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The Teachers' Process of Change Through Action Research

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THE TEACHERS’ PROCESS OF CHANGE
THROUGH ACTION RESEARCH

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ABSTRACT

The purpose of the study was to explore the process of conducting action research and to describe how two groups of teachers came to understand, account for and apply their own action research plans. The processes involved in conducting action research and the degree to which teachers conducting action research can bring effective change in their own classrooms are described. The study analyzed the path of four teacher researchers conducting action research and provided insights into their understanding of the process of implementing their own action research plans. This study also examined the teachers’ process of change through action research.

The primary research question addressed in this qualitative study during the fourteen-week period was: What is the difference in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them?

The methods employed in this study involved the collection of qualitative data through observations, interviews, field notes, personal journals, reflections, document analysis and questionnaires. The analysis techniques included analytic induction and the constant comparative method. Using the constant comparative method together with triangulation revealed ten themes with supporting assertions that explicated the research questions. Assertions constituting grounded theory (Strauss, 1989) were generated from this study.

The four cases in this study demonstrated that conducting action research helped
The teacher researchers provide personal and professional growth that brought effective and meaningful change in their teaching practices. This study also confirmed the findings of previous research indicating that action research contributes to the knowledge base of teaching, improves teachers’ individual practice, changes their teaching and helps teachers become more reflective about their instructional practices during the inquiry.

The findings of this study indicated that all four participant teachers benefited both personally and professionally by conducting their action research plans. Although there were various degrees of differences between the two participant groups of teachers in the study, these differences were not extreme.

Although this study showed compelling evidence supporting several benefits of classroom-based research, some barriers to conducting teacher research remain true. This is because practical inquiry is an intentional and systematic process that takes time and effort, and requires patience and commitment of practitioners. Therefore, despite the challenges and frustrations the teacher researchers faced in conducting action research (e.g., lack of time, lack of support and criticism by experts, lack of skill in collecting and analyzing data and difficulties in scheduling activities and lack of collaboration with others), the participant teachers in this study experienced considerable personal and professional growth that promoted positive and meaningful change in their teaching practices. This study, therefore, provided evidence of the power of action research in promoting teacher development.

Overall, it was evident that the process of action research enabled each of the participant teachers to bring about change in areas that they believed needed improvement. In this manner, action research was used as a school improvement tool and as an individual professional development alternative to bring about change and improvement.
CHAPTER I

INTRODUCTION

Introduction to the Study

*There is probably no other human endeavor besides religion itself, where there is such a gap between espoused theory and practice. Action research will bring theory and practice together, here, in the classroom. Answers will be sought here rather than elsewhere (Boomer, 1987, p. 12).*

Over the past few decades the field of education has continued to be inundated with cries for reform, restructuring and change. The loudest cries come from education, government and business leaders (Bacharach, 1990; Carnegie Commission, 1986; Culver & Hoban, 1973; Elmore, 1990; Fullan, 1982; 1985; 1993; Goodlad, 1975; Lieberman, 1986; Maeroff, 1988; Shanker, 1990; The Holmes Group, 1986). The teacher as researcher is a thread of educational reform researchers propose will bridge the gap between research and practice. In other words, when teachers do research it gives them the opportunity to practice what they have learned. Cochran-Smith and Lytle (1992) proposed teacher research to be “a legitimate and unique form of knowledge generation and profound means of professional growth that can radically alter teaching and learning” (p. 299). To bring change in the classroom, teacher educators proposed that teacher research should be the key instrument for educational reform and professional development. Fueyo and Koorland (1997) shared this view and reported that when using teacher research methodology with pre-service teachers, the pre-service teachers made informed decisions about their teaching, viewed themselves as problem solvers and worked to change the environment in which they taught.

There is a growing body of literature that supports the notion that research by teachers about their own classroom settings and school practices can function as a powerful means of professional development and contribute to the knowledge base in
In this era of change to make things better in the classroom, educators have pointed to the notion of “action research”, which encompasses the teachers’ voice and need to make informed decisions about their own practices. Since action research brings impetus from the classroom teacher, the power to initiate successful change and improvement comes from within the classroom. Barth (1990) depicted the importance of the teacher in the classroom by saying that “school is four walls surrounding a future” (p. 158). The quality within these four walls “will increase dramatically when, and if, those who work in schools—teachers, students, parents, and administrators—come in touch with one another, with their personal vision, and with the way they would like their schools to be, and then take deliberate action to move towards them” (p. 158). Throughout his book, Barth continuously emphasized that only changes emanating and sustained from within are likely to bring an improvement that will be meaningfully lasting.

Since the nature of the classroom changes when inquiry begins, conducting classroom-based research provides teachers with empowerment, allows them to promote their own practices, helps them understand and increases theoretical and practical knowledge about teaching and learning. It is inevitable that the value of a teacher’s work will improve when the teacher is involved in classroom-based research. One of the most important strengths of classroom inquiry is that it anchors change in observation and experiment.

So how does implementing classroom-based research bring about change in the classroom? This study will attempt to answer this question by exploring the process of action research and how teachers will bring change into their own classrooms by implementing their own action research plans.

As part of the study, a school district in north Florida provided teachers with an intensive action research workshop. This workshop took four days in the summer of 2003. Throughout the workshop, the district trained teachers how to conduct action research in their own classroom settings. The trainers were specialists in action research. The teachers who participated in this training workshop followed the specific process of action research demonstrated in the workshop.
The researcher attended these workshops and observed how teachers were informed and how they responded to the trainers in terms of developing an action research plan. The researcher collected all the materials provided to these teachers in the workshops and analyzed them. As a part of the training program, the district workshop trainers evaluated the teachers’ action research plans. They evaluated the project plans using as criteria the steps in the action research process taught. Once these projects were evaluated, four teachers were selected for the study. Among these four teachers, two teachers’ action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop, while the other two teachers’ action research plans were evaluated to be divergent from the guidelines taught for implementing action research.

The study focused on these two pairs of teachers and how they implemented change in their classrooms through the process of conducting action research in their own classrooms.

**Purpose of the Study**

The purpose of the study was to observe, describe, explore, identify, analyze and interpret data about action research activities that were being conducted by the teachers to bring change in their own classrooms. As a part of this, the study examined the differences in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them in the workshop. This study describes how these teachers came to understand, account for and apply their own action research plans into their practices.

The data collected were being examined to serve the goals of the study. It is believed that this study describes the processes involved in conducting action research and the degree to which teachers conducting action research can bring effective change in their own classrooms.
Rationale for the Study

Inherent in this new perception of teachers as generators of knowledge is the assumption that validation of practice occurs simultaneously with knowledge generation. Therefore, many of the same research studies support the validation of practice. Kelsay (1992) stated that teacher researchers felt that they had “more meaningful involvement with various classroom elements” (p. 25). Ross, Rolheiser, and Hogaboam-Gray (1999) also reported that teacher researchers may be more willing to take professional risk if their involvement in research leads them to feel in greater control of their professional lives. Hopkins (1993) reinstated what Kelsay said by saying that teacher research validates practice for teachers, or at the very least, shows them how to adapt their practices to be more effective in their classrooms. In addition, Fueyo and Neves (1995) stated that as a result of using action research, teachers and pre-service teachers make informed decisions about their instruction. Knight, Wiseman, and Cooner (2000) found that teacher research affects students’ outcomes. They found that teacher research validated practice by linking research to practice as well as giving teachers tangible results of their teaching practices.

Bissex and Bullock (1997) emphasized that by becoming teacher researchers they take control over their classrooms and professional lives. By engaging in the research process, they are able to know what is going on in their own classrooms because they are asking questions and doing systematic, intentional observations and reflecting on their own teaching practices. It is believed that teachers engaged in action research become more reflective about their instructional practices during the inquiry (Caro-Bruce & McCreadie, 1994).

Significance of the Study

This study adds to the growing literature on teacher as researcher and teacher change. Furthermore, this study is significant because it gives an opportunity to gain both a personal and professional understanding of how theoretical knowledge is actually put into practice. It will also form a new understanding of the relationship between theory and practice. In addition, the traditional role of the teacher as the passer of knowledge will be expanded to include a more meaningful role that will empower teachers as
researchers to view themselves as generator of knowledge, to improve their curriculum and collaborate with other teachers to create collective knowledge that will be useful to their classroom environment and enable them to grow professionally. It will bring a new role to teachers who will now approach problems that emerge in the classroom with more professional understanding and give them a chance to find out for themselves what practices will work best for their students.

This study is significant because it aims to understand how these two groups of teachers put their action research plans into practice and how they viewed themselves as teacher researchers throughout the teacher research process. It is also significant because this study will examine the teachers’ process of change through the implementation of their action research. Furthermore, the findings will provide better understanding of the effects of the two groups of teachers’ ability to understand the use of the action research process and the effects of identifying and finding solutions to their classroom-based problems through the action research process, thereby gaining a better understanding of how important it is to conduct a systematic and intentional inquiry to solve their own classroom-based problems.

**Assumption**

The assumption the researcher is making is that those teachers who understand a process that was taught and can prepare a plan incorporating all components of that process will conduct better action research than those whose plans do not include all the components of the action research process. This research tests this belief.

**Limitations of the Study**

The following limitations should be considered relevant to the study.

This study is limited to four classroom teachers employed in public schools located in northern Florida. Thus, the results of this qualitative study cannot be generalized. However, implications can be drawn for practice in other educational settings and contexts.

Even though teachers were taught how to conduct action research in their own classrooms by specialists, teacher characteristics such as teacher efficacy, enthusiasm, subject matter knowledge, teacher knowledge of research, years of experience in
teaching, previous knowledge of action research process, degree level, age of teacher, personality traits, diagnostic ability, instructional practices and attitudes towards research may influence how effectively they applied the components of the action research process.

According to McKernan’s (1993) survey of constraints on action research conducted amongst 40 project directors in educational settings in the US, UK and Ireland, the most frequent constraints ranked in order were lack of time, lack of resources, school organizational features and lack of research skills. These constraints may pose limits to the study and should be kept in mind.

**Research Questions**

Research questions in qualitative studies provide guidelines to frame the initial direction of the research. As data collection progresses, salient elements may emerge through the study. The initial research questions may become modified, eliminated, refined, or new questions may be generated. This study will primarily answer this question: What is the difference in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them in the workshop?

This study will attempt to answer this question by exploring the process of action research and how teachers will bring change into their own classrooms by implementing their own action research plans.

This study examines the teachers’ process of change through action research.

To develop this study, the initial questions focused on the following:

1. What are the participant teachers doing in relation to workshop training?
2. What kind of understandings do participant teachers have of action research process before, during and after implementing their action research plans?
3. How and when are they implementing their action research?
4. What are some impediments or hindrances that are both visible and opaque in conducting their action research in the school settings?
5. What method(s) will be utilized by the teacher researcher to infuse the theoretical framework of action research plans in their classroom settings?

6. Which method(s) will be perceived by the teacher researcher as the most beneficial or least helpful components of the action research process?

7. What are or will be the obstacles that teacher researchers perceive and experience as they try to implement action research in their classroom?

8. What are the results obtained through the implementation of action research?

**Definition of Terms**

For the purposes of this study, the following definitions of terms are addressed in text:

*Action Research*: Action research is a classroom-based inquiry conducted by teachers. Action research is defined by Corey (1954) as “research undertaken by practitioners to improve their practices” (p. 375). Elliott (1988) defined action research as a continual set of spirals consisting of reflection and action. According to Elliot, each spiral involves:

- Clarifying and diagnosing a practical situation, which needs to be improved, or a practical problem which needs to be resolved.
- Formulating action-strategies to improve the situation or resolve the problem.
- Implementing the action-strategies and evaluating their effectiveness.
- Further clarification of the situation resulting in new definitions of problems or of areas for improvement (and so on the next spiral of reflection and action) (p. 163).

*Inquiry*: “a deliberate attempt to collect data systematically that can offer insight into professional practice” (Clift, Veal, Johnson, & Holland, 1990, p.54).

*Teacher Research*: Teacher research is a systematic process of inquiry, usually conducted in a school, which is done for the purpose of improving student learning (Fueyo & Koorland, 1997; Knight, Wiseman, & Cooner, 2000; Hopkins, 1993). Teacher as researcher can be defined as a “systematic and intentional inquiry carried out by teachers” (Cochron-Smith & Lytle, 1992).
Overview of the Study

The research questions were investigated using a qualitative research process. The primary data gathering involved a variety of strategies including researcher observations, in-depth interviews with the participants, study questionnaires, reflection, journals, documents and field notes to establish a constant comparative method and to provide an analytical induction to facilitate purposeful sampling. Chapter I of the study provides background and rational for the study, purpose of the study, research questions, limitations of the study, significance of the study and definition of terms. Chapter II presents a review of related literature of the study. Chapter III presents the research methodology, including the participants, the study procedures, data construction and analysis and credibility of the study. Chapter IV consists of the presentation and analysis of data, and Chapter V comprises summary, discussion, conclusions, implications and recommendations for further research.
CHAPTER II

REVIEW OF RELATED LITERATURE

For over a decade, many educational researchers, scholars, policy makers, local governments and other important organizations have understood that there is a need for educational reform in education and in particular teacher education. The Carnegie Commission (1986), The National Commission on Excellence in Education (1983), The Holmes Group (1986) and National Board for Professional Teaching Standards (1988) have introduced their reports or studies to the educational arena. These reports have highlighted the importance of the problems that our school systems, standards of education, and teaching and teacher education programs have faced. Therefore, they have aroused the attention of educators, agencies, researchers, and schools. The main reason behind these reports is the “failure” of the nation’s schools and the need for improved teaching and teacher education. Since the release of these reports, especially *A Nation at Risk* by the National Commission on Excellence in Education (1983), teacher research has become prominent in teacher education, professional development, and school reform at the national, state, school district and school levels. From this moment, teacher research has found a place in the programs of professional development and other strategies related to professionalizing teaching. What seemed to be missing were the voices of teachers and their professional roles in teaching.

Because teacher research is a new genre and it is different from traditional research in terms of how it approaches the process of doing research in the classroom setting by teachers, it is a reform for teacher education. Teacher research is not university-based research, it is school-based research focusing on the importance of teachers as knowledgeable experts about their own students and classrooms. Conducting classroom-based research increases or expands the view of the teacher’s role as decision
makers, consultants, curriculum developers and classroom researchers, and it enables teachers to improve their understanding of the context of educational change.

The need for action research to improve the quality of teaching through teacher research has stemmed from an understanding that teachers are not just technicians playing the roles given to them; but that their main roles should be to become researchers in defining their own roles and to be ready to make changes and reflect on their own teaching practices.

The notion of action research goes as far back as the 1950s. With the notion of action research emerges another concept “teacher research.” In searching for the definition of action research we were made aware that these two terms or concepts are interrelated.

The term “action research” was first used by Collier (1945), Lewin (1948), and his student Lippitt (1949). According to Oja and Smulyan (1989), action research was initiated in the 1940s by Kurt Lewin, and modified by educators later. Many of the early action research initiative’s main concerns (e.g., Elliott, 1985; Oja & Smulyan, 1989) were to improve school and classroom practice and to contribute to knowledge about teaching and research itself.

Corey (1954) defined action research as “research undertaken by practitioners to improve their practices” (p. 375). He claimed that when people attempt to solve their own practical problems by using the methods of science, they are able to provide enough evidence to define their problems more sharply. It would be clear that once teacher researchers start to define their own practical problems and identify action research hypotheses, this starting procedure of action research enables them to eliminate the practical difficulties of their day-by-day work. He emphasized on that the primary value of action research was improving the individual teacher’s effectiveness with subsequent classes in similar situations over time rather than extending generalizations across educational contexts. Another definition by Hollingsworth and Sockett (1994) brought to light an understanding that there is a close relationship between what is known as action research and teacher as researcher. They defined action research as “a most important ancestor of teacher research” (p. 1). Cochran-Smith and Lytle (1990) indicated that the term teacher research has been used as a general term to express and further expand a
wide range of activities, which many trace to the ‘action research’ notion of the 1950s and 1960s. Hopkins’ (1993) definition of action research is related to Cochran-Smith and Lytle’s definition in which he explains that action research is an action disciplined by inquiry, it is a personal attempt to understand one’s own practice while engaging in a process of improvement and reform. Hopkins further pointed out that teacher-researchers have recently adopted the label action research to describe their particular method or approach to classroom research.

Cochran-Smith and Lytle (1990) defined teacher research as the “systematic and intentional inquiry carried out by teachers.” Analysis of their definitions of the terms systematic, intentional and inquiry brings three important components of teacher research together. By systematic they referred to ways of gathering, recording and documenting experiences inside and outside of the classroom and recording them in some written form. By the term intentional, they stressed that teacher research is a planned action rather than one done without thought, and the term inquiry suggests that teacher research generates questions which reflect the teacher’s own voice in trying to understand and improve their own classroom practices. They identified teachers’ journals, brief essays, oral inquiry processes and classroom studies as artifacts of teacher research.

Fueyo and Koorland (1997) emphasized that “teacher as researcher can be a cornerstone of the teacher preparation curriculum, a foundation for its knowledge base, a bridge between scholarship and practice, and a tool for its practitioners…teacher researcher could be a promising vehicle for addressing the codification of a knowledge base, the development of necessary curricula, and support for the professional behavior of teacher education graduates” (p. 342).

Several terms for teacher research have been used over the years, including practitioner research, practical inquiry, classroom inquiry, teacher-centered inquiry and interactive research. Although these terms may have somewhat different implications, they all indicate that the teacher-researcher is an active generator of theory and research findings rather than just a consumer of it.

The term inquiry is defined by Clift, Veal, Johnson, and Holland (1990) as “a deliberate attempt to collect data systematically that can offer insight into professional practice” (p. 54). This definition is closely related to teacher as researcher. However,
according to McKay (1992) and Miller and Pine (1990), action research is the term most often used, primarily because it connotes empowerment, immediacy and concreteness of its outcomes. Clift et al. (1990) suggested that action research brings changes in practices and that is the goal of conducting action research. They defined action research as “a way of thinking that implies the use of reflection and inquiry as a way of understanding the conditions that support or inhibit change, the nature of the change, the process of change, and the results of change” (pp. 54-55). Changing one’s own practices, therefore, is one of the chief features of action research. In order for the practitioners to change their own practices, they need to have knowledge that leads them to take action which is closely related to knowledge. According to Schon (1983), knowledge in action is inherent in the action and is the essential part of the epistemology of all professional practice, including teaching. The second important concept in Schon’s theory was that conscious ‘reflection in action’, occurs when problems appear in practice, and creates awareness in practitioners of the thinking process that they are going through at the time of the action. For Schon, reflection on action takes place after the fact.

To fully understand the significance of teacher research, it is necessary to consider the roots underlying teacher research. By looking at literature reviews related to teacher research, two names stand out in defining the roots of teacher research. They are John Dewey and Lawrence Stenhouse (Fueyo & Koorland, 1997; Ruddick & Hopkins, 1985). Lawrence Stenhouse (1975) and John Elliot (1976-1977) progressively played the chief roles in the history of the teacher research movement (Hollingsworth & Socket, 1994; Oja & Smulyan, 1989; Richardson, 1996; Ross, 1987). They started to articulate the deep significance of teacher participation in improvement and reform at the classroom level. Stephen Corey (1954) also played an important part in the early development of teacher research. According to Hopkins (1993), Stephen Corey’s work at Teacher’s College, Columbia University, especially his book _Action Research to Improve School Practice_ (1953), introduced action research into mainstream American education.

The recreation and development of action research in education took place in Britain in the late 1960s and early 1970s. In looking at the development of action research as a method for teachers we can immediately notice John Elliott’s contributions to the methodological work on action research. Elliott popularized action research as a
method for teachers doing research in their own classrooms through the Ford Teaching Project and also established the Classroom Action Research Network (Burns, 1999; Hopkins, 1993). Besides his contributions to the development of action research as a method there are some important researchers who developed action research models such as Stephen Kemmis, Dave Ebbutt and James McKernan (Hopkins, 1993).

During the 1970s and 1980s action research become apparent as a practical method for conducting educational research which contributes to knowledge in the field, change in school policy and improved teacher practice in classroom settings.

Dewey (1933), the forefather of teacher research ideology, repeatedly emphasized that practice must come from a well-established research-based theory in which research cannot be disengaged from practice. Dewey stressed the importance of teachers’ reflecting on their practices and integrating their observations with their knowledge of theories related to teaching and learning; in particular arguing that systematic inquiry needs to be established and teachers must learn to adapt their teaching as a result of conducting research on what works with their students. He believed that teachers needed to be both consumers and producers of knowledge about their teaching, by being “a teacher as learner of classroom life.”

As a follower of Dewey, Stenhouse (1975) focused on helping teachers examine the effects of new strategies for their own classroom-based problems and helped them become self-reflective researchers, practitioners who could therefore examine their own practice critically and systematically. According to him, teachers should engage in systematic study of their own instruction in order to determine what is and what is not effective in their own practice. Stenhouse identified research as systematic, self-critical enquiry and determined that research must be considered in the context of experience (Oja & Smulyan, 1989). His definition of research overlapped with the definition of teacher research. He strongly advocated that the very essence of teaching must be viewed as research and that research should be conducted in order to change the perspective of teachers, who would be able to view themselves in light of new knowledge attained through teacher research.

In order for teachers to increase their theoretical and practical knowledge about teaching and learning and to bridge the gap between the two there is a need for
classroom-based research carried out by teachers. It is a common belief that classroom-based research can bridge the gap between research and practice. As Berthoff (1987) stated “theory and practice should stand in this same relationship to one another, a dialectical relationship: theory and practice need one another” (p. 30). Once teachers participate in the classroom-based research process their voices will be clearly apparent because research shows that teachers need to be more informed about their decisions. The notion of teacher as researcher can provide joint collaboration between researcher and teacher, that is to say, seeing the teacher as a researcher can help bridge the long-standing gap between researcher and teacher. This perspective shares the roles of teacher and researcher in a cooperative search for answers to questions raised by teachers about what is happening in the classroom and why (Heath, 1987).

A study conducted by Gore and Zeichner (1991) asked student teachers to assess the impact of their action research. Their answers categorized them as follows:

a. “it helped them be more thoughtful in general about their teaching,
b. it helped them become more aware of their own practices and of the gaps between their beliefs and their practices, and
c. it helped them become more aware of their pupils’ thinking and learning” (p. 131).

A study done by Nevarez-La Torre and Rolon-Dow (2000) indicated that teacher research had a positive impact on teachers’ growth as professionals. Their findings in professional growth for bilingual teachers are threefold:

a. their perceptions about their role as researchers,
b. their questioning of traditional ways of professional development, and
c. the development of a critical view about empowering themselves to grow.

In conclusion, action research provides teachers with a more suitable alternative to traditional research designs and one that is, in aspiration at least, emancipatory. Action research is emancipatory because it enables the teacher researchers to be free in terms of taking more control of their professional lives and direction over their own practices in order to view themselves as problem solvers and make more informed decisions about their own instruction. In other words, it can simply set the teacher researchers free from the content to be told what to do. Teachers who engage in their own research or become
teacher researchers are developing their professional judgment and taking a new role as informed decision makers and, thus, teachers as researchers actually begin to be in charge.

Action research is local and simply reflects the insider’s view rather than dictating outsider’s vision. Insiders are typically the teachers conducting their own classroom-based research for the purpose of improving their practices. Therefore, teachers address their immediate teaching concern in the context that depends on actions and meanings in which learning takes place. Action research simply asks researchers or teachers as researchers to examine their practice and its context, explore the research base for ideas, compare what they find to their current practice, become involved in training to support required changes, and study the effects on themselves and their students and colleagues. Even though action research may start naturally, it should be developed and conducted intentionally and systematically by the teacher researcher. Action research as a whole process has its own practical applications which could provide a rationale and method for teachers who are willing to take more control of their professional lives. As teacher educators, one of our purposes is to have teachers improve their practices and expand their roles as teacher as researcher and decision maker.
CHAPTER III

METHODOLOGY

This chapter presents a description of the research design and methodology that were utilized in this study. This chapter describes why qualitative methods were chosen for this study. In addition, the participants, study procedures, data construction and analysis techniques, and credibility of the study are discussed.

Qualitative Research

This study sought to understand how teachers who are taught the process of action research are able to plan an action research project incorporating all the components of the process and thereby conduct better action research than those whose plans do not include all the components of the action research process. Qualitative research techniques were appropriate for this study because qualitative method provides insights into contexts and perceptions at each locale.

The qualitative study was conducted to see “how people act and think in their own settings” (Bogdan & Biklen, 1998). Qualitative research is a method of inquiry that enables the researcher to “preserve chronological flow, see precisely which events led to which consequences, and derive fruitful explanations” (Miles & Huberman, 1994). Qualitative methods, thus, allow us to know people personally and to see them as they are developing their own definitions of the world (Bogdan & Taylor, 1975, p. 4).

Bogdan and Biklen (1998) defined five features of qualitative research.

1. The setting is naturalistic where the researcher spends considerable time in a locale to learn about educational concerns.
2. The researcher is the key instrument and the setting serves as a direct source for data.
3. Qualitative research is descriptive as data collected may take the form of pictures or words as well as numbers.
4. Emphasis is placed on process rather than products or outcomes.
5. Such research explores how and why a phenomenon occurs as well as whether it did or did not occur.

In my role as a researcher, I was a participant observer throughout the study and attempted to uncover the participant teachers’ perspectives and insights into their own action research process. Participant observation entailed my making observations in the four classroom settings and in the workshop. The participant teachers were told that I was making observations because I was interested in using the data for my own research. In order not to influence the quality and quantity of teachers’ engagement in the process of conducting their action research plans, the intent of the research remained covert throughout the study. However, it must be also noted that my mere presence and the questions that I asked both causally and in interviews probably had an indirect effect upon their behavior.

**Participants**

The target population for this study were the teachers who voluntarily attended the action research workshop held by a school district in north of Florida in the summer of 2003. These teachers were employed in public schools located in a mid-sized city with a population of approximately 239,000. The subjects in this study were selected among the teachers who attended this action research workshop. Therefore, the participants were identified using a purposeful sampling technique. Purposeful or purposive sampling is when “the researcher selects particular individual or cases because they will be particularly informative about the topic” (McMillan, 2000, p. 110).

This study focused on four teachers at four different school sites. Each of these teachers implemented his or her action research plan in their own classroom settings. The participants were informed about the purpose of the study and were given assurance of anonymity of all information to be collected; and they volunteered to participate in the study.
Study Procedures

The researcher entered the setting for the study through the preliminary action research workshop meetings held approximately two months prior to data collection. The researcher attended the preliminary action research workshop meetings during summer, 2003. In these meetings, the researcher gathered information about the contents of the action research workshop and got acquainted with the committee members. The researcher also contributed to the workshop by providing the committee with research articles pertaining to action research.

In addition to this, the researcher provided input in the committee meetings for consideration. In the first of these meetings, held on June 17th at the district’s office, the committee members suggested that the teachers conducting action research be assigned mentors in order to keep track of their progress in doing their action research. Another suggestion was to provide these teachers with Excel training that would help them make use of computer software programs to analyze their data. This additional training was held on the same days of the action research workshops. To finalize the content and the procedure of the action research workshop, the committee members decided to meet once again on July 2nd.

The teachers’ actual action research workshop was held on July 14-17. The researcher attended this action research workshop to collect and analyze all of the documents and materials provided to these teachers. For the purpose of this study, the researcher developed a pre- and post-action research survey in collaboration with the trainers (See Appendix A & B). The researcher also obtained pre- and post-action research workshop surveys conducted by the workshop trainers (See Appendix C).

In attending the workshop, the researcher put emphasis on establishing rapport with those teachers who would participate in the study by conversing casually with the teachers and helping them throughout the workshop. Attending the workshop also helped in establishing a communication line between the researcher and the teachers and gave the researcher the opportunity to explain the purpose of the study and how it would help him in obtaining important data for the study. The researcher also made observations on the intensive action research training to perceive how teachers were taught, informed, and
facilitated by the trainers. Thus, the researcher observed how teachers were able to respond to trainers in terms of developing their action research proposals.

The researcher looked at how the action research committee’s workshop plans were pursued and how action research plans were designed and developed by the teachers. By the end of this workshop, teachers were required to submit their final action research proposal or final product to the committee. The committee members evaluated each teacher action research proposal. For this evaluation the researcher developed a guideline called Action Research Proposal Final Product Checklist (See Appendix D).

This checklist was developed according to the specific process of action research as shown to the teachers in the action research workshop training. This checklist mainly included such criteria as: the research question, review of related literature, methodology or procedures, data collection, type of analysis to be made, conclusions and implications for action research. At the end of the workshop the researcher asked the committee to evaluate teachers’ action research plans. They evaluated the project plans using a checklist. They scored each plan and ranked them from top to bottom. The highest score was one hundred and the lowest was zero. The top teachers were chosen from those teachers who scored eighty and above, while the other half were chosen from those teachers who scored fifty and below. Once the teachers’ projects were evaluated, teachers were asked to participate in the study. Half of the teachers asked were from the group that modeled the action research plan taught appropriately. The other half were from the group whose action research plans were evaluated as divergent from the guidelines for conducting action research.

The four teachers who agreed to participate in this study varied in choosing their topics for their action research plans. Sara and Amy whose action research plans were evaluated to have modeled appropriately the action research plan taught in the workshop both centered their research questions on reading.

Sara aimed to find answers to this question: How does the use of daily phonemic awareness drills in teaching reading improve students’ reading skills in a low achieving 6th grade classroom? She indicated that the primary purpose of her action research project was to examine if the implementation of daily phonemic awareness drills in teaching reading would improve her students’ reading skills.
Similarly, Amy’s action research plan hoped to find answer to this question: How can I improve my 5th grade students’ reading comprehension skills to increase FCAT reading scores? The primary purpose of her action research project was to implement reading strategies that would improve students’ awareness of the author’s intent through daily reading logs and group discussions of selected reading passages.

On the other hand, Megan and Jessica whose action research plans were evaluated as divergent from the guidelines for conducting action research chose different topics for their action plan. Megan’s main research question was: Will implementing a daily assignment log help my students’ parents to be more informed about the day to day activities of the classroom? She indicated that the purpose of her action plan was to see if using the daily assignment log would help parents feel more involved in the day-to-day activities of their child’s classroom.

Jessica who is a Spanish teacher revealed her action research questions as: How can Spanish I students be encouraged to speak Spanish sooner? What can be done to help them view themselves as bilingual-in-training? Her purpose was to change the way students viewed themselves when learning a second language and provide effective strategies to help students become more motivated in learning Spanish.

Once the subjects in this study were selected, the researcher contacted these teachers and kept in contact through email and personal observational visits to their classrooms to follow up on how their action research plans were being implemented from August through December 2003.

For this process, the researcher submitted an application for institutional approval from the Florida State University Human Subjects Committee to conduct this study. The permission was granted on August 19, 2003 (See Appendix E). Another application was made to the Leon County Research Review Board and the study was approved in July 24, 2003 (See Appendix F). In addition to this, the researcher also contacted the school principals of the schools in which the teachers were observed for conducting their action research. Written permission from each principal was obtained in order to collect data (See Appendix G, for the County Schools Principal’s Consent for Research Form). Signatures of the principals were sent back to the County Research Review Board in order to obtain full permission to collect the data.
All participants were shown the research questions around which the study was framed. Participants were given standard consent forms, including the right to decline to participate or wish to withdraw from the study at any time and to decline being audio taped (See Appendix H). In addition, electronic mail was sent to the teachers, explaining the purpose of the research and asking them to participate in the study.

Data were collected during the months of August through December 2003. The researcher determined which class periods would be appropriate for observation once the teachers made their own schedules regarding when they would implement their action research plans. The researcher conducted study sessions along with personal journals, reflections, field notes, interviews, observations, document analysis and established pre- and post- study questionnaires (See Appendix I & J) to make a constant comparative analysis. Field notes were gathered and coded. Interviews were conducted in three phases:

1. before the teachers implemented their action research plans,
2. during the time they conducted their action research plans and
3. after they implemented their action research plans.

These interviews were in-depth interviews (See Appendix K). In-depth interviewing has been described as “a conversation with a purpose” (Kahn & Cannell, 1957, p.149). The purpose of the interviews was to gather data in the participants’ own words so that the researcher could capture and gain insight on how these teachers perceived their own practice.

**Data Construction**

This study drew upon the elements of ethnographies, multi-case studies, and phenomenological types of qualitative studies. Data were gathered from a variety of sources in hopes of finding patterns to produce assertions or general statements in order to gain the teachers’ understandings of classroom-based research and the process involved in conducting action research. To collect data for this study, the researcher employed the strategies of observations, interviews, field notes, personal journals, reflections, document analysis and questionnaires to establish a constant comparative method.
This study was an ethnographic study which was defined by Lincoln and Guba (1985), as a way to understand the problem or question from the participants’ points of view. The participants’ experiences establish meaning that is then used to validate their beliefs and opinions of their world (Krathwohl, 1993). Since this study involved the “in-depth analysis of one or more events, settings, programs”, it is considered bounded by a case study (McMillan, 2000, p. 266). This research was a multi-case study because four different teacher participants were treated as independent units.

Data were constructed from the following materials:

Observations

Observations were employed throughout the study and during the workshop. The purpose of observational data (Patton, 1983) was “to describe the setting that was observed, the activities that took place in that setting; the people who participated in those activities; and the meanings of the settings, the activities, and their participation to those people” (p. 124). The researcher attended the whole workshop and made such observations as the description of place, events, and action research workshop activities as well as words/conversations/comments from people who were a part of the field setting and recorded as handwritten field notes and later expanded on a computer.

Workshop observations were conducted with minimal participation as an “observer participant,” where the researcher did not endeavor to become a member of the observed group in this study.

Ten classroom sessions in each of the four classroom settings were observed for later viewing. The time the researcher spent for each of these observations differed according to each participant teacher’s action research plan and the time spent in implementing the action research plan. The study participants were observed and responses and occurrences were recorded as handwritten field notes and later expanded on a computer throughout the implementation of the teachers’ action research plans. Non-participant field notes were transcribed looking for patterns and developing categories of responses.

Interviews

The interviews were conducted in three phases: pre-interview questions, during interview questions, and post-interview questions. Throughout the study, the researcher
used a qualitative interviewing method as described by Patton (1983). In each phase of interviewing, the researcher focused on the description of culture by interviewing all the teachers. The purpose of these interviews was to gain a better understanding of each teacher’s action plan, as well as the anticipated barriers and facilitators associated with implementing it. The interviews were used to capture the meaning of the richness and variety of the thought process by collecting data in the participants’ own words. This enabled the researcher to develop insights on how the participant teachers interpreted their surroundings (Bogdan & Biklen, 1982).

All interviews were administered during the same timeframe and took place within each school setting. An interview guide was developed in order to establish a systematic framework. This framework enabled the researcher to develop questions, sequence questions, and make decisions as to what areas to pursue in greater depth in later observations and later interviews. Each interview was tape recorded, transcribed and sent to the participants with the invitation to add explanations, delete problematic phrases, or make any changes to the transcripts as means of respondent validation (Connelly & Clandinin, 1988). Field notes contributed to the interview analysis and allowed the researcher to capture meaning and to understand contexts more fully.

The researcher interviewed the four participant teachers. The pre-interview was administered before the teachers implemented their action research plans. The second interview was conducted during the time the participant teachers implemented their action research plans, and the post-interview was administered after they implemented their action research plans.

Documents

The researcher attended the workshop and collected all documents pertaining to the workshop such as pre-and post-action research surveys, worksheets for developing action research plans such as the data collection plan worksheet, formulating action research question worksheet, and action research proposal final products. After the workshop each teacher’s action research proposal was evaluated by the committee members using the Action Research Proposal Final Product Checklist. These evaluations were submitted to the researcher as documents.
**Action Research Study Questionnaires**

The pre-and post-action research study questionnaires were developed by the researcher as an adaptation from a former workshop questionnaire that asked short answer questions about the participant teachers’ understandings of action research and their experiences toward doing research. Questionnaires specifically focused on the teachers’ understandings of classroom-based research and the process involved in conducting action research. The purpose of the questionnaires was to explore such questions as:

a. How did the participant teachers perceive action research before and after implementing their own action research plans?
b. How did they define action research?
c. Did they feel confident with action research?
d. What kind of obstacles did they believe they would encounter throughout their implementation of action research?
e. What kind of expectation did they have in implementing action research?
f. Were these expectations accomplished? How did action research contribute to their professional development?
g. Did action research bring effective change to their classroom environment?

**Teacher Reflections**

The participant teachers’ journals were utilized as data. The teacher researchers were expected to write reflection as journals through the implementation of their action research plans. The aim of these journals was to obtain an insight into how these teachers perceived and reflected on their own action research plans.

The teachers’ personal journals included their own thoughts about implemented strategies such as the length of each session, how the session went, how they modified their implementation plans, the barriers and facilitators they experienced and how they tried to overcome any barriers they encountered throughout the inquiry.

**Personal Journals**

The researcher also kept a personal journal in recording his personal feelings and reflections as well as the descriptions of correspondences or observations and the
researchers’ perceptions of these interactions for the purpose of developing assertions and testing the assumption.

**Analysis Techniques**

**Analysis of Interview Data**

In analyzing the interview data the researcher used a reduction method. Because in-depth interviewing produces a huge amount of text, the transcribed data needed to be “reduced to that which is of most importance and interest” (Seidman, 1998, p. 99). According to Seidman, the initial step in reducing a text entailed reading and marking passages of interest. He suggested that one should mark all material that caught one’s interest and attention rather than put a lot of time and ponder over passages one has transcribed.

After reading and marking the transcripts the researcher labeled and marked passages with codes--descriptive words and phrases. Because the interviews were ongoing the researcher reviewed all interview responses, questionnaires, teacher journals, related documents and observational field notes to generate codes which may sometimes be a teacher’s own words or thoughts when interpreting the data.

After this initial analysis of data, the next analytical task was to reexamine and question the data for potential themes or patterns. Thus, based on recurring phrases or key statements, the researcher generated categories, themes and patterns (Marshall & Rossman, 1989). By reflecting on recurring ideas and searching for linkages within the data, the researcher was able to identify important, grounded categories of meaning. These categories were used to generate themes and patterns (Strauss & Corbin, 1990) and were reported in the form of direct codes, interpretative commentary and narrative vignettes.

In addition to in-depth interviewing, documents were analyzed. Analysis was an ongoing process beginning early in the data collection. The researcher collected all official documents presented to teachers in the workshop and any materials that served the purpose of the study. The researcher received any related documents throughout the time period assigned to conduct the study. These documents were reviewed on a daily or weekly basis by placing them in mailboxes assigned to each teacher by the researcher.
Furthermore, the teachers who participated in this study were asked to volunteer to keep a journal to record their insights into their own action research. The aim of these journals was to obtain insight into how these teachers perceive and reflect on their own action research plans including their thoughts about and reactions to their research, their joys and frustrations in doing the action research, and anything else they felt they wanted to write about as they went through experience.

All these methods used in collecting data were employed to triangulate the researcher’s findings. In order to analyze the data and employ triangulation these analytic techniques needed to be defined. It is also important to note that these analysis techniques were guided by the construction of the data and the cases themselves through an emergent process (Strauss, 1989). As the study developed, these analysis techniques were further expanded to include how these strategies were employed in the process.

1. **Analytic Induction**: “An approach to colleting and analyzing data as well as a way to develop and test a theory” (Bogdan & Biklen, 1998, p. 63).

2. **Constant Comparative Method**: “A research design for multi-data sources, which is like analytic induction in that the formal analysis begins early in the study and is nearly completed by the end of data collection” (Bogdan & Biklen, 1998, p. 66).

3. **Data Triangulation**: “the use of a variety of data sources in a study” (Janesick, 1994, p. 214).

4. **Ethnography**: The term refers to an “attempt to describe culture or aspects of culture” (Bogdan & Biklen, 1998, p. 28). It is a qualitative research through the involvement of a culture to describe naturally occurring behavior. This approach uses observation, interviews, and document analysis as methods for gathering data.

5. **Methodological Triangulation**: “the use of multiple methods to study a single problem” (Janesick, 1994, p. 215).

6. **Multi-Case Studies**: “When researchers study two or more subjects, settings, or depositories of data they are usually doing what we call multi-case studies” (Bogdan & Biklen, 1998, p. 62).
7. **Purposeful Sampling**: “Choosing particular subjects to include because they are believed to facilitate the expansion of the developing theory” (Bogdan & Biklen, 1998, p. 65). Tashakkori and Teddlie (1988) defined purposeful sampling as “the selection of individuals/groups based on specific questions/purposes of the research in lieu of random sampling and on the basis of information available about these individuals/groups” (p. 76).

Triangulation is the term for the use of multiple methods, data gathering strategies and data sources (Bogdan & Biklen, 1982). Triangulation was used in order to improve the likelihood that findings and interpretations are credible. Triangulation of these methods was also utilized in order to reduce biases of the data gathered. It allowed for a more complete picture of what was specifically being studied and enables for a cross check of information. Triangulation, a tool utilized in ethnographic research, served as “the heart of ethnographic validity, testing one source of information against another to strip away alternative explanations and prove a hypothesis” (Fetterman, 1989, p. 89).

Using the constant comparative method together with triangulation provided the researcher with emerging models or patterns that helped the researcher to form relationships and engage in sampling, coding, and writing as the analysis focuses on core categories. Data analysis was continual and was facilitated through the coding of field notes, interviewing and documents. Emerging patterns established the themes found in the data. As the study progressed and unfolded with the emerging of different findings, the researcher further expanded his research of the literature relevant to his findings.

**Credibility**

The techniques of triangulation that were employed included multiple sources of data and use of different methods. Utilizing a variety of sources of the same information such as verifying an interview respondent’s statements with actual observations increased the credibility of the study. Triangulation is defined as “the use of different methods or gathering data-or collecting data with different samples, or at different times, or in different places-to compare different approaches to the same thing” (McMillan, 2000, p. 272). The use of different methods in this study included multiple data collection modes-- interview, questionnaire, and researcher observation. Confirmation of a proposition by
two or more measurement processes reduced the uncertainty of its interpretations (Lincoln & Guba, 1985). In order to ensure credibility of the meaning of the data, the researcher sent all the transcriptions and typed notes of interviews to the teachers to check the accuracy of the data gathered by the researcher. Lincoln and Guba (1985) referred to such sharing as member checking.
CHAPTER IV
PRESENTATION AND ANALYSIS OF DATA

Introduction

Even though educational reform movements in public education have been attempted over the years, general purpose has been to improve the quality of education and provide excellence and equity for all. When looking at past attempts of change, researchers (Barth, 1990; Deal, 1984) indicated that top-down approaches to educational reform had been unsuccessful in classrooms. According to them, top-down methods became failed in part because of the lack of teacher voice in reform efforts. In other words, what seemed to be missing were the voices of teachers and their professional roles in teaching. Teachers could not change their instruction in these ways simply by being told to do so. They needed opportunities to reconsider and change their own practices. Deal (1984) stated “…Excellence or improvement cannot be installed or mandated from outside; it must be developed from within. It must rise from collective conversations, behaviors, and spirit among teachers, administrators, students, and parents within a local school community” (p. 137).

It should be noted that the decision of the school district to provide a workshop in action research was “top-down.” However, the actual decision of the teachers as to their research question was not.

This study’s purpose was to describe the processes involved in conducting action research and the degree to which teachers conducting action research can bring about effective change in their own practices. The questions addressed by the researcher during the fifteen-week period of the study were:

a. What are the participant teachers doing in relation to workshop training;

b. How and when are they implementing their action research;
c. What are some impediments or hindrances that are both visible and opaque in conducting their action research in the school settings;

d. What method(s) will be utilized by the teacher researcher to infuse the theoretical framework of action research plans in their classroom settings;

e. Which method(s) will be perceived by the teacher researcher as the most beneficial or least helpful components of the action research process;

f. What are or will be the obstacles that teacher researchers perceive and experience as they try to implement action research in their classroom; and

g. What are the results obtained through the implementation of action research?

The collection and interpretation of data involved using qualitative methods including researcher observations, formal interviewing, questionnaires, document analysis, reflection, personal journals and field notes. By using the techniques of analytic induction (scanning the data for categories and relation among them) and the constant-comparative method within cases (comparing a response to one question similarities and differences between the two groups of teachers and checking responses against other data for the same case), and triangulation of data sources, the qualitative data were interpreted.

Based upon the qualitative techniques used in the study, the researcher uncovered themes with supporting assertions that explicated the research questions. Assertions constituting grounded theory (Strauss, 1989) were generated from this study.

The Context of the School Settings and the Participants

For the purpose of this study, four public schools were the chosen settings for the investigation of how the two groups of teachers describe and understand action research activities in order to bring about change through the role of teacher as researcher in their own practices. The teachers’ process of change through action research activities was followed by the researcher. The participants were four public school teachers: two were elementary teachers, one was a middle school teacher and the other one was a high school teacher. For the purpose of the study, the name of the teachers, schools and the identities of all school district trainees with whom the researcher interacted have been changed so that information collected and interpreted does not affect them in any way possible. Therefore, pseudonyms were used for the names. In order to establish the context, the
following section presents a demographic description and brief characteristics of each school. Thus, for the purpose of clarity and understanding when cases are made reference to, descriptions of each participant and the context of classrooms are provided below:

**School A**

School A is one of the newest elementary schools in the district built in early 2000. It is a school with an A + rating that serves kindergarten through fifth grade students. The school is well known due to its high academic standards, art technology and safety. Advanced technology, strong curriculum, a well-equipped environment and high expectations of students have made the school a desirable and effective public school within the county. The teacher described the school community as a mixture of very rich and poor. Although the majority of students in the school are from upper middle class, about 30% of students have free or reduced lunch.

Amy is a Caucasian 5th grade classroom teacher in her early 50s. This teacher researcher had been at the same school for about two years. Amy had 15 years of teaching experience and had certification both in regular education and in ESE. She had her master degree in ESE and was a National Board Certified teacher.

**School B**

School B was built in 1960 and serves students in grades 6 to 8. The school has about 650 students. Many educational opportunities and facilities are available to the community. The school has within its area two universities, a community college, a vocational-technical school, and adult programs for which the school is used. Numerous churches and civic groups play a vital role in the spiritual, cultural and aesthetic values of this community. Data indicates that 85-percent of the adult population in the community that this school serves have as their vocations clerical, managerial, and professional jobs. Seventy percent of the parents have a partial or complete high school education, thirteen percent attended school beyond high school, eight percent completed college and two percent obtained advanced degrees.

Sarah, a Caucasian, 29-year-old teacher, had received her undergraduate degree in English Literature with a minor in Linguistics. She graduated from college in 1996, in a European Country. She had certification in English grades 6 to 12, and had five years of teaching experience. Sarah had been teaching at the school for about two years. When she
was describing her school in general she indicated that the school had a lot of students who come from families that fall within the lower socioeconomic class or below the poverty line and that most of the students are on free or reduced lunch; a majority of the students are African-Americans. The school had a very small number of Hispanic and white students.

School C

School C is an elementary school built in 1995. The overall mission of the school is to guide students to realize their full potential. The enrollment for 2003-2004 school year was 865 students and it served PreK through grade 5.

The teacher researcher who participated in this study was Megan, a Caucasian in her early 30s who taught 3rd grade. She had an undergraduate degree in Elementary Education and master’s degree in Administration, and had been teaching for nine years. Megan had been at the school for about four years. According to the teacher, students came from high-economic-status families, most of them from secure homes where one parent was working and the other is not.

School D

School D, the high school, was built in 1870 and had an enrollment of 1768 students. It was an A school in the Florida School Recognition Program. The school is committed to excellence for educational growth and academic improvement.

The participating teacher researcher, Jessica, a Caucasian, was a Spanish teacher in her mid 50s. She was raised near Philadelphia and spent a lot of time there. Jessica had been at the school for about two years. She had 15 years of teaching experience in different school settings. She had a bachelor’s degree in Bible and a master’s degree in Religious Study, and was a certified teacher in Spanish and Elementary. She was also the Foreign Language Chair in the school. Although Jessica described her school as a mixed community she also specified that the school served a predominantly university community.

Using the techniques of analytic induction and constant comparative method, the researcher uncovered ten themes with supporting assertions that explicated the research question. Grounded theory (Strauss, 1987) was used as the method of analysis for this study. Grounded theory utilizes the constant comparative method and coding paradigms.
that aid in the uncovering and development of themes and assertions. It seeks to generate a theory based on data that the theory is grounded in. Themes are overriding ideas or issues that emerge from organization, sorting, coding, and categorization of the data. Cases in this study were examined individually and as a whole for themes and patterns. Commonalities and differences between the four teacher researchers’ cases were noted. From these, assertions were generated and data from these cases were highlighted in order to support these assertions. Assertions are generalizations related to a theme based on the data.

Theme 1: Initial Explorations

Teachers attended the district’s four-day intensive action research training workshop voluntarily. The action research process in this study involved the following five main steps carried out by the participant teachers:

a. identifying an issue or a problem to be researched,
b. doing a literature review related to proposed action plan,
c. forming a strategic plan of action-research design to resolve the problem,
d. collecting data in various forms to determine the effects of the action, and
e. creating action steps to be taken based upon what was learned.

After identifying and clarifying the research ideas and classroom-based issues, each teacher constructed a plan of action. Participant teachers identified their own specific research questions to be answered. Even though teachers designed their action plans according to the action research process, as Wells (1994) indicated teachers bring a variety of knowledge to an inquiry and expressed their preferred ways of working. As Bednarz (2002) stated, “most of the time a teacher carrying out action research seeks to answer questions and solve their own classroom-based problems by daily classroom experiences” (103).

The workshop training was very effective according to the responses of participant teachers who attended it. The following examples are representative of the thoughts about the effectiveness of the workshop by the participants:

“I thought it was super! I am glad there is a chance to actually do the research later on the year” (15., Participant teacher, Post-Action Research Workshop Survey, July, 2003);
“I really believe I have learned a lot and would like to be a teacher-researcher every step of the way” (01., Participant Teacher, Post-Action Research Workshop Survey, July, 2003);

“You guys did a great job!” (12., Participant Teacher, Post-Action Research Workshop Survey, July, 2003);

“Everything was presented well” (11., Participant Teacher, Post-Action Research Workshop Survey, July, 2003).

Data collected during the action research training workshop revealed that all participant teachers agreed with the statement that overall I am satisfied with the action research training workshop. The findings from the post-action research workshop survey also indicated that all participant teachers agreed with the statement that all the components of action research process have been explained adequately in the action research training workshop.

Prior to starting their action plans, among the participant teacher researchers, only one teacher had conducted action research. So what are the teacher-researchers initial views about action research? Each teacher’s initial views about action research were different. For example, Sara’s initial views about action research reflected a conception in which teachers could bring change through action research in their own classrooms:

I know that it is a part of professional development and that its aims are changing you to change student performance. (Sara, Pre-Action Research Workshop Survey, July, 2003)

I have taken action research before but [I] learn more every time [when I participated in conducting action research in my own classroom]. (Amy, Pre-Action Research Workshop Survey, July, 2003)

**Theme 2: Understanding Action Research**

Through my observations in the action research workshop training, I felt that involvement in the action research process was like a rocky road. There were ups and downs in both teaching action research materials and what teachers experienced in the workshop. For example, participant teachers had difficulty in developing a research question or research focus and needed guidance to formulate their questions. Thus, through engagement with the action research workshop, each teacher had individual
understandings of action research as they went through the process of developing action plans.

Action research has been called a number of different things, including teacher research, practitioner research, teacher-as-scholar, teacher-as-researcher, practical inquiry, interactive research, classroom inquiry, and practice-centered inquiry (Abdal-Haqq, 1995). As it has been named differently, according to Henderson, Hunt, and Wester (1999) action research has been also defined in different ways:

a. a method of inquiry undertaken by classroom teachers for the purpose of improving their own practices;
b. a combination of approaches to improve classroom teaching and outcomes;
c. a systematic and recursive inquiry and reflection in a collaborative learning community directed toward the understanding and improvement of practice;
d. a method of inquiry undertaken by classroom teachers for the purpose of reflecting upon and improving their own practices; and
e. creative problem solving and/or research-based decision making designed to solve immediate problems (p. 663).

All these definitions view action research as research carried out by teachers to improve their own practices. The central goal of teacher research is the notion of using teacher research as a tool for professional advocacy and teacher empowerment. Therefore, teachers’ understanding of research with practice is an important element to affect teacher thinking and instructional behavior, school systems and culture, and student outcomes (Knight et al., 2000).

Assertion 1: Each teacher researcher’s understanding of action research developed throughout the action research process.

I began this study with high hopes and optimism; the reality of seeing teachers learning about action research and following the teachers in conducting their action research plans was more complex and challenging than I had anticipated. From the perspective of research definitions, I wondered how each participant teacher defined what action research was and what it meant to them, and how their understanding of action research developed through the process.
The teacher researchers’ attitudes towards classroom-based research changed dramatically from the beginning of the action research training workshop to end of the study. The following examples are representative of each participant teacher’s thoughts about action research before the training:

“I had no clue what it [action research] was” (Pre-Action Research Study Questionnaire (PrARSQ), Amy, September, 2003)

“I thought it [action research] was just a project teachers did and shared with other teachers” (PrARSQ, Megan, September, 2003)

“Before I didn’t understand the action [research] components” (PrARSQ, Jessica, September, 2003)

However, as the action plan progressed, it became apparent that not only the concept of action research had been expanded on by the teacher researchers, but also their understanding of action research had improved as such:

“I now know action research is a method assessing the effectiveness of what I do in the class” (Post Action Research Study Questionnaire (PoARSQ), Amy, December, 2003 PARSQ)

“It was and still is a learning process for me” (Post-Action Research Study Questionnaire (PoARSQ), Sara, December, 2003)

“Now, I know it is research conducted in real classrooms” (PoARSQ, Megan, December, 2003)

“Now, I see the deliberate, objective, provable, end of research” (PoARSQ, Jessica, December, 2003)

At the beginning of their implementation of action plans, teachers had a good understanding of the theory of action research. For example, Sara conveyed her thoughts on action research:

“action research [as] a process in which the teacher is a researcher and the teacher is the one that is trying to make change in her classroom. It is a process of learning what you know and what you don’t know and working with that.” (Preinterview, Sara, September 19, 2003)

In the same manner, Amy’s definition of action research was more analytic; and she saw it as a research procedure:
“taking an area of your teaching that is somewhat weak choosing a question that can help it, help that area teaching that you think will improve your area weakness and you feel certain that it would be you know you don’t want to try something that would not make your teaching effectiveness better and then you collect data, you analyze your data and you come up with a plan after analyzing your data. You conclude with your data and you find out what it works and what it didn’t work and if it did work how well? And then you would add to that next year.” (Preinterview, Amy, September 19, 2003)

Megan’s definition of action research revealed that teachers as researchers had a powerful tool to make a difference in their classroom settings. For instance; Megan reported:

“You [as a researcher] make an action plan to implement a change in your classroom.” (Preinterview, Megan, September 23, 2003)

Jessica saw action research as “a cycle of improvement and a change” as she related in her initial interview:

“It’s research where you are reading, sifting and reviewing and being object oriented, results goal oriented. I should say outcome based but with values, which causes the researcher to change because they get a chance to see what was working and what doesn’t so you don’t reinvent the wheel you lop off what doesn’t work and you continue with what works. You go with that for a while and then over time you review it again. So, action research is a cycle of improvement and a change.” (Preinterview, Jessica, September 19, 2003)

Theme 3: Why Action Research?

Research (Duckett, 1986; Gable & Rogers, 1987; Lovitt & Higgins, 1996) indicates that there are some unwanted barriers that discourage teachers from applying or conducting research in the classroom. For instance, teachers generally believe that there is no relationship between teaching and research (Lovitt & Higgins, 1996), teachers think that research is beyond the understanding of classroom teachers (Gable & Rogers, 1987), teachers do not communicate with researchers to improve their own practice and they are not reinforced for involving new practices in their classroom settings (Lovitt & Higgins, 1996).

In spite of these dilemmas, classroom research can be an important mechanism for teachers who are interested in finding better or alternative ways to teach and who are ready to learn research techniques. Teachers as researchers undertake an action research because they want to know whether they can do something in a better way and to improve their own practices. What were the reasons why these teachers become involved
in the action research process? What were the main reason(s) behind doing research?

What does it mean for teachers to engage in action research?

Assertion 2: The teacher researchers’ main reason for involving themselves in the action research process was to become “better teachers.”

The following section will present evidence to support this statement and to help understand the teacher researchers’ reasons for participating in action research process.

Amy, who already experienced the benefits of doing action research in her classroom in past years, stated her reasons for involvement in action research as:

“The reason why I am doing action research is because I think it helps me be a better teacher; because it helps me evaluate my teaching methods.” (Preinterview, Amy, September 19, 2003)

Sara’s main purpose in conducting action research resulted from her need to make changes in classroom management. Sara found it difficult to teach and communicate with students because she had jumped into teaching in the middle of the year and decided that action research would give her an opportunity to look at her methods in teaching and to reflect. She reflected on her experience by saying:

“Well, I’ve planned to do action research this year because last year I felt that I needed to improve myself in the classroom…. So the best way to do this would be to look at myself and reflect and to look at what I am doing and what I am not doing and I think action research is going to give me this opportunity and I feel that it will also provide an opportunity for my students to improve themselves if I improve as a teacher.” (Preinterview, Sara, September 20, 2003)

Sara reiterated her purpose by pointing out that:

“My purpose is to improve my students’ achievement in reading and obviously you have to go through certain procedures in order to get to what you are aiming at. You learn through the action research process and I think that’s the wonderful thing about it. You learn through your mistakes, you learn what works and what doesn’t work when you are implementing something. So it is an ongoing learning experience for me and I love that part of it.”(Preinterview, Sara, September 20, 2003)

The statement below revealed Megan’s purpose of conducting action research:

“I am currently implementing a project now in order to see if I can improve my parents’ involvement. (PrARSQ, Megan, September, 2003) So it [action research] will help getting my parents more involved.” (Preinterview, Megan, September 23, 2003)
Jessica’s reasons for engaging in action research process were to make a difference on students’ learning and get results about her teaching, and to find a way to be effective as a teacher. The following statements are evident in an early statement from Jessica, as she explained her reasons:

“To take a student from where they are and bring them up… everybody. Not just a top, not the middle, not just the bottom but to find a way to be effective as a teacher because I spent a lots of time and I don’t want to reinvent the real [world]. I want to work smarter not longer even though I am working long hours…but by spending some time in an area that would be you know that that it’s results based.” (Preinterview, Jessica, September 19, 2003)

**Theme 4: How Confident Are They?**

The word confidence has different meanings for each one of us. The level of confidence we have is mostly proportional to how well we accomplish something. For example, if you were an expert in doing a particular thing you would feel more confident in doing that thing than someone who is doing it for the first time. The teachers in this study varied in their confidence because the action research experience is always a new one whether it is the first time or not. Literature reiterates the idea that conducting action research provides confidence to those teachers who engage in doing classroom-based research. Rudduck (1985), for instance, expressed this notion by stating “research offers a way of structuring a familiar situation that allows the teacher to explore it in depth, gain new insights, set new goals and achieve new levels of competence and confidence. In this way, the teacher has a sense of the professional progress that he or she is making” (p. 283).

**Assertion 3: Through the process of action research, the teacher researchers expressed confidence in solving their own classroom-based problems.**

Before starting to implement action research plans, both Amy and Sara felt confident in using the action research procedures taught in the action research-training workshop.

Amy, an experienced, mature and thoughtful fifth-grade classroom teacher, expressed her feelings about conducting action research as:

“I feel confident because I had four years of action research” (PrARSQ, Amy, September, 2003).
She emphasized her confidence even further:

“Oh! Yes. After being in it for four years. I hopefully know what I’m doing or else I shouldn’t be there anymore. I keep it [action plan] simple and I don’t make it too hard on myself. I keep my assessment simple, I keep my question simple, and keeping a data as simple as I can because otherwise I just would throw it out the window because there is so much other things to do. I keep it really very simple but effective. You have to pinpoint what you need to do. I feel confident enough to run it [action plan] in my classroom to do and take data and analyze it and show it and then get results from the data and show it” (Preinterview, Amy, September 19, 2003).

Sara, an eager young sixth-grade Language Arts teacher, expressed similar feelings when she said:

“I feel pretty confident. I feel that I’m going to do it [action research] and that is going to help me. Umm…I don’t know what extent it will help me but I know that it will help me as an individual in becoming and understanding myself. I feel confident about the purpose. My purpose was to get to know what action research is really and how I could use it to improve myself as a teacher.” (Preinterview, Sara, September 20, 2003)

Even though Sara felt pretty confident in starting her own action plan, she also underlined some concerns that she might encounter:

“If I say that I was fully confident. I don’t think that would be correct. I mean I feel confident but there are some times when I think that I could have…the workshop could have been longer and could have given us more opportunities to look at the different components of action research. I think it basically drew an outline for me on how I should do it but there are times when I kind of feel like well…am I doing this right? Was this supposed to be done this way”? But, I feel that that is a part of action research. You learn through it. So, I feel that it was reasonable.” (Preinterview, Sara, September 20, 2003)

Megan, an active and practical third grade teacher, put the confidence of her feelings on doing action research as:

“Yes, I do [feel confident]. I feel confident enough to participate in an action research plan on my own. I have already implemented my plan into my daily lessons. Well, basically since the summer during the workshop I figured out what I wanted to do and I haven’t changed it that much so I was pretty set in what I wanted to do when I went in and developed my plan this summer. I haven’t changed too much from that.” (Preinterview, Megan, September 23, 2003)

Jessica, a high school Spanish teacher, also felt confident in starting her own action plan when she expressed the following:
“I do [feel confident]. Yes. Once you are trained, but then you have to do it in order to be really comfortable with it. I’m really at the lower end of the continuum but with confidence, but there is no way I could have done it [action research]. I think without the workshop because you get to see it, and you get to see other minds work and other plans operating and results of others where you actually see it on a chart. You see the results. You see the proof. So, I’m not there yet.”

(Preinterview, Jessica, September 19, 2003)

Theme 5: What They Expected and What They Actually Came Out With

We all start a new adventure with “great expectations.” Working on attaining these expectations is the foundation of our motivations and frustrations in life. Action research is always a new endeavor for the teacher; it is a new path to tread upon with familiar and unfamiliar territory to explore. As teachers cruise through these territories sometimes they are amazed and sometimes they are discouraged, but nonetheless it is an unforgettable adventure at the end of it all.

Assertion 4: Expectations are one important motivational factor that enables the teachers to conduct their own classroom-based research.

Expectations in fact are the desirable purpose of implementing a classroom inquiry; and thus expectations become a natural paradigm for the teacher-researchers to change their own practices. So, what were the teacher-researchers expectations? Why did they come to be involved with action research and why were they doing action research? Did their classroom inquiry actually meet their expectations at the end of it all? These and other questions were explored to understand the teachers’ perspectives on what made them pursue their action plans.

The teachers in this study each had their own unique action plan to command and execute in whatever way they chose appropriate to the purpose of their outcome, whether this was improvement in student reading, improvement in parent involvement, or improvement in students’ speaking a second language; all of these teachers had one expectation in common -- improvement.

In their responses to ‘expectation’ questions, the teacher researchers tended to emphasize different aspects of their expectations pertaining to their action research.

While Amy, Sara and Megan portrayed more concrete expectations and outcomes from their action plans, Jessica seemed more skeptical in what she expected from her action plan:
“I don’t mean to be real hazy here…with expecting results, some results we don’t know so we don’t expect them.” (Preinterview, Jessica, September 19, 2003)

“I am expecting that my kids are better readers. I expect as a researcher to find with the implementation of my question that my students are more efficient and have better fluency [in reading].” (Preinterview, Amy, September 19, 2003)

“My expectations are obviously to improve my students’ reading level. So, the results that I am expecting are improvement. Just mere improvement in any way. I don’t want my kids to be just in one situation they are same at the beginning of the year and at the end of the year they haven’t really shown any improvement at all. I want to see an improvement in their phonemic awareness, in their fluency, their ability to read and comprehend better so I am looking at various things as a teacher, and just looking at them in the classroom and to see how they can use the drills I have taught them in the reading will be satisfactory for me to know that what I’ve been implementing has been helping my students.” (Preinterview, Sara, September 20, 2003)

Megan reflected on her expectations from her action research:

“I am hoping that I will see an improvement on how parents feel involved in my classroom.” (Preinterview, Megan, September 23, 2003)

Teacher researchers’ responses to whether action research met their expectations overall confirmed that the teacher researchers met their expectations related to the purpose of their action research:

“As far as I can see, yes. But the year is not over yet. But I think so.” (Postinterview, Amy, December 19, 2003)

“Most definitely [action research met my expectations]. The implementation met my expectations more than I anticipated. I didn’t expect a much improvement in my students reading fluency. Fluency is something that kids can’t pick up quickly but with my drills they really picked it up quickly and they can read more fluently. I’m not saying they are able to comprehend everything that they read but at least it’s a start, and it gives them more self-confident and when you ask them to read out loud to the classmates, the student wants to read. So it’s given them more self-confidence and the other parts gradually come. So it’s been just wonderful.” (Postinterview, Sara, December 19, 2003)

“Well, my research said that involving your parents in your classroom always improves kids…you know scores, grades…. So I expected that and once I got them involved in what was going on I saw that happened. So it met my expectation. I expected parents to become more involved and they did.” (Postinterview, Megan, December 08, 2003)
“Well, yes. In as much as I keep on saying this that word. They [students] are talking so my expectations umm… I did get some results but I’m thinking what could I’ve done have I had more time because I’m Foreign Language Chair and I have to take care of other teachers and their needs rather than that time could have been spent to adding on to this but I didn’t have a choice but that’s fine. Umm…so since I had to reduce my expectations in order to manage…. It was management thing but it met my expectations.” (Postinterview, Jessica, December 17, 2003)

Theme 6: The Effects of Action Research: What does it entail to be a teacher researcher?

There is a significant body of teacher research literature that supports the effects that action research has on practitioners (Burnaford, Ficher, & Hobson, 1996; Hopkins, 1993; Miller & Pine, 1990; Poetter, 1997; Ross & Bondy; Sagor, 2000; Sugishita, 2003). Thus, the participant teacher researchers in this study were also very positive about the effects of action research as they got more engaged in the process of their own classroom-based research.

A comment from Sara:

“Action research has broadened my perspectives and made me look at things differently, you look at things more critically and you try to find solutions to problems that occur in the classroom and you tell yourself well next time I better do an action research or do a research on this topic and see what other people have done in regards to that particular problem and bring back from research what I need to change in my classroom… reading the research, being a researcher was very important. It changed my perspectives…. I just thought teachers went in mechanically, they did what they had to do; but being involved in action research has made me look at the teacher as somebody who is looking for knowledge, looking for other people’s ideas and other people’s understanding for a particular problem and ask myself: how can I bring it into my classroom and use it to answer my questions? So I become more of a treasure hunter rather than just be somebody in the classroom doing what I need to do and not be bothered with any other persons’ findings or what they’ve read or what they’ve done. Action research has made me more global in understanding the role of the teacher. I feel like I’m a tool that is generating knowledge for myself and for other teachers to take and use my knowledge in their own classroom.” (Postinterview, Sara, December 19, 2003)

Sara’s perception of conducting action research reflected how the teacher researchers in this study view the effects of action research process in general. All four teachers indicated that through the action research process they had become more focused on what they are doing, that the process has made them more aware of their classroom
dynamics, and thus they have become better and more critical thinkers through their action research. They also pointed out that conducting action research has made them more responsible for their practices, helped them maintain consistency and purpose in what they do, and has helped changed their view of themselves as teachers who are more in control of their classroom, able to act as powerful decision makers on what goes on in their classroom. The teachers also expressed more self-confidence, commitment, and motivation plus a sense of belonging to a larger entity as they shared their findings with other educators.

Assertion 5: Through the action research process the teacher researchers became more focused, committed and motivated.

All four teachers repeatedly emphasized how action research has made them more focused and committed in what they do. In a postinterview with Sara, she related the following:

“I’m implementing an action and it’s keeping me more focused and it’s keeping me more motivated and dedicated to what I’m doing because I’m here as a teacher not testing this just for myself but testing this so that I can share it with other people in educational environment so it’s important for me that it succeeds.” (Postinterview, Sara, December 19, 2003)

Similarly Amy indicated that she was more tuned into and focused on what she was doing because of the action research:

“Action research encourages me to stick to my plan. Action Research has required me to be more focused” (PoARSQ, Amy, December, 2003)

“It [action research] keeps me on-task. You know when I don’t feel like doing something that I should; then I think [to myself] I’ve got to prove this action research and sample it as a teacher.” (Preinterview, Amy, September 19, 2003)

Both Amy’s and Sara’s notion of being focused through action research did not change but rather became more explicit in their postinterview:

“I think it [action research] makes you better teacher and I mentioned this before because it makes me stay true to what I’ve asked to do in the question, through the action research question and it motivates you, it keeps you on task even though you don’t have enough time and time is an always issue. It keeps you on task and focused.” (Postinterview, Amy, December 19, 2003)

“Action research obviously makes me more focused in what I’m doing and it also makes me accountable for what I’m doing and it makes me more committed to
what I’m doing because I’m doing this for a purpose and my students know that I’m doing it for a purpose…. it has really helped me in becoming more aware and more critical of what I do, if I ever do something in the classroom I keep on asking myself: Am I doing this for the benefit of my students, how is it going to help them? So, it has made me be more questioning so to say of the things that I do.” (Postinterview, Sara, December 19, 2003)

“I had more control and structure in my classroom. The kids were aware of the purpose and understand the need to do these drills and it helped me being more motivated and committed for this “action” plan to work than ever.” (Post-Action Research Study Questionnaire, Sara, December, 2003)

Megan also reflected on her experience:

“I think it made me think more specifically about how I involve parents in my classroom.” (PoARSQ, Megan, December, 2003)

Megan felt good about her action plan. When I asked her in one of my conversations she said,

“I am happy that I am doing this. It makes me more critical and more focused on what I am doing.” (Personal Journal Entry, Megan, November 12, 2003)

Jessica revealed her ups and downs walking through the action research processes, but reiterated a similar affect of action research:

“I would be more focused and I think right now I am as focused as I can get but there is always room…always for change and focus. [Action research is] making me more reflective and more goal oriented results-based and particular in what I am after.” (Preinterview, Jessica, September 19, 2003)

Assertion 6: Through the action research process the teacher researchers became more responsible and accountable.

As individuals whenever we are given a responsibility with consequences that we are accountable for we tend to become more involved in what we do and become more responsible for the results of our actions. That is what has happened to these four teachers who have decided to conduct action research in their own classrooms. Teacher researchers indicate that action research has made them more responsible to, accountable for, and tangible to their actions.

Throughout the process of action research Amy and Sara consistently felt that action research has made them become more accountable and more structured:
“Action research keeps me an accountable. That is the best thing I like about action research. It keeps me accountable to what I say I have to do.”
(Midinterview, Amy, November 12, 2003)

“I asked a question and I have a plan…if I didn’t have the action research, I might led it fly in the wind. Do you understand flying the mind? Like throwing it out the window. Just forget doing it. In fact, when you have action research you are accountable.…. I called it “accountable to myself.” In doing what I say I would be doing. I think it is a good thing. I think most teachers are scared of action research because they think that it is more work but it’s not other than writing reflections.”
(Midinterview, Amy, November 12, 2003)

“Doing action research has given me more structure so that I have a plan that I follow and I really stick to it rather than keep on trying different things and not really seeing what the outcome is and then try something else. So action research is kind of pushing me into…working with them…working with what I have and really being patient to find out if it works or not because as teachers if one thing doesn’t work one day we immediately are ready to change it next day, but being involved in an action research and being ready to try it out consistently and see the outcome it has given me a structure as a teacher and I tell myself “sometimes it’s hard to be doing a routine but you’re committed to it.” So it’s given me commitment to what I do and I do it every single day because I’m looking for an outcome and I have to wait for that outcome, but if I didn’t know the steps of action research and how it is done, as I mentioned before I wouldn’t have tested something for so long. It has taught me it is a process that I have to start off and finish off to see the outcome.” (Midinterview, Amy, November 12, 2003)

“I think is that action research has made me more focused and accountable to what I do because I’m doing it for a purpose. So it made me more enthusiastic. You know I want to go there to classroom and keep on doing what I’m doing, so I could get results. I see the teacher as the only one who could make a change in the classroom; and action research gives you the power to change and make things better yourself and for your students. Well, I think teachers need to try new things and take more risks to make the classroom a better place for everyone.”
(Midinterview, Sara, November 15, 2003)

Action research similarly has helped Megan become a more responsible researcher as she stated:

“Well, I think that because I can use it [action research] in my own classroom that it makes me more responsible in my research because it is not just like I’m saying I’m just sitting it somewhere so here is what you should do in your classroom. I’m in my class doing it. So it gives me a little bit more credibility with other professionals.” (Midinterview, Megan, November 15, 2003)
Even though Jessica mentioned that action research has made her be more focused through the process of action research, she did not state that action research made her become more responsible or accountable for her own practical inquiry.

 Assertion 7: Through the process of action research the teacher researchers became more critical thinkers and felt more in control of their classroom environment.

 Teacher educators have emphasized the fact that knowing the process of action research enables skills of inquiry, reflection, problem solving skills, and action (Burnaford, 1999; Casanova, 1989; Herndon, 1994; McCutcheon, 1987; Rosaen & Schram, 1997).

 Teacher educators who were engaged in conducting action research with pre-service and in-service teachers found that teachers become more reflective, critical, and analytical about their own practices (Cardelle-Elawar, 1993; Lederman & Niess, 1997; Schnorr & Painter, 1999).

 The teacher researchers involved in the process of action research in this study similarly expressed a feeling of being in charge of their classrooms and that action research had empowered them to become more critical about what they did and how they did it.

 “Action research encourages me to stick to my plan and I feel I know students and material taught more thoroughly” (PoARSQ, Amy, December, 2003).

 Amy felt more in control in her own classroom, she also implied that action research had made her look at the classroom environment and ask questions on how she could better her classroom. I recognized that during her implementation of action research she was more critical about her teaching strategies and she frequently asked questions to herself and tried to come up with answers. (Fieldnotes, December 2, 2003)

 Of the four teachers, Sara seemed to indicate most often how action research had made her feel more in charge of her classroom and her own actions:

 “I felt that I’m more in charge of my classroom. I’m the one that can make the change and I’m the only one that can make the change. If I don’t do the change for my students, nobody else is going to do it for them. So it gave me empowerment, it gave me the thought that “Yeah! I’m the boss I can do whatever I want to meet the needs of my students.” So, I’m in charge and I’m in full control of what I want to do and how I want to do it.” (Postinterview, Sara, December 19, 2003)
Megan also felt that action research made her more in charge of what she wanted to do and led her to accomplish her goals by giving her the opportunity to be more aware of what was going on in the classroom and what she wanted to do to make a change:

“Well, I think it [action research] made me feel more in control of what I wanted to do in my classroom and it made me more the leader instead of just following what other people were doing. I could take charge something I wanted to change. to determine what I wanted to do and I would control it myself instead of waiting for other people.” (Postinterview, Megan, December 08, 2003)

Jessica believed that the action research process helped her feel in charge of what she wanted to do, yet she did not express this explicitly. In my conversations with her I felt that from time to time she was worried about not being able to control what she wanted to do in her classroom because of other responsibilities due to her overloaded schedule.

“Jessica always complains about being overloaded. She couldn’t find time to conduct better action research. But she feels that at least it’s a start for her. She sometimes feels bad because of not doing enough about her action plan even though she feels that action research helps her to critically evaluate her performance and seeing change her students attitudes toward Spanish” (Personal Journal Entry, Jessica, November 13, 2003)

Theme 7: Reflective Practice and Critical Thinking

“I do like to do reflective teaching where I sit back and think: Why is a day a certain way? What’s happening here? Go beyond the superficial you know what the student brings in and find out why and all of that’s [action] research.” (Midinterview, Jessica, November 12, 2003)

Developing reflective practice as a skill is critical to teachers is not a new notion. John Dewey (1933) observed that it was not teachers’ belief in inference suggested by the context of their teaching that misguided practices. Rather, it was their failure to test the inferences. Schon (1983) identified the need to build this reflective process into the preparation of all professionals, including teachers: The development of action research cannot be achieved by researchers who keep themselves removed from the contexts of action, nor by practitioners who have limited time, inclination, or competence for systemic reflection. Its development will require new ways of integrating reflective research and practice.
Assertion 8: Action research enabled teachers to reflect upon their own practice, ask questions about their own teaching and learning and to evaluate their own practice on whether the action they took do work or do not work.

The notion of reflection has recently received a great deal of attention by researchers and a considerable literature has developed around the concept of teacher reflection (Schon, 1983; Van Manen, 1977). So what is reflection in and on action, and why is reflection an inherent component of action research process? How does reflection within the process of action research affect the teacher researcher’s practices?

Hobson (2001) defined reflection as “a process of making sense of one’s experience and telling the story of one’s journey” (p. 8). Reflection is a multifaceted term that incorporates remembering, thinking, mirroring, creating images changing perspectives. All of these components of reflection are important and need to be taken into account when teachers conduct their research. Research shows that reflection is an integral part of the action research process and the action research process cannot be completed without it. For example, (Brown, et al. as cited in Winter, 1987, p.43) proposed that the sequence of action research was as follows:

Strategic Planning → Action → Observation → Reflection

They also emphasized that ‘reflection’ will lead back cyclically to further strategic planning. This kind of reflection could be seen more predominantly in Sara who stated in the very beginning of her journey that doing action research would provide her an opportunity to learn from her mistakes and make changes for the next experience:

“You learn through the action research process and I think that’s the wonderful thing about it. You learn through your mistakes, you learn what works and what doesn’t work when you are implementing something. So it is an ongoing learning experience for me and I love that part of it. You look at yourself as a teacher and see your weakness and try to change that and I think it has done that to me. I’ve started to question myself and what I am doing and if am I doing the right things? Is there anybody who has done this before? Has it worked for them? So action research gives me the opportunity to look at myself at the end of the day and say, “What did I do today? What changes did I do that helped my students? What did I do right? What did I do wrong” and it kind of leads the way.” (Preinterview, Sara, September 20, 2003)

Reflection in action, as described in Schon’s theory, is conscious, occurs when events take place in practice, and creates awareness in practitioners of the thinking
process that they are going through at the time of the action. *Reflection on action* takes place after the fact (Richardson, 1996, p. 723). According to Schon (1987), *reflection-on-action* is “one’s spontaneous ways of thinking and acting, undertaken in the midst of action to guide further action” (p. 22). For example, a teacher who reflects *on action* after an instruction is over may ask herself such questions as: What were the decisions I made throughout my instructions? How were students affected from those decisions? What was I thinking about and feeling through my lesson? That is what Schon refers to as *reflection-on-action*.

Schon’s concept of reflection on action was echoed in Sara’s postinterview experience:

> “Action research has broadened my perspectives and made me look at things differently and you look at things more critically and you try to find solutions to problems that occur in the classroom and you tell yourself well next time I better do an action research on this topic and try something else or add something to what I’ve already done.” (Postinterview, Sara, December 19, 2003)

The reflective journaling process helps teachers develop the skills to take a broad view of events in their classes, determine which ones are of particular importance, and attempt to understand the whys and the hows of the event and what future actions they should undertake. They continually check their assumptions, ask themselves critical questions, and refine their practice based on the answers to their questions. They learn that reflection is an active process providing an opportunity to look at past experiences and relate them to future action. Schon (1983) noted that this sort of research may help the practitioner to enter into a way of seeing, restructuring and intervening which they may wish to make their own (p. 318). As teachers proceed through their action research, their experiences may help them develop the reflective habit of mind whereby a cycle of thought and action, informed by experience, begins to occur as a natural process.

Jessica’s reflection on her journey through the process corresponded with the notion that action research is a cycle that brings improvement and change:

> “Action research is a research where you are reading, sifting and reviewing and being object oriented, results goal oriented…. I should say outcome based but with values, which causes the researcher to change because they get a chance to see what was working and what doesn’t. So, you don’t reinvent the wheel you lop off what doesn’t work and you continue with what works. You go with that for a while and then over time you review it again. So, in a sense as a teacher and as an
action researcher you… it is a cycle of improvement and a change. And the reason that you change is result research oriented. The reason I am making this change is not because I feel like it but because if this doesn’t work and this does and from now I am going to go with what works, but you have to know and find out what works and the only way to do that is to do research” (Preinterview, Jessica, September 19, 2003)

It is believed that the more teachers reflect by themselves in their own practices, the more they can be better teachers, and reflection thus leads to better action (Schon, 1983) and that reflective practitioners become more effective teachers (Grant & Zeichner, 1984). Since reflection is one of the central elements of action research, it is thought that teacher inquiry or classroom-based research helps teacher researchers practice both reflection-in-action and reflection-on-action; both are in fact forms of research. Sara reiterated this belief midway into her action research:

“The most important part for me is to do what I plan and then to do it and see the little changes there, a little bit here, little bit there and then it kind of adds up. I’m writing some journals and sometimes I feel that this was a good day. I mean I feel that kids are getting better. Sometimes I go back and I wonder if this is really helping because sometimes some of them are not as attentive as they should be and it’s not the effect of what I’m doing maybe…but just as a teacher some days are better than others…the experience itself has taught me to do certain things and not to do certain things. [Doing action research] has given me a lot of input into what I can do better next time but at this point I’m pleased with my outcomes.” (Midinterview, Sara, November 15, 2003)

When teachers are involved in the process of action research, teachers have a chance to document, discuss, reflect on and analyze their own practices. Action research is a recursive ongoing process of systematic research carried out by teachers to examine their own teaching and students’ learning through many techniques including descriptive reporting, purposeful conversation, collegial sharing and critical reflection for the purpose of improving classroom practice (Miller & Pine, 1990). Both Megan and Amy expressed joy in sharing their experiences and setting a purpose for them in conducting their action research:

“One thing that I learned is that once I did it in my classroom I have the means to support saying that this is a good idea, so I could take it back to my teammates and say—here’s what I did, here’s how it affected my kids and my parents and I had the research to support it.” (Postinterview, Megan, December 08, 2003)
“What I really enjoy is sharing my results at the tips presentations where you know you have to make a backboard with your results and the teachers that you don’t know from other schools come and ask you what is going on and things like that. It’s real low key, but it’s fun. I don’t know if that is the one of the components of the action research but you share your results and with other teachers in the County.” (Preinterview, Amy, September 19, 2003)

Action research enables teachers to reflect upon their own practice, to ask questions about their own teaching and learning, and to hypothesize, document and evaluate whether the actions they took work or do not work. In this process teachers commit to, risk and implement actions which are systematic and planned. Therefore, the action research process can produce change, generate informed action or decision, and produce knowledge through reflection on practice (Kyle & Hovda, 1987a, 1987b). In her personal journal, there have been many instances in which Sara compared the teacher as researcher to a risk taker, to someone who is ready to take a path less taken and to the traveler in Robert Frost’s poem *The Road Less Taken*:

“My journey through this action research process reminds me of the traveler in Robert Frost’s poem *The Road Less Taken*; that I’ve been working in my class. It reminds me of the many paths we take to be pioneers for others to follow. Doing this action research makes me feel a part of a bigger picture serving other teachers to come. I’m taking the risk and trying my action plan and hope that it works and becomes a road for others to follow.” (Personal Journal, Sara, November 20, 2003)

The action research process has thereby made teachers become more reflective and critical thinkers in their own practices. The teacher researchers viewed themselves not only as teachers in the classrooms, but more importantly as researchers in their own classroom; as they tried to identify problems, found ways to solve them and gained new insights they moved through the process of doing action research.

**Theme 8: Professional Development Through Action Research Process**

“When I talked about improvement I am also talking about my development. As a professional it is going to give me an opportunity to look at my classroom not just as a teacher but as someone who is there to make changes, provide a form of reform and a form of change…. IMPROVEMENT. So it is going to give me a different kind of understanding of my students and myself. So as a professional in the field it is going to give me an experience that I didn’t have before and hopefully that experience is going to add on to the next year that I am going to teach and I am going to add something else on that so it is going to help me develop like the stones on a building. You have a base to it so this might be my
base because it is my first action research and then from that experience I could build on it and be better hopefully.” (Preinterview, Sara, September 20, 2003)

The overall purpose of action research is to enhance the lives of students and teachers through positive educational change. Research has shown that bringing about change in the classroom environment is very difficult and complex (Goodlad, 1998; Senge, Combron-McCabe, Lucas, Dutton, & Kleiner, 2000). The chances of getting to implement new instructional practices or innovative techniques are routinely very low (Englert & Tarrant, 1995; Gersten et al., 1997; Vaughn et al., 1998). Goodlad (1992) described two movements in school reform: one that is politically driven and another driven by the individual classroom teacher and the school. Teacher- and school-based reforms have the potential to change what is taught and how teachers actually instruct students (Goodlad, 1992). In this case classroom-based inquiry carried out by teachers plays an important role in school reform; teacher researchers have the potential to change what is taught and how they improve their practices and instruct students (Goodlad, 1992). Looking at the shift as a change process requires bringing together quality professional development that provides both a newer and deeper level of knowledge and practice while at the same time focusing on the policies and practices.

Cochran-Smith and Lytle (1992) proposed teacher research to be “a legitimate and unique form of knowledge generation and a profound means of professional growth that can radically alter teaching and learning” (p. 299). When we look at the definition of the word “reform” as defined in Webster’s New World Dictionary, it is “to make better…to cause a person to behave better” (p. 495). The notion of making better or changing for the better is the central component of Cochran-Smith and Lytle’s proposal that teacher research is a vehicle for educational reform and professional development. Many studies tend to support this belief, for instance Fueyo and Koorland (1997) reported that when using teacher research methodology with pre-service teachers, the pre-service teachers made informed decisions about their teaching, viewed themselves as problem solvers and worked to change the environment in which they taught. Similarly, Oja and Pine (1987) indicated that teachers involved in teacher research experienced positive professional development in their perceptions about school management, their role as a teacher and how they approached problems that emerged in the classroom.
Assertion 9: Through the action research process the teacher researchers felt that they were developing professionally because action research had given them the opportunity to engage in shared dialogue and critical inquiry.

Teacher researchers in this study engaged in a variety of curriculum activities which included planning their action, implementing their action research classroom activities and evaluating their practices as teacher researchers as well as the results obtained from their research. Throughout the process of action research, teacher researchers experienced several positive and desirable changes. Changes were both personal and professional. Through this process teacher researchers become more reflective about their own practices, gained more confidence in their ability to teach and improved their understanding of teacher researchers as learners.

Teachers involved in doing action research also felt that they were developing professionally because action research had given them the opportunity to engage in shared dialogue and critical inquiry. Teachers in this study indicated that the action research experience gave them the opportunity to connect with other educators. Sharing and reading about their action research gave them a sense of belonging and guided them to be more motivated in what they do. Reading and doing research on their particular topic broadened their perspectives as teachers providing them with a multitude of paths to examine and effectively used in their own classroom.

As Sara progressed through her action research she seemed to have a clear understanding of how she viewed her role as a teacher:

“I don’t look at the teacher as just a teacher but I look at the teacher as a learner, as a person that has to keep on growing and developing and not just using the old methods and everything but really trying out new avenues…being more risk taking so to say in what I do…you know learn from it. If it doesn’t work then you know you could say- well this did not work and shared with other teachers.” (Midinterview, Sara, November 15, 2003)

Amy referred to action research as a tool that helped her become a better teacher.

“Well, I think it makes you a better teacher and I mentioned this before because it makes me stay true what I’ve asked to do in the question, through the action research question and it motivates you, it keeps you on task even though you don’t have enough time and time is always an issue. It keeps you on task and focused.” (Postinterview, Amy, December 19, 2003)
Ziegler (2001) proposed action research as “a powerful tool for continuing professional education (development). It assumes that people learn best when they work together and are focused on real problems that impact their work or community. Reaching into the uncertain world or practice, action research engages the practitioner on a personal level and promises the opportunity to solve persistent problems” (p. 3). Sara reiterated Ziegler’s thoughts as she explained how teacher research helped her to see herself as part of a whole and that problems encountered in the class have a common ground. Being involved in a classroom-based inquiry provided her boundless opportunities to connect with other professionals who may have experienced similar problems.

“I loved the process of learning in action research and becoming a teacher researcher. Being able to read articles that helped me in seeing my classroom from a different perspective... because other teachers have encountered these problems that I wasn’t aware of.... I thought I was the only one encountering this problem but going through the research and coming back with that research and putting it into my own classroom made me feel more confident as a teacher and made me understand that I’m not the only one that has these problems and people have tried other things to solve their problems and I should be trying out to solve the problem in my classroom. So it made me more a part of the whole rather than feel like I’m the only one.” (Postinterview, Sara, December 19, 2003)

The following comments indicated the nature of Megan’s professional growth during the action research process and her belief that action research provides her with an opportunity to share her knowledge and experience with other teachers:

“Well hopefully if it works in my classroom then I can take it and share it with other teachers and then they can modify and adjust it to meet their needs of their classrooms.” (Preinterview, Megan, September 23, 2003)

“I was able to share my assignment sheet that I implemented this year with my teammates.” (Post-Action Research Study Questionnaire, Megan, December, 2003)

“Well, it improves my teaching because it makes me change things that I do as far as my learning environment I think it helps my learning environment because my kids know that their parents are going to be in contact with me, so it makes them more aware of what’s going on.” (Postinterview, Megan, December 08, 2003)
According to Jessica, through her participation in the action research process she developed much greater understanding of professional growth and broadened her thinking behind the classroom environment as she focused that:

“Action research broadened my thinking, beyond the classroom. Allowed me to regain control over student outcomes.” (Post-Action Research Study Questionnaire, Jessica, December, 2003)

“It [action research] helps me do my individual professional development plan as far as…and we all have to do. We have to relate what we’re doing to that. We have to have professional development to make us better teacher that could be a point about the project and then to elevate foreign language in the district and in the curriculum” (Midinterview, Jessica, November 12, 2003)

From the teacher researchers’ experience, it was evident that their most meaningful professional development involved observing their students, trying out hunches, testing out several practices, reflecting on their practices, and being curious about their teaching and learning experience. For the teacher researchers, to grow professionally meant to live with ambiguity and uncertainty, to take risks, and to learn that mistakes are a natural part of trying out something new throughout the process of action research. Of the four teacher researchers, three of them strongly believed that professional development was not something that ended quickly or limited for a period of time, rather it was a continuous journey of inquiry which not only enabled them to evaluate their teaching and learning practices but also led them to construct their own meaning through reflecting on teaching. At the end, what action research processes brought to the teacher researchers was to use action research as a vehicle for increasing the professionalism of teachers as recommended by Whitford et al. (1987). Through the process of action research, teacher researchers begin to value research and develop a professional culture that valued reflection (Clift, Veal, Johnson, & Holland, 1990). Fullan’s (1993) words tended to summarize what action research means to the growing teacher as a professional: “Each and every teacher has the responsibility to help create an organization capable of individual and collective inquiry and continuous renewal, or [change] will not happen” (p. 39).
Theme 9: Challenges in Teacher Researchers Process

Challenges became inevitable as soon as teachers started participating in the action research training workshop. Even though the participant teachers were excited about attending the workshop, at the beginning of the training they were initially worried about many things such as the term “research” itself because many teachers did not have any experience in educational research and they saw research as being primarily an academic search, not something the classroom teachers would do. There were even some myths among teachers about research being something that is: “research is something that they are not able to do; and that research is only done by university people”; and they add that “research requires scientific procedures that they don’t know anything about.” These and many other myths have prevented teachers from involving themselves in the research process. These initial frustrations match the most frequently cited reasons (e.g., Dana, 1995; Fueyo & Koorland, 1997; Lovitt & Higgens, 1996) why teachers fail to conduct research:

- Teacher inquiry or classroom-based research takes too much time.
- I don’t know enough about educational research to conduct my own classroom-based research.
- Research is something that university people can do.
- I don’t want to rock the boat with new ideas (Fueyo, 1997, p.34).

In addition, many studies (Hovda & Kyle, 1984; Ross, 1987; Williamson & Taylor, 1983) indicated that most teachers do not see themselves as problem solvers or as researchers. Many teachers, for instance, have lack of the self-confidence and knowledge necessary to conduct their own classroom-based research (James & Ebutt, 1981; Ross, 1984, Ross; 1987). In order for teachers to conduct action research, it is, therefore, paramount to understand that teachers need to overcome their insecurities about doing their own research.

When I observed the participant teachers at the very first day of action research training, I overheard a conversation about research.

Rita: “You know what I’ve realized?”
Cynthia: “What?”
Rita: “I don’t know anything about research? I did not take any course related to research when I was in college. I hope I can handle this. It seems there is lot of work to be done for a short period of time”.
Cynthia: “Well, I think so; many of us don’t know anything about research either. There are only two teachers who had previous experiences in doing action research. So, don’t worry about it. I am sure we can all do it better as the training goes on.”
Rita: “I hope so, too. God, I wish I could read more about research before coming here. I feel I am out of place. Everything seems so different to me. Why did I participate in this workshop?”
Cynthia: “Don’t worry Rita. I am sure we are going to learn a lot and improve our practices. It seems that these people are nice, helpful and well organized. So, just be more positive and keep focused and pay attention on certain things.
Rita: “Thanks, [Cynthia]… I think I will try to do my best.”
Cynthia: “I’m sure we will all do our best. That is why we are all here.”
(Fieldnotes, July 14, 2003).

Teachers’ frustrations did not fade as they become more engaged in the action research learning process. In the second day of the training, teachers were asked to identify their own action research topic or identify their own research questions; this seemed to be the most difficult process for the majority of teachers. A great deal of literature on action research emphasizes the importance of identifying a research question in action research (Corey, 1954; Noffke & Zeichner, 1987; Williamson & Taylor, 1983). This research also indicated that one of the important aspects of action research process is to determine good research questions, and that questions need to come from concerns of the practitioner. From this perspective, the trainers focused on how to select a research question. They specifically emphasized that “question(s) that they want to investigate needs to be specific, manageable, and doable.” The trainers stressed that when teacher researchers want to find out what research question(s) they want to investigate, it is critical for them to be clear and to pay attention to the following questions:

“Who is involved in this problem?”
“Why, in what sense is this problematic?”
“Is this an important and practical problem?”
“Who or what is the cause of problem?”
“What can I do about it?”
“What can I do to change the situation?”
“Do I want to change the situation individually?”
“What would be the solutions?”

The trainers provided them with sample well-written action research project questions so that they could be more familiar with good research questions. They emphasized that when choosing a topic or focusing on classroom-based research, teachers need to make certain that it is viable, clear, manageable, interesting, and related in some way to the overall improvement of the whole school.

In order to identify and design their own research questions, each teacher spent a great amount of time. Teachers were not clear about what specific research question(s) or what topics they needed to examine. They talked to each other and asked several questions to the committee members. In the midst of all these conversations, two African American elementary classroom teachers were talking to each other as they were working on their research questions. This is a paraphrased version of the resulting conversation:

Calandra: “I think I’m going to work on “reading”
Michelle: “That is good. What about reading?”
Calandra: “I don’t know. I am not sure, but something bothered me last year because my students did not do well in the comprehension part of reading on the FCAT.”
Michelle: “Well, that is a good start.”
Calandra: “I think so, too.”
Michelle: “What do you want to do?”
Calandra: “I think I need to change my reading strategies this year.”
Michelle: “That’s a good idea, so that would be your independent variable.”
Calandra: “Yeah, that is right.”
Michelle: “Then, what would be my dependent variable?”
Calandra: “Umm…Well…it would be maybe students’ improvement in reading, or increasing student achievement in reading comprehension.”
Michelle: “Student achievement in reading comprehension makes sense to me. That is what I thought. Let me ask the trainers if it makes sense and manageable for me to do.” (Fieldnotes, July 15, 2003)

Conversations between the two teachers went on and on. On the third day of the training, I looked at these teachers’ research questions and told them:

“You see; now you identified your research questions nicely. I am happy that you guys did a wonderful job on your discussion with each other and you both came out with the solution. So, keep continuing.”

They both said, “thanks.”
It took some time for participant teachers to develop a sense of comfort with the initial uncertainty, frustration, and informality of action research.

Teachers in the Action Research Training Workshop wanted to work, plan, and develop their action research plans collaboratively, rather than doing it individually. As the action research training workshop went on and teachers were taught the steps of how to develop an action research plan, it was interesting to notice that teachers were still frustrated about presenting their action plans to the committee. They often asked the committee members if they could work collaboratively and make their plans better.

Teachers asked questions such as:

“Are we going to do final projects as a group or as an individual?”

“There are lots of procedures to be included in my plans, how could I put them into my plan in such a short period of time, I feel excited and frustrated at the same time… I hope I could to do this….“ (Fieldnotes, July 14, 2003)

To ease the participant teachers, the committee members stated, “The trainers will help the participant teachers as much as they could.” The trainers also told them that they could work and present their plans as a team, but “if you are going to do in a group, there couldn’t be more than three teachers in the group…when you are working as a group, you have to tell us specifically what part(s) of the action plans you are doing.” (Fieldnotes, July 14, 2003)

Throughout my observations in the workshop training, it appeared that some teachers even found the aspects of the action research process frustrating, particularly narrowing down an area of interest into research questions and formulating them by operationally defining dependent and independent variables.

Assertion 10: Through the action research process the teacher researchers were challenged in finding the time to pursue their action plans.

Although the four teachers who participated in the action research process expressed that the action research process was a positive one overall, they did not give the impression that there had been no problems at all. They pointed out lack of time as being one of the most predominant difficulties they encountered in playing the role of the action researcher. When asked to identify the most challenging aspect of conducting action research, all four teachers responded with “time” at the top of their list. In looking at literature about action research, many researchers (Adler, 2003; Elliott, 1991; Gilbert
Cochran-Smith, 2003; Christenson et al., 2002; Kelly, 1985; Klingner et al., 2003; Winter, 1989) revealed lack of time as a potential barrier to teacher researchers’ successful involvement in the action research process. The teacher researchers’ concern related to “time” were summarized under these three main questions:

1. How can I find enough time to conduct my action research plan?
2. Where can I get the time that seems to be necessary to collect and analyze my data?
3. How can I justify all of this research with so many other responsibilities I am carrying in my own classroom and in the school?

Megan found the lack of time to be a major concern in her process of conducting action research. She commented on the lack of “time” throughout the process of action research by indicating in the pre-, mid- and post-interviews on how time played an important role in her research process:

“The only thing that I am concerned is just finding the time to do it. The project. Not the actual research. Not the actual implementation. I have already made the assignment sheet. It’s all just putting it all together in a project.” (Preinterview, Megan, September 23, 2003)

“The hardest thing for me was taking the time to look up the research. It took me time to look at the research.” (Midinterview, Megan, November 15, 2003)

“Time management for me was tough because it was tough to find a time outside of school to do the research and to create the assignment sheets all that kind of stuff. I was very thankful that I had done the class this summer so I already knew. If I hadn’t done that it wouldn’t have been very time consuming.” (Postinterview, Megan, December 08, 2003)

Similarly Jessica reiterated the concern of lack of time in her action research process:

“If I had more time I would read more on my action research.” (Preinterview, Jessica, September 19, 2003)

“Just has to be time. It was not enough time. And then I would be just tired of at the end of the day. Umm…obstacles were time, behavior…” (Postinterview, Jessica, December 17, 2003)

Amy and Sarah also displayed concerns about the lack of time in the process of conducting their action research; but interestingly they indicated that time in doing action research was not an obstacle, rather a natural part of the action research process. They
differed from Megan and Jessica in viewing the process of conducting action research and the use of time in a sense to be an integral part of implementing teacher inquiry.

“There is time of course in the classroom but you are going to have to do it any way. I mean you shouldn’t target a question that you don’t think you need to work on. So it’s your job. It’s not something extra and plus it is right down to the crux of what will make you a better teacher.” (Preinterview, Amy, September 19, 2003)

“The only obstacle if it could be called an obstacle is the restrain of time because I wish I had more time to try it out -- more time to be involved fully with my action research. Nevertheless, I don’t think it is an obstacle, rather it keeps you focused, consistent and accountable.” (Post-Action Research Study Questionnaire, Sara, December, 2003)

“I think there weren’t a lot frustrating things to begin with because I’ve tried to put my action research into my daily lesson plans so I really didn’t put a lot of stress on myself and this is what I think…. If my action research plan is really putting a lot of stress and frustration on me, I shouldn’t be doing it because it should come naturally and it should be able to solve the problem in my classroom.” (Postinterview, Sara, December 19, 2003)

Assertion 11: The teacher researchers were challenged by the need to share and discuss their own action research experiences with others in the school environment.

Another challenge the teacher researchers experienced during the process of conducting action research was finding an individual in the school environment who had similar experiences in conducting action research so that they could collaborate their thoughts, feelings, frustrations, and aspirations throughout their research process with those who were also striding in the pathways of conducting their own action research. For instance, many researchers (Hovda & Kyle, 1984; James & Ebbutt, 1981; Ross, 1984, Ross, 1987; Christenson, et al., 2002) indicated that when teachers are involved in the action research process, interaction with a group within the same school environment plays a chief role to provide motivation and help them build more confidence. Through discussing, sharing and critiquing their own research process, the teacher researchers not only clarify their research topics, but also improve their data analysis and support conclusion strategies. In her final interview, Sara reflected upon this need:

“The only obstacles I encountered was…not being able to…all I don’t think it is an obstacle but I wish that there was somebody out there in my own school that was conducting action research that I could sit down with and talk to them about. You
know just as a colleague and kind of ask them how it was going with them and then share what I had and see if I was doing the process right because it was my first time. So it’s not an obstacle but it’s something that I would have wished would happen.” (Postinterview, Sara, December 19, 2003)

In many of her daily conversations related to the action research process, Jessica expressed a longing to share her experiences in the process of implementing her action research. She commented on this need:

“I wish that I had someone else in the department…even in the whole school someone who was conducting action research so that I could go and talk to them and have them come and talk to me… I feel that I am alone and by myself and I sometimes feel that I need the support and guide of others who have experimented with action research. I know that I would feel better in knowing someone else is also trying an action research.” (Fieldnotes, Jessica, November 13, 2003)

On the other hand Megan and Amy had the comfort of having other teachers in their schools who had conducted action research and acted as mentors to guide and have collegial conversations about their action research process.

“There are other teachers in the school that have done it before. So, I can definitely ask them.” (Preinterview, Megan, September 23, 003)

“I have two other colleagues who had already implemented the similar action plans and they were quite successful. That’s why I decided to attend the training and try an action research in my own classroom with on the same topic. They have been a tremendous support and given me a lot of ideas and opportunities to share my action research.” (Fieldnotes, Megan, December 9, 2003)

“You know that this is my fourth time doing action research. I have a lot of experience. I know what I am doing and I keep it simple and manageable. I also have a great support system and knowing people who have experienced the action research process not just in this school but also in the district. Knowing I could share my experiences and ask questions makes me more at ease.” (Fieldnotes, Amy, December 11, 2003)

Another important barrier Jessica faced throughout her action research process was her broad selection of research topic. She also tried to implement many strategies all at one time. It was, therefore, difficult for her to manage her intervention and overall research. Even though her action plan, for example, displayed that she was going to gather her data by interviewing, videotaping, and surveying for her action research, she was not able to manage and follow her action plan regarding data gathering strategies.
Her situation was typical and not surprising because as James and Ebbutt (1981) noted, many teachers conducting action research try to do too much in an action research project, and that may cause an even greater problem for teachers who already have a limited time frame for doing an action research project (Ross, 1987).

Four teacher researchers seemed to have had various difficulties grounding their studies in past research and in conducting methods of data collection and analysis due to the limitation of time and the lack of technical support.

Assertion 12: Collecting and analyzing the data was a challenge for the teacher researchers while implementing their own action plans.

Williamson and Taylor (1983) pointed out that action researchers should study how other researchers have approached similar problems under study. It is vital to know that such studies might help teacher researchers clarify their own research questions and help them find out potential and practical strategies to solutions. Such studies could also enable them to use similar strategies or treatments as a part of their research (Ross, 1987).

Even though the school district assigned a mentor for the teacher researchers to follow up on their action research process and assist them in developing their action research, the teacher researchers did not receive the necessary systematic support from their assigned mentors. One way to overcome such obstacles for practitioners is to participate in research partnerships with university-trained researchers. Because many teachers lack skills in research methods, partnerships help overcome such obstacles. In addition, contacting professional researchers through joint research could strengthen the image of the teacher as researcher who can identify and solve classroom-based problems to improve their own practice (Huberman, 1995; Ross, Rolheiser, & Hogaboam-Gray, 1999).

For example, even though Jessica was willing to do more research and see what was out there, she had difficulty on doing her literature review:

“I know that there is more out there that I need to read, and if you want to send something to me, send it and say read this and I’ll read it. To keep at it… I don’t know enough and that is a concern. There is more research out there that people have done. I just need to read and I need to connect, but I do feel I am connected that way; but you know it is 173 students and me…. Major questions? Where are some articles? Where is this more stuff? And where am I on the continuum.”

(Preinterview, Jessica, September 19, 2003)
Additionally, when I asked Jessica: *what have you read about your action research*, her answer indicated that it was a challenge to find support for her research:

“I don’t know. I can’t answer that. I haven’t read anything else. I haven’t read anything else other than get some authors’ of the computers and what they have done. That is a lack right there. There is a dip. That would be a glitch. There is only 24 hours in a day. I mean when I go home I got stuff to make and take care of. I cook for them and make the taco meat so…plus I have to be there until every student gets picked up.” (Midinterview, Jessica, November 12, 2003)

“I’ve done the data sources, the before and after the attitude survey, recording observation from a fluency. I did some interview but they weren’t really recorded. You know that was a lot of it where I did the questionnaire, but I didn’t do much tape recording. Skills transfers umm…how they’re doing in other subjects, I noted on their progress report and the curriculum I did…the charting changes in attitude…I did some of that. I wish I could have done more of them. Say you know to have something once a week or once a every month. You know in other words based directly on the action plan there just wasn’t enough time. I would’ve added more. Well…this is a start. Can you see what I’m saying?” (Postinterview, Jessica, December 17, 2003)

Although Amy was clear about how to do research and find articles to support her research, in my midinterview with her, she told me that she did not do any literature review:

“Well, we’re supposed to be reading three articles about not just action research but about our subject related. So I would go into ERIC and look under reading comprehension and see what they have on that. I haven’t started it yet. But that’s the plan. That’s what you are supposed to do. I haven’t researched it yet. We did this summer. All I have…actually I do. I have three titles in my action research plan of articles that I am going to read but I haven’t gotten them yet and I haven’t pulled them up yet, and I haven’t read them. I can get you to titles I have the titles and authors and where to get them from.” (Midinterview, Amy, November 12, 2003)

As with the other teacher researchers in the process of action research, time was an issue for Sara to find elaborated support for her action research through a literature review. Although she had some research articles she felt that she needed more time and effort to extent and support her research:

“Well, I’ve some articles that I’ve read but as I told you that that is one part I would like to change in if I had the opportunity to because as a teacher it’s really hard to pinpoint good articles that would help you in what you’re doing because you just go into a website and you just write your topic and they give you a
thousands and thousands stuff. Because reading is a big issue and it’s really hard for me to find time to decipher what I need and umm...do that. But I’ve been reading and my reading has led me more to believe that what I’m doing and that phonology and teaching kids sounds, phonemic sounds is the way to conquer reading so that’s been very fruitful for me.” (Midinterview, Sara, November 15, 2003)

Megan also indicated a similar problem in finding time to review literature related to her topic. She told me:

“The hardest thing for me was taking the time to look up the research. It took me time to look at the research.” (Midinterview, Megan, November 15, 2003)

Other barriers mentioned by Jessica were “discipline problems, too many classroom responsibilities, student achievement levels, and personal reasons.”

Teacher researchers experienced complications and difficulties with the process of conducting their own action research. In my conversations with these teachers, Jessica, for example, sometimes found that she really needed to have substitute teachers so that she could go to the library and do a little bit more research and see what is out there. She often indicated that she was so busy with classes and schoolwork that she hardly found time to implement her action research plan. Of the four teacher researchers, at least one of them, Jessica, felt that she did not have enough time to collect and analyze data. The other teacher researchers, Amy, Megan, and Sara, also felt that they needed more time to conduct their own research as well. Time is precious to teachers. It is therefore not surprising that this issue emerged as one of the biggest obstacles for the teacher researchers in conducting action research. Their comments were not negative or discouraging, yet, the teacher researchers stressed the necessity of having enough time to take part in their own research.

In spite of such difficulties, these teacher researchers continued to conduct their action research because they felt that action research valued the immediacy and relevance of the research. As a result, despite these and many other constraints, teacher classroom inquiry is a very important and insightful path to make contributions to teachers’ professional development (Cochran-Smith & Lytle, 1993; Fleischer, 1995).
Action research has become a part of significant issue in education reform, and has been receiving increasing attention in teacher education as a means to enhance classroom practice and to effect educational change. Action research is a form of systematic inquiry; and it is a process undertaken by practitioners to study their problems systematically and carefully to both improve their social situations and to guide, correct and evaluate their decisions and actions (Corey, 1962). Ebbutt (1985) defined action research as “the systematic study of attempts to change and improve educational practice by groups of participants by means of their own reflection upon the effects of those actions” (p. 156). Action research holds the promise of helping teachers to be effective, and holds the promise of developing teacher effectiveness both personally and professionally.

One of the important goals of action research is to enhance the lives of students and teachers through educational change. Action research is a catalyst for educational change. As Ferrance (2000) stated, action research “is increasingly becoming a tool for school reform, as its very individual focus allows for a new engagement in educational change” (p. 8). It is a systematic, dynamic, and cyclical process that includes planning, acting and reflecting. Change is an inherent part of the action research process and plays an important role in the process. It holds promise for improving teachers’ practice, solving classroom-based problem and opening the doors for personal and institutional change; thereby enhancing teacher professional development.

A significant body of literature has accumulated a number of benefits of conducting action research (Bednarz, 2002; Cano, 2004; Cochran-Smith & Lytle, 1990; Downhower, Melvin, & Sizemore, 1990; Fueyo & Koorland, 1997; Johnson, 1993; Kelsay, 1982; Hovda & Kyle, 1984; Miller & Pine, 1990, Ross & Bondy, 1996). The benefits of conducting action research are many fold; a number of researchers have indicated various benefits of conducting classroom-based research and investigated the potential of action research as a means of improving student learning and teacher

In addition, educational researchers have revealed that the action research process promotes teachers’ skills of inquiry, reflection, problem solving and action (Arnold, 1993; Cardelle-Elawar, 1993; Casanova, 1989; Friesen, 1994; Fueyo & News, 1995; Gore & Zeichner, 1991; Keating, Diaz-Greenberg, Baldwin & Thousand, 1998; McCutcheon, 1987; Rock & Levin, 2002; Rosaen & Schram, 1997). As a result, the literature found the following rank-ordered list of benefits of action research teachers as researchers, in general, gain:

a. Teacher empowerment (Carr & Kemmis, 1986).
d. Effective change (Calhoun, 1994).
e. Collaboration (Oja & Smulyan, 1987).

In Reclaiming the Classroom: Teacher Research as an Agency for Change, Goswami and Stillman (1987) found the following important elements of what happens when teachers engage in research as part of their roles as teachers:

a. Their teaching is transformed in important ways: they become theorists, articulating their intentions, testing their assumptions and finding connections with practice.
b. Their perceptions of themselves as writers and teachers are transformed. They step up their use of resources, they form networks and they become more active professionally.
c. They become rich resources who can provide the profession with information it simply doesn’t have. They can observe closely, over long periods of time, with special insights and knowledge. Teachers know their classrooms and students in ways that outsiders can’t.
d. They become critical, responsive readers and users of current research, less apt to accept uncritically others’ theories, less vulnerable to fads and more authoritative in their assessment of curricula, methods and materials.

e. They can study writing and learning and report their findings without spending large sums of money (although they must have support and recognition). Their studies, while probably not definitive, taken together should help us develop and assess writing curricula in ways that are outside the scope of specialists and external evaluators.

f. They collaborate with their students to answer questions important to both, drawing on community resources in new and unexpected ways. The nature of classroom discourse changes when inquiry begins. Working with teachers to answer real questions provides students with intrinsic motivation for talking, reading and writing and has the potential for helping them achieve mature language skills (preface).

Similarly, many researchers (Calhoun, 2002; Cardelle-Elawar, 1993; Little, 1981; Miller & Pine, 1990; Nixon, 1987; Pine, 1981; Oja & Pine, 1987; Simmons, 1985) found several benefits of teachers’ involvement in doing action research. Teachers involved in the action research process become more flexible and free in their thinking, more open to new ideas and thoughts and more able to solve new problems. Teachers engaged in the action research process also take more fundamental responsibilities and challenges for their own practices and student learning, establish effective communication and network with other colleagues in the school environment, gain more confidence in their teaching strategies and curriculum, increase their own self-esteem, investigate their own situations, transform their experiences, develop craft knowledge and gain a sense of empowerment for the future of their learning and teaching. Moreover, according to Kyle and Howda (1987a; 1987b), the process of action research can lead teachers to change their own practices by generating informed action plans and producing knowledge through reflection on practice.

In his study, *Why Conduct Action Research*, Johnson (1995) provided reasons why teachers perform action research, including:

a. Promoting personal and professional growth
b. Improving practice to enhance student learning

c. Advancing the teaching profession

As a result, this significant body of literature provides tremendous supports the study findings that the teacher researchers who participated in this study gained similar benefits of conducting their own action research.

Assertion 13: Conducting action research provided teachers with both personal and professional growth.

Teachers’ benefits began when they attended the action research workshop. They were trained and taught about being a teacher researcher and the process of doing action research. The participant teachers were taught and given examples of how to plan, develop and implement classroom-based research by the trainers. The action research cycle primarily included identifying an area of focus or problem formulation, collecting data, analyzing and interpreting data, reporting results and developing an action plan. Throughout the intensive training, participant teachers were introduced to how to use technology, especially PowerPoint, to present their action plans, and explored how to collect and analyze their data by using spreadsheets. Their perspectives, thoughts and understanding of research and self-confidence about classroom-based research had improved through the action research workshop.

At the end of the action research training workshop the statement below, thus, was affirmed by most of the workshop participants:

“Action research will give me a great opportunity to study my own practices and the proficiency of my students to see what works and what doesn’t. My primary goal in the process of action research is to have a meaningful teaching and learning experiment with new ways of doing things, to measure the effectiveness of my own practices, and to begin my action again as necessary.” (Fieldnotes, July 14, 2003)

“I really liked this workshop, I learned a lot. I think this is the best workshop I have ever participated, it is going to be so beneficial for me to involve in my own research. I would like to do my research.” (Fieldnotes, July 17, 2003)

“I am grateful that I participated in this action research training workshop. I feel I have learned a lot under such a short time. I wish we could have more time to make more practice about what we have learned, but I think I will do my research any way, and in doing action research I will have developed solutions to my own
problems. I will probably need some help but thanks there are these people so I
will get the help I need it.” (Fieldnotes, July 17, 2003)

I feel confident to do my own classroom research. I will be more aware of my
students’ needs and success. (I.B., Post Action Research Survey)

My participation will affect the performance of the student and I will be able to
identify problems and effectively solve them. (Y.J., Post Action Research Survey)

I want it to improve my communication with my parents and I feel I can make a
difference if I present my findings to other teachers. (Post Action Research
Survey, Megan, July 17, 2003)

[Action research] it will make me more observant and be more attentive to what I
do, and why I do…. I really believe that I’ve learned a lot and would like to be a
teacher-researcher every step of the way. (Post Action Research Survey, Sara,
July 17, 2003)

On many occasions the teacher researchers who participated in this study
indicated that conducting action research made them more accountable, controlling,
confident, empowered, reflective, critical and analytical about their own teaching
behaviors in classroom settings.

Of the four teachers, Sara was the most enthusiastic teacher in conducting her
action plan. When she started her action research she was very excited about her research
project. For her-action research “sounded intriguing.” She was hopeful of solving some
great “unknown mysteries whirled around in her mind.” In addition, she was very eager
to undertake a new adventure with her students in her own classroom. In fact, after the
implementation of her action research she shared her feelings:

“Being a teacher researcher was very important. It changed my perspective. I just
thought teachers just went in mechanically they did what they have to do but
being involved in action research has made me look at the teacher as somebody
who is looking for knowledge, looking for other people’s ideas and other people’s
understanding for a particular problem and how I could bring it back into my
classroom and use it to answer my questions. So I become more of a treasure
hunter so to say rather than just be somebody in the classroom doing what I need
to do and not be bothered with any other person findings or what they’ve read or
what they’ve done so it has made me more global so to say in understanding the
role of the teacher. I feel like I’m a tool that is generating knowledge for myself
and for other teachers to take and use my knowledge in their classroom.”
(Postinterview, Sara, December 19, 2003)
In my conversation with Amy, she said:

“As a classroom teacher, I feel more confident in analyzing and reflecting what I am doing. In doing action research, I can easily evaluate my teaching strategies and be able to improve my own teaching and classroom management techniques.” (Fieldnotes, November 4, 2003)

Jessica often emphasized how action research made contributions to her teaching strategies and inquiry skills by commenting:

“Action research enables me to hone the teaching strategies I use and to broaden or sharpen my thinking about teaching. In fact, it does allow me to see the bigger picture in my own classroom practices.” (Fieldnotes, December 13, 2003)

Based on her research experience, Sara, a 6th grade language arts teacher, wrote:

“Action research gave me a chance to step back and see again why I am teaching. It enabled me to examine my own practices. With this in mind I really think that I became inspired. I was excited about teaching and being a teacher as a learner.” (Personal Journal Entry, Sara, November 25, 2003)

“I become more control in what I am doing and consistent in the planning and implementation of tasks and the assessment of students’ work through the process of doing my own research.” (Personal Journal Entry, Sara, December 11, 2003)

The teacher researchers involved in this study stressed that they become more flexible in their thinking, more open to new ideas and thoughts and more able to solve new problems. Thus, all teacher researchers indicated that action research not only improved their own personal and professional growth but also helped them become a better teacher. For example Jessica wrote how the implementation of action research contributed to her professional development:

[Action research] “broadened my thinking beyond the classroom. It allowed me to regain control over student outcomes.” (PoARSQ, Jessica, December, 2003)

In my conversation with Megan she emphasized:

“Teacher research enhanced her classroom teaching, strengthened her oral and written articulation of what was taking place in the classroom and she improved her practice through action research process.” (Fieldnotes, November 24, 2003)

In her reflection Sara specifically reported the importance of being reflective throughout the action research process,
“Writing my journals about teaching and learning process with action research in classroom helped me serve to transform my teaching on a daily basis. What was become clear to me in the examination of this process is my personnel and professional growth as a teacher researcher. I realized that I become teacher as learner in doing my own classroom research.” (Personal Journal Entry, Sara, December 15, 2003)

Amy frequently mentioned that action research helped her become a better teacher. Action research helped her evaluate her teaching strategies and helped her reflect by herself. (Fieldnotes, November 20, 2003)

The literature supports the idea that action research brings change and improvement in teachers’ professional growth and teacher education in general. From this perspective, action research has become popular as a powerful means of teacher professional development and also contributes to the knowledge base in the educational arena (Cochran-Smith & Lytle, 1999; Erickson 1986; Goswami & Stillman, 1987; Lieberman, 1986; Maeroff, 1988). Action research is an effective strategy for engaging teachers in the change process and has the potential to prompt educational change (Fleischer, 1995; Hollingsworth & socket, 1994). Through the process of action research teachers have a chance to be involved in the research process directly and this direct involvement of teachers in action research activities can be more effective than other strategies used to bring about educational reform (McKay, 1992). Action research, therefore, is “a way of thinking that implies the use of reflection and inquiry as a way of understanding the conditions that support or inhibit change, the nature of change, the process of change, and the results of change” (Clift, et al., 1990, pp. 54-55).

Several studies support this study’s findings that action research enabled the teachers as researchers to change their own practices to meet the needs of the children, to help them make informed decisions about their teaching, to view themselves as problem-solvers and to change the environment in which they teach. Another substantial benefit of action research that emerged from the study was that the teacher researchers reported that they changed through the experience of the action research process. The action research was a powerful tool that enabled them to change their own classroom practices, change their perception of themselves as teachers and put them into the role of teacher researcher as a means for developing their professional knowledge through the process of
conducting their own research as a form of systematic and intentional inquiry. Action research, therefore, is evaluative and reflective as it aims to bring about change and improvement in practice.

Sara saw action research as a learning process and she unveiled that action research enabled her to look at her own classroom and be more observant herself as a teacher. She expressed:

“Action research was and still is a learning process for me. I think that “action research” enables me to look at my classroom and be more observant and feel that I, as the teacher, could make the decision to make a plan and “act” for the improvement of my students. I think that next time I will try to do something that is more “concert” or tangible to really see the effects of my “action research.”” (PoARSQ, Sara, December, 2003)

In her postinterview, Sara expressed how conducting action research had an impact on her own practice:

“In general, I’ve observed all that’s positive in myself and in my students. I come to the classroom and I know what I need to do, I have a plan that’s a routine and I’ve just kept on doing it and the kids got used to it, I got used to it. I saw the motivation come up and as I got motivated it reflected on my students. So the physical changes that I can see are the arrangement of my classroom. I’ve got more sound charts and prefix and suffix charts, and it has helped my students visually. I’ve also seen more motivation and enthusiasm. They want to come and do something in the classroom, you know they say “come on, let’s do our drills” so it keeps me motivated, committed and focused on what I do.” (Postinterview, Sara, December 19, 2003)

As an experienced teacher in doing action research Amy also found that action research was a powerful tool that kept her accountable to herself about what to do, made her motivated to be on task, and made positive contributions to her students’ improvement in reading and her own practice:

“I have been doing action research for several years now. Last year and the year before I did an action research and like I said it kept me accountable to myself what I said I was going to do for the action research and last year my scores in the county were very very high and in fact I got performance pay and now I am getting 275 dollars more every month. More money, because I was one of those teachers. It was very encouraging to me that the action research, research kept me on task with what I said I was going to do and I knew that if I could stay on task with what I said I was going to do it would help my students.” (Midinterview, Amy, November 12, 2003)
“The kids are much more tuned to what is the main idea, they are much more able to respond to what the main idea of a passage/reading passages. Not all but most of the kids are. I’ve seen improvement. They are much more able to more attack it.” (Postinterview, Amy, December 19, 2003)

Change is viewed by many as involving teachers’ reflection on their own beliefs and values, developing teachers’ personal visions of change, and constructing teachers’ commitment to that change. Teachers who are researchers are demonstrating that the process of action research is valuable and valued because they are trying to solve their own classroom-based problems with their students and with colleagues by conducting an intentional and systematic inquiry.

When I asked, “How did action research change your perspective as a teacher?” the teacher researchers’ responses were very affirmative. In her response to the question, for example, Sara said:

“Action research changed my perspective as a teacher because I felt that I’m more in charge of my classroom. I’m the one that can make the change and I’m the only one that can make the change. If I don’t do the change for my students, nobody else is going to do it for them. So it gave me empowerment, it gave me the thought that “Yeah! I’m the boss I can do whatever I want to meet the needs of my students.” So, I’m in charge and I’m in full control of what I want to do and how I want to do it. Action research has broadened my perspectives and made me look at things differently and you look at things more critically and you try to find solutions to problems that occur in the classroom and you tell yourself well next time I better do an action research or do a research on this topic see what other people have done in regards to that particular problem and bring back from research what I’ve to change in my classroom. So, obviously reading the research, being a researcher was very important. It changed my perspective…. I just thought teachers just went in mechanically they did what they have to do but being involved in action research has made me look at the teacher as somebody who is looking for knowledge, looking for other people’s ideas and other people’s understanding for a particular problem and how I could bring it back into my classroom and use it to answer my questions. So I become more of a treasure hunter so to say rather than just be somebody in the classroom doing what I need to do and not be bothered with any other person findings or what they’ve read or what they’ve done so it has made me more global so to say in understanding the role of the teacher. I feel like I’m a tool that is generating knowledge for myself and for other teachers to take and use my knowledge in their classroom.”

(Postinterview, Sara, December 19, 2003)

Amy saw action research as an effective tool that made her a better teacher as she stated:
“I think it [action research] makes you better teacher because it makes me stay true what I’ve asked to do in the question, through the action research question and it motivates you, it keeps you on task even though you don’t have enough time and time is an always issue. It keeps you on task and focused. So, it [action research] is an effective way. I think it’s cut and dry and I think it’s nice to see your results in black and white and you know in data form.” (Postinterview, Amy, December 19, 2003)

Megan’s response for this question was short, but to the point:

“It [Action research] made me feel more in charge of what I wanted to do. Action research improves my teaching because it makes me change things that I do as far as my learning environment I think it helps my learning environment because my kids know that their parents are going to be in contact with me, so it makes them more aware of what’s going on.” (Postinterview, Megan, December 08, 2003)

Jessica’s answer was more reflective and questioning:

“It’s from my particular vantage point and then…so that’s a teacher operator you know the teacher is doing the research, conducting the research, receiving the benefits of the research. It is like I can make a change what is my problem. What questions can I answer, you know how can I help this particular group and then you make a strategy to do it and then you formulate and then you answer your own question…you make your own question and you find a solution to your own problem.” (Postinterview, Jessica, December 17, 2003)

Through the process of conducting action research the teacher researchers experienced many personal and professional benefits. Action research had an effect on the way teacher researchers think about their roles and responsibilities as teachers. The teacher researchers tried to see themselves as learners and viewed their research as a process of inquiry, and they questioned their own teaching practices in order to find answers to their own problems.

As a result, developing critical thinking and inquiry skills play an important role for teachers changing their practices. For teachers to experience these skills, it is critical to help them get engaged in the process of classroom-based research (Cochron-Smith & Lytle, 1990). Teachers who are engaged in action research, therefore, can make contributions to educational improvement by doing inquiry concerning the teaching and learning process. Doing research, in turn, can enhance the professional status of teaching, generate knowledge and promote teacher development (Miller & Pine, 1990)
CHAPTER V
SUMMARY, DISCUSSION, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Overview

The purpose of the study was to observe, describe, explore, identify, analyze and interpret data about action research activities that were being conducted by the teacher researchers to bring change in their own classrooms. As a part of this, the study examined the differences in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them in the workshop. This research was an attempt to describe how these teacher researchers came to understand, account for and apply their own action research plans into their own practices. The data collected were examined to serve the goals of the study. I explored the meanings that emerged from the teacher researchers’ process of change through action research. It is believed that this study describes the processes involved in conducting action research and the degree to which teachers conducting action research can bring effective change in their own classroom settings. The findings of this study have the potential to bring about change and development in teachers.

The primary question addressed in this qualitative study during the fourteen-week period was:

“What is the difference in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them in the workshop?”
This study was an attempt to answer this question by exploring the process of action research and how teachers brought change into their own classrooms by implementing their own action research plans.

To develop this study, the initial questions focused on the following:

1. What are the participant teachers doing in relation to the workshop training?
2. What kind of understanding do participant teachers have of the action research process before, during, and after implementing their action research plans?
3. How and when are they implementing their action research?
4. What are some impediments or hindrances that are both visible and opaque in conducting their action research in the school settings?
5. What method(s) will be utilized by the teacher researcher to infuse the theoretical framework of action research plans in their classroom settings?
6. Which method(s) will be perceived by the teacher researcher as the most beneficial or least helpful components of the action research process?
7. What are or will be the obstacles that teacher researchers perceive and experience as they try to implement action research in their classroom?
8. What are the results obtained through the implementation of action research?

All of these initial and additional follow up questions were asked to bring insight into how the teacher researchers came to understand the process of conducting their own action research plan. The study findings and conclusions supported past research and exposed new phenomena within the study.

In chapter two, the researcher presented a review of the related literature and theory relevant to the study. This section briefly described the need for action research, provided a brief historical background of action research, and focused on definitions and characteristics of action research and teacher research. Steps in conducting action research and benefits of teacher research were also addressed in chapter two.

Chapter three described the design and methodology utilized within the study. The primary means of data construction involved in-depth transcribed interviews, documents and journal entries of both teacher researchers and the researcher. The data were also supported by classroom observations in each teacher researcher’s field.
Analytic induction and the constant-comparative method were also utilized for data analysis.

Chapter four consisted of the presentation and analysis of data. This chapter included the ten themes that emerged from the data gathered. Chapter four also covered assertions the researcher made in the study. This chapter presented the four teacher researchers’ process of change through action research. Specifically, chapter four focused on how the four teacher researchers explained their understanding of action, what obstacles they encountered and what steps they took in the process of conducting their action research plans.

The summary of findings and discussions, recommendations for future research and implications and conclusions extracted from the themes in chapter four are provided in the next section.

Summary of Findings and Discussions

The purpose of the study was to see if there was a difference in the process of conducting action research between those teachers whose action research plans were evaluated to have modeled appropriately the action research process taught to them in the workshop and those teachers whose action research plans were evaluated to be divergent from the guidelines taught to them in the workshop. The study provided evidence that all four participant teachers benefited both personally and professionally by conducting their action research plans. Although there were various degrees of differences between the two participant groups of teachers in the study, these differences were not extreme. The data gathered shed light into understanding how the teacher researchers understood, implemented and evaluated their own action research; and, in turn, how the process of conducting action research brought about change in their own practices.

The four cases in this study demonstrated that conducting action research helped the teacher researchers provide personal and professional growth that brought effective and meaningful change in their teaching practices. This study also confirmed the findings of previous research indicating that action research contributes to the knowledge base of teaching, improves teachers’ individual practice, changes their teaching, and helps teachers become more reflective about their instructional practices during the inquiry.
Action research is the one systematic inquiry that seeks to bring about change and improvement in classroom settings, yet it is a challenging task to bring about that change. As Goodlad (1984) noted, change in schools will only come about as teachers learn to solve their own problems. One effective way in encouraging teachers to solve classroom-based problems is conducting action research which provides teachers the opportunity to become more observant and more reflective about their practice, and action research thus enables them to change their teaching practices through systematic inquiry.

Overall, in each of the teacher researchers observed for this study, it was evident that the process of action research enabled the participant teachers to bring about change in areas that they believed needed improvement. It is believed that improvement in education and particularly in the classroom environment requires educators to change their typical or ineffective practices. In this manner, action research can be used as a school improvement tool or as an individual professional development alternative to bring about change and improvement.

By engaging in the action research process, the teacher researchers in this study tried out new ideas and strategies to increase their own knowledge and to improve their teaching, curriculum and student learning. It thus appeared that all the participant teachers in this study possessed common objectives in their action research projects. All the participant teachers as researchers believed in the value of their action research and all the teacher researchers noticed how change can be brought about in their individual classroom through their systematic research. They, in fact, felt empowered by the process of action research that enabled them to generate their own knowledge and gave them an opportunity to share their findings with other teachers in faculty meetings and, more often, in individual or group conversations.

The teacher researchers reported that because of the process of action research students became more active learners and more actively engaged in classroom activities. Due to their involvement in the action research process, the teacher researchers’ control over and interaction with students increased. With this in mind, the study findings supported Haberman’s (1992) findings that teachers’ involvement with action research
forced teachers to interact with students and therefore increased their awareness of 
student needs within the classroom environment. Moreover, the participant teachers 
unveiled that their overall confidence increased as they took more responsibility for their 
own learning, become more involved in doing research, and found answers to questions 
they asked for themselves. All the participants appeared to gain skills, confidence and 
meaningful and useful knowledge through the process of their own systematic classroom-
based inquiry. They appeared to enjoy sharing their findings and the evidence of the 
research they conducted. It was also apparent that the teacher researchers wanted to make 
their own decisions.

The opportunity to conduct their own practical inquiry allowed the teacher 
researchers to become more professional by carrying out research, being observant, and 
making their own decisions about curriculum, instruction and assessment practices based 
on evidence and knowledge. By engaging in the action research process, it appeared that 
the participant teachers’ roles changed from just being a “teacher” to the “teacher as 
researcher,” and the role of teacher researcher enabled them to liberate and refine the 
roles that they played within their own classroom and school settings. As stated by 
Hopkins (1993, p. 35),

“The major consequence of doing this is that teachers take more control of their 
professional lives. Not content to be told what to do or being uncertain about 
what it is one is doing, teachers who engage in their own research are developing 
their professional judgment and are moving towards emancipation and 
autonomy.”

In the role of researchers, despite the challenges they faced throughout the process 
of action research, all participant teachers felt satisfaction and confidence in designing, 
conducting and completing an endeavor that resulted in knowledge and immediate 
solutions to their own classroom-based problems.

Through the process of conducting action research, it was apparent that reflection 
and research enhanced the ability of the teacher researchers to learn new strategies in 
teaching. It also appeared that doing action research enabled them to be more willing to 
interact with students and fellow teachers. They felt that their understanding of research 
changed in their role of teacher as researcher, and at the same time they felt that they 
became a learner through practical inquiry.
It appeared that doing action research helped the teacher researchers change their ways of looking at their students and at themselves. To some extent their teaching strategies had been transformed. They increased their confidence and enthusiasm, and it seemed that they became empowered to talk about their own research and findings. The confidence they felt throughout the process of action research was evident in Sara’s final comments:

“I see myself constantly questioning what I am doing, how and why I am doing it, and how action research is helping my students. Even though this is my first experience in doing action research; I feel very confident and I think I will do it again. I want to share my research results with the colleagues and will encourage them to do inquiry in their own classrooms.” (Sara, Journal entry, November 4, 2003)

Amy likewise echoed her words:

“This is my fourth time participating in action research. Every time I learned a lot in conducting my own research. I feel more confident. When I do my research I feel I am discovering something and I feel really happy and motivated to do my inquiry. It keeps me focused, tuned, and accountable for what I am doing.” (Fieldnotes, September 19, 2003)

Although this study showed compelling evidence supporting several benefits of classroom-based research, some barriers to conducting teacher research remain true. This is because practical inquiry is an intentional and systematic process that takes time and effort, and requires patience and commitment of practitioners. Therefore, despite the challenges and frustrations the teacher researchers faced in conducting action research (e.g., lack of time, lack of support and criticism by experts, lack of skill in collecting and analyzing data and difficulties in scheduling activities and lack of collaboration with others), the participant teachers in this study experienced considerable personal and professional growth that promoted positive and meaningful change in their teaching practices. This study, therefore, provides evidence of the power of action research in promoting teacher development.

Although the participant teachers’ action research plans were evaluated differently by the action research committee on whether they were appropriately modeled or divergent from the guidelines taught to them in the workshop, when the action research plans were actually implemented it appeared that there were no significant
differences between the two groups of teachers. However, Jessica’s implementation of her action research plan proved to correspond with the committee’s evaluation of her action research plan as being divergent. On the other hand, Megan’s implementation of her action research plan showed that although her plan was evaluated to be divergent from the guidelines taught to her in the workshop like Jessica’s action plan, the process of implementation of her action research plan was as good as Amy’s and Sara’s action research plans that were evaluated to have been modeled appropriately.

In conclusion, even though there were common objectives in their expectations of conducting action research, these case studies demonstrated that each teacher researcher had encountered different experiences and benefits from their own individual classroom-based research. It appeared that the more each teacher researcher engaged in dialogue and actively participated in their own action research activities, the more likely it was that their practices as teachers as learner improved and they gained more confidence, power, and control in their own classroom settings.

**Recommendations for Future Research**

Based on the findings of the study, the following recommendations are made for possible further research:

1. This research could be extended to fellow teachers who have engaged in the process of action research activities to determine how this experience brings effective change into their own practices.

2. Further research could be conducted to ascertain the effects of action research workshop training on the process of teachers’ implementation of an action plan.

3. Research conducted in practical inquiry could provide information on how teachers who were involved in the process of action research come to understand, account for, and apply their own action research plans into their own practices. This information could assist educators to better understand the process of doing action research.

4. Not only did this study enable the teacher researchers to deepen their understanding of the practice, it provided them with the responsibility to take informed actions to change their own practice. The teacher researchers in this
study expressed a transformation from being a teacher to becoming a teacher researcher, and it brought the realization that they were in control of their personal and professional growth through the process of action research. Although the benefits of action research carried out by teacher researchers can be improved by establishing collaboration or partnerships with universities, school districts, administrators, and participant teachers, the barriers the teacher researchers encountered throughout the process could have been minimized by such partnerships.

**Implications and Conclusions**

These findings have several implications for teacher education, teacher educators, and teacher practitioners.

All participant teacher researchers were able to articulate ways to improve student learning and their own classroom instruction throughout the process of action research. They changed their assumptions about what could or should be done instructionally, such as organizing their daily schedule for reading, including more personal reflections in daily planning and taking immediate action as necessary. All of the teacher researchers reported some transformation in their teaching as a result of their experience.

Participant teacher researchers demonstrated the power of ownership characteristics and professional efficacy through action research. Their growing capacity to take risks, share, describe and evaluate their own practices is evidence to the value of action research.

One important drawback continually identified through the research process by the teacher researchers was the amount of time needed for conducting their own action research. For the teacher researchers in this process, however, the value of the classroom-based research evidently outweighed the time commitment as they had planned to continue with another plan for the upcoming year.

The findings of this study also revealed that the research question(s) the teacher researchers identified appeared to not only guide the action research study but also the areas of learning that the participants experienced. Therefore, framing the action research question played a critical part in the process of doing action research.
It is also important to emphasize that the findings from these case studies indicate that the choice of research questions and thereafter data sources (e.g., collecting and analyzing data) affected the outcomes of the action research process. There were differences among the four teachers’ research projects in terms of their choice of research questions.

With this in mind, I offer the following guidelines for engaging teachers in doing action research based upon my experiences through this study:

1. Even though the participant teachers indicated that they had a wonderful action research training session, there still remains a gap between the teachers’ implementation of action research activities and the ideal outlines of conducting action research. Therefore, it seems to appear from the study findings that teachers needed to have a longer training period and more hands-on practices about action research activities through the training sessions.

2. It is clear from the study findings that the teachers’ understanding of research and of themselves as teacher researchers changed. Initially, they had their questions about research, and some believed that research was done solely by university people and was out of their reach. Through the action research process they learned that they can do their own classroom-based research.

3. Even though the school district assigned a mentor for each teacher researcher at the end of the action research training, the lack of follow up and interaction between the mentor and the researcher were made obvious through my experience with the participant teachers. Therefore, a person/mentor with experience in doing action research needed to follow up on the new teachers’ research and assist them through the process. It seemed clear that the teacher researchers needed help throughout the process of doing classroom-based research, especially supporting their research, collecting and analyzing their data, and putting everything together. Therefore, practitioners needed support to conduct their own research.

4. It is also important to emphasize that the findings from these case studies indicate that the teacher researchers needed more opportunities and practices for hands-on activities with data collection and analysis techniques pertaining to their research interests than the trainers were able to provide them within a four-day action
research training workshop. Therefore, the teacher researchers needed more training in conducting action research.

5. It would be beneficial if the teacher researchers were given a chance to present their results to a wider audience and to share and disseminate the results of their action research projects.

6. From this study, it emerged that teachers wanted to conduct action research more collaboratively rather than do it individually. Their main concern was that if there were other teachers who were involved in action research at the same school, that would have given them a chance to discuss, see, and share their progress and form a kind of interactive environment enabling them do better action research. It appeared that practitioners needed to be given an opportunity to work collaboratively with other colleagues because they needed an environment where they could talk over their research, ask questions and get appropriate help where and when they needed it.

7. To have an effective action research plan, it seemed that teachers needed collaboration between universities, school districts and participant teachers. This collaboration would have helped tremendously.

8. The school district could have encouraged teachers to conduct their own action research allowing them to earn professional development or renewal credits from their district, or by earning university credit. Even though at the end of the action research training workshop, the committee told the participant teachers that they would get stipends when they completed and submitted their project to the district, this did not take place as planned.

9. Teachers needed time and support to encourage, facilitate and finalize their own research. Without the support, it seemed that action research would be difficult to accomplish.

Through the implementation of this action research process, the participant teachers in this study became increasingly enthusiastic as they closely observed the students’ learning processes. This enabled the teacher researchers to increase their confidence and broaden their ideas about their teaching, curriculum and student learning.
At the end what the teacher researchers brought to the process was practicality and immediate solutions to their own classroom-based problems.

The teacher researchers in this study felt that conducting action research had been a practical, useful and meaningful way to help them reflect on their teaching practice. The participant teacher researchers in this study also found the experience empowering. The implementation of their own practical inquiry helped them gain confidence in themselves as professionals. It helped them share their research with colleagues.

In this study, participant teachers reported evidence of personal growth, professional development and empowerment for the improvement of teaching and learning. Teachers as researchers gained self-confidence, improved critical thinking skills and heightened their students’ performance. They also reported increased confidence in their ability to solve instructional problems in their own classroom.

The study findings suggest that the teacher researchers perceived action research as a powerful tool for improving their teaching. The findings also suggest that the participant teacher researchers would be willing to conduct another action research project.

The participant teacher researchers in this study expressed that the process of action research revealed to them the importance of focused inquiry, reflection, critical thinking, making informed decisions about what to change and what not to change, observing and monitoring themselves and their students while teaching and becoming risk takers through intentional, systematic and thoughtful actions for their professional development as teachers.

In looking at the study findings we may need to consider alternative explanations to the study. Even though the teacher researchers had different levels of understanding and awareness of themselves as teacher researchers, the degree, type, and intensity of change through their action research process may have varied according to their particular growth as teacher researchers. It could also be noted that if these teacher researchers had a more collaborative learning environment while conducting their action research; these teachers may have shown more enthusiasm towards their classroom-based research which could have made their study more systematic and applicable. It is also possible that the nature of the inquiry, the actual question studied, the type of data
gathered, and the level of involvement of the mentor teachers and the students in the classroom may have also impacted the level of change in the process. Also, since the sample of this study were comprised of females, it is beyond the scope of the study to determine whether the study findings hold true for male teacher researchers. Finally, a longitudinal analysis of study could be needed to document the long-term impact of conducting action research on teacher researchers’ personal and professional growth.

In conclusion, action research is important because teachers conducting classroom research not only validate their practices and take control of their classrooms, but also critically evaluate their own curriculum and practice. Teacher research adds a unique and significant contribution to the body of professional knowledge, improves the teacher researchers’ individual practices, and changes their teaching. Classroom-based research has the potential to bring about change and improvement in teacher researchers’ classroom settings. In addition, teacher research has brought a new genre and perspective to the teaching profession. Teacher research thus has the potential power to maximize both teacher effectiveness and student learning. In short, as Bissex and Bullock (1987) put it, “doing classroom research changes teachers and the teaching profession from the inside out, from the bottom up, through changes in teachers themselves. And therein lies its power” (p. 27).
APPENDIX A

PRE-ACTION RESEARCH SURVEY
The purpose of this survey is to obtain your opinion about the action research workshop you are involved in the Leon County School District. Please answer freely; your response will be confidential.

Background Information

Please provide some basic background information on yourself. For items 1 to 6, write in or check your responses. All responses will be kept confidential.

1. Name: _______________________________

2. Name the school you are currently working: ______________________________

3. Your gender? _____Male _____Female

4. What is your race? ___African American ___White ___Hispanic/Mexican ___Other

5. What levels are you teaching? ___Elem ___Middle ___High ___Other

6. How long have you been teaching? ___Less than 2 years ___between 3-5 years ___5 to 10 years ___more than 10 years

6. Educational levels you have completed? ___BA/BS ___MA/MS ___PhD ___Other

Please provide short responses to the following questions.

7. What are your expectations of this action research workshop?

8. Before becoming involved in this action research workshop, what did you know about the purpose and procedures of action research?
9. How do you think your participation in this project will affect your performance in the classroom?

10. In what ways do you predict your participation in this project will impact your students?

11. In what ways do you expect participation in the project to contribute to your development as a professional in the field of education?

12. Do you think your perception of research will change after becoming involved in this project? If so, how?

THANK YOU FOR COMPLETING THIS SURVEY.
APPENDIX B

POST-ACTION RESEARCH SURVEY
POST-ACTION RESEARCH SURVEY  
Summer 2003

The purpose of this survey is to determine the effectiveness of the Summer Action Research Workshop you are involved in the Leon County School District. Please answer freely; your response will be confidential.

Background Information

Please provide some basic background information on yourself. For items 1 to 6, write in or check your responses. All responses will be kept confidential.

13. Name: _______________________________

14. Name the school you are currently working: ______________________________

15. Your gender? _____Male _____Female

16. What is your race? ___African American ___White
   ___Hispanic/Mexican ___Other

17. What levels are you teaching? ___Elem ___Middle ___High ___Other

18. How long have you been teaching? ___Less than 2 years ___between 3-5 years
   ___5 to 10 years ___more than 10 years

6. Educational levels you have completed? ___BA/BS ___MA/MS
   ___PhD ___Other

Please read each statement and bubble the response that best reflects your level of agreement with each of the following items based on a scale of 4-1: 4 (Strongly Agree), 3 (Agree), 2 (Disagree), 1 (Strongly Disagree). Please bubble 0 (Don’t Know) if you do not have enough information to agree or disagree with an item.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. All the components of action research process have been explained</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>adequately in the Action Research Training Workshop.</td>
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<tr>
<td>2. I have benefited positively from the Action Research Training Workshop.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>3. My expectations have been meet regarding the components of action</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>research process.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statement</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
<td>Don’t Know</td>
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<tr>
<td>4. I gained sufficient knowledge to implement the action research components taught during the Action Research Training Workshop.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>5. I feel confident to use the action research procedures taught during the Action Research Training Workshop.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>6. I plan to conduct action research in my own practice.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>7. The training was presented in an organized manner.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>8. The trainers were effective in conveying the information.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>9. The Action Research Training Workshop was useful to me.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>10. As a result of the training, I am aware of my responsibilities as they relate to the Action Research Training Workshop.</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
<tr>
<td>11. Overall, I am satisfied with the Action Research Training Workshop?</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>o</td>
</tr>
</tbody>
</table>

Please provide short responses to the following questions.

1. Having completed the district’s action research workshop, what do you feel you have learned about the purpose and procedure of action research?

2. How do you feel after this project about yourself as a researcher and research in general?

3. Do you think the research project you have been involved will change your teaching practices? If so, how?
4. Specifically, how do you think participation will affect your performance in the classroom?

5. In what ways (if any) did your participation will contribute to your development as a professional in the field of education?

6. What is the one area with which you were most satisfied in this workshop?

7. What was most difficult about being involved in action research process?

8. Now that you have been involved in an action research, what information or assistance do you think would have improved results?

9. What would you do differently if you were to engage in action research again?

10. What are any other comments you would like to make?

Thank you for your input
APPENDIX C

ACTION RESEARCH [PRE/POST WORKSHOP] SURVEY
# ACTION RESEARCH SURVEY: Summer 2003

The PURPOSES of this survey are to collect information about the participants of this workshop and to measure the level of action research skills of the group.

For items 1 to 10, WRITE IN or CIRCLE your response.

<table>
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<table>
<thead>
<tr>
<th>5. Level: Elem</th>
<th>Middle</th>
<th>High</th>
<th>Other</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
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</tbody>
</table>

6. Educational Level:

7. Yrs. of teaching at current school:

8. Total yrs. of teaching:

9. No. of times participated in action research workshops:
   
   1X 2X 3X 4X NEVER

10. Have taken research courses at university: YES NO

For items 11 to 27, rate yourself on each skill using this scale: 1 = LOW to 6 = HIGH

CIRCLE the number of your choice.

<table>
<thead>
<tr>
<th>SKILL</th>
<th>LOW</th>
<th>AVG</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Define the purpose(s) of action research</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. List the steps in conducting action research</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. Describe the purposes of a literature review</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. Use ERIC and other tools to do literature searches</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>15. Formulate a research question for an action research project</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>16. Select the appropriate data to be collected for a research project</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17. Describe different types of data collection methods (e.g., survey, interview, tests, observations)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>18. Select the appropriate design for analyzing data (e.g., pre/post, comparison group, comparison to a standard)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>19. Describe how to analyze survey data</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>20. Describe how to analyze observation and interview data</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>21. Interpret effect sizes</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>22. Define commonly used test scores (percentile, NCE, scale score, stanine)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>23. Interpret test scores (norm-referenced, criterion-referenced, growth)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>24. Calculate descriptive statistics (mean, median, mode, frequency, %)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25. Use an EXCEL spreadsheet and do simple operations (enter data, save data, calculate mean and median)</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>26. Make graphs from an EXCEL spreadsheet</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>27. Know the steps of writing an action research final report</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
28. Please list at least two suggestions for improving the Action Research workshop.

THANK YOU FOR YOUR HELP WITH THIS EFFORT
APPENDIX D

ACTION RESEARCH PROPOSAL FINAL PRODUCT CHECKLIST
Action Research Proposal
Final Product Checklist
Summer 2003

Researcher’s Name:________________________   Date:_____________
School Name:______________________________

___ I. Problem Formulation (25 pts)
   ___ How important is the project to the learning and teaching experience?
   ___ How will it improve the quality of learning?
   ___ Are there adequate resources to implement the proposed action research
      project?
   ___ In formulating the question the researcher demonstrates an understanding of
      the teacher as researcher
   ___ The researcher states the problem as a question to be solved, clear and
      without ambiguity

___ II. Defining Variables (10 pts)
   ___ Identifying and operationally defining independent variables
   ___ Identifying and operationally defining dependent variables

___ III. Review of Related Literature (15 pts)
   ___ The researcher is able to locate related literature using the Education
      Resource Information Center (ERIC) or other resources
   ___ The researcher is able to state what research has to say about his or her
      variables
   ___ The researcher uses the literature to support what he/she has decided to try
      out in his/her own classroom

___ IV. Research Methodology and Procedures (35 pts)
   ___ The researcher understands the types of research design
   ___ The researcher is able to select an appropriate design for his/her own action
      research project

100
The researcher demonstrates an understanding of the different types of quantitative and qualitative sources of data.

The researcher identifies three sets of data for their research question.

The researcher is able to write a clear data collection plan using appropriate strategies related to his/her study.

The researcher is able to show an understanding of interpretation or analysis of the data they plan to collect.

The researcher is able to come to conclusions and provide implications for action.

V. Reporting (15 pts)

The researcher has included all the components of action research process (Research question, review of related literature, methodology, research design, data collection and analysis, conclusions and implications).

The researcher has presented his/her project clearly demonstrating an understanding of all the components of action research process.

Overall, the teacher researcher action research proposal is clearly stated, logical and feasible, demonstrating an understanding of the teacher as researcher and the components of an action research plan.
APPENDIX E

HUMAN SUBJECTS COMMITTEE APPROVAL FORM
OFFICE OF THE VICE PRESIDENT FOR RESEARCH
TALLAHASSEE, FLORIDA 32308-2763
(850) 644-8673 • FAX (850) 644-4382

APPROVAL MEMORANDUM

Human Subjects Committee

Date: 8/19/2003

Yakup Bilgili
2074 Midyette Road, Apt. #633
Tallahassee, FL 32301

Dept.: Elementary and Early Childhood Education

From: David Quadagno, Chair

Re: Use of Human Subjects in Research

The forms that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be exempt per 45 CFR § 46.101(b) 2 and has been approved by an accelerated review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If the project has not been completed by 8/18/2004 you must request renewed approval for continuation of the project.

You are advised that any change in protocol in this project must be approved by resubmission of the project to the Committee for approval. Also, the principal investigator must promptly report, in writing, any unexpected problems causing risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols of such investigations as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Protection from Research Risks. The Assurance Number is IRB00000446.

Cc: John Hansen
HSC No. 2003.424
APPENDIX F

LEON COUNTY RESEARCH REVIEW BOARD APPROVAL
July 24, 2003

Yakup Bilgili  
2074 Midyette Road, Apt. #633  
Tallahassee, Florida 32301  

Dear Mr. Bilgili:

The Leon County Research Review Board has approved your request for research. Based on your proposal, your research request will be approved for the period of August 2003 through August 2004. Should you desire to continue your research efforts after this period of time, you must submit a progress report on the status of your research and request renewed approval for continuation of the project. Any significant changes or amendments to the procedures or design of this study must be approved by resubmitting the request for research to the Research Review Board.

You need to contact the principals of the schools in which you wish to conduct your study as soon as possible. The principal is responsible for making the decision relative to his or her school. It is your responsibility to return the enclosed “Principal’s Consent for Research Participation,” signed by the principal(s) of the school(s) to be involved, prior to the start of any research. Receipt of this consent form by this office will complete the approval process.

In the interest of continued research benefits and the coordination of research interests, please send this office one copy of your results and discussion. This information, and any other relevant information you may have, will be filed in our research library and added to the annotated listing of research projects. We look forward to your results and any suggestions they may offer toward improving the educational process in Leon County Schools.

Please feel free to call me if I can be of further assistance. I can be reached at 488-7007.

Sincerely,

Margaretta D. Southard  
Program Monitoring and Evaluation  
Chair, Research Review Board

MFS/db

c:  Alan Cox/Chiles, Penny Brinson/Hawks Rise, Mary Allen/Riley, Nancy Stokely/Sabal Palm  
Tom Inserro/Sealey, Connie Long/Springwood, Frank Voran/Woodville, Margo Hall/Leon  
Roger Pinholster/Fairview, Michelle Gayle/Griffin, Pam Hayman/Nims, Donna Callaway/Raa  
Peggy Youngblood/Roberts, Second Chance/Tom Dunn

3955 West Ponce de Leon Street • Tallahassee, Florida 32304-2998 • Phone (850) 488-7007 • Fax (850) 922-5979 • Suncom (850) 278-7007  
Teaching, Learning, Caring for the Future  
Affirmative Action/Equal Opportunity Employer • (850) 487-7105
# Leon County Schools
**Principal's Consent for Research**

<table>
<thead>
<tr>
<th>Principal Investigator</th>
<th>Topic of Study</th>
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I have met with the above-named researcher and we have discussed the research proposal as approved by the LCS Research Board. I hereby give my permission to conduct the research as proposed in my school.

<table>
<thead>
<tr>
<th>Participating School(e)</th>
<th>Signature of Principal</th>
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TO COMPLETE THE APPROVAL PROCESS, THIS FORM MUST BE RETURNED TO THE CHAIRPERSON, RESEARCH REVIEW BOARD, PROGRAM MONITORING & EVALUATION SERVICES (3955 W. PENSACOLA ST, TALLAHASSEE, FL 32304) PRIOR TO THE START OF ANY RESEARCH.

I verify that this list is complete and that any significant amendments to this research will be first approved by the Research Advisory Board Chairperson and the principals at the above school site(s).

<table>
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<th>Signature of Principal Investigator</th>
<th>Date</th>
<th>Program Monitoring &amp; Evaluation</th>
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<td>3955 W. Pensacola St. Tallahassee, FL 32304</td>
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<td>Malinda Jackson, Equity Coordinator</td>
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<td>An Affirmative/Equal Opportunity Employer</td>
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APPENDIX H

INFORMED CONSENT FORM
Revised Informed Consent Form

I freely and voluntarily and without element of force or coercion, consent to be a participant in the research study entitled “The Teachers’ Process of Change through Action Research.”

This research is being conducted by Yakup Bilgili, who is a doctoral student in the Department of Elementary and Early childhood at Florida State University. I understand that the purpose of this study is to better understand the teachers’ process of change through the participation in action research. I understand that if I participate in this study I will be asked questions about my feelings as a participant in action research.

I understand that I will be asked to fill out paper and pencil questionnaires. I understand that my participation is totally voluntary and I may choose not to participate. All my answers to the questions will be kept confidential and identified by a subject code number. My name will not appear on any of the results. I also understand that information obtained during the course of the study will remain confidential to the extent allowed by law.

I understand that if I participate in the study, I will be observed in my classroom and will be interviewed during the study. I may also be asked to participate in more than one interview with the researcher for the purpose of the study. All confidentiality will be maintained to the extent allowed by law. The interview will be audio taped for joint purposes of generating transcripts and verifications. All transcripts will be presented for your review, at which time; you will be encouraged to retract/augment/add to your commentary. This process will continue until you are satisfied that your reflections are adequately represented. These tapes will be kept by the researcher in a locked filing cabinet. I understand that only the researcher will have access to these tapes and that they will be destroys by December 2005.

I understand that there is no monetary compensation provided for participating in the study but the results of the study may contribute to understanding action research and its importance in the field of education. This knowledge can assist education professionals and particularly teachers in developing skills to identify solutions or answer questions regarding educational problems.

I understand that my participation in this study is totally voluntary and if you choose not to participate or wish to withdraw from the study at any time, there will be no penalty. The results of the research may be published but your name will not be used. There are no foreseeable risks or discomforts if you agree to participate in this study. I have been given the right to ask any questions concerning the study. These questions, if any, have been answered to my satisfaction.

I understand that I may contact Yakup Bilgili at (850) 580-6262 or at ybb5634@garnet.acns.fsu.edu. You may also contact my major professor Dr. John Hansen at: hansj02@fsu.edu, for answers to questions about this study or my rights. Group results will be sent to me upon my request.

If you have any questions about your rights as a participant in this study, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Committee, Institutional Review Board, through the vice president for the Office of Research at (850) 644-8633.

I have read and understand this consent form.

Participant

Date
Pre-Action Research Study Questionnaire

Identification Code: _________

1. Do you feel confident to use the action research procedures taught during the action research training workshop? If so, in what ways?
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________

2. How confident do you feel about your knowledge of the purpose and procedures of action research since you have been involved in the action research training workshop?
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________

3. What are the results that you are expecting as a teacher researcher through the implementation of action research?
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________

4. What do you think will be the obstacles that you perceive and experience as you try to implement action research in your classroom?
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________

5. How would you overcome some impediments or hindrances you will encounter while you are conducting action research in the school setting?
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
   ____________________________________________________________________
6. Do you think your perception of research will change after becoming involved in action research? If so, how?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
7. In what ways do you plan to use action research in your classroom and why?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
8. In what ways do you predict your participation in action research will impact yourself and your students?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
9. How do you think your participation in action research will affect your performance in the classroom?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
10. What major questions and/or concerns do you still have about implementing action research at this point?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
11. Any additional comments or thoughts?
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Thank you for your valuable perspectives!
APPENDIX J

POST-ACTION RESEARCH STUDY QUESTIONNAIRE
Post-Action Research Study Questionnaire

Identification Code: ___________

1. What did you think “action research” was before participation in action research and how has your understanding changed?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

2. In what ways (if any) did your implementation of action research contribute to your development as a professional in the field of education?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

3. Specifically, how do you think implementing action research affected your performance in the classroom (if it did)?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

4. How did the implementation of action research bring effective change in your own classroom environment?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

5. How do you feel after the implementation of your action research plans as a teacher researcher and research in general?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
6. What do you like best about the possibilities of teaching and learning with conducting action research?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

7. What do you like least about the possibilities of teaching and learning with conducting action research?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

8. What were the obstacles that you were faced as you tried to implement your action research plan?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

9. You have been involved in an action research process, what information or assistance do you think would have improved results?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

10. What would you do differently if you were engage in action research again?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

11. How do you plan to utilize the methods of action research in your class in the future?

__________________________________________________________________
__________________________________________________________________
__________________________________________________________________

Thank you for your valuable perspectives!
APPENDIX K

INTERVIEWS QUESTIONNAIRES
Preinterview Questions

How did you come to be involved with action research?

Why are you doing action research and how do you feel about it?

Describe your academic and professional experience/ preparation in action research?

What do you think will be your greatest rewards in doing action research?

What components of the action research procedures do you think you will really like?

What makes you concerned about the topic you will do your research?

What are areas of initial and ongoing support?

Do you feel confident to use the action research procedures taught during the action research-training workshop? If so, in what ways?

How confident do you feel about your knowledge of the purpose and procedures of action research since you have been involved in the action research-training workshop?

What are your expectations of conducting action research?

What are the results that you are expecting as a teacher researcher through the implementation of action research?

What are areas of initial and ongoing barriers?

What are your biggest frustrations in conducting action research?

What do you think your biggest frustrations will be through the implementation of action research?

What do you think will be the obstacles that you perceive and experience as you try to implement action research in your classroom?

How would you overcome some impediments or hindrances you will encounter while you are conducting action research in the school setting?

In what ways do you plan to use action research in your classroom and why?

Since you are involved in action research process, what changes would you make to your role as teacher researcher?
How do you, teacher as researcher, verbalize your individual changes during the implementation of action research?

Do you think your perception of research will change after becoming involved in action research? If so, how?

In what ways do you predict your participation in action research will impact yourself and your students?

How do you think your participation in action research will affect your performance in the classroom?

In what ways do you expect participation in the project to contribute to your development as a professional in the field of education?

What is your definition of action research?

How do you evaluate your action research plan as a teacher?

What major questions and/or concerns do you still have about implementing action research at this point?

Over all, how do you feel about conducting action research? How comfortable are you?

Are there any additional comments or thoughts you would like to say?
Midinterview Questions

Tell me about a brief history of yourself?
- certification (what type)
- education level

Describe your school.
- location
- size
- population
- community

What prompted you to become involved in this action research?

Could you please tell me a little bit about your action research project? What kind of things are you doing? How is it going in general?

How long has it been since you started implementing your action research? What kind of visual or other changes do you see in yourself and your students?

At this point, do you still think that the action research project that you are conducting is important to the learning and teaching experience? If so, in what ways?

If you were not involved in this action research project how would you have overcome a problem in your classroom?

What do you think is the most significant aspect of your action research project, and why?

As you know action research is a process, which mainly includes plan, action and evaluation; in this process what phases do you think contributed to your development as a teacher?

Have you made any changes or adjustments to your action research plan? If so for what reason(s) and what kind of changes were they?

What would you change, if you could, to make your action research project better?

Are you writing a weekly or daily journal reflecting your experiences when conducting your action research plan? If so, what kind of things do you note down in your journal?

If one of your colleagues were to come up to you and say “So how is your action research going?” what would be your immediate response and how would you describe your action research process?
If I were to ask you “What have you read about your action research?” what would you say?

Because action research involves reading and supporting your research questions, in terms of research what have you done so far?

Has this experience changed or is it changing your view of yourself as a teacher? Tell me a little bit about these changes?

During your implementation of your action research plan what are some of the difficulties you have faced or are facing?

How do you see yourself in the role of teacher as researcher?

Tell me about your data collection plan? What kind of data have you collected so far? How do you think these first set up data will help you to develop your ongoing research project?

If you were asked to present your action research project to the Leon County School Board at this point what 3 important points would you mention about your action research project?
Postinterview Questions

How do you define yourself as a teacher researcher now?

Over all, are you satisfied with your action research?

What are the strengths of your study? Why do you think your action research is significant or important?

Briefly tell me how you collected your data and how did you analyze them?

What were your results? If you were to report the results of your study what would your results imply?

Tell me briefly what you have learned since you participated in the action research workshop and conducted your own action research plan?

How does action research contribute to your development of teaching/learning environment?

What are the changes you have observed in general?

Are you happy with your results?

Did your action research solve the classroom-based problem you have been working?

How did the implementation of your action research bring change in your classroom environment? Did you see any changes? If so, what types of changes?

What did you like about the process of being involved in action research?

How much time did you spend in conducting your research?

During this process of action research from the beginning to the end, how did you feel about following the procedures of action research? Did you specifically follow the procedures you were taught in the workshop or not? Explain.

What do you think your solutions brought to your problem?

How effective was your implementation of your action research plan?

Over all, did you follow your action research plan? If not, what were the parts you did not follow and why?

What are you going to do with your action research results?
Are you planning to present your action research?

What is/was the most rewarding/satisfying thing about being a teacher researcher?

What is/was the most frustrating thing about being a teacher researcher? What kind of obstacles did you encounter?

What would you change, if you could, to make your action research better?

Would you conduct another action research, given the opportunity to start over again?

Did the implementation of your action research meet your expectations? If so, explain how?

How did action research change your perspective as a teacher?

If you were asked to relate only two things about action research to someone who has not heard of action research, what would you say?

Is there anything else you would like to say?
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BIOGRAPHICAL SKETCH

Yakup Bilgili was born in Ardahan, Turkey on February 15, 1972. After graduating high school he attended the Izzet Baysal University in Turkey where he received his Bachelor of Art degree in Elementary Education. He taught in an elementary school for about two years. Yakup Bilgili was awarded with a full scholarship by the Turkish Ministry of Education to pursue a graduate degree in the United States in the field of Elementary Education. He received his Master of Science in Education at Florida State University in 1999. Soon after completing his master’s in Elementary Education, Yakup began his Ph.D. in Elementary Education at Florida State University. During his graduate studies, Yakup Bilgili taught undergraduate courses. His research interests include school improvement, teacher research, best practices for induction and mentoring programs, educational policy and classroom assessment.

He is currently working at the Florida Department of Education. He is married and has two sons.