This paper focuses on how teachers in a rural elementary school, involved in the fourth year of a restructuring process (the Accelerated Schools Project), used inquiry to transform teaching and learning. In the past, teachers generally worked within their own classrooms and had little input in school wide operations. However, after four years of the accelerated schools program, teachers showed more willingness to reflect, share, and work on a more unified basis. The accelerated schools inquiry process helped them to gain a better understanding of the challenges they faced on a school wide basis; it offered a systematic method for facing and solving the complex problems of the school community. The case study method was used over 8 months to gather data from informal interviews and the observations of 26 teachers; 6 teachers and the principal were selected for more intense interviews and participant observations. Questions focused on children and learning, educational environment, capacity of teachers to participate in school decisions before and after the Accelerated Schools Project, relationships among teachers, and the use and impact of inquiry. Findings indicated that teacher inquiry was a key ingredient to school transformation and that the changes appeared to correlate with J. Murphy's (1991) three major categories for restructuring schools: expanded responsibilities, new professional roles, and new career opportunities. It was noted that inquiry on both the teacher and cadre levels opened doors to innovative approaches for children's learning in varied ways. (Contains 14 references.) (NAV)
TRANSFORMATION OF TEACHING AND LEARNING THROUGH INQUIRY

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OBJECTIVES

This paper focuses on how teachers in an elementary school involved in a restructuring process used inquiry to create transformation in teaching and learning. Traditionally, teaching and learning has been under the province of the principal and the central office. In this scenario, teachers generally work within the isolation of their own classrooms and have little input in school wide operations. Change and innovation are extremely difficult to bring about in this context and there tends to be little experimentation with new ideas or forms of organization from within the school (Christensen, 1996; Cuban, 1986).

However, Fullan and Stiegelbauer (1991) suggest that the meaning of change does not simply involve implementing single innovations effectively. Rather it means a radical change in the conception of teaching as a profession. In this framework, teachers utilize the unique cultural backgrounds, interests and talents of all the people directly involved with the school to build a community of inquiry. Utilizing this approach requires an orientation to school-based decision making with input from teachers, parents, and support staff as well as offering new roles for administrative leadership.

The format of this paper includes the objectives, theoretical framework, methodology and data source, conclusion, and educational implications of the study. The rationale for the selection of the format is an appropriate avenue for discussing and sharing the findings of this study.
THEORETICAL FRAMEWORK

The school used in this study is located in a rural community in Southern Louisiana. During the school year, 1994-1995, the school was in the fourth year of implementing a restructuring process, the Accelerated Schools Project. As the teachers worked through four years of the accelerated schools process, evidence was found that teachers began to show willingness to reflect, share, and work on a more unified basis. As a result they were enabled to use the accelerated schools inquiry process to gain a better understanding of challenges they faced on a school wide basis. The idea of collaborative inquiry has long been considered integral to education. As Dewey (1929) argues, "It is impossible to see how there can be an adequate flow of subject matter to test and control the problems investigators deal with, unless there is active participation on the part of those directly engaged in teaching (p. 47-48).

According to the Accelerated Schools Resource Guide (1993), the Inquiry Process is a systematic method for facing and solving the complex problems of a school community. It is a process that enables groups of people to work together to gain a more complete understanding of the challenges they face. The process encourages collaboration, creativity, and thoughtfulness as a school community constructs its own unique solutions after a problem is fully understood. Hopfenberg, et al. (1993) state that the Inquiry Process "...is a way of recreating your school from the ground up,
of transforming the school into a vibrant community of learners" (p. 97).

The collaborative environment created by accelerated schools empowers teachers. As teachers are empowered to begin making changes and using inquiry, the design of their work also changes. As Hopfenberg, et al. (1993) note,

Instead of working in isolation, teachers are reaching outward and building on the strengths of their colleagues toward a common purpose. In their new roles as members of a community, they're able to develop and transform the very environments of which they're a part (p. 267).

Researchers maintain that "...the development of new leadership roles for teachers [is] on the crest of the wave [of restructuring]" (Smylie & Denny, 1989, p. 2). According to Murphy (1991), "Reformers concerned with teacher empowerment envision comprehensive changes in the work performed by teachers in restructured schools" (p. 28). Murphy divides these changes into three categories: expanded responsibilities, new professional roles, and new career opportunities.

1) Expanded responsibilities refers to teachers taking on new responsibilities and "...assuming control over decisions that were historically the province of others, especially administrators" (p. 29).
2) New professional roles focuses on "work redesign activities that may significantly alter the basic role itself" (p. 30).

3) New career opportunities include avenues for teachers to move upward in their profession.

In the Accelerated Schools Project the Inquiry Process is the vehicle for these changes to occur resulting in the transformation of teaching and learning.

METHODS AND DATA SOURCE

A case study method was employed to gather data for this study. The qualitative research included informal interviews and observations of 26 teachers. Of these teachers, six were selected as well as the new principal for more intense interviews and participant observations. The interview protocol included questions focusing on children and learning, educational environment, capacity of teachers to participate in school decisions before and after accelerated schools, the relationships among teachers, and the use and impact in inquiry.

The entire research was conducted over a period of eight months. During this time a comprehensive portrait was created of the school. Such a portrait provided new insights and understandings into the educational setting (Eisner, 1991). According to Lightfoot (1983), "The creative and analytic task of portraiture lies in the exploring and describing these competing and dissonant perspectives, searching for their connections to
other phenomena, and selecting the primary pieces of the story line for display" (p. 15).

Focusing on this portrait conveyed vivid descriptions of the teachers and principal in their efforts to transform traditional teaching and learning approaches in the curriculum to accelerated ones. The themes that emerged from the analysis focused on teacher empowerment facilitated by the principal, redesign of teachers' work, and sharing innovative ideas and activities that evolved into the rethinking and redesign of the curriculum on a school wide level. These innovative ideas became important factors for school transformation in the curriculum. Inquiry was the nexus between traditional and accelerated teaching and learning approaches.

CONCLUSIONS

The findings of this study provided evidence that teacher inquiry was a key ingredient to school transformation. Comprehensive changes occurred in teachers' work as the school evolved toward transformation from traditional and remedial teaching and learning approaches to accelerated ones. Such changes appeared to correlate with Murphy's (1991) three major categories for restructuring schools.

1) Expanded responsibilities. This category refers to "...teachers taking on new responsibilities and assuming control over decisions that were historically the province of others, especially administrators" (Murphy, 1991, p. 29). In this study, the role of the principal deserved closer scrutiny because she opened the avenues for transformation of teaching and learning.
For example, the interviews with the principal illustrated that she facilitated the teachers' innovative work with integrated arts that allowed for time and space to expand creativity and innovation on individual student levels. She also supported teacher inquiry at the classroom and cadre (committee) levels by encouraging teachers to question existing programs and strategies and research new ones. This support ultimately led to the school wide changes in the curriculum, instruction, and organization. As Davidson and St. John (1993) noted, "Changes in the role of the principal, from a manager or instructional leader to a facilitator....are integral to most recent school restructuring [projects] such as accelerated schools" (p. 3).

Christensen (1996) sees such time, space, strategies, and roles for teachers as new configurations in school change. Through the principal's leadership and belief in the philosophy of empowerment and unity, teachers were able to become researchers and innovators. As the principal stated:

I think leadership has a whole lot to do with this school and what happens at the school. I think I have acted as a facilitator and I have encouraged teachers to become researchers and have created opportunities for teachers to do that. I came in as principal when they were already in the process. Good things were going on, but I think they have matured.

Through the observations of the attitudes and behaviors of the six teachers evidence was abundant that the word empowerment was
more that just a tantalizing slogan. At first the word empowerment may have been interpreted ambivalently and caused further tension among the faculty because they were still polarized. However, testing out the meaning of the word became important for the teachers. They became autonomous risk-takers as well as innovative and creative in developing new teaching strategies, curriculum programs and policies within the school.

2) New professional roles. This category focuses on "...work redesign activities that may significantly alter the basic role itself" (Murphy, 1991, p. 30). Traditional teachers have been implementators and followers rather than innovators and leaders. In this study, the interviews and observations of the participants revealed that the principal's view of empowerment allowed curriculum change not just in isolated teachers' rooms but across the grades. Teachers in the school came out of their classrooms—out of isolation so to speak—to share, collaborate, and reflect upon what information is taught and how it is taught. In a sense, the teachers were liberated to take control of the curriculum in their workplace.

Throughout the analyses of the notes, tapes, and memos from observations and interviews, evidence began to mount that these six teachers and the principal were willing to experiment to be innovative themselves to search for strategies that they believed were the most appropriate for the children. Informal observations and interviews of all faculty members were congruent with the more intense interviews and observations of the six teachers indicating
that the principal was influential to empower them to use inquiry in the classrooms. The principal empowered the teachers to act in the roles of innovator, risk-taker, experimenter, and facilitator rather than lecturer, manipulator of materials, and manager of children.

3) New career opportunities. As the experimentation, risk-taking, and reflection continued in teacher inquiry, there emerged a metamorphosis in which each teacher began to undergo an individual transformation in his or her own roles and responsibilities. According to Schon (1985) through reflection and inquiry one gets a feeling for a situation that leads him or her to a particular course of action. Isolation turned into unity as teachers began to act as facilitators and leaders in cadre meetings. Some examples are as follows: a) taking the action to integrate art into the curriculum on a school wide basis; b) connecting school wide programs; c) solving problems concerning the organization of the school; and, d) taking the initiative to dissolve dysfunctional patterns of faculty tensions and rifts. Such findings illuminated that teachers had begun to be decision-makers as leaders in the school.

As a result of this leadership, teachers at this school were beginning to give presentations at the school, district, and state levels. At the school level, teachers developed new programs such as inclusion, whole language, and portfolio assessment. At the district level, teachers organized workshops to present at other schools. At the state wide level, teachers assisted the
accelerated schools coordinators with meetings on powerful learning and the inquiry process. The teachers stated that the use of inquiry had opened opportunities for expanding their expertise in education and changed their attitudes and behaviors toward an evolving transformation of teaching and learning at their school. The conclusions present evidence that inquiry appears to be integral to changing how teaching and learning occurred at this school.

This study suggests that the sharing of ideas, reflection on attitudes and behaviors, and the desire to rethink and redesign the curriculum using teacher and cadre inquiry. Therefore, inquiry on both the teacher and cadre levels opened doors to innovative approaches for children's learning in varied ways. Such approaches provided space for enriched experiences for children. Therefore, the work of teachers was interwoven with the creation of unique and meaningful experiences of children. This study suggests that inquiry integrated with the work of teachers can influence the structure of schooling. The work and roles of the teachers need to be geared toward transformation for effective change to occur. The principal also needs to be oriented towards supporting risk-taking, innovative teaching and learning, and teacher research for inquiry as key ingredients in transformation.

EDUCATIONAL IMPORTANCE OF THE STUDY

This study clearly indicates that teachers as well as administrators can improve the opportunities for children through the Inquiry Process. However, the entire school community needs to
reflect and design an educational environment that establishes the stage for innovative teaching and learning.

Teacher inquiry appears to be a prerequisite to take risks, to be innovative, and use trial and error approaches for implementation of new ideas. Abundant evidence indicates that the school principal plays a major role for inquiry to occur. The principal has a role in advocating communication and reflection to break dysfunctional patterns of teacher tensions and isolation.

In summary, this study illuminates the relationship between the principal and teachers' work through the use of inquiry. This study also provides a useful example of change processes relative to the implementation of teacher inquiry and innovative teaching and learning strategies. Elmore (1980) contends that teachers are pivotal in all components of school restructuring with the principal as the facilitator. However, the main focus of school transformation needs to be on teaching and learning. Elmore, Mitchell, and Beach (1993) are just a few educators and researchers who agree that the primary reason for school is to improve educational effectiveness for students by transforming teaching and learning. This study may provide educators with the ingredients for transformation. Among these ingredients are principal's empowerment of teachers, open dialogue, reflection, and innovation through teacher and cadre inquiry.
REFERENCES


