ABSTRACT. While educational reformers have recognized that teachers need to move beyond the compliant technician role to that of the reflective practitioner if schools are going to achieve their mission, implementation of that new role is not easily realized. This article offers insights into how teachers could be assisted in moving from being intellectually aware of theories that are unrelated to practice to being empowered to contribute to the knowledge base that shapes their professional growth. The informants for this study were teachers who participated in a "Teacher as Researcher" course at Florida State University, and teacher researchers at the Florida State University School. This article details what happens to teachers when they engage in questioning, hypothesizing, investigating, reflecting, and working cooperatively on research topics that have meaning to them in their own classroom settings.

I believe it is healthy to be able to laugh at oneself, and when I found a cartoon that caricatured university professors as those folks who know nothing about "real life" or the workplace, I posted it at my office door. I did this not only to share my humility with those who seek my expertise, but also to remind myself of how I might all too often be viewed by others. Those who come to me are either teachers, or students who aspire to be teachers. I too see myself as a teacher. I do not minimize this self image with a "just a teacher" perception. I have experienced the empowerment that accompanies being a reflective practitioner. I am a teacher researcher. The experience accompanying the process of teacher researcher has convinced me that this is something of value for other teachers--perhaps even for all teachers--and I want to be instrumental in facilitating the journey through the process for those who are willing to take the risk. I want to participate in setting the stage for this new role. This is why I teach a course at The Florida State University on "The Teacher as Researcher," and why I became involved in a variety of teacher-as-researcher projects that emanated from the Florida State University School.
Conceptual Framework

Educational reformists have theoretically recognized that teachers need to move beyond the compliant technician role to that of the reflective practitioner for schools to effectively achieve the goals addressed in current reform documents (Elmore, 1990). The implementation of this new role for teachers is not, however, easily accomplished. A multitude of ideas exist as to how this goal can be achieved. For instance, Florida's school districts have moved decision-making powers and responsibilities away from the central office to the classroom through implementation of shared decision-making and site-based management approaches. The underlying belief is that as teachers become responsible for those things that affect or are related to classroom context, teaching and learning both improve. Teachers who are allowed a voice are more likely to become actively involved in creating learning environments that will be most effective, given the beliefs, knowledge, and skills of an individual teacher and the characteristics of any particular group of learners. This statement is well documented in the professional literature (Bissex & Bullock, 1987; Daiker & Morenberg, 1990; Goswami & Stillman, 1987; Miller, 1990; Nias & Groundwater-Smith, 1988). The change from teacher as technician to teacher as reflective practitioner may not be the natural outcome of telling teachers they "are in charge." But by focusing on one's professional self as teacher as researcher, a teacher can begin to make meaning of the complexities of the classroom in a systematic manner and, thus, actually begin to "be in charge."

Factors Related to Becoming a Teacher Researcher

Becoming a teacher researcher is a process, just as being a teacher researcher is a process. As I investigated these phenomena as they exist for real teachers who function in actual classroom settings, I described the phenomenon of becoming a teacher researcher in terms of what Stern (1985) has called "factors." According to Stern, these individual factors are interrelated processes that together form hypotheses or concepts that are the essence of a phenomenon. I prefer the use of "factors" over something like "stages" because "factors" does not necessarily imply a lock-step sequence, but allows for the interrelatedness inherent in the "factors."

The identified factors, such as "Setting Teacher as Researcher Goals" and "Examining New Paradigms," are grouped under headings that reflect something closer to a sequence or linearity, but even these categories need to be understood as existing simultaneously. Perhaps the appropriate metaphor is that of building a house. You lay the foundation--"Creating the Mindset"--and as you move on to "Doing the Research," you keep connecting it to the foundation. "Writing the
"Creating a Mindset"

Setting Teacher-as-Researcher Goals

Entering into the role of teacher researcher implies changing one’s metaphor from "teacher as giver of knowledge" to "teacher as learner." The reflective practitioner touted by Schon (1987) is one who is more than an adequate technician of effective teaching behaviors. Indicative of this belief are the goals that are set forth for teachers who decide to become involved in systematic inquiry and the teacher-researcher process:

• To heighten the awareness level with regard to my personal teaching and the teaching of colleagues

• To heighten responsiveness to contextual variables and increase effectiveness in the teacher’s role by focusing on oneself as "teacher as learner"

• To develop tools and skills that will be useful in understanding what meaning teachers and students negotiate in a classroom context

• To make better decisions with regard to teaching and learning through studying teachers and learners in context

• To see what is looked at and to interpret it

• To revolutionize teacher practice through teacher reflection on experiences and new ideas

Examining New Paradigms

Traditionally, research is something that researchers do, and teaching is something that teachers do. There is a gap between theory and practice, with teachers believing research has little relevance to practice (Ruddick, 1985). In addition to their suspicion of research conducted by those—as I have heard numerous teachers describe them—"who don’t really know what classrooms are like," we are told that "teachers are reluctant to view themselves as investigators
and resist notions of 'experimentation in their classrooms'" (McDaniel, 1988-89, p. 5).

If teachers are going to enter into the role of teacher researcher, they often need to have a different mindset with regard to what research is, who can do it, and how it can be done. Many of the teachers with whom I interact tend to equate educational research with experimental designs and positivistic paradigms. This is also the approach that teachers tend to resist using. When presented with the characteristics of both experimental and non-experimental or naturalistic research paradigms and research strategies, teachers not only can clarify that which was previously vague and mistrusted, they are made aware of new ways to look at the world of education and the myriad interwoven factors that relate to teaching and learning. They begin to realize there are alternative ways to "make meaning" other than the cause-and-effect viewpoint of experimental or quasi-experimental research. The picture of non-experimental research as systematic inquiry (Hitchcock & Hughes, 1989) is further developed by reading a variety of case studies and case reports that have been written by other teacher researchers. These are used as models, for how to approach classroom research as well as to report it.

While the case study or case report is certainly not the only appropriate approach to non-experimental or naturalistic inquiry, these do seem to fit well with what teachers do, as well as with the complexities of the classroom setting. Case studies are defined as bounded systems that could include such things as programs, groups of people, individuals, processes, or constructs such as time, learning, or teaching. Case reports are distinguished from case studies in that case reports focus on the teacher-researcher's self, while case studies focus on a bounded system that exists apart from the researcher (Merriam, 1988).

To illustrate further, one teacher researcher described in a case study what whole language looked like as she implemented it in her classroom. She described what she did, how she did it, why she did it, and how the learners were a part of all this. Another teacher focused her case study on four learners who were participating in whole language experiences in her classroom. She collected data in the form of artifacts—actual examples of the students' work over time. She supplemented this with field notes she made that included things the learners said or did while participating in whole language experiences. Finally, she used current research literature to assist her in her analysis of the learners' apparent strengths and weaknesses. She ultimately documented each learner's growth in the reading and writing processes.

Teachers who choose a case report approach have tended to focus on themselves from the perspective that there is something that is hindering them in
their professional lives. One teacher, for example, examined her frustrations with not being able to approach a day of teaching and learning in the way she thought would best implement her value beliefs. She felt she was restricted so much by her school environment and schedules prescribed by the administration that she was left powerless to achieve her goals as a teacher. As she examined her value beliefs related to teaching and learning and systematically looked at the environment in which she was expected to function, she found herself going beyond her vague sense of dissatisfaction toward some solutions she thought would free her from the paralysis that so often accompanies value conflicts.

**Doing the Research**

Even though naturalistic research has a beginning and an end, the process itself is non-linear and probably not fully understandable until it is experienced. There is a sense in which the process can only be described in a linear fashion, first addressing this and then moving on and so forth, all the while reminding those who are embarking on this adventure of systematic inquiry that the process itself is not so linear as the way it has to be described.

**Choosing the Phenomenon to Investigate**

Choosing a topic for inquiry is often difficult for the teacher researcher. Decisions about what to research tend to be based on what teacher researchers perceive would be most helpful to them in their professional lives or in their classrooms. As teacher researchers have written in their journals about the process of becoming teacher researchers, they have confided, "I want to research something that will have value to me at the present time," and have asked themselves, "What topic would most benefit me in the classroom or make me a more effective teacher?"

**Focusing the Inquiry**

There may be questions a teacher researcher senses need answering or things that beg investigation, while how to focus the inquiry remains elusive. There may be "fog" in the teacher researcher’s conceptualization of the research. It is at this point that the “teacher-teacher talk” phenomenon first becomes essential. This is where teachers share their ideas, however complete or incomplete, and other teachers do a lot of focusing and refocusing, offering encouragement, suggestions, and insights. One teacher researcher expressed the significance of this phenomenon in her journal:
Teacher-teacher conversation is a most important tool to me. Having someone listen to you who understands your feelings is important. I find it is very hard for me to discuss school-based issues with anyone but another teacher. They seem to understand the frustration so much better. Other teachers realize you are using them for a sounding board. You are not really looking for them to give you a solution or solve your problems. You are looking for support and focus in the direction you are heading.

Collecting and Analyzing the Data

To be a teacher researcher, one has to step into the role of participant observer (Bogdan & Biklen, 1982) within the classroom or school setting. Teachers have more familiarity with the participant aspect than with the observer role. Thus, issues related to making observations need to be addressed. Because of the "a fish would be the last to dis over water" syndrome, teacher researchers initially may need some meaningful experiences in how to "make the familiar strange."

Novice teacher researchers are introduced to a variety of skills that will be the basis for their data collection. They are apprised of the necessity of keeping field notes and encouraged to keep separate the descriptive data from the interpretive comments, even though both are important. This may take practice because it is not always easy to distinguish within one’s own thinking between a behavior and the meaning one assigns to that behavior. Yet there is a need to realize the difference between describing, "He spoke in a loud voice," and an interpretation of that behavior as, "He was angry."

As teacher researchers get involved in doing their studies, they report jotting down key words and dialogue as data in a variety of places in addition to keeping field notebooks. This means they have to gather the bits and pieces when there is a free moment during or after school, organize them, and then record these data and their comments in the field notebooks. They report that by going through this process, they can be reflective about the data, and this reflection is actually necessary to the continuous analysis that is part of on-going data collection. In addition to observation techniques, teacher researchers are introduced to interview strategies, with a focus on how to ask for information without suggesting any particular response as being most desired. They are advised with regard to using artifacts as data, such as the teacher researcher who used the students’ own writing samples in her research. And finally, there is a discussion pertaining to the use of journals to get at covert data that exist as part of an informant’s thoughts or thinking.
Entering Into Meta-Research

At the same time that there is a strong focus on the research each teacher researcher is conducting, there is an equally strong focus on the process. The teacher researchers keep journals about their movement through the process, documenting the various phases one goes through as well as recording the growth or development of professional knowledge. I have found that as the teacher researchers become completely involved in the process, they combine the recording of field notes, their observer comments, and their reflective journal entries as a kind of "meta-research" record. The reflection about the process becomes quite connected—almost essential—to the rest of the process.

Data analysis is ongoing throughout data collection. Teacher researchers attempt to make meaning of what may seem like discrete pieces of data. Teacher-teacher talk becomes another aspect of meta-research as together they discuss both the research itself and the process. I serve as a facilitator at this point, meeting individually with teacher researchers. I listen and reassure them, and sometimes make suggestions or ask questions that help a teacher researcher get past a certain point in the process. I have noted that there is often more need for encouragement through the process than there is need for actual supplying of ideas.

It is while teacher researchers are collecting and analyzing, and writing and talking about the data and the process that related literature is addressed. Discussions range from more formal concerns such as how to access specific kinds or pieces of literature and how to relate literature to a given case study, to less formal experiences with cohorts suggesting and sharing pieces they think might relate to each others' studies. As the teacher researchers investigate related literature, they begin to develop a perception of how what they are doing fits into a much larger picture than their little studies might suggest.

Mulling Around with the Data

As the teacher researchers move through data collection and analysis and into the intensive analysis where they focus more on analysis than on data collection, they usually experience frustration with the ambiguity that is inherent in the process. I have come to refer to what they do as they try to make meaning of the data as "mulling around with the data" (Kelsay, 1991). Sometimes they are looking for patterns or themes that might appear in the pieces of data. Sometimes they are looking for the threads that might tie the pieces together or that might tie the pieces to other research from the literature. Always they are seeking to express the meaning of the data since data never really speak for themselves, but always rely on the interpretation of the researcher.
There are those who suggest that it is sufficient for a teacher researcher to participate in the systematic inquiry inherent in the teacher researcher process. The teacher researcher is actively involved as a teacher learner and tends, as part of the process, to be more dynamically involved with the teaching, learning, and classroom complexities that are part of every classroom setting. There is, in my opinion, validity to this approach.

It is important for teachers to participate in the development of their personal professional knowledge, which is what they do as teacher researchers.

There are others who insist that the professional knowledge that teachers develop in context needs to be shared with other teachers, eliminating the need for each teacher to start from nothing, so to speak, in every instance. As teachers share, other teachers are stimulated or motivated to reflection and action. This was certainly true as it related to the teacher-teacher talk that was part of the teacher-researcher projects with which I have worked. It is in support of this latter approach that the teacher researchers with whom I work are encouraged to write a report of their research. Sometimes this is a scholarly paper, sometimes a journal article or a conference presentation. I have found that when teacher researchers provide some sort of presentation of their research, they themselves benefit tremendously in the professional confidence they gain.

**Entering into the Writing Process**

I recall listening to someone who said that when we do research, we should never separate the writing of the report from the doing of the research itself in our thinking, lest the writing never get accomplished. I see the wisdom in adopting this attitude. I cannot deny that for many, however, the writing process seems to be as difficult as the research process itself. Because this is the case, I suggest that the teacher researchers approach the writing process in sections, beginning with writing an introduction that describes the phenomenon the teacher researcher investigated, how this came to be of interest, and sometimes how a focus was changed in the process of the inquiry. Teacher researchers often complain that when they are faced with a blank page, they experience an equally blank mind. I have noticed that the teacher researchers can always talk about their research--usually fluently. In light of this, I suggest that the teacher researchers do just that--talk, either by themselves or to an interested person, and tape record the talk. Then they can transcribe the talk, if necessary, and in so doing, they have the words that had previously eluded them.
The teacher researchers play with how to balance particular description, general description, and analysis or assertions. It may be necessary to reread some of the case studies they had used as models as they began the research process, focusing on how those writers made the reports believable, how they organized the presentation of data and analyses, and how they developed the theme(s) of the research. Since teacher researcher studies vary, the most effective presentation format is different for each. Once again, teacher-teacher talk seems helpful at this point in the process.

Characteristically, whenever they enter into the writing process, the teacher researchers often find that writing, rewriting, and more rewriting is necessary before final products are presented. When I am working with teacher researchers, I encourage them to have others read and react to what has been written. I might have predicted that the teacher researchers would patronize each other in the feedback they provide, but this seldom seems to be the case. The interaction is usually genuine and helpful.

Conclusion

Achieving "Teacher as Learner" Goals

Teacher researchers become teacher learners, a change the teacher researchers attribute to their having participated in the research process. When, at the end of the experience, they have been invited to write a response to "Describe what comes into your thinking when you hear the phrase 'teacher as researcher'," the teachers themselves have revealed the relationship between the teacher as researcher and the teacher as learner:

The phrase "teacher as learner" immediately comes into my mind when I hear [teacher as researcher]. I see a teacher researcher as one who enters into a learning process that encompasses not only the subject—they are learning about themselves. Perhaps I feel this way because this is how I developed during my case study. I started out with just the intention of completing a paper. Instead, I learned a great deal about myself along the way. I found out that research doesn't have to prove anything is absolutely correct. A teacher researcher has the opportunity to go behind the scenes and be reflective about both herself and her topic and gain a better understanding of both. For me, personally, it was the opportunity to sit, be reflective, find I could think, and at times say Ah-hah! out loud because everything suddenly came together.
It would seem the "Teacher as Learner Goals" were realized by many of the teacher researchers, providing them satisfaction and more meaningful involvement with various classroom elements. One teacher researcher shared:

When a teacher views herself as a researcher, she is always on the lookout for cues and situations that show changes are happening, or that changes should happen, in her classroom. Since I have done "research" in my classroom I feel that I "see" things more clearly. I pick up on little subtle changes in my students that might have gone unnoticed in a busy kindergarten room.

Experiencing the process of becoming a teacher researcher seems to lead to new self-perceptions and greater professional confidence. One teacher researcher shared, "Becoming conscious of reflection has changed me and my [self] perception so very much. I am so much more aware of things that I do and their implications." Another teacher researcher shared, "[Becoming a teacher researcher] has given me motivation to do something worthwhile in my classroom . . . I'm more in tune with what motivates children to learn. Who knows? Maybe I'll actually publish my ideas!"

Teachers are often extremely capable of becoming teacher researchers, admirably developing the skills, perceptions, and insights necessary to carry out research. While offering teachers an opportunity to become teacher researchers may be a necessary condition, it frequently is not a sufficient condition to motivate them into or through the process. Inservice and graduate coursework could set the stage for this new role and facilitate the change from compliant technician to reflective practitioner. Teachers and learners could all benefit.

References


Kelsay, Karla Lynn, Assistant Professor, Department of Educational Theory and Practice B-199, College of Education, 115 Stone Building, Tallahassee, Florida 32306