feel confident enough to mentor a student teacher in action research.

Implications for Cooperating Teachers

My study revealed that cooperating teachers cannot assume that their own interest in action research will automatically transfer to their student teachers, or that the latter will have the time or desire to approach them about learning how to do action research.

I believe that cooperating teachers need to take at least some responsibility for mentoring student teachers in reflection and action research, because these are important elements of good professional practice. They can certainly assume the role of reflective coach as described above. If they feel there is lack of time, or that they do not yet possess enough expertise in this area, they could ask the
assistance of the university supervisor or a fellow teacher experienced in action research or other forms of reflective inquiry.

What Could Have Been Done Differently

The nature of a qualitative study is such that there are no exact, step-by-step guidelines. Rather, it is a complex, usually long-term process that involves many choices, sometimes from several good alternatives, that the researcher has to make throughout the study. For the most part, I found that had made good and productive choices throughout my study. Considering that this was the first major qualitative study I had undertaken, I am happy with the learning and results obtained.

More specifically, my decision to do my dissertation study at the site where I was already working as a university supervisor of student teachers turned out to provide me with the advantages of easy access and familiarity with the site and staff. I was definitely not an outsider, or a conspicuous researcher.

My involvement with the student teachers in my role as supervisor had both luxuries and limitations. On the one hand, my presence in their classroom was expected, and we developed good relationships over the course of the year. On the other hand, I had to be constantly aware that my role as supervisor and evaluator might bias my data, that the students would give me answers to please me. Even though
my repeated reassurance that I would keep my case studies separate from my supervisory duties as much as possible seem to have worked, but it is possible that I would have received slightly different responses had I been a researcher only, not also their supervisor.

A further area of tension, and one that might have been handled differently, was to keep a balance between not imposing my personal views on the study participants while at the same time probing sufficiently in interviews and talks to get at their underlying levels of reasoning.

I had made a conscious decision at the outset of this study that I wanted it to be a non-intervention study. My intent was to explore and describe what would happen naturally, and spontaneously, in the year-long student teacher/cooperating teacher relationships and the action research. I wanted to get insights into what could be expected to happen, and what should not be assumed, to help inform preservice teacher education programs about action research and reflection.

This made me at times hesitant to ask more probing questions, and it also led me to play less of a role as reflective coach than I had originally anticipated. I probably could have introduced Van Manen's (1977) domains of reflection earlier in the school year, possibly right after Christmas. This might have given the student teachers an
opportunity to become familiar with the categories, and this may have helped them organize their reflections.

On the other hand, it could have indicated to them that I was interested in all three kinds of reflection, and led them to give me responses in all three areas, which they would not have done spontaneously. This would have changed my study somewhat. I therefore debated when to introduce the categories to the student teachers. In the fall, I wrote in my own reflective journal: "I wonder when I should introduce the reflection categories? When will I have enough 'spontaneous reflection' from the students? Have to ask M." (RK, f, 11-7-96).

In my subsequent talk with M., she told me that the timing of the introduction of the categories was basically my decision, and really any interview or talk with study participants was a type of intervention. I decided to obtain more spontaneous reflections from the student teachers. In the winter, they seemed too busy planning their integrated units, so I waited until early March when I spent quite a bit of time with the student teachers during full-time student teaching.

My decision to postpone the introduction of Van Manen's (1977) reflection categories that long was probably not very productive. As it turned out, the preservice teachers were initially confused by them and could have used more time.
to learn and practice them. Instead of building the reflection categories into our talks after my lesson observations, I again stepped back to see if the student teachers would use them on their own. This was not the case.

Another example of my struggle with wanting to be more involved as a reflective coach while at the same time not wanting to impose on the preservice teachers was during the 'crisis' that Melissa experienced and that was described in an earlier section. I had several long talks with her during that time, but was mostly in the role of active, empathetic listener. I certainly could have used this opportunity to help Melissa reflect at the levels and frequency she usually did on her own. This may have helped her gain insights and possibly overcome her crisis earlier, but it could also have resulted in my undue influence on her in a vulnerable moment.

As it turned out, I was less involved as a reflective coach than I had originally intended. However, had I played a stronger role in that area, or done more interventions by introducing the student teachers to types of reflection and the action research spiral, my study would have been a different one.

It is also true, however, that in my effort not to be imposing, I sometimes missed opportunities to ask enough probing questions to get at deep levels of reasoning with
the student teachers. Of course, the need for probing, and the study, would have been somewhat different had there been greater differences among the student teachers. Had one of them been highly reflective in all three areas, the need for probing would have been reduced. A greater variety among the cases also may have led to different insights.

The Value of Keeping Journals

I cannot emphasize enough the value of journals the study participants kept, and I should have been more persistent and consistent in this area. If I do a similar study, or could do this one over again, I would strongly encourage all cooperating teachers and student teachers to keep interactive journals, and would also urge the student teachers to continue writing weekly personal reflective journal entries.

As for the interactive journal Adam and Lora kept, it provided me with rich data and an excellent insight into their relationship and meaning making. Adam and Lora themselves reported repeatedly how valuable the journal as for their relationship and reflections (A, i, 5-16-97; RK, f, 12-2-96; 3-21-97; 6-4-97). During our final interview Robert agreed that keeping such an interactive journal from the beginning would have been beneficial (R, i, 6-4-97). In his case it might have prevented some of the problems with miscommunication that occurred in the relationship. Having written evidence of communication may also have
eliminated some of the frustrations Diane reported over what she thought was clear communication with Robert, but turned out to be interpreted differently by him (RK, f, 3-6-97).

The personal reflective journal entries the student teachers submitted to me weekly in the fall provided me with wonderful insights into their experiences. During full-time student teaching I no longer insisted on regular entries because of time constraints, but I now feel that I should have continued this practice with the preservice teachers. The entries could have given me even more insights and also served as a basis for reflective conversations with the student teachers. This would have been especially useful with the three domains of reflection, because as reported earlier, the student teachers felt overwhelmed by them in our first conversation. Exploring the categories further in the journal writings may have provided the students with valuable practice in using the categories, and also given them time to become familiar with them.

Questions I Am Left With

A good study always creates new questions in addition to answering some. The preceding discussion about Van Manen's (1977) domains of reflection leads me to ask how useful they were in my study.
A Discussion of Van Manen's Three Domains of Reflection

I used Van Manen's (1977) three domains of reflection - technical, practical, and critical - as a framework for analyzing reflection in this study. When I first read about the categories, I found them quite helpful in organizing my own reflections. I remember having to write reflective papers in university courses and occasionally having them returned with comments that pointed to the need for a little more reflection. I obviously thought I had reflected enough, and was a little unsure about what the professor meant, because reflection is such a broad term. I think it would have helped me if the comment had stated that more critical reflection was needed, for example.

The reflection categories helped me think about reflection in more systematic ways, and helped me organize my thoughts. I believed they would be a useful tool in analyzing the study participants' reflections and clarify communication of study findings. One single category for reflection would have been too broad, and somewhat hard to grasp. Organizing the participants' reflective statements into three domains helped me gain better insights and also provided a good basis for discussion, because the differentiation among the categories brought up issues that otherwise could not have been clarified. The student teachers' ability to translate practical reflection into
teaching practice fairly easily and frequently, but their inability to do so with critical reflection, was a case in point.

Van Manen's (1977) three domains of reflection were thus quite useful as a tool in asking the student teachers questions to get at different kinds of reflection. They were also productive as an initial template for coding my data, and as a tool for analyzing the data. However, these categories were not optimal or perfect, and they led me to pose certain questions and to reflect on some reservations I have.

First, I would like to take issue with Van Manen's (1977) description of the domains as a hierarchy, with technical reflection at the bottom, practical reflection in the middle, and critical reflection at the top. I agree with Van Manen that technical reflection is a lower level of reflection than the other two kinds. By accepting predetermined goals, and reflecting only on the efficiency of methods to achieve these goals without ever questioning them, one engages in a sort of narrow and limited type of reflection.

However, both practical and critical reflection involve deeper and more extensive questioning and thinking. Here, underlying assumptions and values are brought to awareness and carefully examined, and multiple perspectives are
examined. The difference is that practical reflection deals with broad, humane goals of helping students gain deeper understanding, teaching what is good for them, and thinking of teaching as communication, while critical reflection has a political element and strives for reform to achieve equity and justice. I do not agree that the latter is better, or at a higher level, than practical reflection. Both call for deep thinking and soul searching and informed evaluation of possibly conflicting values and viewpoints.

My data analysis also left me wondering whether the reflection categories are sufficient. Van Manen (1977) only provides general descriptions of each, no examples, and no detailed criteria for putting a reflective statement into one category rather than another. I struggled with some of my data, and was not sure of where to put a statement like 'all children can learn'. Was this an example of practical or critical reflection? It would probably depend on the teachers' reasoning, are they interested in helping students understand, or in empowering them? Van Manen does not address these kinds of issues in his writings.

In addition, Robert's concern of creating a caring classroom community does not clearly fall in either the practical or the critical category. I would have needed more in-depth reasoning from him in order to determine if his interest was limited to caring and understanding, or if he was using the community to empower children.
The three categories might be interpreted to reflect different philosophical stances. It seems that Van Manen (1977) derived them from different underlying views on education and curriculum design. He mentions positivism and instrumental problem solving when describing technical reflection, and a hermeneutic, interpretive stance when moving to practical reflection. He finally refers to Habermas' work and critical theory when he describes critical reflection.

It seems that the preservice teachers' reflections in this study represent the ECC/PDS' and the university's methods classes' emphasis on practical reflection. Student teachers are always urged to reflect deeper than on a purely technical level, yet only a few courses engage them in critical reflection.

It might be useful to develop certain subcategories to Van Manen's (1977) three broad domains and try them out in a future study to see if this leads to additional insights.

The Issue of Critical Reflection

A classroom observation of Adam left me with a question concerning critical reflection. He had told his students during the lesson: "Come on, you can do this, you are all smart" (RK, f, 3-7-97). Was this merely a phrase, or was this evidence of critical reflection? Was Adam concerned with empowering his students?
Could I be sure of Adam's reasons for his statement? I asked him about it in the final interview, and he reassured me he believed that all students could learn and had potential, and that he did not want to let any student to fall between the cracks of the system (A, i, 5-16-97, p.18). According to Wittgenstein (1992) we as outsiders can never be entirely sure of what goes on inside another person. Wittgenstein gives the example of someone who grimaces and screams. Can we assume that person is in pain, or just acting? And what if that person lies to us about what he is doing?

The important question for me is what the consequences of Adam's statement are for his students. Could it not help their self-esteem to be told they were smart and could learn, even if he was not truly that concerned about empowering them and eliminating injustice and inequity? Are his actions more or less beneficial than the ones of a teacher who is highly involved in union business to achieve more equity for teachers, but who teaches third graders with whole class direct instruction and lots of ditto sheets?

This brings up the related question of what would happen to a preservice teachers critical reflections and ideals once they take a job in a more traditional school where critical attitudes and reflection are not valued? This is obviously a question for another study.
Conclusion

This study looked at the year-long relationships that preservice student teachers had with cooperating teachers who were involved in action research and how prominent the action research was in those relationships. I found that the cooperating teachers in my study did not mentor their student teachers in the action research process, and did not engage in a great deal of discussion about action research with the preservice teachers.

I established the importance of reflection and inquiry in good education. My findings suggest that it would be beneficial for preservice teacher education programs to have a formal requirement for student teachers to engage in action research such as a collaborative action research project with their cooperating teacher and/or university supervisor. This would hopefully introduce the preservice teachers to reflective and inquiring practice and help them develop the disposition and skills to carry these into their future careers.

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LIST OF REFERENCES


APPENDIX A

CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH
CONSENT FOR PARTICIPATION IN
SOCIAL AND BEHAVIORAL RESEARCH

I consent to participating in (or my child's participation in) research entitled:

Action Research and Reflection in Preservice Teacher Education

Anke Knecht, or his/her authorized representative has
(Principal Investigator)
explained the purpose of the study, the procedures to be followed, and the
expected duration of my (my child's) participation. Possible benefits of the
study have been described as have alternative procedures, if such procedures are
applicable and available.

I acknowledge that I have had the opportunity to obtain additional information
regarding the study and that any questions I have raised have been answered to
my full satisfaction. Further, I understand that I am (my child is) free to
withdraw consent at any time and to discontinue participation in the study
without prejudice to me (my child).

Finally, I acknowledge that I have read and fully understand the consent form.
I sign it freely and voluntarily. A copy has been given to me.

Date: 10/21/86
Signed: [Signature]
(Principal Investigator or his/her Authorized Representative)

Signed: [Signature]
(Person Authorized to Consent for Participant - if required)

Witness:

HS-027 (Rev. 3/87) -- To be used only in connection with social and behavioral
research.)
APPENDIX B

CONSENT LETTER
Sept. 10, 1996

Dear [Name],

Thank you for expressing a willingness to participate in my dissertation research. I am interested in exploring whether or not the fact that you are conducting action research has any influence on your student teacher's development as a reflective, inquiring practitioner. The level of involvement that your student teacher will have in your action research will be left to your discretion.

As the university supervisor at Windsor I will be visiting your classroom on a regular basis, but for the purpose of my study these visits will be a little more frequent than usual. I would like to visit once a week for at least an hour during fall quarter, and twice a week during winter and spring quarters. I would also like to talk with you on a regular basis, probably once a month at your convenience, to get your ideas and perceptions about the student teacher's development and progress. Once a month I would also like to have a three-way conversation with you and your student teacher. I will make transcripts of all these talks available to you so that you can check them for accuracy and make additional comments as you deem necessary.

Since your student teacher is the main focus of this study I would like to talk with him/her once a week. It would also greatly help me if the two of you could keep a reflective journal. I hope that this study will yield interesting insights and result in greater learning for all involved.

The above is a rough outline of my expectations for this study. However, this is a qualitative study and largely a collaborative effort and characterized by flexibility and room for negotiation and input from all participants. To the extent that you are willing you may comment on any written material resulting from this study. I welcome your input and am looking forward to working with you during the 1996-97 school year.

Sincerely,

[Teacher's signature]  [Researcher's signature]
APPENDIX C

TIME LINE FOR DATA COLLECTION
Time Line for Data Collection

**September 1996**
* Initial interviews with cooperating teachers

**October 1996**
* Initial interviews with student teachers, transcription of interview tapes
* Weekly informal talks with student and cooperating teachers

**November 1996**
* Weekly participant observation
* Informal talks with student and cooperating teachers
* Preliminary coding of student teachers' journal entries

**December 1996**
* Focus group interview on December 6
* Participant observation and informal talks with study participants
* Preliminary coding of interview transcripts, journals, and fieldnotes

**January and February, 1997**
* Monthly interviews with student teachers
* Weekly participant observation
* Informal talks with student and cooperating teachers
* Preliminary coding of data

**March and April, 1997**
* Monthly interviews with student teachers
* Three-way conferences with student and cooperating teachers
* Informal talks with student and cooperating teachers
* Preliminary coding of Lora and Adam's interactive journal
* Daily participant observation

**May and June, 1997**
* Participant observation
* Final interviews with student and cooperating teachers
* Coding of data and preliminary analysis
* Member checks

**July, 1997**
* Final analysis of data
* Member checks
* Write-up of data analysis and findings
APPENDIX D

INITIAL INTERVIEW QUESTIONS
Initial Interview Questions

1. What do you think good teaching is?
2. How can you learn to become a good teacher?
3. Would you call yourself a reflective person?
4. Do you think reflection is important in education?
5. If your cooperating teacher asked you to stop teaching the integrated unit you had prepared and prepare children for a standardized test instead, how would you respond?
6. Possible probes: What about the role of testing in education? What should the role of schools be in society?
APPENDIX E

STUDENT TEACHERS’ KNOWLEDGE OF AND INVOLVEMENT IN ACTION RESEARCH AND THEIR RELATIONSHIP WITH COOPERATING TEACHERS
### Student Teachers' Knowledge of and Involvement in Action Research and Their Relationship with Cooperating Teachers

<table>
<thead>
<tr>
<th>Case</th>
<th>Initial Knowledge of action research</th>
<th>Relationship in the fall</th>
<th>Involvement in action research</th>
<th>Knowledge of action research content</th>
<th>Knowledge of action research process/Dec '96</th>
<th>Involvement with action research in Winter and Spring 1997</th>
<th>Relationship in Winter and Spring</th>
<th>Final Knowledge of action research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam &amp; Lora</td>
<td>None</td>
<td>Excellent, great support and communication</td>
<td>Some, does some story time and shared writing</td>
<td>She is doing it on her co-teaching and literacy (RK,f,11-25-96)</td>
<td>No clue. (RK,f,11-25-96)</td>
<td>3XWKWI</td>
<td>Excellent, frequent open communication and support</td>
<td>Adam, none</td>
</tr>
<tr>
<td>Melissa &amp; Karen</td>
<td>None</td>
<td>Excellent, great support and communication</td>
<td>Some, does some story time, interactive writing, shared writing</td>
<td>She is doing it on co-teaching and literacy (RK,f,11-25-96)</td>
<td>NO Idea. (RK,f,11-26-96)</td>
<td>3XWKWI</td>
<td>Inadequate, infrequent communication, lack of support, unspoken assumptions</td>
<td>Melissa: It is when teachers do research in their class</td>
</tr>
<tr>
<td>Robert &amp; Diane</td>
<td>None</td>
<td>Adequate, regular communication, some unspoken assumptions</td>
<td>Some, has read a few response journals</td>
<td>It has to do with the response journals, she is looking at the kids' writing (RK,f,11-25-96)</td>
<td>No idea. (RK,f,12-8-96)</td>
<td>1-3XWKWI</td>
<td>Adequate, regular communication</td>
<td>Robert: Teachers gather data in their class through the year</td>
</tr>
</tbody>
</table>