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Tracing change and its effects on students and staff: A longitudinal case study at one elementary school

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TRACING CHANGE AND ITS EFFECTS ON STUDENTS AND STAFF: A LONGITUDINAL CASE STUDY AT ONE ELEMENTARY SCHOOL

by

Dorothy G. Harper

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The researcher of this case study investigates the processes and results of change in one elementary school where the teachers and the administrator initiated and implemented multiple restructuring efforts, over three years, between the fall of 1991 and the spring of 1994. The researcher examines: a) staff conceptions concerning factors that initiate, support, or block restructuring efforts; b) staff conceptions regarding benefits and liabilities of change; c) student and staff outcomes; and d) actions of the principal.

The researcher served as principal of the school during the research period. She accessed and analyzed six data sources in conducting this study: a) interviews of three key informants; b) anonymous staff surveys; c) End-Of-Grade test results; d) kindergarten screening results; e) unobtrusive measures; and f) transcribed notes from two focus groups.

Change initiatives undertaken at the school were multi-dimensional; affecting instruction, structure, roles and relationships, and interaction with the community. Restructuring efforts were designed to fit the needs of this particular school. These two factors (i.e., complexity and "fit") together with administrative support contributed to a high level of enthusiasm for change on the part of the staff

and to the development of a culture of continuous improvement within the organization. Although some employees were uncomfortable with the fast pace of change and left the school, a majority maintained that novelty and the opportunity for enhanced professionalism prevented "burn out".

Support structures necessary for successful change included: administrative support; on-going, relevant staff development; time for planning and communicating; and monitoring of results (e.g., through surveys). Adequate materials and funding were desirable but not essential to successful initiation and early implementation of change efforts.

Student attendance, parent attendance at conferences and Parent Teacher Organization meetings, many instructional practices, and the morale of many students and most staff improved following initiation of restructuring efforts.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at The University of North Carolina at Greensboro.

Dissertation Adviser C. M. Achilles

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I would also like to thank all members of the staff at Century Elementary School (not the real name of the school). They shared their enthusiasm, their concerns, their ideas,

and their love of students with me on a daily basis. I have learned a great deal from these dedicated folks.

Finally, I want to thank my family. My husband, Stan, was supportive and understanding when so much of my time and thoughts centered on Century Elementary and the work I was doing there. My two sons, Russell and Christopher, rarely questioned why their mother spent her weekends on the computer instead of doing "mom" things (like baking cookies?). For your love, encouragement, and on-going patience, I thank you.

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CHAPTER I

INTRODUCTION

> The likelihood of change is enhanced when there is a crisis in the environment, when people have a shared interest in change, when there is a power imbalance in the environment, when the environment has experienced structural changes, and finally when it is consistent with the zeitgeist or spirit of the times. (Levine, 1980, p.6)

This statement captures the essence of internal and external factors that are thought to have influenced educational change during the pasts few decades. A Nation at Risk (1983), for example, examined a crisis in the economic environment, the role that schools and universities play in that crisis, and provided the impetus for massive reexamination of the education system. The power imbalance that occurred with the launching of Sputnik I in 1957 acted as an earlier catalyst for change. Former President Bush's educational reform program, introduced in 1991, reflected "the spirit of the times" as noted in various studies and general media coverage on education (Eisner, 1992).

Efforts to change the educational system have often been promoted by forces, such as those mentioned above, that are located outside the educational organization. Community action groups, civil rights organizations, and federally imposed programs designed to remedy perceived shortcomings

of the instructional system have all been external forces of change (Baldridge & Deal, 1983; Dalin, 1978; Herriott & Gross, 1979; Huberman & Miles, 1984).

Despite the impact of historical events and the efforts of myriad organizations and individuals, researchers disagree as to the amount and kind of educational change that has actually taken place over the past few decades. Eisner (1992) stated that schools remain today essentially as they have always been. Sarason (1972) maintained that many attempts at promoting change in schools are faltering or failing. In 1979, Herriott and Gross argued that almost "every systematic study of the fate of a specific educational innovation in public schools has concluded that its anticipated outcomes were not achieved, that its educational benefits were minimal, or that it was not fully implemented" (p.11).

On the other hand, several recent authors on the subject of education change and school improvement feel that positive outcomes in education are being realized. They maintain that some innovative schools are experiencing effective, fundamental changes in their organizational structure. Glickman (1993) called these organizations "successful schools". Joyce, Wolf, and Calhoun (1993) named them "self-renewing schools". Edmonds (1979) recognized "effective schools" as educational organizations that make

improvements in meeting students' needs. Despite differences in the names, the goals of these schools are the same: a) to focus on improved performance for each student; and b) to develop a long-term commitment to basic, systemic change of the entire school organization; thereby, c) meeting the needs of our society in the coming decade and the coming century (David, 1991; Elmore, 1990; Glickman, 1993; McCall, 1988).

This dissertation consists of a case study focusing on one elementary school that committed to a long-term emphasis on restructuring during the three-year period from 1991 through 1994. During this period, the principal and staff at the school (which will be called Century Elementary School for the purpose of this research) introduced specific changes with the objective of better meeting students, needs. By the end of the 1993-94 school year the school faculty had not formally determined the impact of the restructuring effort, its level of effectiveness. The purpose of the dissertation, then, is to examine data related to planned educational change at Century Elementary. The case study focuses specifically on the school administrator's role in the restructuring process, perceptions of change held by the staff and parents, and various student outcomes that followed the introduction of change initiatives.

Prior to examining outcomes of restructuring efforts, it is important to become familiar with researchers' views and findings regarding educational change. There are reasons why some efforts to reform or restructure schools result in increased achievement for students and increased satisfaction for staff members while other efforts have few, or worse, negative effects. One reason may have something to do with the locus of change. McCall (1988) asserted that "school reform won't start in the schools; [that it] has started in the larger community and will continue to develop there" (p.7). Other researchers write that a top-down, mandates-oriented approach to school restructuring does not have lasting or positive results (e.g., Herriott & Gross, 1979; Hopkins, 1984; Hoyle, 1974; Lezotte, 1989; Miles, 1993). In this vein, Dalin (1978) stated that

> Whatever change goals or change strategies we can conceive of, ultimately, they should affect the lives of students and teachers in schools. The school as an organization, therefore, becomes the focal point of change. (p.97)

The literature enumerates many factors other than locus of change initiatives that affect the success of school restructuring efforts. Barriers to innovative efforts and the support systems necessary for successful change are the topics of many research articles and books. Similarly, much has been written comparing models for change and their

effectiveness. Such literature is integral to understanding the nature of change in educational organizations. However, many researchers write that each of these facets of change, each piece of information that relates to the willingness of individuals to attempt change and the effectiveness of change initiatives in solving problems related to student improvement, must be reviewed within the context of a specific setting in order to be meaningful (Dalin, 1978; Glickman, 1993; Jackson & Achilles, 1990; Kent, 1979; Rubin, 1978). Hopkins (1984) went so far as to state that:

> identical innovations assume different characteristics in different settings...[The] innovation itself changes to meet the unique set of circumstances within the school, and the school changes as a result of the innovation. (p. 14)

Gross (1979) elaborated on this view that the community and school district contexts are important variables when examining educational change efforts. He stated that case studies focusing on specific sites are of value to administrators who seek to reform schools because such studies introduce the administrator to new perspectives, the effects of specific variables on efforts to change, and new ways of conceptualizing the change process.

This study follows the line of research investigating locus of change and the context of the school as important variables in the study of educational change by following

one elementary school that has attempted to institute several major restructuring initiatives over a three-year period. The case study describes specific restructuring efforts, investigates barriers to these efforts, and examines possible predictors of success. Further, it examines the school administrator's role in restructuring (i.e., the extent to which she followed perceived good practices in regard to educational change), intended and unintended outcomes associated with the change initiatives, and the effects of staff development on the level of success in initiating and implementing change. The restructuring process experienced by students and staff at Century Elementary from 1991 to 1994 constitutes the "bounded system" which is the subject of this case study.

The primary investigator for the case study served as principal of Century Elementary during the three-year study period from the fall of 1991 to the spring of 1994. This unique situation allowed the investigator a "backstage" view of the change process on a daily basis. Informal conversations held with students, staff, and parents; scheduled meetings; and on-going interactions provided the researcher a context for obtaining data unavailable to most qualitative researchers. Similarly, documentation, accumulated on a regular basis as a normal function of running the school, was available to the researcher.

However, the investigator acknowledges that the issue of researcher bias is a real one. The reader of this case study may assume that the researcher, also the principal of the school, would report only those incidences and results that show the change efforts at Century Elementary in a positive light. For this reason, the researcher has taken several steps to protect against researcher bias. Two focus groups, one consisting of parents and one of staff members, were conducted by a university faculty member at the end of the research period. Results of the focus groups were transcribed by an objective graduate student unknown to the researcher. Additionally, all staff members were asked to respond to anonymous end-of-year surveys at the conclusion of each of the three school years encompassed by the study. As the 1993-94 school year ended, all staff members were required by the researcher/principal to give input regarding the three-year change process. Again, responses were kept anonymous. State mandated End-of-Grade (EOG) test data for Century Elementary were reported and disaggregated by central office personnel. Results of the two-year math/science grant project with which Century Elementary was involved were compiled by university staff overseeing the project and have been included in this study. Finally, the researcher has attempted to outline personal biases and

goals which she brought to the change effort, and to explain how these were dealt with in the search for objectivity.

In the end, as in other case studies, some observations can be substantiated, some cannot. Each observer has a different perspective or vantage point. The value of the information presented by this observer/researcher must be determined by the reader (Stake, 1988).

Statement of the Problem

Fullan and Stiegelbaur (1991) stated that restructuring

> ... usually involves: school-based management; enhanced roles for teachers in instruction and decision making; integration of multiple innovations; restructured timetables supporting collaborative work cultures; radical reorganization of teacher education; new roles such as mentors, coaches, and other teacher leadership arrangements; and revamping and developing the shared mission and goals of the school among teachers, administrators, the community, and sometimes students. (p. 15)

These efforts constitute the types of substantial change initiatives that McLaughlin (1975) and Mann (1975) maintained were most likely to result in "big differences" at the school level.

Obviously, significant efforts require support and resources in order to succeed. Joyce, Wolf, and Calhoun (1993) maintained that effective staff development and

participation of a critical mass of the stakeholders are necessary for successful restructuring. Huberman and Miles (1984) cited the importance of adequate resources and training in the successful early use of innovations. House (1974) discussed the psychological setting necessary for the generation of innovations. Many researchers, however, seem to agree that the one resource most important to successful educational restructuring is time (e.g., David, 1991; Fullan & Miles, 1992; Hoyle, 1974).

David (1991) explained that it "requires time to learn, to plan, to test ideas, to maintain lines of communication - time that it not typically considered part of the job of teachers or administrators" (p.14). Time also is required for reflection and evaluation. Unfortunately, time is a valuable but rare commodity in schools. For this reason, many administrators and staff members involved in restructuring efforts are content to assume that student achievement and school culture are enhanced due to introduced innovations, rather than taking/making time for on-going evaluation. Similarly, individuals within a "restructuring" school may assume that there is agreement regarding the source(s) and extent of change, without taking time to test the level of agreement. Investing time to evaluate improvement in student performance or to reach an

understanding about the change process is an essential but often neglected activity (Sagor, 1992).

This study proposes to invest time in examining the change process at Century Elementary School over a three-year period. Beginning in the fall of the 1991-92 school year and continuing for the next three years, the researcher and various staff members attempted to initiate several large- and small-scale innovations at the school.

The principal/researcher was assigned to Century Elementary in August 1991. She was a first-year principal with three prior years in administration as a middle-school assistant principal. She began to attempt specific changes in the fall of her first year at the school. Although the principal was in graduate school and had initiated a staff leadership training project at the middle school, she had not studied educational change processes. As she became more involved in restructuring efforts at Century Elementary, she became interested in researching the process of educational change and began to train in this area (i.e., reading the literature and attending workshops). She attempted to follow recommended procedures and established "good practices" in initiating and implementing change (e.g., on-going staff development, purchase of materials, reorganization of schedules, use of site-based management). However, time in schools is limited and no formal evaluation of the change

process had been conducted as the third year of restructuring was coming to an end.

Conceptual Base

According to Joyce, Wolf, and Calhoun (1993), the climate and times are right for educators to "renew" schools and to research the consequences. They give the following reasons for this opinion: a) there have been recent advances in research regarding school improvement, change, and innovation; b) there have been advances in research and thoughts concerning the purpose and structure of staff development; c) new research is available on the culture of an organization and its effect on change; and d) new questions have been raised by the successes and failures of different change efforts. It follows that a goal appropriate for schools at this time is having the entire school conducting research, so that teachers and other school personnel can study themselves as they make initiatives for improved teaching and enhanced student learning (Joyce, Wolf, & Calhoun).

Making improvements in student learning is the basis for the development of change initiatives at Century Elementary School. In the summer of 1993, the school's district, encompassing a small town in North Carolina,

merged to become part of a much larger system. In 1991, the smaller system was notified that it was failing to make the gains in student achievement deemed necessary by the state. Recognizing that this elementary school, in particular, had many students who were potentially "high risk" (55% minority students, 50% low SES) the administration and staff at the school embarked on a restructuring journey.

Century Elementary was ready to embrace a change effort in the fall of 1991. Each factor listed in the quote by Levine (on page one of this report) as truly enhancing change was in place at Century Elementary at that time:

a) There was a crisis in the environment; the school system was on "warning status" from the state.

b) The staff at the school had a shared interest in change; teachers would be held accountable by the state and the local administration for improved student performance.

c) There had been a power imbalance in the environment. This principal was the fifth in three years. The staff had tried to adjust to very different leadership styles during that period and was looking for direction. Having a female principal was also a new experience for them.

d) The school had undergone structural change. In 1990 it was changed from a K-5 to a K-3 school.

e) Change was consistent with the spirit of the times. The superintendent backed administrators and school staffs that took risks in implementing change initiatives. He encouraged the use of an "effective schools" model for school improvement, the initiation of Outcome Based Education (OBE) model classrooms, and integration of instruction.

Between the fall of 1991 and the spring of 1994, the faculty of 30 full-time teachers (some of whom came to the school during the research period, some of whom left) with few exceptions, embraced areas of change. Three lead teachers received training over the course of three years in the use of hands-on techniques for teaching math and science through two different university grant projects. The lead teachers, in turn, trained all other teachers and interested teacher assistants in these instructional techniques. Six teachers had local training in the development of Outcome-Based Education (OBE) classrooms. In 1992, three teachers worked to develop "inclusion" classrooms for "differently abled" students. At the beginning of the 1993-94 school year, nine teachers were working in inclusion settings. Fifteen teachers and one interested assistant attended workshops in "Learning Styles" as a strategy for meeting student needs. Two of these staff members initiated an action research project in the area of learning styles.

Another teacher was awarded a $1000 grant to establish an early intervention system in her first-grade classroom. The principal mandated additional staff development in teaching/assessing reading and writing skills with at-risk students for all teachers during the 1993-94 school year. The guidance counselor developed an extended "peer helper" program during the time of the study. The media specialist initiated a "flexible schedule" to serve students' research and special project needs. In February 1994, the faculty presented a proposal to the superintendent and the local school board to become a "Year Round" school. This proposal was accepted and staff members began to restructure the school calendar and grade levels (changing from K-3 to K-5) for the 1994-95 school year. Staff members volunteered (with the exception of the mandated staff development in the area of literacy training) to take each of these steps in an effort to improve instruction and to increase student achievement.

Taking on so many change initiatives at one time might be perceived as overload or as a cause of teacher burnout. There is support in the literature, however, for initiating on-going and complex restructuring efforts simultaneously. Miles (1993), for example, asserted that "it's been repeatedly found that more substantial change efforts addressing multiple problems are more likely to succeed than

small-scale, easily trivialized innovations" (p. 215). Educators are often cynical of weak initiatives which get lost or are forgotten. Instead, educators have proven to be capable of rapidly learning skills needed to facilitate extremely complex initiatives as long as they are well-supported (Joyce, Wolf, & Calhoun, 1993).

Schools and staffs, however, go through stages in their development if restructuring is to be successful and change strategies are to become integral to the organization. Although the names and number of the stages may be different in different change models, generally, the literature lists five stages evident in successful school improvement programs: initiation, planning/goal setting, implementation, review, and institutionalization (SouthEastern Regional Vision for Education, or SERVE 1992). Similarly, staff members in restructuring schools must go through stages of development. Glickman (1993) suggested the following three stages: orientation, integration, and refinement. He cautioned however, that restructuring efforts are not sequential and that the ordering of tasks cannot be determined by external factors.

For restructuring efforts at the school building level to succeed, however, it is not enough that they be substantial and address real problems or that change progresses through stages. These efforts must also be

supported by building level administrators/leaders; the principals (Fullan with Stiegelbaur, 1991; House, 1974; McCall, 1988). According to Bennis and Nanus (1985), the principal should be a charismatic leader and builder of visions. Principals must also find and solve problems, addressing concerns at their specific sites (Jackson & Achilles, 1990). For principals to be effective, they must be practical and insightful once problems are identified. Principals must find factors that contribute to problems, select and implement effective change strategies for dealing with the problems, incorporate the strategies into the fabric of the school, and evaluate the results (Gross, 1979). Finally, principals must be providers; making sure that resources necessary for the restructuring effort are in place. Such resources include staff development, substitutes, new materials, new space, and time (Fullan & Miles, 1992). The principal in the study attempted to find and solve problems and to provide necessary resources. This study is, in part, her effort to evaluate the results.

Taken together, the factors present from 1991 to 1994 at Century Elementary (i.e., environmental crisis, shared interest in change, power imbalance, recent structural changes, supportive climate, initiation of multiple and substantial change initiatives, and a building level administrator who supported change) point to a site where

restructuring efforts might be effectively initiated and implemented. Century Elementary School, therefore, is an appropriate site for the study of educational restructuring.

The decision to conduct an inquiry from within rather than to use a researcher external to the program was deliberate and with distinctive advantages. The researcher, situated in the position of principal at the school had a singular opportunity to study the site. She could make observations on a daily basis and had access to information which would not have been available to an outsider. Emerging issues and divergent perspectives were more readily apparent from this observation point than would be the circumstance in many case studies that must depend upon brief and infrequent site visits for data collection.

Purpose of the Study

The purpose of this research study is to investigate the processes and results of change in one elementary school where the teachers and the administrator initiated several restructuring efforts, over three years, between the fall of 1991 and the spring of 1994. Data on student performance and staff involvement have been examined to identify changes in student and/or staff outcomes occurring in the school over this period and to distinguish which factors are considered

by the staff to initiate, support, or block restructuring efforts.

Research Questions

The following research questions address the purpose of the study:

1. Are staff members consistent in their conceptions of: a) the major source(s) of change; b) the reason(s) for initiating change; c) support structures for change; d) barriers to change; and, e) benefits/liabilities of initiating the various programs/changes?

2. Have there been improvements in student/staff outcomes (e.g., attendance, test scores, disciplinary statistics, attitudes, increased collegiality) that can be documented as having occurred following the specific change initiatives?

3. Has the principal at Century Elementary followed "good practice" in initiating and supporting restructuring efforts?

4. Have school improvement programs and staff members progressed through stages identified in the literature as typical of successful restructuring efforts?

Significance of the Study

This site-based case study is significant on three levels. First, it is significant at the school building level. For faculty at Century Elementary School to continue to develop and to "capture the sense of school renewal, [the faculty members need] to develop the critical-study process, so that information infuses the raising and studying of important questions about student learning" (Glickman, 1993, p.50). It is necessary to create climates of risk-taking and to help individuals feel comfortable with emerging technologies and techniques so that students' needs will be met. However, the researcher recognizes that introducing change for change's sake cannot consistently be productive. Frymier (1969) stated that "education seems unable to process pertinent data so that appropriate and effective changes can be assured" (p.46). This study reflects an effort to collect and process the information that will assist the principal in steering change in a productive direction at Century Elementary School.

On a broader level, this study is significant for the information that can be shared with other school-based educators and those interested in the study of educational change. Glickman (1993) observed that few educators in any position are seeking information about change and the change process. He maintained that such information on school renewal "must be commonly possessed and shared in schools" (p.59). The principal/researcher does not claim that the information gained in this research effort is generalizable to other schools. She does maintain, however, that the case study format lends itself to "telling the story" of Century School's efforts to restructure. Information gained through naturalistic generalizations by the reader while reviewing the case study can provide useful insights (Bogdan & Biklen, 1982; Stake, 1985, 1988). Information gained regarding student and staff outcomes and the restructuring process itself may be productive for those who read the case.

More generally, Gross (1979) listed several reasons why researching case studies in the area of educational change may be significant. He stated that case studies can: a) caution administrators to examine the quality and appropriateness of specific innovations; b) develop an awareness in administrators regarding the "multiple forces and conditions that necessitate a proposed change effort"; c) make administrators aware of stages in the change

process; d) "alert and sensitize" administrators to obstacles; e) make administrators aware of their importance in the implementation of educational change; f) look at community and school district contexts as important variables; g) develop an awareness of the importance of careful planning and flexible strategies; and h) "broaden and deepen intellectual perspectives of administrators by providing ways to conceptualize" change. (pp. 40-41)

Limitations

The following are limitations of this study:

1. This research encompasses a case study of one school. The researcher is the administrator of that school and, as the administrator, has been instrumental in setting policy, evaluating staff, purchasing equipment, and approving/sponsoring staff development at the school. Researcher bias is unavoidable. To reduce the effect of such bias on the study, the researcher's role and opinions are stated in the case study when appropriate. Documentation from a variety of sources (written, oral) has been collected. For example, focus group interviews involving parents and staff members were conducted by an objective university faculty member at the end of the research period.

Anonymous, open-ended, end-of-year surveys were completed by staff members at the close of each of the three years. Central office staff collected, disaggregated, and supplied to the researcher data on state-mandated End-of-Grade (EOG) tests. Other information regularly required by the state and local administrative unit (e.g., concerning attendance and student discipline) were collected and used in this research effort.

2. There is no consideration of randomness. The researcher does not claim that results are generalizable to any other school situation. Those decisions are left to the reader.

3. The research is primarily post hoc, so the researcher cannot make claims for cause or effect. Results may be associative or descriptive and, perhaps, a reader can draw some important ideas for future practice.

4. This study represents the "story" of one elementary school in North Carolina. It does not provide any lists of procedures or sets of rules for implementing change in schools.

5. Many studies of educational change emphasize the importance of the school district and community context.

This study focuses primarily on building-level activities and processes. Although demographics for the community are given, no emphasis is placed on the role of the local school board, parents, or other community leaders in implementing change. None of the changes initiated at the school was mandated by the school board or by the superintendents. Parent input, however, has been sought regarding the restructuring process.

6. Historical and philosophical perspectives have not been considered in addressing specific change initiatives (e.g., the history of site-based management has not been addressed).

Definitions of Terms

Many terms used in research on educational change are defined by a researcher for one specific study or used interchangeably by others in the field. For the purpose of this study, terms are utilized as follows.

Action research empowers teachers/administrators to participate in the evaluation of the change process by encouraging them to engage in reflective thinking about

their roles in the organization and to improve their own teaching/leading practice (Eisner, 1992).

Attitude is a mental position taken by an individual (Webster's Dictionary, 1991).

Case study is the investigation of a single bounded system or case using naturalistic observation and interpretation of interrelations and patterns within the collected data. It is built around specific issues implicit in the case and is generalizable to the extent that the readers find the case similar to their own experiences or circumstances (Stake, 1985, 1988).

Change is a systematic, multi-dimensional, process, involving the altering of relationships and social systems (Dalin, 1978).

Effective schools are those schools which exhibit the following characteristics: strong administrative leadership; a climate of high expectations; orderly and safe environments which are not oppressive or rigid; a high priority placed on the acquisition of basic skills; and frequent monitoring of student progress (Edmonds, 1979).

Innovation is a deliberate attempt to make improvements in relation to specific objectives that benefit those people involved (Dalin, 1978; Havelock, 1973).

Reform requires change in current procedures and rules so that an organization can adapt to new circumstances. It is initiated by external sources (i.e. "top down") (Conley, 1993).

Renewal is the effort of someone to do better those things that are already being done. Renewal in education does not require fundamental changes in school organization or assumptions (Conley, 1993).

Restructuring, in education, involves activities that impact on or adjust fundamental structure, practices, assumptions, and relationships within the organization and between the organization and the community so that the result is improved student learning outcomes (Conley, 1993).

School improvement is a generic term for efforts aimed at increasing student learning, improving staff development, remodeling, developing the roles of teachers, administrators, and students, etc. (Hopkins and Wideen, 1984).

Self-renewing school is one in which all educators work to improve the learning environment by studying education and ways to improve it. As initiatives move the students into new, more active roles, educators are stimulated to "engage in more study and create even more vigorous learning environments" (Joyce, Wolf, and Calhoun, 1993, p.3).

Successful schools are those schools in which educators have set specific educational goals and priorities (academic, social, emotional) and have worked over time to accomplish them (Glickman, 1993).

Organization of the Dissertation

This study investigates the process of change and the role of the principal in the school improvement process at one elementary school. Student and staff outcomes related to specific restructuring efforts are examined.

Chapter One offers a brief introduction to the study. It includes a statement of the problem, the conceptual base, purpose of the study, research questions, significance of the study, definition of terms, and a list of limitations.

Chapter Two includes a review of relevant research and literature on the topic of planned educational change and provides a basis in the literature for pursuing this topic.

Chapter Three describes the methodology to be used in this study. It includes an introduction and descriptions of study participants, data collection and analysis techniques, and research design.

Chapter Four presents the case study and an examination of the data as it pertains to relevant literature on planned educational change and the research questions introduced in Chapter One.

Chapter Five contains a discussion of the author's conclusions, implications of the results, and recommendations for further research.

Chapter Six describes a few of the changes that took place at Century Elementary in the months following the completion of this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

> In theory, the purpose of educational change presumably is to help schools accomplish their goals more effectively by replacing some structures, programs and/or practices with better ones...Change for the sake of change will not help. New programs either make no difference, help improve the situation, or make it worse... (Fullan with Stiegelbaur, 1991, p. 15)

Planned and unplanned change, its introduction, implementation, and effect on educational organizations has been the topic of much research and curiosity since the 1950's (Miles, 1993). The goal of this dissertation is to extend the available research by focusing on questions which deal with process, outcomes, and perceptions surrounding the change process at one elementary school. A review of the literature in this area follows together with a synthesis of the relevant research.

Nature and Purpose of Educational Change

Baldridge and Deal (1983) surmised that change is a natural and fundamental part of any organization; that

people, institutional purposes, relationships between the organization and its environment, and technologies all change continuously. Dalin (1978) stated that this omnipresent "change" has several basic characteristics. He maintained that change is a process and takes place over time, is systematic, and is multi-dimensional (i.e., that it can only make sense when looked at through many perspectives).

Recently, various researchers have compiled lists of some of the dimensions they feel are intrinsic to school reform or restructuring. Conley (1993) wrote that school restructuring involves: a) teachers and students changing as they begin to take on new initiatives in the educational process and begin to develop a shared, central vision; b) education becoming more people oriented; c) changes in curriculum; d) education freeing itself from a slow-moving centralized bureaucracy; e) enhanced involvement of various interest groups in society; and f) the development of higher expectations for teachers and students. Fullan with Stiegelbaur (1991) outlined three components or dimensions, all of which must be in place to implement successfully planned change: a) use of new or revised materials, b) use of new teaching strategies or approaches, and c) an altering of beliefs. Elmore's (1990) dimensions of restructuring are, in part, politically oriented. He stated that changes in

teaching and learning, in the occupational situation of educators, and in power distribution are necessary for successful school restructuring. Four dimensions of change were noted by Joyce, Wolf, and Calhoun (1993). These authors found restructuring involves the dimensions of: a) the student's learning environment, b) procedures for mobilizing energy and providing support for cooperative problem-solving, and c) staff development. Eisner's (1992) list encapsulates the dimensions related by other researchers. He noted that school reform requires attention to intentional goals of education, structural aspects of schools, curricular updates, pedagogical changes, and evaluative methods for determining effectiveness.

In examining the effects of change on an organization, many researchers agree that the role of culture within the organization must also be studied. Baldridge and Deal (1983) wrote that culture (an organization's norms, values, goals, beliefs) helps to stabilize the organization and keep it from changing too quickly. Foster (1986) felt that the expression of culture through symbols and rituals, so prevalent in educational organizations, made schools especially difficult to change. Other researchers (Fullan with Stiegelbaur, 1991; Hopkins, 1984; Hopkins & Wideen, 1984; and Levine, 1980) maintained that effective educational change must be designed to affect the cultural

aspects of the organization and that, for any real restructuring to occur, the individuals within the organization must come to new understandings about the purpose of their jobs and their roles within the organization. Indeed, it may be that with more complex change, affecting larger numbers of people, it becomes more imperative to involve the participants and to change the cultural norms and values held by individuals within the organization (Dalin, 1978; Foster, 1986; and Hopkins, 1984). Miles (1993) endorsed this view, hypothesizing that persons within any organization must develop "shared cognitive maps" as a support structure for successful school restructuring efforts. According to Miles, the development of such maps involves a transitional process; a moving from the old and an entering the new. During this transition, individuals must move from a sense of loss to a sense of commitment; an unlearning to new learning; and a state of uncertainty and anxiety to a state of stabilization and coherence.

Assaulting a school's culture during the change process throws that school into disequilibrium. Although this process can be frustrating for many staff members, Glickman (1993) was confident that the state of disequilibrium is a healthy one for schools seeking self-renewal. He stated that:

> Success is the intelligent use of mistakes in self-renewing schools. The moral imperative of the school is for its members to move into their areas of incompetence: if we already knew how to do this work, we would not have the purposeless cycles of educational reform that schools are endlessly caught in. We all need to learn new roles and relationships. (p. 91)

Researchers articulate the purpose for change differently. Glickman (1993) felt that we need to risk disequilibrium and modify our approach to educating students because we haven't yet learned how to do our work in an effective manner. Joyce, Wolf, and Calhoun (1993) stated that we should seek change and improvement because the act of searching stimulates the organization and all members of the organization; making betterment a continuous possibility. Hopkins (1984) asserted that restructuring, or school improvement, is necessary so that the school develops the ability to manage on-going change that is evident in the environment. Lezotte (1989) focused on shifting demographics in his arguments for change. He pointed out that we must restructure our educational system to meet the needs of the increasing numbers of poor and disadvantaged children in our classrooms. Despite the differences in goals, each of these researchers stressed the fact that change is a process that is on-going and that school improvement is a journey, affecting school culture, that does not end.

In this study the researcher investigates several different dimensions of educational change. Staff development, shifts in power, modifications in materials and teaching strategies, and reorganization of student and staff environments are all considered in examining the data. A major focus of this dissertation involves the possible alteration of cultural norms and values at Century Elementary School during the period of restructuring. According to the literature, any real changes at the school must be accompanied by changes in its cultural fabric. Therefore, several issues in this case study deal with cultural aspects of the school such as: reasons for initiating change, barriers to change, student outcomes reflected by attendance and disciplinary statistics, and the level of collegiality among staff members.

Change Models

Foster (1986) stated that "no one model of change explains how or why organizations change...Organizations and institutions are complex and planned change in them equally so" (p. 162). Indeed, a review of the literature addressing change models reveals that, as perspectives on educational reorganization have altered over time and as researchers have examined a variety of organizations, they have

developed an assortment of change models. These models possess different numbers of and names for stages within the designs as well as different emphases. However, there are similarities as well as differences among the models. For the purpose of this study, a sampling of models is examined chronologically.

In 1971, Bushnell developed a six step, systematic prescription for implementing change. Using a systems model, Bushnell outlined the following means for achieving change:

Step 1 - Diagnose the problem. It is mandatory to first recognize that the system is malfunctioning.

Step 2 - Formulate objectives. These objectives should be as comprehensive as possible and based on an understanding of what must be achieved.

Step 3 - Identify constraints and needed resources. Outside consultants may need to be pulled in to look at existing laws, traditions, and attitudes.

Step 4 - Select possible solutions. It is necessary to develop an awareness of potential solutions and to select the most appropriate.

Step 5 - Evaluate alternatives. Examine the feasibility, workability, and effectiveness of each alternative to determine the best course of action.

Step 6 - Implement the selected alternative.

First, cooperation and acceptance must be gained. Staff training, adequate resources and materials, established objectives and procedures, and an evaluation/adaptation system must be available.

Bushnell's model is a prescriptive, linear version of change, aimed at rectifying system malfunctions, which was meant to apply to all systems.

Havelock (1973) developed a much different model for moving education from its current status to an improved future condition. Havelock's model was once again linear in nature and involved six stages, but added the concept of the "change agent" as a person responsible for initiating and implementing changes. Stage one of Havelock's design involved the development of a relationship between the change agent and the client. During this stage, the change agent was to adopt an open and collaborative strategy for working with the client. Subsequent stages included: diagnosis of the problem; acquisition of needed resources; choosing the solution; gaining acceptance for the solution; and, stabilizing the innovation and generating self-renewal. Havelock stated that "gaining acceptance" was the action phase of the plan. For the client to accept the innovation, Havelock believed that he must develop an awareness of the innovation, develop an interest in and actively seek

information about the innovation, evaluate this information, try the innovation on a small scale, adopt it, and integrate it into his routine. For the innovation to be successful, wrote Havelock, it must become almost automatic to the client. This model involves a rational-managerial approach to change (Foster, 1986). Havelock presupposes that the actors within the organization are rational individuals who can be persuaded by evidence and who will act to make changes systematically.

A few years later, Dalin (1978) proposed a series of four different models of change, grounded primarily on Havelock's previous work. In developing his "problem-solving model", Dalin maintained that "innovation is a part of a problem-solving process which goes on inside the user" (p. 67). In this problem-solving process, the individual senses a need or problem, searches for and retrieves pertinent ideas and information, then develops an appropriate innovation, adopting it to his setting. This process involves a looking outside the local school or district for ideas and information. Dalin maintained this last step is taken too infrequently in education.

Such a problem-solving approach to school improvement was proposed by Guba and Clark (1975). These theorists determined that a "configurational perspective", involving various members of the educational community in knowledge

production and utilization (KPU), could be most productive in furthering Research-Development-Diffusion-Adoption (RDDA) efforts in education. In this model, institutions or individuals interact in KPU activities as a secondary function of the organization.

Dalin's (1978) second model was one based on "social interaction". According to this design, the individual adopts an innovation as a reflection of his network or social group. Opinion leaders and change agents play important roles in the process. Since educators are often isolated, Dalin maintained that peer and social interaction may not be as important in implementing educational change as in adopting such change (a later phase).

Dalin (1978) also postulated a "research, development, and diffusion model" for change. This model involved a great deal of advance planning and research, intensive labor used to disseminate an innovation, and a relatively passive consumer who would accept the innovation as and when offered. Resource heavy and top-down, Dalin admitted that this plan was not always relevant to real world problems.

Lastly, Dalin (1978) presented a "linkage model" that connected his other three versions. This model, he stated, may overestimate the influence and role of outside change agents on local practitioners. However, he maintained that knowledge utilization was an essential aspect of

successfully implementing change and that linking the practitioner with knowledge of improved practices was a problem. Dalin questioned the amount of information available to educators regarding best practices in initiating and implementing innovations and felt that an outside agent may be necessary for obtaining and sharing that information.

In 1979, Gross shifted directions and concentrated on the role of the administration in directing and implementing change. First, Gross proposed the "Overcoming Resistance to Change Model" (ORC) which emphasized the need to persuade and motivate staff members to accept an innovation. Administrators, according to this model, needed to share decision-making with staff as innovations were initiated and incorporated into the organization. Gross found, however, that the ORC model had several limitations. Staff members who had initially supported an innovation but later developed negative attitudes were not accounted for in this model. Similarly, the model did not look at on-going implementation of an innovation.

For this reason, Gross (1979) developed the more extensive "Leadership-Obstacle Course" (LOC) theory. Gross assumed that any opposition to a proposed change must be overcome by the administration if an innovation was to be successfully implemented. For the administration to be

successful, five conditions must be in place. Members of the organization must have a clear understanding of the proposed change. They must also have the skills and capabilities necessary to implement the change. Relevant materials and equipment must be available. The innovation and the environment within the organization must be compatible. Finally, staff members must be sufficiently motivated to attempt implementation of the innovation. The administration was responsible for establishing the five conditions.

Gross's LOC theory extended the ORC theory in three ways. First, it inserted the stage "attempted implementation" between initiation and incorporation. Secondly, LOC outlined obstacles within the organization which must be overcome during attempted implementation. Lastly, it placed the administration at the center of the change effort during initiation and attempted implementation (Gross, 1979).

Even so, in 1979, Herriott and Gross reviewed the LOC theory and discovered several limitations. They found that LOC did not account for the effect of events prior to a proposed innovation on the acceptance and implementation of that innovation. They also felt that time should be added for "exploration" and "strategic planning" before implementation could be considered. These researchers

determined that a good change theory should account for external as well as internal barriers to implementation, monitoring and feedback mechanisms, and the political role of the administrator of change. The LOC model lacked each of these components. Herriott and Gross therefore developed the "Expanded" model or ELOC. This model focused on providing a broad map rather than specific guidelines for administrators who were beginning to direct change efforts.

Levine (1980) examined change theories to date and attempted to summarize the process of change in a four-step model that would be consistent with other researchers. Like previous investigators, Levine stated that the first step in making changes involved a recognition of the need for change; probably a result of unmet goals or the recognition that goals could be better satisfied through other means. Conceptualizing and developing a plan for satisfying the need was step two. During these first two steps, the innovation remains an idea or concept. In step three, the plan was initiated and tested on a trial basis. In the last step, the new operating plan was either accepted and routinized or it was terminated.

For Levine (1980), this last step was crucial. He believed that too little research had been conducted on the institutionalization and termination of innovations and that it is critical to understand why some innovations fail while

others do not. Levine defined failure of an innovation as "a premature decline in the planned level of impact or influence of an innovation on the host organization" (p. 136). He stated that failure resulted if the innovation was not compatible with or profitable for the organization. Levine considered that standards of compatibility and profitability probably vary within an organization, so that innovative resistance within segments of the organization probably varies as well.

The work of Joyce, Hersh, and McKibben (1983) represents another shift in the way the process of change, as it affects school improvement, has been defined. According to these authors, change can originate locally (i.e., within the school) or externally. In their three-stage plan, these researchers maintained that change could be refinement oriented (stage one) or innovation oriented (stages two and three). During stage one, the process for change is initiated by organizing responsible individuals, using effectiveness criteria, and improving the school's social climate. Renovation of the system occurs in stage two; when the scope for improvement is expanded, staff development is organized, and curriculum areas are improved. In the third stage, the school is redesigned. At this point, the school mission and organizational structure are examined, technologies are studied, and a long-range plan is

developed. The authors admitted that innovation in these areas (curriculum, structure, mission) is difficult to implement and sustain.

Huberman and Miles (1984) addressed this difficulty of implementation. They wrote that "later implementation" involved six tasks: taking on more demanding aspects of the innovation, debugging flaws, refining and categorizing, integrating new materials into existing ones, adapting practice to meet changes in pupil population and needs, and extending innovations into other activities. These authors concluded that, if implementation was successful, most users of a complex innovation could attain good practice mastery within 18 months; within six months for simpler projects.

Foster (1986) recognized several models of change that have been addressed in the preceding pages: the rational-managerial approach (e.g., Havelock), the personal-internal approach (e.g., Dalin), and the systems approach (e.g., Bushnell). In addition, Foster proposed a political-economic model. This design examined organizations as political entities with real and symbolic resources; political actors with private interests; shifting coalitions with an interest in controlling resources; all within a political, conflict-ridden environment. Change, according to the political-economic perspective, occurs through "the manipulation of rewards, changes in supply and demand, and the development

of interest groups [that] have the most profound effect on organizational life" (Foster, p. 160). Foster felt each of these four change models was incomplete.

Achilles's (1986) work regarding the change process represents another theoretical shift in this research area. Based on earlier research-based studies (Achilles & Norman, 1974) Achilles proposed that change occurs when personal learning takes place and that learning occurs as an individual moves through change. This social interaction model further suggested that communication between a teacher and learner is the mechanism which enables learning and change to take place. Therefore, teaching, learning, communication, and change are all interrelated. Achilles posed a three stage process through which the learner moves during the change process. Stage one occurs as the individual becomes aware of and interested in an area of change. During stage two, the individual evaluates the new area of interest on a trial basis. The individual reaches stage three if he finds the change is compatible with his goals and if he adapts it as part of regular behavior. The learner (whether teacher, student or administrator) moves from awareness to use during the change process, exhibiting learning as an outcome through changes in behavior and/or knowledge.

Three different reform models, focusing on learning, were postulated by Elmore in 1990. His "technology" model emphasized the impact of variations in classroom interaction and instruction on student learning. In this perspective, restructuring is dependent upon the importation of best teaching practices and knowledge into the school, thereby transforming the structure of the school to fit that knowledge. For change to be effective, a steady supply of new information, on-going staff development, and constant structural shifts are necessary.

Elmore's (1990) "professional" model is related to his "technology" model in that instructors become responsible for developing best teaching practices and evaluating the teaching of their peers. Again on-going, updated information, staff development, and access to relevant resources are necessary to the success of the model.

Lastly, Elmore (1990) proposed a "client-control" model. In this version, the expertise of professionals is used to accommodate needs as stated by the client. Clients make decisions and teachers deliver services to meet client expectations regarding learning outcomes, discipline, school-community relations, and the like.

As noted above, there have been many shifts in theories regarding the change process over the past two decades. Recently, researchers have analyzed the history of change

research in education, examining trends and changes in focus. Fullan with Stiegelbaur (1991), for example, traced the history of change back to the 1960's when the emphasis was on adoption of innovations. These researchers stated that in the post-Sputnik era, innovation meant progress. Many student-centered and inquiry-oriented strategies were adopted. In the 1970's, the emphasis turned from adopting any and all innovations to following through with the implementation of specific innovations. Most change strategies, according to Fullan and Stiegelbaur, were meeting with failure at this time. From 1978 through 1982, however, implementation of innovations was meeting with more success. Effective schools, instructional leadership, and staff development were proving to be effective tools for restructuring. This success led to a national reform movement and the debate between the intensification of innovations vs restructuring as the direction for the future.

Despite the shift in emphasis through time, Fullan with Stiegelbaur (1991) examined similarities and determined that most change models contained the following three phases: initiation/adoption, implementation/initial use, and continuation/routinization. These researchers added "outcome" as a fourth important phase.

More recently, Glickman (1993) took another direction in examining the change process over time. He proposed that three approaches to change were evident. First, he described an "authoritarian and advisory approach" in which someone in power tells individuals and groups what they must do if they wish to keep their jobs. In contrast, the "input and selection approach" allows groups and group members to select from a set of acceptable choices in making changes. An equal distribution of power is evident when the "collaborative approach", Glickman's third and favored version, is used in decision-making.

One of the greatest changes in the way educators hypothesize change, however, has been noted by Guba and Clark (1975) and Joyce, Wolf, and Calhoun (1993). These authors stated that linear models of change are no longer sufficient. New information on the success of staff development and research taken from the field have moved us to a "more complex view of the change process, especially a movement from linear to 'rolling' models of change" (Joyce, et al., p. 15). Such a rolling model better accommodates the intricacies of the multifaceted restructuring initiatives that have proven to be most effective. Guba and Clark maintained that a "configurational perspective" underlies this approach to change.

Factors That Promote Educational Change

Despite differences in various change models, the literature is relatively consistent in outlining factors which must be in place if change is to be successfully initiated, implemented, and sustained. Numerous researchers in the area of planned educational change, for example, agree regarding the need for administrative advocacy, empowerment of staff, resource acquisition, and the provision of relevant and on-going staff development. There is also much agreement among researchers that large scale, but not overwhelming, initiatives are more successfully implemented than are trivial initiatives. Some of the work in this area is outlined below.

In 1984, Huberman and Miles wrote that central office personnel could be prime advocates of school change. These administrators would presumably be in the position to provide backing and resources to school projects; possibly even by-passing the building principal in the process. Such central office support might be in the form of routinized budget items aimed at funding particular projects or the development of prototype materials and teacher guides.

Hefferlin (1969) believed that advocacy external to the school may be needed in implementing change. Hefferlin's view was that change agents and even the public could put

pressure on educators to initiate specific changes. Such changes, Hefferlin stated, would be tolerated by the organization if cost was minimal or if external support came with the initiative. Programs would continue as long as external support continued. Although Hefferlin also stated that staff members and students must exhibit an openness to ideas, he did not address major changes in school culture or roles of personnel as being central to the change effort. These views, expressed by Huberman and Miles and by Hefferlin represent top-down or reform orientations to the change process.

A very different view of administrative advocacy is reflected in Fullan with Stiegelbaur's (1991) work. These authors maintained that "Change has come. Principals must be 'change masters'" (p. viii). According to Fullan and Stiegelbaur, principals must be leaders in the effort to restructure: building confidence in staff members, students and parents; creating visions of the future for the school and of the process for getting there; providing resources and workshops; developing a framework of shared goals; and monitoring the results. To achieve these ends, effective principals use six specific strategies: strengthening the school's culture for continuous improvement; using a variety of bureaucratic means to engage and support cultural change; supplying staff development opportunities; discussing the

cultural norms, values, and belief structure with staff; sharing power and responsibility with others; and using symbols in expressing cultural elements. In this view, then, the principal supports and defines the need for change; establishing a plan but adapting it to take advantage of the unexpected. Top-down initiative and bottom-up participation and risk-taking are blended as collaborative work cultures are established. Fullan with Stiegelbaur stated that:

> all major research on innovation and school effectiveness shows that the principal strongly influences the likelihood of change, but it also indicates that most principals do not play instructional or change leadership roles. (p. 76)

Bennis and Nanus (1985) examined the role of the principal in making positive changes in education. They stated that principals could stimulate innovative learning (an end product of the change process) in specific ways. First, the administrator could serve as a role model - taking risks, shaping goals, and actively searching out innovative methods. The principal could also reward learning through compensation, recognition, allocation of resources, or providing novel experiences to staff members. Hiring unconventional workers and looking at failure as an opportunity for growth and learning were other methods for promoting the expansion of innovations. These strategies, again, point to the need for leaders to make shifts in the

culture, not simply the structure, of an organization as change takes place (Fullan & Miles, 1992).

The changing role of staff members is another cultural aspect of schools which must be considered in examining educational change. Many authors have written that teachers in schools which are undergoing restructuring must be empowered through access to knowledge, access to colleagues, and access to decision-making (Dalin, 1978; David, 1991; Fullan with Stiegelbaur, 1991; Hoyle, 1974; Joyce, et al., 1983; Lezotte, 1989; McLaughlin, 1975; Mills, 1987; and, SERVE, 1992). In analyzing information from their case studies, Huberman and Miles (1984) explained that:

> efforts to develop cooperation, coordination, and conflict resolution across the differing worlds of administrators and users were often critical to successful implementation - and that it was often important to lay off from close supervision, giving dedicated professionals the chance to invent, adapt, and extend. (p. 280)

Staff members, and their administrators, must have access to information in order to make sound decisions involving the invention, adaptation, or extension of changes. Lezotte (1989) stated that staff development is central in implementing change. Joyce, et al. (1993) wrote that effective staff development contains "new" content which, if implemented, constitutes an innovation in itself. Such training must be on-going and substantive in order to

successfully move staff through the acquisition of new skills, concepts, and behaviors (Daresh, 1987; Fullan with Stiegelbaur, 1991). Furthermore, staff development activities should be linked to the innovation or change effort, to the needs of the users, provided to a group which can implement the innovation, and established for the particular school context (Hoyle, 1974). This training must continue throughout the implementation process and involve interaction of and communication among peers. Competent presenters and ongoing evaluation of in-service content and effectiveness are other essentials of productive staff development (Daresh). Of course, additional time must be provided so that the process of individual and group learning, planning, and communicating can take place (Fullan with Stiegelbaur 1991; Glickman, 1993; House, 1974). Continual assistance of this nature is especially important if larger innovations are to be successful (Huberman & Miles, 1984).

In investigating this matter of staff development, Sparks and Loucks-Horsley (1989) determined that research supported a list of effective characteristics and the formation of five distinct models for teacher staff development. Although the list of productive characteristics noted by these authors includes aspects similar to attributes already described, it bears repeating. The list

extols staff development programs which: are conducted at school sites and are linked to school initiatives; utilize teachers as participants and planners of in-service activities; emphasize self-instruction in a variety of training opportunities; encourage teachers to actively choose goals and activities for themselves; emphasize on-going, concrete training which utilizes demonstration, supervised trials, and feedback; and supply continuing assistance and support as needed.

In their work, Sparks and Loucks-Horsley (1989) outlined five models of staff development for teachers. The theoretical and research base for each model is provided by the authors along with a description of the support necessary to sustain each design. The first model mentioned is one based on individually-guided staff development. In this case, teachers become responsible for planning and pursuing productive activities with the goal of promoting their own learning. In the second model, observation/assessment, teachers obtain objective data and feedback regarding their instructional practices. Teachers involved in a development/improvement process, the third model, seek to solve school-based problems by initiating school improvement efforts, designing curriculum, or developing programs. The inquiry model requires teachers to become action researchers; identifying areas of educational

interest, collecting data, and altering instruction based on the findings. Finally, the training model (most widely known and researched) provides opportunities for teachers to acquire skills through individual or group training sessions. Sparks and Loucks-Horsley maintained that these models can be blended or used separately, according to needs of the specific site. The authors also stated that common goals reflecting high expectations for staff and students; administrative support; access to knowledge, expertise, resources, and time; and teacher participation and collegiality are necessary for the success of all forms of staff development.

One way of enhancing staff participation and interaction is through the use of peer coaching. Joyce, et al. (1983) recommend that all faculty members be involved in coaching teams. Members of these teams would study theory, observe demonstrations, and practice skills together. As collegial teaching units form, members would provide feedback to each other as a means of improving the curriculum, instruction, and each others skills. David (1991) agreed that this type of staff development, visitation, and peer evaluation is essential to on-going, successful restructuring.

As staff members improve their skills, they are capable of making more and better decisions at the building level.

Formation of school improvement teams, recognized as authoritative, decision-making bodies composed of staff members, may be central to empowering teachers, creating shared visions for the organization, developing a sense of ownership, and establishing norms of continuous improvement. Dalin (1978) believed that this sense of ownership or personal belief in the goals and values associated with an innovation is necessary if potential implementers are to put in the effort required to learn new behaviors and roles.

The process of personal learning can cause a sense of uncertainty and an early period of difficulty for an organization, or individuals within it. To assist staff members through this phase, risk-taking must be encouraged as part of the school climate (Fullan & Miles, 1992). Development of a school improvement team provides the collegial support and individual authority needed to develop skills, debate issues, and make decisions regarding school improvement as the first steps in initiating change are taken (Glickman, 1993; SERVE, 1992).

Some researchers believe that convincing staff members to initiate and sustain changes at the school is a most difficult task (e.g., House, 1974). For that reason, several authors have postulated a set of external rewards that can be provided for teachers or the school as a whole to help ensure continuance of improvement efforts. Havelock (1973)

wrote that on-going and visible rewards such as improved teacher performance, reduced costs to the school, and a savings in time and labor may be effective. He also listed the more indirect rewards of continual encouragement and approval from peers and administrators as positive reinforcers. Hefferlin (1969) maintained that teachers required the motivation of perceived benefits derived from prestige, economic return, and enhanced self-image for the reward of change to outweigh the reward of stability. And Mills (1987) developed the following list of support structures which could act as possible incentives: the formal evaluation process, written and verbal feedback, additional equipment and materials, conferences, job enrichment, release time, public recognition awards, opportunities for professional growth, and involvement in decision-making. Mills cautioned, however, that these same incentives could act as dissatisfiers for those individuals left out of the process.

In 1992, members of the SouthEastern Regional Vision for Education (SERVE) synthesized information regarding successful implementation of change in schools and came up with a five-stage process that accounted for many of the findings to date. Specific tasks were outlined for each stage. Stage one entails "initiation" of the change effort. Tasks involved in initiating change include: establishing a

school improvement team, developing the initial shared vision, obtaining agreement on the planning process, and considering the use of an outside consultant.

Planning and goal setting are the foci during stage two of SERVE's model. At this phase, staff members identify the problem, possibly by conducting a needs assessment. Based on the information obtained, goals are set in terms of the vision for the school. Criteria for change must be established next. An action plan is drafted, taking resources and constraints into consideration.

The third stage entails implementation of the change initiative. During implementation, awareness of others is heightened, training and staff development are provided, and on-going administrative and peer support is evident. Self-assessment, coaching, and feedback are encouraged at this point of the school improvement process.

Stage four encompasses the reviewing process. Monitoring and evaluation are essentials from this point onward. Many authors agree that feedback and monitoring, evaluation, and readjustment of the innovation are crucial facets of the change process (Baldridge, 1983; Frymier, 1969; Fullan with Stiegelbaur, 1991; Joyce, et al, 1983; Lezotte, 1989). Fullan and Miles (1992) stated that monitoring the implementation, constantly informing staff of the results, linking multiple change projects, locating

unsolved problems, and taking coping action are all inherent functions of change management; best accomplished by a "cross-role" group. Havelock (1973) specified that continuous evaluation helps maintain a focus on the innovation, thus assuring continued quality and an ability to adapt to changing situations. SERVE emphasized that monitoring of both student achievement and changing teacher roles allows for refinement and enhanced effectiveness of the school improvement effort.

"Institutionalization" of the improvement effort is stage five of SERVE's model. At this point, the successful change becomes ingrained in the fabric of the school. Maintenance of this effort requires training for new personnel, on-going training for experienced staff, rotating staff into the School Improvement Team, recognition of successes and participation, continued planning and re-planning, and a continuation of adequate funding. Support of the Board of Education, the superintendent, and central office personnel is helpful. According to SERVE, it may take three to five years for a school's staff to progress through these stages and experience real change.

The literature emphasizes several important guidelines for consideration in putting school improvement processes into place. They include: a) an effort to focus on all aspects of an organization at once - incorporating

curriculum, instruction, student support systems, staff development, and the community (Elmore, 1990; Fullan & Miles, 1992); b) sensitivity to the culture and context of the school and the individuals within it (Dalin, 1978; David, in Hopkins, 1982; Fullan with Stiegelbaur, 1991) since, ultimately, large-scale change is implemented locally by teachers, principals, parents, and students at the building level (Fullan & Miles); c) the use of volunteers, or individuals who have chosen to make changes and who feel ownership for them rather than the use of individuals through mandates (Fullan with Stiegelbaur); d) constant monitoring; and e) recognition that administrators can greatly affect the success of the school improvement effort. Huberman and Miles (1984) stated that moderate administrative pressure and high administrative support seem optimal in sustaining innovations of large size and scope over time.

Factors That Limit Educational Change

Just as the literature suggests certain agreed-upon guidelines to consider in implementing successful school improvement, it also points to specific agreed-upon cautions regarding factors which limit the success of such efforts. Although the emphasis on particular barriers to change

shifts somewhat through time, many points are echoed by on-going research.

In 1978, Dalin proposed four categories of limiting factors which affect change: value barriers, power barriers, practical barriers, and psychological barriers. These four categories provide a framework for the discussion which follows.

According to Dalin (1978), value barriers include ideologies and beliefs held by individuals or groups which are in conflict with the proposed innovation or school improvement effort. An example of value barriers, provided by Dalin, would be the emotional strife that resulted from the racial integration of schools and the ensuing changes in resource allocation and equity of service. More recent barriers might be seen in the debate surrounding Outcome Based Education (OBE). In this instance, some critics of OBE fear that restructuring is based on a teaching of liberal "values" rather than on educational outcomes.

Power barriers result from the redistribution of power and resources within a school or system stemming from the introduction of an innovation. An example of a power barrier could involve the shift to more decision-making on the part of teaching staff (Dalin, 1978). When teachers are isolated in classrooms but are in charge of decision-making, they may act to remove or to passively adopt an innovation. Or

teachers may act to adopt parts of an innovation, thereby changing and/or weakening it (House, 1974). Fullan and Miles (1992) cautioned their readers to refrain from misunderstanding such resistance. Blaming failure on the resistance of others can lead to inaction. Better results can be obtained by recognizing that individuals need support, assistance, and training in making transitions to new way of doing things.

Practical barriers to planned education change, as outlined by Dalin (1978), include poor conception and inept management of innovations. Poor conception can involve the uncritical adoption of innovations which are widely accepted regionally but which may not be compatible with goals or curriculum at the school site. Similarly, failure to adequately anticipate and diagnose implementation problems (e.g., staff and community resistance, lack of skills, or "role overload") can invite failure (Gross, 1979). Faulty management may include the development of unrealistic time frames; implementation without provision of necessary knowledge or information; poor planning in that budgetary matters and the need for other resources are not considered; failure to clarify goals (Dalin); a failure to develop monitoring and feedback mechanisms (Gross, 1979; Kent, 1979) and an unwillingness to examine past, present, and future variables (Sarason, 1972).

A practical example of limiting factors can be seen in a school building where schedules or the building design work to isolate teachers. In this scenario, norms for "privatism" in teaching (i.e., teacher autonomy), strong in many schools (Joyce, et al, 1983), would probably be in place. When such norms are operating, teacher isolation and restricted professional dialogue surrounding the issues of restructuring foster ignorance and an inability to learn from each other. This makes successful change almost impossible to achieve (Eisner, 1992; Glickman, 1993). Under such conditions, it is difficult for administrative and teaching staff to work together to develop goals and a sense of ownership surrounding the change process. Inappropriate in-service opportunities often exacerbate the problem.

There is some feeling among researchers that practical barriers may limit the durability of change efforts as well as the successful implementation of change initiatives. Fullan and Miles (1992) stated that:

> there are many examples of successful reforms in individual schools...We do not have much evidence about the durability of such successes, but we have reason to believe that they may not survive if the conditions under which they develop are changed. (p. 748)

For example, staff efforts to sustain school improvement programs may dwindle if key people leave the site,

innovators "burn out", or outside support lessens. A possible basis for continued school reform, in light of such changes, becomes the development of new structures, new processes, and new school cultures formulated on continuous school improvement.

The reader may remember that, according to Glickman (1993), continual school improvement throws an organization into a constant state of disequilibrium. Psychological barriers to change, Dalin's (1978) fourth category, can operate to maintain or reestablish equilibrium, thereby thwarting change efforts. Psychological barriers can operate even when change is non-threatening.

Researchers agree that homeostatic forces are often in place, stabilizing educational organizations and contributing to their inherently passive nature (Barker, 1992; Eisner, 1992; Hefferlin, 1969; House, 1974; Joyce, et al., 1983). Joyce, et al. stated that educational habit and societal custom are two such forces which can act to prevent sustained change. For example, Eisner felt that students as well as parents sometimes hold conservative expectations for schools. Such expectations are epitomized by the statements: "we need to get back to basics" and "it was good enough for me..." In addition, educators perpetuate teaching styles they witnessed during their own school days. Student

teachers may continue the convention when they are taught traditional methods by their mentors.

House (1974) felt that these homeostatic forces operate most when school improvement requires great shifts in teacher behaviors. He believed that teachers may retreat to the familiar when information regarding new demands and when necessary resources are not provided. House labeled these factors which work against change "negative incentives". Similarly, Dalin (1978) believed that many staff members adopt new methodologies only if there are positive incentives; i.e. if the innovations prove "profitable" in terms of support, power, and meaningfulness.

Barker (1992) described these homeostatic forces in terms of established paradigms. He felt that we all see what our paradigms tell us we are supposed to see. Barker felt that our paradigms are so strong that we only see data that fit our model, that we ignore data that are outside the paradigm, and that we create data that don't exist so that we can continue to verify or strengthen our paradigm. Therefore, when we are asked to change a successful paradigm, it is like asking us to forsake a structure that has provided the power to solve our problems, to provide status among our peers, and to provide money or other resources. If our existing paradigms have proven to be

fruitful, we find it very difficult to give them up and to risk trying new ones.

However they are defined, homeostatic forces help to create a tug of war between the status quo and planned change in organizations. And, during this age of great societal change many educators are seeking to provide some sense of stability by maintaining the status quo. Although such a sense of permanence may be comforting, it may also be the "root cause of the school's inability to improve, for as society changes and/or pedagogical knowledge increases, schools need to assimilate and accommodate to new realities" (Joyce, et al., 1983, p. 6).

One way to overcome this tug of war and promote school improvement is to create a homeostasis of change. It is possible for school personnel to develop a structure that supports ongoing improvement as a means of organizational survival. Such a move would require that small and large practitioner-induced innovations become normalized into the organization's structure (Joyce, et al., 1983).

There is a great deal of evidence in the literature for the identification of value, power, practical, and psychological barriers to change. However, Fullan and Miles (1992) cautioned that using any such ideologies as road maps can contribute to the failure of educational reforms. These authors maintained that even agreed-upon "truths" regarding

change as "ownership is the key to reform", "lots of in-service training is required", and "the school is the unit of change" are faulty to some extent and can limit productive change when followed unquestioningly. The caveat to the reader is to keep paradigms open regarding the school improvement process.

People and Change

In organizing school improvement efforts, school leadership should remember that organizations do not initiate, implement, or sustain change. Rather, the people within the organizations determine whether change efforts are successful. Therefore, change should "be aimed not at the organization, but at the people in it" (Foster, 1986, p. 164). In the case of schools, the teachers become the focus of change.

Researchers hold a variety of views regarding teachers and their reactions to change. Some see the role of the teacher in planned change as central to the success of the restructuring effort (House, 1974; Joyce, et al, 1993; Lezotte, 1989; Sarason, 1972, 1993). In analyzing the role of the teacher in change, several authors designated categories of personality types, some of which accept change more easily than others (Barker, 1992; Havelock, 1973;

McCall, 1988). Other researchers focused on motivating factors within the organization which promote teacher involvement in change (Huberman & Miles, 1984; Sarason, 1972). Still others developed models for the diffusion of innovations among teaching staff (House 1974; McCall, 1988). Each of these approaches to examining teachers and their responses to change is explored in the section below.

It is difficult to forecast the reactions of staff members to change. Although Bennis and Nanus (1985) stated that any new idea or innovation will be opposed initially, other researchers felt that individual staff members would demonstrate a spectrum of reactions to restructuring. Huberman and Miles (1984), for example, found that teachers in their case studies were initially divided between skeptics and enthusiasts when faced with change.

Havelock (1973) wrote that people fall into three categories of reactions when they are confronted by change; innovators, resistors, and leaders. Havelock described the innovators as intelligent risk-takers who are often seen as rebels but who seldom have access to real power or influence. Resistors are the critics of change who defend the status quo. Although slow to accept innovations, these resistors can protect the organization from unproductive influences. Havelock saw leaders as the key to growth within the organization. To be successful, leaders have to get

information by listening to the resisters and innovators. They must follow up by legitimizing the innovation, facilitating its adoption by approving the innovators, and securing resources. Havelock's leaders shape opinions but may not occupy formal positions of power within an organization.

Rogers's (1962) classification system seemed to provide a base for Havelock's (1973) work. Seeking standardization in terms, Rogers grouped individuals according to their tendency to innovate. He labeled individuals as: front-runners, early adopters, early majority, later majority, and laggards. Substantiating Rogers's work, Mitchell (1969; in McCall, 1988) reported results from a Stanford Research Institute (SRI) study which classified innovators according to their characteristics and percentage of the population. Findings of the SRI research confirmed Rogers's original definition; stating that front-runners composed 2.5% of the population. Like Havelock's innovators, the front-runners enjoy risk-taking and launching new ideas. Set-backs in implementing innovations do not daunt individuals in this group.

More credible than front-runners are the early adopters. According to Rogers (1962) and Mitchell (1969), people in this category comprise 13.5% of the population and are characterized by respectability. Leaders in the

community, early adopters are a source of advice and information for others.

Individuals included in the early majority and late majority categories each make up 34% of the population (Mitchell, 1969; Rogers, 1962). Early majority members are characterized by Mitchell as cautious non-leaders who provide a connection between early and late adopters. Individuals in the later majority are skeptical and deliberate. Avoiding risks, these individuals wait until their peers pressure them to accept an innovation.

The final 16% of the population, using Rogers's model, is composed of laggards. These traditionalists have limited social networks and continually refer to the past.

Barker's (1992) more recent conceptualization focused on individuals who act as "change agents" within organizations. He conceptualized these change agents as paradigm shifters - people new to situations who look at organizations or problems in new ways. According to Barker, there are four classes of paradigm shifters. The first group is composed of young people new to their work. Older individuals who are shifting fields make up the second category. Both groups contain individuals who are ignorant and innocent regarding the limitations of their positions. This, said Barker, is the gift they bring to their organizations. Mavericks constitute the third group of

paradigm shifters. The maverick is an insider who sees problems and a need for change. Since the maverick upsets the organization from within, he is rarely appreciated until there is a crisis. Finally, Barker (1992) described the fourth change agent, the tinkerer, as an insider who has run into a problem and "tinkers" with it. This person focuses on the one problem until it is corrected and out of his way.

Each of these paradigm shifters works against the status quo. Each needs the support of someone in power in order to initiate change successfully. Barker (1992) stated that providing such support is the role of the paradigm pioneer. To be effective, the paradigm pioneer must use intuitive judgement (only limited data may be available) in making qualitative decisions which support the efforts of the change agents.

Each categorization scheme described above is unique, but each emphasizes the fact that change affects individuals in different ways. Fullan and Stiegelbaur (1991) concurred with the notion that change is a very personal experience for all teachers. They felt, therefore, that teachers should be provided a variety of means to work through the disequilibrium that accompanies change in such a way that "the rewards at least equal the costs" for each individual involved in the change process (p. 127). Costs, in this case

could be measured in time, energy, and level of self-esteem. Motivating factors must be in place to balance such costs.

David (1991) believed that motivation for change could be triggered by a state, district, or local "invitation to change". Such an invitation would provide a signal that risk-taking and experimentation are encouraged and that failure is invited as a step in the learning process. In this scenario, motivation or reward is seen in the opportunity to grow professionally.

Sarason (1972) stated that teachers may be motivated to volunteer for changes, for new settings, so that they can work to develop in ways superior to those in the old setting. Indeed, Sarason maintained that the creation of new settings can offer an opportunity for challenge and originality that is rewarding for the users and the creators of the setting. However, there is a "catch". Participants must work ceaselessly to ensure that individual and social needs continue to be met in a creative fashion or the "new" setting will deteriorate and its power as a motivator will diminish.

A more specific list of motivators was developed by Huberman and Miles in 1984. These researchers looked at both users of an innovation and administrators to determine what factors motivated individuals to adopt new strategies or programs. Multiple motives were found for users adopting

innovations. In two-thirds of the cases noted by Huberman and Miles, administrative pressure, ranging from limited to substantial, proved to be a major motivator. While users (teachers) did not generally adopt a change in order to solve a problem, they did look to innovations as possible sources of additional resources and enriched curriculum as well as the means of improving instructional practices. Teachers also tended to look toward adoption of innovations as a means of becoming stronger professionally.

Bennis and Nanus (1985) maintained that a sense of empowerment would develop when teachers believed they were doing something significant, learning and developing competence, working in a community that shares common interests and goals, and having fun in their work. Each of these factors could be labeled as a motivator for users. In keeping with these findings, Sarason (1993) wrote that teacher empowerment would enhance teacher professionalism and help teachers become more successful change agents.

Huberman and Miles (1984) found that administrators were similarly motivated to adopt innovations as a means of improving classroom instruction and the general management of the school. Again, problem solving was not a motive. Instead, the incentive was increased access to funding for new materials, training, and positions.

Both users and administrators tended to adopt innovations to secure current or future positions. While some degree of career incentive assisted adoption of the innovation, too much emphasis on careers proved to be an impediment to adoption (Huberman & Miles, 1984).

Motivated people can be in place in a school. They can initiate and support innovations. Yet school improvement efforts may still not succeed. The reasons for failure may have to do with interaction among the various groups of individuals. Dalin (1978) felt that three groups of people are involved in educational change: those who benefit, those who make decisions, and those who are forced to change. The possibility of mobilizing energy for development and implementation of innovations is much greater if the three groups interact regularly so that ideas and innovations are diffused.

Rogers (1962) examined the spread of information and its effect on the readiness of individuals to change. He stated that information regarding the innovation must be communicated so that early and later adopters have an opportunity to internalize the information. Later adopters obtain energy and develop enthusiasm for an innovation by listening to and talking with early adopters. On the other hand, the quality of the innovation can be affected if

knowledge is not disseminated in good time and teachers react by seeking stability in the status quo.

The teacher, then, becomes the focus of change in the school. As early as 1974, House declared that:

> The teacher does not usually initiate an innovation, but he almost always decides whether he will implement it or, more precisely, the degree to which he will use it. The teacher's power in educational innovation is that he can veto for himself. He is the ultimate consumer. (p. 67)

School climate and the pattern of interaction can substantially contribute to the number of teachers prepared to participate in school improvement efforts. Providing an opportunity for staff members to exchange ideas, support, trust, and positive feelings regarding their work is essential to new social learning, an important by-product of educational change (Fullan with Stiegelbaur, 1991).

Eras of Change Research

The study of educational change has metamorphosed over time. Several of the shifts in approaches to researching change have been traced in the previous discussions of change models and factors affecting change. At this point, however, the reader might find Miles's (1993) work on the eras of research on educational change enlightening. By

examining his personal experiences and reflections regarding this research, Miles isolated key characteristics typical of the generations of change research beginning with the 1950s.

Miles (1993) wrote that the 1950's was a period characterized by process analysis. Individuals, both teachers and administrators, were trained in group skills and then given the opportunity to reflect upon and analyze what was happening in specific group situations. The process of analysis involved much individual empowerment.

The emphasis shifted in the 1960s. Content rather than process of change became the focus of research. Technology had improved and multiple choices of innovations presented themselves for the first time. Temporary systems (e.g., task forces, project groups, demonstrations, research projects) were established to implement the selected innovations. Temporary groups were brought together with the purpose of changing "the structure and operations of the permanent systems to which they [were] attached, via action decisions, new relationships and commitments" (Miles, 1993, p. 221). These groups developed norms promoting risk-taking, experimentalism, equalitarianism, and authenticity; resulting in a positive stance toward innovation.

In the mid-60s and 1970s knowledge transfer and knowledge utilization were key factors in assisting individuals to work with innovations constructively.

Innovations were adjusted to fit specific organizational contexts. The transfer of knowledge and the opportunity to use it in turn expanded the capacity of individuals to deal with change. Networking within the school became an important factor in school improvement (Miles, 1993).

By the 1970s, studies were documenting the failure of many innovations. There was a move away from focusing on the quality of specific innovations and toward looking at the quality of use of strategies. School improvement efforts began to center on changes of the system rather than changes within the system. It became apparent to advocates of change that support structures must be put in place to sustain efforts long after their initiation. Assistance from leaders during implementation was meant to lead to teacher mastery. This, in turn, was meant to encourage teacher commitment and a stabilization in the use of new strategies and programs. The goal was improvement of student performance. The process was directly connected to local context (Miles, 1993).

Miles (1993) found that the 1980s saw a reduction in the number of federal directives supporting change. Individual efforts begun in the local districts and individual schools, driven by the effective schools movement, took the place of federal mandates. Success of school improvement efforts was seen in well-implemented programs, improved organizational functioning, improved

student performance, and the institutionalization of changes. Evolutionary planning styles supplanted architectural planning processes. Skills at finding resources and coping with problems on an on-going basis proved to be essential to the success of these efforts.

Restructuring became the change strategy of the 1990s. According to Miles (1993), the restructuring approach is very vague; it is difficult to identify and to analyze. This strategy, however, does reemphasize the importance of the individual in the change process. Success of restructuring efforts depends upon the development of shared cognitive maps among participants. These cognitive maps will not develop unless staff members interact and share information regarding the content and process of change.

The restructuring process at Century Elementary School, in progress during the three years between the fall of 1991 and the spring of 1994, is the subject of the following chapters.

CHAPTER III

METHODOLOGY

Introduction

> I know of no way to find out what schools are like except by going to schools themselves to see, to describe, to interpret, and to evaluate what is occurring. Such an understanding can provide a foundation for reform that addresses what is genuinely important in education. (Eisner, 1992, p. 621)

The setting for this study is Century Elementary School, located in a small city of approximately 14,000 people in rural North Carolina. Three other elementary schools are nearby, but programs and restructuring efforts at Century Elementary, known by other educators to be fairly innovative, are the focus of the study. This researcher, who served as principal at Century Elementary School from August 1991 throughout the time of this study, conducted on-site research over a three-year period to examine the process of change and to determine the impact of restructuring efforts on student and staff outcomes at the school. The result is a descriptive/analytic case study that employed both qualitative and quantitative research strategies.

Strategies used for collecting and analyzing data were consistent with Glaser and Strauss's (1967) grounded theory

practices. Grounded theory uses field-based data as the source or basis of theory development. In the generation of grounded theory, the researcher continually collects "slices of data" as a means of developing different perspectives. In this case study, the researcher continually collected data during the three-year research period. Throughout the research period, as data came together, additional sources of information were sought.

The researcher found that acting as an administrator on site while the study was being conducted proved to be a great advantage. "Slices of data" were available to the researcher that may not have been available to outside observers. Similarly, it was possible to use time sampling approaches to data collection (Bogdan & Biklen, 1982) which would have been difficult for researchers with budget and time restrictions.

Study Participants

During the three-year study period, from the fall of 1991 through spring of 1994, Century Elementary School housed students enrolled in pre-kindergarten through third grade classes. Data collected in the areas of attendance, discipline, and student achievement involved the approximately 320 students enrolled each year in

kindergarten through third grade during the study period. Since this study is longitudinal in nature, the student population at the end of the study (spring of 1994) differed from the population at the beginning of the study (fall of 1991). Only those students in the second and third grades at the end of the 1993-94 school year had been at the school throughout the study period. Student demographics (i.e., racial and gender balance, socio-economic status) remained constant throughout this time period.

The student population at Century Elementary is approximately 44% white and 55% African-American. "Other" minority students make up 1% of the student body. Approximately 50% of the students qualify for the free/reduced lunch program each year. One third qualify for Chapter 1 remedial education services although services can only be provided for "priority one" students due to a shortage of staff members. Approximately 27% of the students qualify for a variety of "special education" services (e.g., Speech/Language, Educably Mentally Handicapped (EMH), Trainable Mentally Handicapped (TMH), Severely/Profoundly Mentally Handicapped (S/PMH), Orthopedically Impaired (OI), Behaviorally/Emotionally Handicapped (BEH), Physical Therapy (PT), and Occupational Therapy (OT)). This compares with approximately 12% of students state-wide qualifying for

special education services, and approximately 13% district-wide qualifying.

All full-time educators (i.e., "regular education" teachers, teacher assistants, "special education" teachers) involved in teaching the K-3 classes between the fall of 1991 and the spring of 1994 were included, with their permission, in the data-gathering aspects of the study. All educators included in the study were female.

Eighteen staff members were "regular education" K-3 classroom teachers during this time period. Each of these teachers supervised one "regular" classroom assistant. Seventeen of the teachers were fully certified (one was on provisional status).

In addition to these "regular" education teachers, other full-time teachers performed support or resource services. These support/resource teachers included: one Chapter 1 reading teacher; one speech therapist; one assistive technology specialist; five "special education" teachers; two P.E. teachers; one guidance counselor; and a media specialist. Five "special education" assistants worked within various self-contained and "inclusion" classrooms.

Part-time "support" teachers (i.e., art, music, Spanish, and speech) were not included in surveys and interviews. They were not involved in grade-level meetings,

faculty meetings, or general efforts to promote change initiatives due to their part-time employment at the school.

Although the pre-kindergarten teacher and her assistant were full-time, active members of the Century Elementary staff, they were not included in the data gathering process. The pre-kindergarten program is primarily an early intervention, non-academic program that was not formally involved in the school's restructuring efforts.

Data Collection and Analysis

Six data sources were used in this study: a) individual interviews of three key informants conducted at the site by the researcher; b) staff surveys including those completed anonymously at the school at the end of each school year during the research period and surveys completed by lead teachers, other teachers, and the principal during the math/science grant project; c) results of End-Of-Grade (EOG) tests administered to third grade students in the spring of 1993 and 1994; d) kindergarten screening results; e) unobtrusive measures including informal observations of and conversations with teachers as well as a variety of documents collected regularly at school; and f) transcribed notes from two focus groups, one comprised of staff members and one of parents. A crosswalk is provided as a framework

for identifying the data gathering procedures used in answering each research question (see Table 1).

Table 1

Tracing Change - Research Crosswalk Summary: Century Elementary

Research Questions (See p.19 for Actual Research Questions)	Data Sources: Staff Intvw	Staff Survey	EOG Score	Kind Screen	Unob Meas	Focus Groups
1. Are staff consistent in conceptions of: sources of, reasons for, support for, barriers to, and benefits/liabilities of change?	X	X				X
2. Can improvements in student/staff outcomes be documented as occurring after change initiatives?	X	X	X	X	X	X
3. Has the principal followed "good practices" in initiating and supporting change?	X	X			X	X
4. Have improvements and staff progressed through stages typical of successful change efforts?	X	X			X	X

Note. "Staff intvw"=interviews of key informants; "staff survey"=end-of-year and GAMSEC surveys; "EOG Score"=state-mandated End-Of-Grade test scores; "Kind Screen"=scores on a kindergarten screening inventory; "Unob Meas"=use of unobtrusive measures; "Focus Groups" were composed of staff and parents.

Interviews

Each of the four research questions deals in part with teachers' attitudes. For the purpose of obtaining information on teachers' perceptions regarding the change process, the researcher interviewed three teachers who, during the 1991-92 school year volunteered to take part in two different change programs. The structured, in-depth interviews occurred during the summer of 1992. During these one-on-one interviews, the three key informants answered questions regarding their reasons for volunteering to participate in specific projects, their fears regarding upcoming changes, personal perceptions regarding the support needed for and possible barriers to change, and strategies for dealing with other staff members as they made changes in their classrooms. Interview questions are provided in Appendix A.

The researcher analyzed the interviews by looking for patterns as well as for contrasts in the responses. The informants' expectations and fears regarding the initiation and implementation of their programs were examined. Statements concerning possible barriers to success and support structures needed were also compared.

Surveys

Anonymous, open-ended surveys of staff members were conducted at Century Elementary at the end of each school year during the research period. The first two years, the researcher provided a written, open-ended survey which was a modified form of the survey used by O'Sullivan, Strahan, and Harper (1992)(see Appendix B). Completion of the surveys for the first two years was voluntary. Rates of return from these assessments were as follows. At the end of the 1991-1992 school year, the first research year, 16 out of a possible 39 staff members responded for a total response rate of 41%. The following year, 22 out of 45 staff members responded for a total 49% response rate.

In the spring of 1994, at the end of the third research year, the researcher required all staff members to provide input regarding their impressions of, concerns about, or other feelings regarding the three years of restructuring. Staff members had a choice between writing their responses on paper and putting them in an envelope or putting their perceptions on a computer disc. No formal format was provided for this final survey. Response rate was 100% with 45 out of 45 staff members responding.

Each year's site-based survey responses were analyzed separately. Content analysis was used to group similar

comments and to examine frequency of types of responses. Changes in staff attitude and concerns regarding change at Century Elementary as well as common trends across the three-year research period were noted and compared.

In addition, a variety of survey/questionnaire data were collected by staff supervising the Greensboro Area Mathematics and Science Education Center (GAMSEC) - FIRST Project. One hundred eighty-three elementary schools participated in the FIRST Project through the cooperative efforts of nine North Carolina universities. The final report for the FIRST Project (Franklin, 1993) outlines general trends and findings related to change and school improvement at the combined project schools; the data are not identified for individual schools. Final results of the FIRST Project, as reported by GAMSEC staff, are summarized briefly in this study along with information, specific to Century Elementary, gathered during the math/science project. Site-based data relating to the school's participation in the FIRST Project were available through the analysis of pre-project needs assessment surveys and post-project questionnaires completed by project lead teachers, other teachers, and the principal at the school.

Test Scores and Kindergarten Screening

The second research question deals, in part, with quantifiable student outcomes. A locally developed, criterion-based kindergarten screening inventory and North Carolina End-Of-Grade (EOG) test scores for third graders were analyzed to determine academic outcomes during the research period. Assessments for first- and second-grade students in the state are narrative and do not lend themselves to quantifiable comparisons. The EOG tests are required annually by the state and were analyzed by the school system's central office staff. The kindergarten inventory was administered by classroom teachers at the beginning and end of each academic year.

Data from pre- and post-test kindergarten inventory scores were collected for each year of the research period. Pre- and post-test means for each kindergarten class were compared.

Third-grade EOG test scores were examined for students who completed third grade in the spring of 1993 (the first year the EOG test was required by the state) and the spring of 1994 at Century Elementary School. Students taking the EOG test in the spring of 1993 were beginning second grade when restructuring efforts began. When these students took their third-grade EOG tests, they had experienced nearly two

years of classroom restructuring. Likewise, third graders taking the test in 1994 were beginning first grade when changes began to be initiated at the school and had experienced three years of "restructured" instruction and environment prior to taking the test. Disaggregated EOG test scores were examined for specific populations of Central Elementary students.

Unobtrusive Measures

One advantage of the researcher's working on-site during the research period was that her close relationship with the school provided access to documents relevant to community interaction with the school, teachers' performances and attitudes, and student outcomes. Documentation involving community interest and interaction includes:

a) a community survey sent to all Century Elementary School parents in January 1991 as part of the 10-year Southern Association of Colleges and Schools (SACS) accreditation renewal report. Return rate for this survey was 29%. It predates most of the restructuring efforts.

b) reports of numbers of volunteer hours worked at the school for the years 1992-93 and 1993-94.

c) participation rates for parent conferences for the years 1992-93 and 1993-94.

d) unsolicited letters written by parents to the principal and/or teachers.

e) parent/family member attendance at Parent Teacher Organization (PTO) meetings during each school year.

Much anecdotal information was available to the researcher concerning how teachers' attitudes, teachers' performances, and school goals changed:

a) minutes from School Improvement Team meetings for each year during the research period.

b) grade-level meeting minutes for the 1992-93 and 1993-94 school years.

c) copies of annual School Improvement Plans.

d) copies of teacher evaluations (formative and summative) throughout the research period.

School-specific documents relating to social student outcomes were also readily available to the researcher. This documentation includes:

a) student attendance data for 1990-91 through the research period.

b) disciplinary reports required by the state and available for each year of the research period.

In addition to written sources of information enumerated above, the researcher held on-going formal and informal conversations with staff members regarding programs, parents, students, and changes within the school and within the recently merged system. The researcher also made frequent informal and formal observations of staff members in their classrooms, the halls, and the lounge. Much background data and an insight into staff perspectives were gained through these methods.

Focus Groups

Each of the four research questions deals, at least partially, with staff perceptions regarding the change process. To obtain additional information regarding teacher and teacher assistant perceptions, 12 staff members were selected to participate in a focus group at the end of the research period. Selection criteria for the focus group are detailed in a subsequent section.

The participants answered questions dealing with perceived sources of change, reasons for initiating changes, structures in place at the school that support change, barriers that hinder planned change, benefits and liabilities of initiating and pursuing the various change efforts, changes in staff relationships, and staff roles in

regard to school restructuring. One university faculty member conducted the focus group and a graduate student with no ties to the researcher transcribed the taped results of the meeting before giving them to the principal/researcher. Answers to the questions were kept anonymous to encourage respondents to answer more truthfully and to protect confidentiality.

Teachers and teacher assistants who participated in the focus group were selected by the researcher in the following manner. First, only those staff members who had been in place at Century Elementary prior to the researcher/principal's employment at the school were included in the selection process. Therefore, all participants had a relatively long-term view of change at the school. In addition, none of those involved in selection was hired by the researcher. First, names of all full-time teachers fitting selection criteria were placed in an envelope. Six of the teachers' names were drawn from the envelope and they became participants in the group. In the same manner, six names of full-time teacher assistants fitting the selection criteria were drawn as participants. Two teachers who served as key informants to the researcher had their names drawn as focus group participants. The protocol used in the teacher/teacher assistant focus group is included in Appendix C.

A parent focus group was also conducted at the end of the research period by the university faculty member and transcribed by the aforementioned graduate student. The purpose of this second focus group was to obtain timely community input regarding perceived student and staff outcomes as well as a general response to the restructuring process. The main criterion used in selecting the nine participants for the parent focus group was involvement with the school that pre-dated the hiring of the researcher/principal and that continued through the research period. In other words, only parents who had had children enrolled at Century Elementary prior to and following the restructuring effort were selected to participate.

Beginning with the letter "A", the researcher's secretary pulled out the "locator" cards (kept on each student so that parents can be reached, etc.) on students who had had siblings attending the school prior to the arrival of the principal to Century Elementary in the fall of 1991. The secretary was instructed to "pull" cards which reflected the school's general demographics; racially and socio-economically. The researcher then called parents until nine parents had committed to participating. The resulting committee included: three minority women, all of whom worked outside the home, two in a professional capacity; and six white women, including one undergraduate student who did not

work outside the home, two teachers, one woman on disability who did not work outside the home, one other woman who worked as a housewife, and a sixth woman who frequently switched part-time jobs. None of the fathers called by the researcher was available to participate.

"Trustworthiness" and "Goodness" of the Study

Marshall (1985) delineated two strands of qualitative research. She wrote that there is a first strand which is very structured and systematic. Qualitative researchers dedicated to "strand one" as a construct verify their data and subject them to tests for validity, reliability, and objectivity. According to Marshall, Huberman and Miles (1984) illustrated this approach in their search for appropriate displays and "trustworthiness" of data. They looked for a "test in context" to check their data. Marshall's second strand is typified by Glaser and Strauss (1967) and their "exploration for meaning". According to Glaser and Strauss, it is not necessary to conduct tests of significance when relationships between variables are used for suggesting hypotheses. This case study on educational change uses characteristics of both strands.

The researcher has employed techniques common to the research conducted by Huberman and Miles (1984) such as:

counting, noting patterns, seeing plausibility, clustering, looking for relationships between variables, and building chains of evidence. Other procedures common to "strand one" research, employed in this study include: triangulating data by using multiple observations and sources (Herriott & Gross, 1979); examining researcher bias; checking for representativeness (e.g., through use of the focus groups); extending the amount of time on site; and investigating outliers (Huberman & Miles).

Much of the data collected, as outlined earlier in this Chapter, are "strong" data as defined by Miles and Huberman (1984). For example, considerable data were collected late in the research period (e.g., end-of-year surveys and focus groups). And, as suggested by Huberman and Miles, quantities of data were seen or reported first hand, were collected in official or formal settings, and were volunteered.

Furthermore, the researcher has attempted to comply with Marshall's (1985) "criteria for trustworthiness." Procedures for data collection are explained. Data are displayed as appropriate and are used in the development of concepts. Negative responses and instances are shown. And the biases held by the researcher are made evident. Data sources from the field are documented and available for reanalysis (e.g., in logs, reports, and on tape), and the

reader is invited to follow along as the researcher interprets the data.

However, the researcher also has employed facets of the second strand of qualitative research in constructing this study. In an effort to understand the ramifications of restructuring at Central Elementary, she began to explore, and to ask questions:

> without knowing what theory [would] explain phenomena, without assuming any particular groupings and categories, without assuming a particular world view or hierarchy of needs and interpretations. (Marshall, 1985, p. 254)

The researcher borrowed from Glaser and Strauss's constant comparative method of developing categories based on emerging theory as the study progressed. Following key procedures consistent with the constant-comparative method the researcher: began collecting data early; looked for key issues and recurrent themes in the data; collected data with an eye to diversity; and worked with the data to discover social/cultural relationships and processes. While the emphasis was not on creating "as many categories of analysis as possible" (Glaser & Strauss, 1967, p. 105), the researcher attempted to remain open to new information and the development of new theory. In this context, the goal became the generation of theory from data together with the verification of data.

While Marshall (1985) stated that trustworthiness (i.e. verifiability) is essential in conducting qualitative research, she also stressed that efforts should be made to protect the "goodness" of these studies; to protect the element of "discovery" while establishing validity and reliability. Attributes of "good" qualitative studies that have been safeguarded in this research effort include: a) the problems or questions evolve from personal curiosity and real world observations; b) the researcher operates as a valuable research instrument; c) analysis is cross-cultural, open to different paradigms; d) research is conducted in an ethical and sensitive manner to reduce negative impact on subjects; e) the match between information sought and data gathered/reported is good; and f) original data are included to enlighten the reader.

Research Design

The researcher defined a single-site case study, focusing on the issue of planned educational change at Century Elementary School. This longitudinal study is descriptive/analytic and employs a combination of quantitative and qualitative data collection and analysis procedures related to the specific site and the questions being asked.

In presenting the case, the researcher provides an overview and history of the site (i.e., prior to restructuring), information pertaining to the community setting, the objectives of various change initiatives and processes used by the principal and staff to facilitate restructuring, and an analysis of student and staff outcomes that occurred following and possibly as a result of change efforts. An attempt has been made to arrange the information in a chronological fashion so that the reader can more easily follow the introduction, implementation, and effect of various change strategies on students and staff. For that reason, the case will be presented in four sections; one for each year during the research period and a fourth section overviewing the entire restructuring process.

In the following chapters, then, the principal/researcher tells the story of staff and student efforts at Century Elementary School. Following three years' close association with staff and students, she describes the effects of change on the individuals who work and learn at the school.

CHAPTER IV

THE CASE: CENTURY ELEMENTARY

Introduction

> We expect an inquiry to be carried out so that certain audiences will benefit - not just to swell the archives, but to help persons toward further understandings...I believe that it is reasonable to conclude that one of the more effective means of adding to understanding for all readers will be by approximating through the words and illustrations of our reports, the natural experience acquired in ordinary personal involvement. (Stake, 1978, p. 5)

In subsequent pages, the researcher "tells the story" of the people who worked and learned at Century Elementary School over a three-year period. From the fall of 1991 through the spring of 1994, the staff at the school initiated, implemented, and revised a number of innovations in an effort to better educate their students. The process of restructuring and some of the effects of this effort on students and staff make up the case which is the subject of this study. The case is presented as a narrative report with a chronological framework.

The researcher was the principal at Century Elementary during the research period. She does not claim to be unbiased in her reporting. Obviously, her role as

administrator affected what she saw, heard, and recounted. Her status as principal also affected the way in which parents, students, and staff related to her on a daily basis. Therefore, in addition to reporting personal experiences and observations, the researcher has taken many measures to reduce bias and to collect data from anonymous and objective sources (see Chapter 3).

The admission of bias does not, however, reduce the value of the researcher's individual experience of the events that transpired at Century Elementary. On the contrary, the researcher's close relationship to the people at the school enabled her to develop an understanding based on a "full and thorough knowledge of the particular" surrounding the case (Stake, 1978, p.6). The reader should be able to make naturalistic generalizations from the "particular" in this report, thereby extending existing experience and understanding.

Information pertaining to each of the research questions is included in the narrative case report. The questions involve: a) conceptions developed by staff members regarding sources of change, reasons for change, factors limiting and/or supporting change at the school, and benefits/liabilities of initiating changes; b) student and staff outcomes associated with change; c) procedures followed by the principal in initiating and supporting

change; and d) stages through which programs and people progressed during the restructuring efforts.

Year One: 1991-1992

Context and Community

Turning off the highway onto a two-lane road, Century Elementary School comes into view immediately on the driver's left. It is the last week of August 1991 and the first week of a new school year. The first impression is of a square brick facade, a large playground area (poorly equipped), and a very congested parking lot - most congested when students are being dropped off in the morning or picked up in the afternoon. To any visitor observing the school as students are dismissed at 2:45 p.m., the parking situation must seem frustrating and unsafe; parents are parking anywhere they can, calling to their children to come to the cars or walking to the sidewalk to pick them up. Teachers appear to be resigned to these conditions.

In some ways, the image changes when the visitor enters the building. Large windows let in bright light. The building is clean, if dated in appearance. The color-scheme is yellow and orange with 1960s geometric designs painted on the walls. There is a great deal of activity as staff

members head up lines of children, escorting them to the parking lot and buses. Parents move freely up and down the halls, looking for their children and taking them out of school as they please, often without checking into the office area. There is much energy, often unmonitored or unorganized.

The disarray in the halls and the parking lot reflects the fact that the school has had four principals during the previous two school years. The researcher took her place as the fifth principal in three years on August 1, 1991. This was her first year as a principal and the first time the school had had a female administrator.

Century Elementary School, housing approximately 320 students in grades pre-kindergarten through third, is located in a rural southern town of almost 14,000 people. It is part of a small, city school system composed of four elementary schools, one intermediate school (grades 4 and 5), one middle school, and one high school.

Compared to the state average, the county in which the town is located has: fewer adults with high school diplomas; fewer years of schooling per adult; a lower per capita income (as reported in 1987); lower family income (as reported in 1989); a lower percentage of the population in poverty; and a lower percentage of minority students in public schools. Unemployment in the county is higher than

the state average (Task Force on Excellence in Secondary Education, 1989). Two factories, the local hospital, and the city school system are the biggest employers for the town.

School demographics suggest that high numbers of "at risk" students attend Century Elementary. Racially, the school is 55% African-American, 44% white, and 1% "other" minority. The gender ratio is 51% male and 49% female. Fifty-eight percent of the students receive free or reduced lunch. And 27% of the students qualify for some type of "special education" support services due to disabling or handicapping conditions. One third of the students qualify for Chapter 1 reading remediation, but not all can be served due to shortages in staff. Two subsidized low-income housing projects are located in the Century Elementary attendance zone.

Setting the Stage for Restructuring

After the principal had two weeks to settle into her new job, but before students arrived for the first day of class, she called the first faculty/staff meeting. Recognizing that the staff had undergone much administrative change in the past few years, she asked the teachers and assistants what their greatest needs or concerns were. They agreed that their greatest problem was instability and a

sense of insecurity, despite the reputation they enjoyed as a "good" faculty.

The principal dealt with this concern by telling staff members that they would have to develop their own abilities as instructional leaders; that they obviously could not count on one administrative philosophy or style to govern them on a long-term basis. The principal told them that they could not count on her staying at the school either; that she might be made to move on or might choose to go. A faculty member then asked, "Suppose we get to be good instructional leaders but are not allowed to lead under a different principal?" The principal answered, "You'll have to be so good that anyone would be a fool not to listen to you." That conversation set the stage for educational change at the school.

Introduction of Innovations

During her first year at Century Elementary, the principal encouraged teacher participation in two innovative staff development programs. The first was the GAMSEC-FIRST Project. This project began in October 1991 and focused on improvement of math and science instruction in elementary grades through peer teacher training. The project involved a two-year commitment on the part of the principal and the

elementary school staff. Training was provided by university personnel on an on-going basis during the two year period but was most concentrated during two summer institutes.

In September 1991 the principal received an application form for participation in the FIRST project (Fund for the Improvement and Reform of Schools and Teaching) through the Greensboro Area Mathematics and Science Education Center (GAMSEC). Funded by an Eisenhower Education Act grant, the FIRST Project gave preference for involvement in the project to schools that met at least one of the following criteria: high percentage of students on the federal lunch program, large percentage of minority students, and location in an isolated or rural area (Franklin, 1993). Century Elementary met the first two criteria and its staff members were accepted to participate following the principal's application for consideration.

As part of the application process, the principal was asked to commit to attending six staff development meetings held over a two-year period at one of the sponsoring universities. In addition, two lead teachers from each participating school were asked to make the following commitments: attending a three-week summer training institute in 1992 and a one-week summer workshop in 1993; collecting and analyzing school-based needs assessment data; developing a school-improvement plan in the areas of math

and science instruction based on the needs assessment information; providing ten hours of staff development for all other Century Elementary teachers during the 1992-93 school year; and attending six meetings held at the university campus over a two-year period. As part of the FIRST Project conditions, the two lead teachers would receive $35/day for attendance at the summer institutes along with graduate school credit. The principal was asked to provide release time and minimal financial support for the lead teachers.

Although the principal was new to the school and had not had time to assess the strengths and weaknesses of specific staff members or the areas of greatest student need, she was interested in participating in the GAMSEC-FIRST Project. The project appeared to offer an opportunity to begin to develop a higher professionalism among the staff; a means of focusing on student achievement as a primary goal of the school. Her first responsibility in initiating faculty involvement in the project was to select two lead teachers. She did this by outlining project requirements and commitments to all teachers at a faculty meeting. She then asked for volunteers. Giving the staff a week to ask questions and to determine their level of interest, the principal stated that names would be "pulled out of the hat" if more than two teachers volunteered. Two

veteran first-grade teachers were interested and became lead teachers for the project. One of the volunteers, "Jane" for the purpose of this study, became one of three key informants for the researcher.

The first year of this project, the principal and two lead teachers fulfilled most of their obligations. The "Mathematics and Science Education Network Mathematics/ Science Program Assessment for Teachers" was given to the 23 full-time teachers on staff as a means of assessing the program at Century Elementary School. The principal completed a similar instrument. Based on assessment information gained, the principal/lead teacher team wrote a school improvement plan that was later presented to the faculty for changes and/or additional input. The science section of the completed improvement plan focused on: a) providing adequate time for planning (staff had had no individual planning time or time for grade-level meetings scheduled during the school day previously); b) providing adequate teaching materials (science materials were extremely limited at the school); c) developing teaching techniques that addressed student diversity; and d) training teachers to use varied and flexible assessment methods that included application and concept development. Math instruction improvement strategies included: a) providing adequate materials to stimulate teacher use of varied and

flexible teaching and assessment techniques; b) providing adequate planning time; c) training teachers to develop more complex tasks that promote exploration, problem-solving strategies, increased mathematical reasoning and communication; and d) increasing involvement of parents, community, and business in the math program.

During this initial year of involvement in the FIRST Project, the team met three times at the university. Team members were coached in new mathematics and science standards and appropriate teaching strategies for elementary students with an emphasis on the use of manipulatives and cooperative learning activities. Under the direction of the project-coordinator, the Century Elementary team outlined objectives for the up-coming school year including: offering ten hours of staff development to teachers and interested assistants; obtaining teacher input in the selection and purchase of materials; restructuring the school day to include planning time; and conducting a "Math-Science Night" for students and parents as a means of increasing parental involvement.

On one of the last teacher workdays of the 1991-92 school year, the principal invited the FIRST Project site-coordinator to provide one day of staff development for all teachers and assistants. By making this workshop mandatory for all staff, the principal hoped to increase staff

involvement in the project and to develop a "mind set" in favor of new teaching strategies. The site-coordinator approved the plan and later recommended this approach to other schools participating in the project.

One lead teacher successfully completed the GAMSEC-FIRST Project three-week institute in the summer of 1992. The second lead teacher, Jane, experienced family complications that kept her from attending several days during the last week of the training period.

The second innovative staff development program encouraged by the principal was initiated by the local school system. During the 1991-92 school year, the city school system central office staff decided to form a team consisting of teachers, principals, and central office personnel for the purpose of developing a list of "exit outcomes" for students. The principal/researcher was included on this team and agreed with the notion of developing and focusing on educational outcomes that address the needs of the entire child as a basis for instruction (i.e., interacting with others; developing self-esteem; becoming self-directed learners; and acquiring skills in the areas of problem-solving, critical thinking, and academics).

Subsequent to the development of locally approved outcomes, the system's curriculum specialist wrote a proposal to provide training to teachers wishing to develop

Outcome Based Education (OBE) model classrooms. The proposal was sanctioned by the superintendent and orientation meetings for teachers began in May 1992. Training took place over the summer and consisted of reading and discussing a variety of related research articles and attending loosely defined meetings of teacher teams with or without the supervision of the curriculum specialist. "Differentiated pay" funds, provided by the state, were used to pay stipends to teachers who participated in the project.

Again, this principal went to her staff. She described the goals of the training program: a) to provide a background for OBE in the research literature; b) to assist staff in selecting an area of expertise (e.g., cooperative learning, cooperative teaching, interdisciplinary units, etc.); and c) to assist staff in developing a written action plan including their objectives and strategies for promoting expertise in the chosen area. She explained that teachers completing this training would, ideally, serve as models for other teachers in the school and the school system. And she asked for volunteers, noting that the staff would be reimbursed and receive renewal credit for time spent on training over the summer. Unlike the FIRST Project, the OBE training proposal did not allow for follow-up staff development after the initial summer training.

Four teachers at Century Elementary volunteered to participate in the OBE program. The first was a veteran kindergarten teacher who became a key informant for the researcher. She is named "Amy" for the purpose of this study. The second volunteer was a relatively new first-grade teacher who also became a key informant. She will be referred to as "Gayle". A second-grade teacher who was completing her first year of teaching was the third volunteer. The fourth was a veteran third-grade teacher.

The GAMSEC-FIRST Project and OBE model classroom programs were large-scale innovations that ultimately involved most of the staff members at Century Elementary. However, they were not the only areas of school improvement undertaken during the principal's first year. Weekly School Improvement Team meetings, staff participation through a variety of committees, the abolishment of corporal punishment along with the establishment of alternative disciplinary measures, a change from "fixed" to "flexible" library times, and the development of a business partnership with employees of a local factory significantly changed the structure of the school.

The city's chamber of commerce had been encouraging business/school partnerships through the adopt-a-school program for several years. When the business partnership with Century Elementary was initiated by factory personnel

in August 1991, the liaison and the principal met and developed a set of project priorities for the school. School staff members were given an opportunity to add input regarding adopt-a-school projects. As a result, the factory management began to provide tutors for individual students on a weekly basis during the school day. The business partner also paid for a set of swings and numerous books. These last items were much needed since the media center was on warning status with the Southern Association of Colleges and Schools (SACS) accreditation committee for having too few volumes. The swing set was the first new piece of playground equipment for the school for approximately ten years.

The adopt-a-school partner also made incentives available for a teacher recognition program. Teachers and assistants voted each month to select a "Chief Achiever" from among their peers. The "achieving" teacher received a T-shirt and a $50 gift certificate for the purchase of classroom materials.

A last innovation was introduced to staff members by the principal in the final month of the 1991-92 school year. The school system's intermediate school had invited parent input into teacher selection the previous school year. Knowing that "choice of teacher" would soon become an issue with parents at the elementary level, the principal asked

staff members how they felt about soliciting parental input in assigning students. Initially, the principal was against this option for parents, feeling that it would create chaos in the area of student scheduling and that it might lower staff morale. She voiced her opinion at a faculty/staff meeting, but asked for staff feedback.

After much discussion, the Century Elementary staff voted to allow parental choice within specific guidelines. Parents would be invited to come to the school to visit with teachers on a designated day. On that day, parents would be given a list of teachers for each grade level along with a teacher-written self-description (i.e. classroom focus, teaching style, a short statement of educational philosophy). The parents would then be able to submit a choice of two teachers (not prioritized as '1' and '2' but simply checked off the list) for their child. The principal promised to try to accommodate one of the two choices but notified parents that all classrooms would be heterogeneous and that an element of randomization in teacher selection would be used (see Appendix D for letter of explanation to parents). This process was put into effect before the end of the school year. Approximately one-third of the parents responded to this opportunity by following guidelines and making requests for teachers.

During this first year of restructuring, Century Elementary personnel were preparing for an important ten-year SACS accreditation visit; to take place in 1992-93. As part of the preparation process, the principal was told that the school would be repainted. Again, seeking feedback from school employees, the principal called a meeting of the staff. She asked for individual preferences in color schemes and school-wide decoration. By common consent, the yellow and orange geometric designs were covered by light beige paint. Columns and exposed pipes were painted in bright red, navy blue, sky blue, and yellow. Each teacher chose the color for her classroom; blue, gold, or beige. As a finishing touch, the principal recruited senior high art students during the summer to paint murals at the front of each hall (teachers had specified the subject matter for each mural). This the students did at no cost, for the privilege of signing their art work. At the end of the process, instead of designated "kindergarten", "first/second grade", and "third grade" halls, Century Elementary was divided into classrooms on the "Humpty Dumpty" hall, the "Jack-and-the-Beanstalk" hall, and the "Animal Habitat" hall.

Reactions to the various initiatives that first year at Century Elementary were diverse (see Table 2 for summary of first year restructuring efforts). In-depth interviews (see

Appendix A), end-of-year surveys (see Appendix B), and statistical data provide some insight into staff and community reactions as well as student outcomes following the first year of restructuring.

As outlined in Table 2, first-year restructuring efforts at Century Elementary were geared toward many aspects of the organization at one time: affecting curriculum, instruction, staff development, parental and community involvement, and student support systems. Complex or large-scale change initiatives were recommended by Eisner (1992), Elmore (1990), Fullan and Miles (1992), and Joyce, Wolf, and Calhoun (1993) as being more likely to succeed than small-scale, less significant change efforts. Such complexity represents an additional "supporting factor" for successful planned change.

Table 2
1991-1992: Year One Restructuring Efforts at Century Elementary

Innovation/ Intro.	Initiation/ Adoption	Implementation/ Initial Use	Supporting Factors	Limiting Factors
GAMSEC - First Project- October '91	University Project - Principal initiated at site. Applied for admission to project.	Principal informed staff; obtained volunteers. Team attended 3 meetings. Completed needs assessment and School Improvement Plan (SIP). Participation in Summer Institute.	Use of volunteers and of staff in-put. Ongoing staff development. Principal support. Time and some funding provided. Compensation for staff (e.g., novelty, CEUs).	Practical barriers: little planning and sharing time; limited funding; few resources. Psychological barriers: fear of unknown.
Outcome Based Education - May '92	Curriculum Specialist wrote and got approval for proposal. Introduced proposal to principals.	System developed "exit outcomes". Curriculum Specialist wrote proposal. Principal informed staff. Used volunteers. Orientation meeting held. Summer staff development.	Used volunteers. Staff development. Support of principal and of C.O. staff. State monies available. Compensation for participating staff. Chance for collaboration.	Practical barriers: limited staff development; limited planning and sharing time; limited resources. Psychological barrier: fear of unknown.
Site-Based Management- August '91	Principal initiated. Scheduled meetings and assigned staff to committees.	Weekly School Improvement Team (SIT) and faculty/staff meetings. Monitored and supported work of committees. Gave information to staff.Encouraged staff input.	Principal support; modeled and encouraged risktaking. Implementation of staff decisions. Compensation through empowerment and added professionalism.	Psychological and practical barriers:many meetings, limited time. Some discomfort with new responsibilities. No staff development.
Student Discipline- August '91	Principal initiated end of corporal punishment.	Research presented to staff. Meetings held to discuss alternatives. Organized new discipline plan.	Support of principal. Staff input into decision-making. Research based.	No staff development; fear of unknown; student "control" issues.

Table 2 (cont'd)

Innovation/ Intro.	Initiation/ Adoption	Implementation/ Initial Use	Supporting Factors	Limiting Factors
Library Schedule- August '91	Initiated by school Media Specialist and principal.	Media specialist and principal examined schedule. Contacted system media coordinator. Joint decision to initiate flexible scheduling.	Principal support. Input of media specialist and C.O. personnel. Research-based decision.	Practical barriers: lack of staff input into decision-making. Lack of staff development.
Adopt-A-School - August '91	Chamber of commerce, local business, and principal. Principal and business liaison met to prioritize needs.	Principal solicited input from staff. Specific areas of program put in place: tutors, staff recognition, purchases for school, reading incentive programs.	Principal support. Community support. Staff input into decision-making. Additional funding and resources. Recognition for staff who excel.	Psychological barriers: recognition acted as "dissatisfier" for teachers not recognized for excellence by peers.
Parental Choice - May '92	Initiated by staff after general discussion at two faculty meetings.	Letter to parents. Openhouse for parents. Parents made choices re: teacher selection. Principal assigned students to classs, accommodating choices.	Staff consensus on decision. Principal support. Parent support/ involvement.	None - no funding, staff development or additional time required. All parent choices were accommodated.

Note: "Intro." in the first column heading=month innovation was introduced. "Initiation/adoption" and "implementation/initial use" are terms used by Fullan with Stiegelbaur (1991) to describe the first two of three stages of change. Dalin (1978) identified "psychological", "value", "power", and "practical" barriers as factors which limit change.

Assessing Restructuring After the First Year

As one means of evaluating teacher perception and project progress, the researcher interviewed three key informants individually during the summer of 1992. The interviews were structured to help define motivating factors which drove these teachers to try something new (although all were financially compensated for their efforts, they could have made more money by teaching traditional summer school); their goals and expectations for the up-coming school year; their concerns; possible barriers to their success; and ways those barriers might be overcome (see Appendix A for interview questions). Names of the interviewees have been changed to ensure confidentiality.

"Jane" was the first interviewee. She had volunteered, along with another lead teacher, to participate in the GAMSEC - FIRST Project. Jane had been selected "Teacher of the Year" for the school system during the 1990-91 school year and was a veteran first-grade teacher with four years experience at Century Elementary prior to the interview. By the end of the research period, Jane had been promoted to the position of assistant principal at a nearby intermediate school (grades 4 and 5). She was the only minority interviewed as a key informant.

"Amy" was the second interviewee and another veteran teacher. With 24 years experience as a kindergarten and first-grade teacher, Amy volunteered to be trained during the summer of 1992 with the goal of developing an OBE classroom. Describing herself as a "very structured teacher", Amy admitted that she first volunteered because she was "burned out and...wanted something new and challenging" to do even though she "didn't know what [she] was getting into" when she volunteered for the project.

"Gayle" was the third and youngest of the key informants. At the time of the interview, Gayle had been teaching kindergarten and first grade for four years, two of them at Century Elementary. Chosen as the school system's "Jaycees Young Teacher of the Year" in 1990-91, Gayle is exuberant and energetic. Gayle, like Amy, had volunteered to work over the summer to develop an OBE classroom. When asked why she volunteered for this project, Gayle said that she "just likes change, period" and that she is always looking for "anything that will work and is new and exciting."

At the time of the interview, Gayle and Amy were planning a multi-grade teaming situation for kindergarten and first-grade students for the up-coming year. The ability to work as a team on this project was another key reason that Gayle gave for volunteering for model classroom training.

In asking these three teachers about their motivation for becoming involved with the change programs, some common themes emerged. All three were volunteers. All were looking, almost desperately, for fun and excitement or for a new challenge. And all were expecting to be able to serve children better, by making education more fun and by individualizing more, as a result of their involvement with the programs. It was obvious that the teachers were not satisfied with "old" delivery models, for themselves or for the students. In their own words:

> Amy: We just felt like it would be lots of fun, after we heard about this new program...that it would be fun to try it with a K-1 combination...I don't think maybe we'll push as hard. You know, let [the children] come around at their own pace more so than we've been doing. I think we put a lot of pressure on these little kindergarten children.

> Gayle: Well, I see a lot of the way, the old way of doing things, a lot of the children were falling through the cracks and it wasn't reaching everybody...The old way, we're pushing the children and they aren't ready for it yet. And this new thing is supposed to be more child-centered and for their development...I get excited about change...it looks like it would be a lot of fun for the children, too...

> Jane: The goals...to help us in our effort to present to our children the best possible instruction in math and science...And it is active and hands-on. That's what we wanted for our children because they tend to learn more and retain more when they are actively involved in

> doing things...I'm excited about the opportunity to present the workshops...to the staff.

Gayle and Amy were also looking for positive peer relationships as they began to work on their team approach to OBE. Both teachers expressed that they had felt isolated the previous year. The isolation they described was not due simply to the fact that teachers spend approximately six hours each day in a four-walled space facing twenty-some students, with a minimum of adult contact. Rather, they felt that other teachers in the school did not share their philosophies of teaching. They were looking for someone to talk to. Even though their teaching styles were very different, Gayle and Amy felt that they would make a good team.

> Amy: I went down and talked to Gayle. We wanted...well, I guess we're excited about working together. We really, none of us had anyone to work with. I guess my teaching style is different from the other members of my grade level. And it's been hard. It's been hard.

> Gayle: I wanted to work with Amy again, I enjoyed that...I didn't have anybody to really work with closely this year like I had in the past...She felt the same way I did...We're really excited about that...And our teaching styles are totally different. She's strong in the areas I'm weaker in...so we compliment each other.

Although the teachers were excited about their decisions to work with the OBE and GAMSEC programs, they felt that the work was going to be demanding. They expected to put in extra time planning and organizing materials. They also knew that changes could not be superficial; that they would be making some personal changes in the ways they approached their work and their students. To get to this point, the teachers had to examine their habits and practices to determine their personal/professional strengths and weaknesses. Having conducted this self-examination, two of the interviewees (Gayle and Amy) used words like "fear" and "overwhelming" when they discussed the change process. Jane, who had had more time working with her project than had Gayle or Amy, did not express as much fear. She simply concentrated on the importance of continuing to improve.

> Gayle: I fear the paperwork...because I'm not a real organized person...To do this, I'm going to have to be a lot more organized than I've been. So that's a big fear for me...one goal is to enjoy, just enjoy facilitating [instruction]...kind of back off so [the students] can be more independent ...That's going to be hard for me...it's going to be a big change for me...I'm going to have to plan for that. It's a challenge...I'm more excited about this year than I've been in a while.

> Amy: I think it's going to be interesting to try collaborative groups and working together and cooperative learning...It seems overwhelming. I mean writing this program and getting all these units together 'cause everything's got to be

redone. But I think it's going to be fun 'cause I'm really tired of what we've been doing.

Jane: I just work and do the best that I can because I've never felt like I've arrived.

An additional concern expressed by the three interviewees dealt with peer relationships. The teachers wondered if educators in the grades ahead of them would understand and continue the hands-on instructional techniques with the children. They wondered if these teachers would be upset because, using the new techniques, the students would work more at their own paces. Students in the model classrooms would not be pushed to perform in specific areas at a designated speed so that they could all begin "at the same place" next year. Amy and Gayle were particularly aware that this could be a problem associated with more individualized instruction. Jane commented that the new instructional techniques would only be productive if all teachers at the school got involved in the change process together.

Gayle: And, again, there's always that little worry in the back of my mind, "what will the second grade teachers think when they get [my first grade students]?"...And I think a lot of the other teachers...especially the ones that are going to have the students coming up, are going to have to understand what's going on and what they are going to have to do for the next year to pick it up.

> Amy: [The kindergarten students] have to know a lot at a certain time. If they don't know it, then the first grade teachers are upset.
>
> Jane: So, [the other lead teacher and I] thought we would probably have to get together with the faculty. And we weren't sure how they were going to accept it...So, that's our fear. We're just being real positive and presenting it in the best possible way so that people are behind us.

The researcher pursued this area of concerns by asking the interviewees about barriers that might exist and hinder their efforts. As an administrator, she wanted to know how she could help the staff overcome these barriers. The answers were consistent. The three faculty members said that money for needed materials, time for planning, and administrative support were necessary for the success of their programs. They were emphatic in stating that the lack of any of these, would prove to be a barrier. About money:

> Gayle: Money is a big thing. I started looking through manipulatives and things. I didn't have what I would need just to start out. So money's a real big thing. We don't have much of anything that we need...I'm ready to go beg for it, borrow, or steal.
>
> Amy: In all the things we've read...it says money is going to have to be available for a new program. And we have not had anything in so many years 'til our rooms are becoming very limited. And, you know, kindergarten children need hands-on manipulatives...

> Jane (echoing their thoughts): The question of money, of having enough to do the kind of job that we'd like to see done here...especially for science kits because that's the part that we feel we're behind with...

Despite a serious shortage of supplies, as perceived by those interviewed, the teachers were upbeat and suggested possible solutions or strategies to the problem of resources.

> Jane: We will just have to take one step at a time and work together and figure out how we are going to get the money to get things because we're not going to get it all through the budget in lean years like this. We need to do innovative and creative kinds of things to get our PTO going and behind us...ask for donations from parents...grant writing workshops...

Gayle suggested that we present our business partners with a detailed description of our needs and ask them for help. Lacking that support, as stated earlier, she was ready to "beg, borrow, or steal" what was needed.

On the matter of scheduling, the teachers felt that the school staff and administration had already come a long way by working in common planning times for grade level classroom teachers for the up-coming year. (Teachers had made scheduling suggestions through School Improvement Team meetings and an ad hoc committee formed to address scheduling needs.) The goal was for teachers to use this time to develop thematic units, create materials, discuss

techniques, or simply to "vent" when things didn't go as expected. However, Jane was concerned about scheduling time for teacher workshops. Again, preparing and presenting math/science staff development was to be one of her primary responsibilities for the year. During her interview, she discussed the advantages of balancing large and small chunks of time for staff development.

> Jane: [We must schedule] enough time to present what we need to present to the faculty so that they don't feel overwhelmed or frustrated...or that they don't feel this is an extra burden...we would like to see it start off with a half day so we could really get them a meeting kind of start and then maybe twice a month do a little mini-thing...

The principal/researcher had an additional scheduling goal, near the end of her first year at Central Elementary, that dealt with reducing classroom interruptions. With the input of staff members, she worked to schedule one-hour blocks of uninterrupted instructional time for each grade level for the up-coming year. The plan was that, during these "sacred" blocks of time, teachers would not be interrupted by phone calls, intercom announcements, or students being pulled out for "support" programs. When asked about strategies that might support teacher change efforts, Gayle mentioned this uninterrupted time along with the need to plan and discuss progress as a faculty.

> Gayle: The new scheduling looks really good. I like that totally sacred block of time...It will help with the planning and that kind of thing...I think we're going to need to be able to get together...to have time to talk about what's working for you and to say this isn't working for us, is it working for you?

A last potential barrier to change mentioned by all three interviewees was lack of administrative support. Although those women interviewed stated this was not a problem at Century Elementary, they all mentioned that teachers at some of the other schools were very concerned about the need to get support from the building principal. Amy also mentioned that research indicated the need for strong administrative backing.

> Amy: Even in all the things we've read it says that the principal's going to have to be very supportive, which you are.

> Jane: Some of the other schools have a fear of [lack of] administrative support. That's one fear I don't have because I know you are actively involved in all the instructional phases of the school and that you initiate most of the progress that we have made this year.

> Gayle: You're a principal who comes in and when you come in...you're real supportive of change or anything that might help the student...You're real excited about change and open to that...Like I said, you've made the whole thought of changing (pause) there's some principals I wouldn't even try to do (pause)...I would have said "no thank you" [to the change project]...

One reason that staff seemed to feel supported had to do with administrative expectations. Although the teachers knew that the principal had high expectations for their performances, they also knew that mistakes were tolerated. More than that, teachers expressed that both of the project directors and the principal felt that mistakes were an indication that risks were being taken and that learning was continuing (on the part of the educators as well as the students). This seemed to be comforting. When the interviewer asked the educators what they thought the principal's expectations were, these were some of their answers.

> Amy: Better all-round faculty. Maybe we can give some help to them...
>
> Jane: I think you expect [the other lead teacher] and me to carry the ball and you will be there to support us and help us when we really need support. And you expect us to do a good job and to make sure that we continue to be a resource and model for the other teachers.
>
> Gayle: I think that you expect me to meet the goals that we do have. You know, the curriculum. To make sure the children are given what they need. I think you expect us to maintain complete control over the students so they don't go berserk. As long as I'm doing my job to the best of my ability...that you'll approve and everything. I think you won't sit there and expect [the students] to sit in little rows and for me to [teach] in certain ways. So I like that...I know that both of you, both [the project director] and you are, "Something might not work. And maybe I

> can try another way."...So, to me, I'm not worried about making mistakes. I'm not worried about something not working.

While expressing their enthusiasm and their concerns, the three interviewees kept returning to their goals in engaging in change.

> Jane: What I see happening is this, I feel good about the first and second grade teachers with math manipulatives. It's great to have math manipulatives, but if you really do not know how to use those, they are not very advantageous to the children. I can see kindergarten and third grade becoming really excited about some of those manipulatives and what we are going to share with them on how to use those more effectively.

> Amy: I believe the children will be happier, more well-rounded. I'm not going to put them as much in slots; "I expect this, this, this, and this of you." I've been pretty much that way...

While the three interviewees who volunteered for change and were among those staff members in the fore-front of restructuring efforts were excited and nervous, staff members in general were not as positive after the first year of restructuring. Asked to respond to a voluntary, anonymous, end-of-year, open-ended survey (see Appendix B), 16 Century Elementary staff members (41%) listed some positives, some negatives, and some ideas for improvement based on their experiences this first year. Specific staff responses to this survey are provided in Table 3.

Table 3

1991-1992: Year One Responses to End-Of-Year Staff Survey

Response	Specific Comment	Total
Positive	a. Improvements in instructional program including: reading incentive program, whole language, integrated instruction, focused goals and techniques	10
	b. Staff input into decision-making	9
	c. Availability and support of principal	6
	d. More nurturing environment for students	3
	e. Parental support of staff and programs	3
	f. Other community support	3
	g. Support of peers/colleagues	3
	h. Flexibility for staff re: use of time	2
	i. Provision of information to staff by principal	2
Negative	a. Weak discipline in classrooms and school-wide	13
	b. Too many meetings	12
	c. Assignment to non-instructional duties	4
	d. Lack of follow-through on decisions/ideas	4
	e. Competition/jealousy among teachers	2
	f. Teacher recognition through Adopt-A-School	1
	g. Lack of focus in reading program	1
Suggestions for Improvement	a. Improved use of time including:	
	having fewer and shorter meetings,	8
	developing grade-level planning time,	4
	providing individual planning time,	2
	providing uninterrupted instructional time,	1
	b. Improve guidance, music, and computer programs	5
	c. Purchase additional playground equipment	3
	d. Changing assignments of non-instructional duty	2
	e. Improve building cleanliness	2
	f. Develop stronger discipline policy	2
	g. Continue staff development in instructional strategies	1
	h. Limit number of new instructional techniques to enhance a school-wide focus	1
	i. Use grounds as garden space	1
	j. Use big PTO fund raiser to pay for improvements	1
	k. Intervene earlier with "at risk" students	1

Although the researcher does not have historical information relating to all of the concerns revealed by the survey responses, she can shed some light regarding the complaints about meetings. In the year preceding the arrival of this principal at Century Elementary, three principals administered the school. The first held no staff meetings and did not involve staff in any information-exchange sessions. The second principal knew he was an interim administrator and was interested in maintaining the status quo. His occasional meetings were brief and relatively non-interactive. The third principal was at the school a short time and was somewhat moody (according to staff descriptions). His meetings were short and centered on providing staff with required information. The researcher/principal arrived at the school and, in her "first year as principal" zeal, instituted three weekly meetings: a School Improvement Team meeting each Tuesday, a School Based Committee meeting to determine service needs for exceptional students each Wednesday, and a faculty/staff meeting each Thursday. Some staff members were involved in each meeting each week.

Some changes in staff occurred following the 1991-92 school year. The principal recommended that a second-year Initially Certified teacher not be rehired. Her recommendation was accepted and the teacher was non-renewed.

Three other staff members resigned from teaching for personal reasons. Resignations included: a third-grade teacher who had worked two years at Century Elementary, a special education teacher with one year at the school, and a special education assistant who had worked at Century Elementary for four years. Over the summer, one teacher from another school in the city system requested transfer into Century Elementary. This veteran first-grade teacher had been trained in the OBE model program but told the principal/researcher she felt that she was isolated in her educational philosophy at her school. She thought that she would "fit in" better at Century Elementary; stating that she had heard of the many new programs at the school and was very interested in contributing to them. In a follow-up phone conversation, the principal at this teacher's "old" school verified that Century Elementary might be a better placement for the teacher. The principal/researcher consequently interviewed and hired the new OBE teacher onto the staff at Century Elementary. A summary of all employee changes during the three-year research period is provided in Table 11.

In addition to teacher-centered data collected at the end of the 1991-92 school year, base-line data relating to student outcomes and level of community and parental support were collected following the first year of restructuring.

Information concerning student attendance, discipline, and achievement and parent attendance at various meetings is examined later in the case study along with corresponding data from the second and third years of the restructuring effort. These data are presented in summary tables at the end of this chapter.

Year Two: 1992-1993

More Restructuring

During the second year of restructuring at Century Elementary, the principal and staff attempted to sustain innovative programs begun in 1991-92 and to initiate several new projects. In addition, many suggestions made on the end-of-year survey were implemented.

The GAMSEC-FIRST Project continued. As stipulated by the grant, 10 hours of staff development were provided by the lead teacher team for all other teachers, the principal, and interested assistants. Certified staff received continuing education credit for attending this staff development. All participants were asked to evaluate each session and to provide lists of materials they felt were needed to implement the new math/science strategies. Teachers who missed sessions due to other commitments

watched video tapes of the workshops, using appropriate manipulatives while doing so. During this second year of the FIRST Project, the two lead teachers and the principal also attended three required meetings at the university. Both lead teachers attended the week-long summer conference.

All goals on the GAMSEC school improvement plan were met, including the organization and completion of the "First Annual Math/Science Family Night". This event was structured to encourage parents, children, grandparents, and teaching staff to interact with each other while completing hands-on science and math activities. State department and central office personnel were asked to participate in the occasion; providing a fossil "dig" and a magical finale. Approximately 150 individuals attended the event.

The five teachers who completed OBE model classroom training during the summer of 1992 established their programs in this second year of restructuring. Amy and Gayle conducted a multi-grade cooperative learning activity each day for students in their classrooms. At 9:00 a.m. each morning, 1/2 of Amy's kindergarten students would go to Gayle's room and 1/2 of Gayle's first-graders would join Amy's remaining students. For one-half hour, first-grade and kindergarten students worked together on cooperative learning activities that related to interdisciplinary themes in use in each classroom. Amy and Gayle also developed a

structure for portfolio assessment and "student-led conferencing" during this year. The three other OBE model classroom teachers worked on student processing skills and student assessment through demonstration and production. Each of these five teachers also pushed to incorporate FIRST Project techniques into their classrooms.

The principal and staff worked to sustain other initiatives during the second year of restructuring. Parents were given the opportunity to have input into teacher assignment for their students. The procedure remained the same as for the previous year; parents were invited to an open house and had access to teacher self-descriptions as a reference for discussion and decision-making. Century Elementary's business partner provided books, reading incentive programs, and tutors for individual students on a weekly basis.

During the summer of 1992, the principal had used the GAMSEC school improvement plan, suggestions from end-of-year surveys and interviews, and input from an ad hoc scheduling committee to improve classroom and school-wide scheduling for the new school year. She reduced the number of meetings by alternating School Improvement Team and faculty/staff meetings on a bi-weekly calendar. The principal also set time aside once each week during the school day for 45 minute grade-level meetings. She scheduled enhancement

classes (e.g., P.E., music, art) "back-to-back" to allow each teacher two one-hour blocks of individual planning time each week. She also built in a one-hour block of uninterrupted instructional time for each classroom each day.

Taking staff requests into consideration, the principal placed kindergarten and pre-kindergarten classes on a "fixed" library schedule while other classrooms maintained a "flexible" schedule. Teachers of the younger students had requested more consistency in their weekly calendar while most teachers of older students enjoyed the flexibility of scheduling library time according to curricular and project needs.

Implementing staff feedback, the principal attempted to solve some of the "resource and materials" problems at the school. The principal obtained $2000 in Eisenhower Funds for the purchase of math and science materials and equipment. A purchasing priority list was developed by the lead teachers with suggestions from other staff members.

Although the Eisenhower mini-grant made it possible to purchase much needed materials, the principal felt a drastic change in resource allocation was mandatory if limited funds were to be maximized. For that reason she approached the staff, at a general meeting, with the idea of putting all consumable and office supplies in one central location; a

supply room. Until that time, each teacher had been allotted individual sums of money for the procurement of classroom supplies. The principal reasoned that items could be bought in bulk, there would be no duplication of materials, and funds could be earmarked for the purchase of large items (e.g., kindergarten furniture, library books, and microscopes) with the new system. Staff members were initially very nervous about this prospect. Each felt that, lacking strict supervision, other teachers or assistants would horde supplies in their classrooms resulting in a school-wide supply shortage. With much effort and many jokes, the principal elicited conditional approval to try the plan. She promised to return to the old method of distribution if centralizing materials did not work.

Two innovations involving service models and teaching strategies were introduced during the 1992-93 school year; "inclusion" of handicapped students into the regular classroom and "learning styles". The move to "include" some differently-abled students into regular classrooms was spearheaded by a special education teacher who had expertise in assistive technology (i.e. the use of technology as a communication tool with disabled students). This special education teacher was the mother of an orthopedically-impaired student at Century Elementary who felt that her child and other physically-involved students could achieve

more if they were taken out of their self-contained classes and placed with "normal" peers. The special education teacher prepared/oriented one first-grade teacher (the educator who requested a transfer into Century Elementary during the summer) and one second-grade teacher (both volunteers) to include handicapped students in their classrooms.

The principal/researcher was skeptical about this service model. She had worked as a special education teacher before becoming a principal and felt that students could benefit most from self-contained programs and schools. However, she agreed to support her staff's inclusion plan by assigning the special education teacher and a special education assistant to provide instructional and custodial support (i.e., for modifying instruction, toileting the children, helping to feed them, and assisting with communication devices) in the two classrooms. The principal wrote the parents of other students in the class to inform them in advance that "special friends" in wheelchairs would be in their children's classrooms. "Awareness" sessions were held in each classroom during the school year to help students adjust to their new friends.

The concept of learning styles was introduced to interested staff members at the end of the 1992-93 school year. The principal contracted with a university faculty

member to conduct a learning styles assessment on staff members and to follow up with an introductory workshop on that topic. Twelve teachers and one assistant chose to attend the workshop. Four teachers consequently developed profound interests in learning styles strategies and took intensive one-week training sessions in learning styles during the summer of 1993.

A summary of all programs initiated/adopted, implemented, and continued/routinized (Fullan with Stiegelbaur, 1991) by the end of the second restructuring year is provided in Table 4.

Assessing Restructuring After the Second Year

The GAMSEC-FIRST Project ended in the summer of 1993. In June 1993, the project site-coordinator asked the principal to help conduct a post-project assessment. Assessment forms provided by FIRST Project staff were distributed to the two lead teachers and to five other randomly selected teachers for completion. One question on the assessment asked, "When you compare what's happening in mathematics and/or science now in your classroom/school to what was happening before the project, what do you see?" In answer, one lead teacher wrote:

> I have seen a tremendous change in our school and my classroom since beginning the GAMSEC project. There have been more hands-on activities in both math/science areas. The teachers have really been motivated and share ideas among themselves. We have also been able to increase the amount of math/science materials available for our school. The attitudes toward math/science have really turned positive.

The second lead teacher emphasized some of these points in her response to the same question. She wrote:

> Lots of improvements...1) Advantages crossed into the total curriculum. 2) More integration of all subjects. 3) Active hands-on activities in science, math and all other areas. 4) More manipulatives and equipment...

All statements made in answer to the above question by the five randomly selected teachers were also positive. Some anonymous responses to the question "what has changed" were:

> Access to more materials and equipment...

> Excitement in the classroom. Motivated students. Enjoyment. Better understanding of concepts.

> I am now integrating math and science throughout the day. I feel more confident teaching both and enjoy it very much.

> New ideas were presented to suggest new ways to teach science and math. This led to much more hands-on in the classroom. There was great excitement among the children and a greater interest in the science and math areas among students and teachers.

Despite these positive evaluative comments, two of the five teachers answered "No" when asked "Are you familiar with the current reform efforts in Science Education?". These teachers may not have realized that they were in the middle of a science and mathematics reform effort; they may not have felt comfortable with the changes being made. Overall, however, the general observations made by these seven teachers matched perceptions of improvement held by the principal/researcher. She noticed an increased use of hands-on activities during both formal observations and informal "visits" to the classrooms. Teacher lesson plans and minutes of grade-level meetings reflected a greater interest in developing thematic units of instruction utilizing a variety of mathematics and science hands-on techniques and problem-solving strategies. School Improvement Team members also included GAMSEC-FIRST Project goals and strategies, learning styles, and innovative teaching approaches (i.e., cooperative groups; integrated, thematic instruction; technology assisted instruction) in the year's School Improvement Plan (required by the state).

A second question asked of the lead teachers on the FIRST Project assessment form was, "What aspects of the project helped the most?" Both teachers responded that having the project coordinator and GAMSEC master teachers as resource people to call on for on-going support, additional

information, and ideas made the difference in the success of the project. Both lead teachers also mentioned on the post-project assessment that additional materials, equipment, access to more technology, and training in higher-order thinking were needed for continued progress at the school.

Completed assessments were turned in to GAMSEC-FIRST Project staff during the culminating summer workshop. At that workshop, participating schools were given the option of applying for an extension project. Faculty at one of the participating universities together with the Eastern Triad Partnership of the North Carolina Science and Mathematics Alliance had been awarded a new grant to continue the improvement of mathematics and science instruction at elementary grades. Feeling that Century Elementary would benefit from additional training in this area, the school's two lead teachers applied for participation in the new "SAMS" Project (School Achievement in Mathematics and Science). Both lead teachers felt comfortable making the decision independently (i.e., without consulting the principal). This demonstration of initiative seemed to the principal to point to a new, higher level of instructional leadership and confidence among staff members.

OBE teachers at the school began to flounder a bit the second year. Their staff development had terminated and their access to the project coordinator was limited.

Although the five teachers met occasionally on an informal basis to discuss their plans, several appeared to lack direction. Only Amy and Gayle, who worked as a team, seemed to be meeting specific OBE goals that they had set for their classrooms (i.e., cooperative group activities, portfolio assessment, and student-led conferences). All five teachers were, however, continuing to use thematic, interdisciplinary approaches to instruction.

Inclusion was a partial success. The teacher of the second-grade inclusion classroom repeatedly told the principal that the climate in her class was the "best it had ever been...there seems to be more caring for each other among the students." She volunteered to have an inclusion class again the following year. The first-grade inclusion setting was not as positive, partially due to the fact that the regular education assistant in the classroom did not, by her own reports, like or feel comfortable around the differently-abled students. This assistant resigned under pressure at the end of the year when the principal scheduled her for another inclusion setting in the up-coming year.

At least one parent felt that inclusion had something to offer her "normal" child. This parent wrote an insightful letter to the principal and to a first-grade teacher who was not formally involved in the inclusion program. Instead, the teacher who received the letter had, in her classroom, one

trainable mentally handicapped student who also had cerebral palsy. This student had to use a walker when he moved about the school. He went to a "resource" classroom in the mornings and was only in the "regular" classroom in the afternoons. The parent's letter, typed painstakingly on a typewriter, read as follows:

> Dear _____ & _____,
>
> So many times we make efforts to complain, and great things pass by without recognition. This matter I feel necessary to compliment. Tiffiney informed me some time ago that being a helper in class sometimes means you can help out with a handicapped classmate. I really could not believe my ears. So I asked Tiffiney again recently. The reply was the same. Do we have any idea the valuable lessons these kids are being taught?!!! Not only are you teaching to appreciate our differences, but also you are teaching that it is an honor as well as a privilege to help someone less fortunate than ourselves. Please continue to keep up the great work and spread your ideas around. We need more principals and teachers like yourselves.
>
> Sincerely,
>
> _____

This letter represents the viewpoint of one parent and cannot be generalized to exemplify the feelings of all parents with students in inclusion classes. However, no anti-inclusion letters were received by teachers or the principal during the 1992-93 school year.

Table 4

Summary: Change Efforts During First Two Years of Restructuring at Century Elementary

Innovation: When?	Initiated/ Adopted - Who? How?	Implemented/ Initial Use	Continued/ Routinized	Supporting Factors	Limiting Factors
GAMSEC- Oct. '91	Principal. Applied for participation.	Two lead teachers and principal completed all grant requirements for two years.	Yes - techniques used more frequently by more teachers during 2nd year.	Principal and coordinator support. Continued training. Improved scheduling. Principal's grant. Staff input re: resources. Central supply room	Psychological and practical: late adapters; new techniques difficult for some staff. More funding, training, and supplies required.
OBE - May '92	System's curriculum specialist initiated. Teachers volunteered to participate.	Individual teachers attained goals. Modeled some strategies for interested others.	Continued but not routinized - no carry-over to other staff.	Principal support. Volunteers. Improved scheduling. Additional materials and resources.	Psychological and practical: no continuing staff development; no sharing of OBE goals.
Site-Based Management Aug. '91	Principal initiated. Used staff input.	Teacher input via scheduled meetings, surveys, and informal means.	Yes. Became norm for decision-making.	Principal support - modeling risk-taking. Improved schedule.	Psychological and power: some staff felt uncomfortable participating
Student Discipline- Aug. '91	Principal initiated.	Continued to evaluate results of new disciplinary approaches	Continued; staff compliance instead of ownership re: new disciplinary approach.	Principal support. Improved schedule; more opportunity for communication.	Power, value and psychological, factors: student control issues.

Table 4 (cont'd)

Innovation: When?	Initiated/ Adopted - Who? How?	Implemented/ Initial Use	Continued/ Routinized	Supporting Factors	Limiting Factors
Scheduling Adjustments - Aug. '92	Staff input re: adjustments.	Principal scheduled: blocks of time for planning and instruction. Altered library schedule.	Yes. Staff members pleased with results. Determined to continue improving schedule.	Principal support. Staff input.	None.
Adopt-a-School - Aug. '91	Business and principal.	Continued with funding, tutoring, reading, and incentive programs.	Yes. Staff selected students for tutoring and projects for funding.	Principal support. Staff input. Continued funding. Community support.	None.
Parental Choice - May '92	Initiated by staff at questioning of principal.	Procedures identical to those used 1st year.	Yes. Parent response up from 1/3 to 1/2 of families.	Principal support. Staff ownership. Community support.	Practical barrier: scheduling students took more time.
Inclusion - Aug. '92	Staff initiated - set up program in 2 classes.	Obtained volunteers. Trained staff. Notified parents.	Continued but not routinized - This was a first year pilot program.	Principal and C.O. support. Staff development. Teacher volunteers.	Value and psychological:fear of handicapped. New service model
Learning Styles - May '93	Principal contracted for staff development. Completed introductory staff development.	Additional in-depth training - for 4 teachers during the summer.	Continued but not routinized - efforts at initiation /adoption stage at end of 2nd year.	Principal support - purchase of materials, staff development, providing time. Additional training.	Value and psychological: allows student input. No structure for sharing results.

Note. Fullan with Stiegelbaur (1991) identified three stages of change: "initiation/adoption", "implementation/initial use", and "continuation/ routinization". Dalin's (1978) framework for discussing factors that limit the possibilities of educational change included: psychological, power, value, and practical barriers.

At the end of this second year of restructuring, school personnel held mixed perceptions of the various change initiatives and the progress being made at Century Elementary. However, some responses to the voluntary, anonymous, end-of-year survey (see Appendix B) indicated a new pride in the school and the goals of the employees who worked there. With 22 of the 45 staff members (49%) responding, Table 5 summarizes what staff members said about Century Elementary as a place.

Table 5
1992-1993: Year Two Responses to End-Of-Year Staff Survey Questions Concerning Century Elementary As a Place

Response	Specific Comments	Total
Positive	a. Children feel loved, safe, and cared for	7
	b. We have a motivational learning environment where students learn and have fun.	5
	c. Learning is important and children come first	5
	d. Different teaching styles are utilized	3
	e. The climate is relaxed and child-oriented	2
	f. It's fun to come to work each day	2
	g. Parents are welcomed	1
Negative		0
Suggestions For Improvement	a. Air-condition the building	7
	b. Make the needs of individual children a higher priority	7
	c. Improve the playground	3

When asked about the staff and administration at Century Elementary, employees had differing viewpoints. Some respondents felt that teachers were supportive, others felt that they needed to work better together. One respondent felt that teachers were becoming tired. While only two statements were made the previous year ranking conflicts with co-workers as a problem, tension among staff members rated as a high priority among some respondents answering the question, "What did you like least about last year" at the end of the second year. Respondents to the survey were basically positive in describing the principal. Diverging responses about Century Elementary teachers and the principal are included in Table 6.

It is unclear from these responses whether expectations for staff cohesiveness had risen during the year, making dissension less palatable or whether a rift was developing between staff members who were engaging in the restructuring efforts and those who were not. Regardless of which analysis is correct, the view from the "outside" was that the staff at the school were extremely connected at this time. A letter written on May 7, 1993 by the chairperson for the visiting SACS committee to the principal and staff at Century Elementary addressed this perception:

> In behalf of the Visiting Committee for Southern Association of Colleges and Schools, I want to thank you again for the warm reception you gave us last week. It was a joy for us to be in your school and to see all the good things you are giving your students. We could readily see how hard you are working to ensure that every child receives an appropriate and beneficial educational program.
>
> You should feel very proud of your school. Having the cohesive enthusiasm your staff shares is a rare treasure. We commend you on the way you are working together to reach your goals...
>
> Our committee has much admiration and respect for the leadership of your principal...You are already capitalizing on her multi-faceted talents. I urge you to continue to give her your full support and help.

During the 1992-93 school year, members of the Century Elementary School Improvement Team (SIT) nominated the principal/researcher for Principal of the Year. After completing all necessary paper work and interviews, she was selected Principal of the Year for 1993-94 for the city school system.

Table 6

1992-1993: Year Two Responses to End-Of-Year Staff Survey Questions Concerning Staff and Principal at Century Elementary

Response	Specific Comments	Total
Positive	a. Teachers are hard workers who try to make learning fun and exciting for students	14
	b. Principal is an advocate for and supporter of students, teachers, and programs	14
	c. Staff are easy to work with and are a positive element at Century Elementary	8
	d. Principal is open to suggestions and input on decision-making	4
	e. Teachers are highly motivated and capable	3
	f. Principal is working hard and late	3
	g. Principal is organized	3
	h. Principal is professional and fair	3
	i. Teachers are dedicated and spend much time preparing classroom materials	2
	j. Principal is positive	2
	k. Principal is able to find solutions or resolutions to problems	1
	l. Principal is a good instructional leader	1
	m. Principal is more comfortable with elementary students this year	1
Negative	a. Teachers should be more supportive of each other	9
	b. There is too much gossiping among staff members	2
	c. Too much competition; too many cliques	2
	d. Friction among staff members is a problem	1
	e. Staff is isolated by grade levels	1
	f. Teachers are getting tired trying to live up to the principal's expectations	1
Suggestions for Improvement	a. Teachers need to have more time to socialize together	7
	b. Need to develop more support among co-workers	6
	c. Principal needs to recognize good effort more often and on an individual basis more than on a group basis	2

As mentioned earlier, survey responses point to some strain in the sphere of staff interactions during the second year of restructuring. This discomfort may have been due, in part, to an emerging difference of opinion in the areas of policy, programming, and ways of "getting things done" at Century Elementary. For example, several respondents listed specific references to restructuring initiatives when asked what they "liked best" about the second restructuring year while other respondents continued to have problems with lack of support among staff.

The principal/researcher was impressed with survey responses indicating an on-going need for staff development and exposure to current educational research. Although only three comments were made in this area, the responses were novel and seemed to represent a more reflective and progressive attitude to teaching than had been observed previously. However, control issues were still in evidence in the replies of some staff members who were asked for suggestions for improvement. Responses to open-ended questions involving these areas are included in Table 7.

Table 7

1992-1993: Year Two Responses to End-Of-Year Staff Survey Questions Concerning Policies, Programs, and "Getting Things Done" at Century Elementary

Response	Specific Comments	Total
Positive	a. Incentive activities and events - fun and effective	17
	b. Policies are fair and democratic	12
	c. Everybody works together in group efforts and by committees: site-based management	6
	d. Enjoyed the new, central supply room	5
	e. Inclusion has been positive	5
	f. Programs are strong and continuing to improve	5
	g. Scheduling is improved and working well	4
	h. Policies are clearly enforced	3
	i. Programming is child-centered	3
	j. Enjoy the opportunity to try new ideas, programs, and techniques for meeting student needs	3
	k. Faculty and staff pulled together for SACS	2
	l. Things get done well and efficiently	2
	m. People are informed and knowledgeable	2
	n. GAMSEC has been successful	1
	o. Outcome Based Education has worked well	1
	p. There is better school-wide discipline this year	1
	q. Policies are consistent with instructional program and philosophy	1
Negative	a. Duty assignments, student dismissal, parking	14
	b. Weak guidance, music, reading, and computer programs	10
	c. Some people do all the work - others do nothing	3
	d. Flexible library times	2
	e. Roles and responsibilities get confused	1
	f. Frequently, things get done in a last minute rush	1
	g. To get things done, you have to do it yourself	1
	h. The School Improvement Team does too much	1
	i. Policies are not being explained to new staff	1
Suggestions for Improvement	a. Continue to work to improve scheduling	10
	b. Improve classroom discipline	8
	c. Continue to refine reading program	7
	d. Institute a "no hat" policy	7
	e. Obtain additional community/parent support	4
	f. More workshops, staff development and research	3
	g. Obtain additional funding	2
	h. Institute a "no gum" policy	1
	i. Develop programs for homogeneous populations	1
	j. Committees need to share more information	1

Again, following the second year of restructuring, changes in staffing were made at Century Elementary. Three staff members left during the summer. Most notable among them was one veteran kindergarten teacher who requested a move to another elementary school in the city system. She had worked at Century Elementary, off and on, for 18 years. This educator described herself to parents as using "traditional teaching methods" in a "structured environment." She was the only teacher on staff to use such self-descriptors. The researcher assumes that the teacher was uncomfortable with some changes in instruction and programming being implemented at the school. Other staff members who left Century Elementary at this time included a teacher assistant who was forced to resign by the principal and "Jane," the lead teacher who was promoted to assistant principal; both of these employees have been mentioned previously.

New staff employed or promoted at the school at the onset of the third restructuring year included teachers and assistants in the regular education and special education programs. A veteran special education teacher and a veteran physical education teacher (who had completed OBE training), both from city elementary schools, requested transfers into Century Elementary. The principal promoted a teacher assistant to a teaching position on a provisional basis,

pending that person's passage of the National Teachers' Exam. And the principal hired: one first-year third-grade teacher, two first-year regular education teacher assistants, two first-year special education assistants, and one veteran special education teacher assistant. A summary of staff changes during the restructuring period is provided in a subsequent sction of this chapter (see Table 11).

Information regarding student outcomes and community support were collected during the second restructuring year. Data in the areas of student attendance, discipline, and achievement as well as parent and community involvement in school events are included for the entire restructuring period in summary tables at the end of the chapter.

Year Three: 1993-94

Merger Affects Restructuring Efforts

The 1993-94 school year was marked by "merger". The city school system of which Century Elementary had been a part was one of four small systems consolidated into the new, larger system in July 1993. Relationships among the four former units had been distinguished by territorialism and distrust. However, plans for the merger moved ahead; a superintendent was chosen for the new system, an interim

board of education was formed, and system employees generally proceeded with a "wait and see" attitude.

At Century Elementary, this third year of restructuring began with an expansion of the inclusion program, initiation of the SAMS (School Achievement in Mathematics and Science) Project, beginning implementation of learning styles strategies, the development of a strong "peer helper" program, an added emphasis on technology, the inception of an "early intervention" procedure, and an interest in becoming a "Year Round Education" school. Tutoring and reading incentive programs spear-headed by Century Elementary's business partner, an emphasis on hands-on instruction, the use of site-based decision-making, and the operation of a central supply room continued. However, the practice of asking for parental choice of teachers was discontinued. The reason for this last is explained later.

During the 1992-93 school year, two "regular" classroom teachers and one special education teacher had been involved with the inclusion program. This collaborative service model expanded in the principal's third year to encompass eight "regular" education classroom teachers (five of whom volunteered to include "special" students), the physical education (P.E.) teacher, two special education teachers (both of whom volunteered), and the speech therapist (who was interested in using an inclusion model to meet the needs

of specific students while using a "pull out" service model for others). Special education assistants and teachers became co-instructors with the regular classroom teachers in an effort to serve students in the least restrictive and most "normal" environments possible. Support for inclusion classrooms was provided by the principal in the form of smaller class size, collaborative planning time, modifications to the building to ensure accessibility, and training. An adaptive P.E. specialist was also provided on a part-time basis by the director of exceptional children services as a support for the regular P.E. teacher.

The SAMS Project was structured much the same as the GAMSEC-First Project. Lead teachers and the principal were required to make a two-year commitment to the project. They had to attend three meetings, conducted by the site-coordinator for the project at a local university, during each school year. The lead teachers were again required to take part in a six-day Summer Institute. During the first year of the project, needs assessments had to be completed and a new School Improvement Plan written. Ten hours of staff development had to be provided by the lead teachers to the other teachers on staff in the area of math/science instruction during the second year. No problems were anticipated; then staffing for the enterprise changed at the last minute.

When the two First Project lead teachers determined to participate in the SAMS Project, both were scheduled to lead the new extension program. However, in October, one lead teacher (previously identified as Jane) was hired as assistant principal for an intermediate school. The principal responded by asking the staff for volunteers to act as a new lead teacher. The administrator said, as she had previously, that if more than one person volunteered, she would draw a name "out of the hat". A third-grade teacher said that she would participate and proceeded to work with the previous lead teacher and the principal to complete the first year of SAMS requirements.

Four teachers came back from 1993 summer workshops excited and enthusiastic about the potential of using learning styles strategies with at-risk students. Two of these teachers, "Gayle" and the speech therapist, had attended a workshop together and were interested in conducting action research on the use of these strategies in Gayle's classroom. Gayle had volunteered to have an inclusion classroom and felt that attention to learning styles could benefit differently-abled children. These two teachers came to the principal at the end of the summer, basic resources and a research plan in hand, and asked permission to test the students and carry-out the study. The principal agreed and proceeded to purchase additional

resources for the "research team". She also suggested that Gayle and the speech therapist think about including a third teacher interested in learning styles, who had also volunteered for an inclusion class, in their study. The fourth teacher, Jane, was also excited about the potential of using learning styles to meet student needs. However, her promotion to assistant principal at another school precluded her using this knowledge at Century Elementary.

Central office priorities in allotting support staff to schools changed as a result of merger. For the first time, Century Elementary was allocated a full-time guidance counselor. The counselor hired by the principal was already familiar with the principal and the student population since she had worked the previous two years at the school on a part-time basis. One of the counselor's major interests had to do with using third-grade "peer helpers" as "lunch buddies" and reading partners for younger students and as helpers for inclusion students. During the year, the counselor asked for teacher referrals of students who might benefit from being peer helpers as well as students who could use peer-helper assistance. The counselor then provided extensive training for the peer helpers in areas of peer mediation, dealing with individual differences, and good manners for use when visiting other classrooms. She met in the afternoons with these students, often providing rides

home. Eventually, the peer helpers designed special T-Shirts which the counselor provided for them. They worked in assigned classrooms on a scheduled basis throughout the year, with an understanding that their first responsibility was to master curriculum in their own classrooms.

Technological gains were made at the school in the form of an automated media center (i.e. library). During the previous year, the media specialist (i.e. librarian) had worked closely with the principal and the central office's director of media and technology. Books had been culled, reorganized, bar-coded, and generally readied for inclusion onto a computerized cataloging and circulation system. Hardware had been purchased (including search stations, a file server, a multi-media station with some software, and an additional computer and printer for circulation and record keeping) and installed during the summer. As classroom teachers brought their students to the library at the beginning of the new year, the media specialist took time to train staff and children in the use of this new equipment. The old-fashioned card catalogue was thrown out as being obsolete.

As an additional by-product of merger, principals were informed that Eisenhower Education funds would be available on a mini-grant basis. Individual staff members, groups of teachers, or schools were invited to write grants aimed at

improving math and science instruction. All grants were to include a staff-development component. Staff at Century Elementary submitted six mini-grants, three of which were awarded. One provided seed money for the purchase of a science-curriculum, interactive, laser-disc program. Another provided money to construct a hands-on gardening/experimental area in the school court-yard, and a third funded a teacher's first-grade early intervention program.

The early intervention program involved the purchasing of a large number of beginning reading books and hands-on manipulatives for use in math and science. Students from a fourth-grade class at the neighboring intermediate school were paired with some of the first-graders as peer helpers. These fourth-graders visited the younger students on a weekly basis and assisted the children in acquiring academic skills. Optimally, the early intervention program had called for adult tutors to work one-on-one with the first-graders. It proved impossible to find this kind of support, however, even with the help of the business partner.

A last innovation initiated in this third year of restructuring had to do with a change in the school calendar; from a traditional school calendar to "Year Round Education" (YRE). The principal and several staff members had heard about YRE from some colleagues within the newly

merged system. Three schools in the western zone of the system had started YRE on a school-within-a-school basis the previous year. Staff members from these schools felt the change in calendar had been beneficial for their students.

The principal and four teachers, one from each grade level, attended a YRE conference in the fall of the year. They came back impressed with initial research in this area and convinced that Century Elementary students could profit from the shorter summer breaks, "extended learning" opportunities during intersessions, and enrichment activities offered on this calendar. However, the YRE team felt that the greatest gains would be made at the school if it became a "year round" magnet rather than a school-within-a-school. A survey was taken of all staff members regarding the change to YRE. Of 45 staff members, five reported that they were hesitant to move to a YRE calendar due to financial or family considerations. All other staff members reported that they would support the change and would like to participate in it.

Satisfied that the formation of the magnet school could contribute to the stabilization of some of the demographics at the school (Century Elementary had the second highest minority ratio in the newly merged system of 26 schools and was experiencing "white flight") as well as improve student performance, the YRE team met frequently to complete a

proposal for presentation to the superintendent. Preferring to support the school-within-a-school model, the superintendent vetoed the plan for a magnet school. However, the YRE team was allowed to modify its proposal to fall in line with existing YRE programs within the system. This was done. The proposal to provide YRE on a school-within-a-school basis at Century Elementary was approved by the local board of education in February 1994.

Central office staff and the principal at Century Elementary worked together to plan community parent meetings for the purpose of educating parents regarding YRE. Seven meetings were scheduled for different areas of the school's attendance zone and different times of day. These meetings were publicized by the local radio station and newspaper. A disappointing total of 17 parents attended the meetings. As a back-up means of notifying parents, the principal sent out letters, explaining the YRE calendar.

Parents of Century Elementary students were asked to choose a calendar for their children for the 1994-95 school year; traditional or YRE. At this point, teachers were not assigned to a particular calendar. The principal gave precedence to teachers on the YRE team (i.e., those teachers who had attended the YRE conference, surveyed staff members, attended parent meetings, and put together the proposal) but did not know how many students would be enrolled year-round

or how many teachers would be needed. For this reason, parents were asked to choose a calendar for their students; not specific teachers. Although some parents expressed concern that they could not select both the calendar and teacher of their choice, approximately 42 percent of the students at the school were enrolled in the YRE calendar by the end of the summer.

Longitudinal Data: Three Years of Change

As the third year of restructuring came to an end, the principal/researcher became interested in determining staff and community perceptions of the entire change process. She required all staff members to complete an end-of-year survey. Unlike assessments the previous two years, this last survey was not optional and had no set format. All staff members were asked to respond, either on computer or in writing, to changes that had taken place at the school the previous three years (see Table 8 for a summary status report of all change efforts at the end of the study period).

Table 8
Summary: Status of Major Change Efforts During Three Year Restructuring Period at Century Elementary

Innovation	Stage: 1991-1992	Stage: 1992-1993	Stage: 1993-1994
GAMSEC-First Project	Initiated-10/91 Implemented-'91-'92	Continued/ routinized- '92-'93 Ended - June '93	
SAMS Project			Initiated as extension of GAMSEC- 8/93
Outcome Based Education	Initiated-5/92	Implemented-'92-'93	Continued with isolated teachers - not routinized
Site-Based Management	Initiated-8/91 Implemented-'91-'92	Continued/routinized	Continued/routinized
New Student Discipline	Initiated-8/91 Implemented -'91-92	Continued implementation.	Routinized - compliance, not ownership
Schedule Changes	Initiated and implemented "flex" library time-8/91	Adjusted library, instructional, and planning time - 8/92	Continued/ routinized '93-'94
Adopt-A-School	Initiated-8/91 Implemented-'91-'92	Continued/ routinized - '92-'93	Continued/routinized
Parental Choice	Initiated and implemented choice of teacher-5/92	Continued implementation - '92-'93	Discontinued choice of teacher- '93-'94 Implemented choice of calendar 5/94
Inclusion		Initiated-5/92 Implemented -'92-'93	Continued/Expansion
Learning Styles		Initial Planning and training-6/93	Implementation in two classes-'93-94
Peer Helpers			Initiated-8/93 Implemented -'93-'94
Increased use of Technology		"Assistive Technology" in Inclusion Classrooms-'92-'93	Automated Media Center- implemented '93-'94
Early Intervention			Grant Awarded-10/93 Implemented- '93-'94
Year Round Education			Approved- 2/94 Initiated- 5/94

As in the previous two years, staff responses to surveys included positive statements, negative statements, and suggestions for improvement. Reactions dealt with many aspects of change at the school: staff and administration, programming, practices, policies, and the building and facilities. Many statements reflected a feeling of pride in the efforts of the staff, including that of the principal, in regards to restructuring. Teachers and assistants seemed to feel that co-workers were less competitive and more encouraging of each other than had been the case previously. Some accounts indicated that specific programs had been successful. However, other comments demonstrated that a few nagging concerns (e.g., regarding discipline and the music program) were still prominent. Staff were aware that an ad-hoc task force had been formed at the school to develop school-wide discipline standards. They did not realize, however, that the music teacher was based at another school and received evaluations from an administrator at that school. The principal at Century Elementary had little input into these evaluations and had minimal control over the teacher's performance. A recapitulation of responses to the 1993-94 end-of-year survey is included in Table 9.

Table 9

1993-1994: Year Three Responses to End-Of-Year Staff Survey - A Summary of Change at Century Elementary

Aspect of School	Response: Positive	Response: Negative	Response: Suggestion For Improvement
Staff/ Students/ Principal	Principal- supportive, fair, child-advocate, treats staff like professionals. (11) Strong, innovative teachers; child-centered. (8) More staff cohesiveness; more support. (7) Students are loving.(1) Community support. (1)	Students - lack manners/respect for adults. (5) Food service workers need to work more as team. (4) Teachers too competitive; not supportive. (2) High bus driver absenteeism. (2)	Hire male teachers-role models for students. (1) Develop guidelines to select Teacher of the Year. (1) Hire clerical help. (1)
Policy/ Practice	Enjoyed change: looking forward to future at C.E. (8) Improved schedule.(6) Flexibility in staff schedules (i.e., lifespace). (3) Improved discipline. (3) Informative staff development at school. (2) Reduced number of staff meetings.(2) Grade-level planning meetings. (2)	Students "pulled out" for services too often. (3) Lack of praise for staff (by principal?). (2) Not enough time to plan or to serve new students. (2) Some situations not handled equally (by principal?). (2) Some staff members dress too informally. (2) Miss having corporal punishment. (1)	Continue to strengthen discipline school-wide. (5) Have cross grade-level meetings. (3) Use more staff input in scheduling students into classes. (2) Make "flex" library time optional. (2) Use stricter dress code for staff.(2) Make evening functions optional for classified staff. (1) Work to reduce student tardies. (1)

Table 9 (cont'd)

Aspects of School	Positive	Negative	Suggestion For Improvement
Programs/ Services	Variety of programs/ techniques meet student needs; progressive (14) Flexible library schedule; improved use of library. (8) Inclusion: grades 1, 2, and 3. (6) P.E. program. (5) Availability of math/ science and other supplies. (4) Art. (4) Chapter 1 remedial reading. (4) Improved use of technology. (4) Whole language; literature-based instruction. (2) Spanish. (2) Willingness to reevaluate programs/services. (1) Integration of curriculum. (1) Attention to student learning styles.(1)	Music program - teacher not coordinating with classroom teachers. (9) Speech/language - services not always consistent or effective. (5) Inclusion in kindergarten: not enough support. (4) P.E. program - discipline and structure too loose. (4) Guidance - not effective for all grades. (2)	Improve communication between support and classroom teachers. (2) Increase amount instructional software. (1) More skills-based vocabulary with lower achieving students. (1) Guidance: more discipline; more individualized. (1) Develop programs to challenge advanced students. (1) Start morning running program. (1)
Facility	Good building; well-kept. (3) Repaired roof; air-conditioning. (1) Increased accessibility for physically involved students.(1)	Completing construction during school time. (1) Lack accessible, private areas for phone calls. (1)	Work on bus parking area for safety reasons. (3) Keep bathrooms cleaner. (1) Clean out lounge refrigerator more often. (1)

Note. Numbers in () indicate number of statements in each response category.

The principal/researcher felt that information obtained from end-of-year survey responses each year had been helpful in assessing the programs and practices established as a part of the restructuring effort. She constructed two focus groups as a means of triangulating this information, gaining more in-depth responses, and obtaining community as well as staff input. The researcher also designed an interview protocol to be used with the groups. A university professor acted as facilitator, conducting interviews with both groups.

Before questioning the 12 teachers and assistants in the staff focus group, the facilitator established that all participants had been at Century Elementary prior to the change efforts of the new principal and that none of the respondents had been hired by the principal. The professor assured all participants that their answers would be confidential. Then she asked questions about change. Answers to the first question ("In the past three years, what changes have you observed at Century Elementary?") indicated that staff members could identify many change efforts and the purpose behind them (i.e., improving learning opportunities for students). Staff gave the principal much credit for initiating and sustaining these efforts and for encouraging risk-taking. Subsequent comments signified that a site-based decision-making process was on-going at the

school and that staff had also been instrumental in initiating programs.

In reporting results of the interviews, questions/comments by the university facilitator are identified as "Prof." Staff responses are numbered for the individual participants (i.e., 1-12). Major questions and replies from the transcript are provided but some of the prompts and repetitious answers are omitted.

> Prof: What sort of changes, if any, have occurred at Century Elementary over the past three years?
>
> 5: ...We have really jumped into technology here. [The principal] has really pushed that a lot...She is really innovative and jumping on new programs...not just for change. It is how it can benefit our children. Before that we were doing ten zillion different programs, but we were doing them because they were new and different.
>
> 10: More parent involvement.
>
> 11: Our attendance has improved...
>
> 8: I think teachers themselves have been more willing to try new things because they know [the principal] will back them. We are not afraid to step out and try new things.
>
> Prof: What new things have you tried so far?
>
> 8: Inclusion, OBE, learning styles, whole language, cooperative groups...

3: Which equal more noise sometimes and the principal before that would probably think that you didn't have control of your room. With [this principal] you're not afraid of a little noise. That is not negative.

5: I think too, that if her philosophy is not always in sync with our philosophy, she doesn't say, "well that's not the way I think you should do it." It's always, "well if that works best for you."

Prof: So even if she doesn't agree with you she will let you do what you think is right?

5: If she thinks it is in the best educational interest of the kids. And if that works for you. It fits our teaching style as well as our kids' learning styles.

The facilitator questioned how innovations got started and how they were maintained at the school. In answer several staff members indicated that staff development is intrinsic to the change process at Century Elementary.

Prof: So, would you generally all say that you feel comfortable at Century Elementary in terms of teaching the way you want to teach? (Everyone nods or says "Yes"). In terms of trying all these things, how does the change process work for you? If you take your typical example. Who starts the ideas?

3: Staff development and workshops...[The principal] really encourages a lot of staff development.

5: She is always aware of what is going on. She keeps us aware of opportunities.

Prof: When you get an idea, then what do you do?

11: Well you talk to [the principal]...You can do staff development for the whole group. Then we kind of share among ourselves ideas and start doing workshops. I'm in a math and science program here and I'm involved in training.

Prof: Did this happen before?

11: No (Several nods of agreement).

8: I figure you go on and present [your idea] to [the principal]...Last year I wanted to work with the kindergarten teacher as a first grade teacher. So we went to [the principal] and said, "this is our idea and this is how we think it would work." And she asked us all these questions. Then she said, "Why don't you try it."

3: [The principal] is real organized...she gets a lot of information and gets it passed on to us whereas in the past I don't think we were aware of all the opportunities...She has the resources...We had not had a lot of that before she came.

Prof: Do any of you feel like...there was something you wanted to do and didn't have the opportunity to do?

5: No, I think we tried all we wanted to. (Laughter)

Prof: Anything else in terms of...help...?

8: Especially this year [the principal] has tried to provide us with more planning time.

5: Yeah, I said it couldn't be done...and she did it.

3: Also, she provides us time once a week for grade level meetings...[we] get to talk, meet, coordinate, share ideas each week.

Prof: Who decides if you are going to make a change?

5: It usually comes from the staff.

3: [The principal's] usually pretty good about that...

5: She'll ask for your input and then if she has ideas, she'll share them with you.

3: We have a School Improvement Team and we usually meet with her. We discuss things and then we present them to everyone...everyone is involved.

As focus group participants discussed specific new programs at the school (e.g., OBE, inclusion), it was evident that teachers and assistants approached change in different ways. Some, like Havelock's (1973) innovators and Rogers's (1962) front-runners and early adopters, embraced the opportunity for change without hesitation. Others were skeptical at first and changed their minds as they watched the effects of the programs on students; exemplifying Rogers's later majority. Still others maintained a "wait and see" attitude like that of Rogers's laggards.

Prof: Was everybody here sold on inclusion before you did it?

(Several "no's" heard. 8 and 9: skeptical)

Prof: Okay. Where are the ones of you who were reluctant but think now maybe it's okay?

(3, 5, and 12: indicated that they had reservations but think it is okay now)

8: I was dead set against doing it, but now I am doing it but I still have reservations.

3: The thing is, we are doing it and it is great...The inclusion students have a full-time assistant...We have a coordinator who is over the program...As a taxpayer I think that is a lot of money...for three children.

The discussion about inclusion continued. Focus group participants were not in agreement about how the program was initiated. One credited a special education staff member who was the mother of a severely physically-challenged student. Another felt other parents had advocated for the program. Some respondents thought the principal/researcher had been "sold" on the program by various individuals, including parents and the director of exceptional student services. Respondent "5" noted that the principal was willing to try the program as long as she was given the support staff needed to make it successful. Participants proceeded to discuss how staff were assigned to inclusion classrooms.

Prof: When did you all and how did you all decide who was going to teach [inclusion classes]?

(Several people answered at once): They asked. Volunteers.

Prof (to number 8): You were dead set against it. Why did you do it?

8: [The principal] asked me to. I said, sure I'll try...I don't think it's good for all children. And I found out which children it would be...And she told me she would keep my numbers low. And I would have the special teacher in for about an hour and a half a day. And I thought...I'll do it.

12: If you look at it with a different slant on inclusion, a lot of Chapter 1's are doing that, but [the principal] asked me not to because she was pleased with our scores...She knows that I am willing to do inclusion if she wants me to, but now she is saying , "no this is working, let's not change it"...To me that shows...she is willing to try what she thinks is best for the children involved.

Prof: So she is not hooked on a program more than she is hooked on something being good for kids?

(Several answer): Right. Yes.

Prof: In addition to the School Improvement Team, what kinds of structures are in place that promote change?

11: She has an end-of-the-year survey to get how we feel about programs and the school in general. She really does use the information on there for the next year...One of the big requests from last year was more planning time because we didn't have that and this year we got that.

2: She always had an open door policy if you had something you wanted to say to her. Even after a teachers' meeting you could discuss with her one-on-one. You know she is your friend, because when you go to [her] you know it is not going to be like you're going to pay for thinking this way.

Prof: So do you all feel safe speaking your minds? Safer than before?

(Several people with laughter): Yes!

At this point, the facilitator moved the discussion to a consideration of factors that limit change at the school. She also asked questions about possible benefits of change. Obstacles listed by participants were consistent with those mentioned in the literature: primarily time and money. Benefits specified by staff members included better teaching and higher morale. However, staff were not sure that student achievement was higher as a result of the changes.

Prof: What benefits do you see in the changes over the past three years?

11: Better teaching, more exciting and active. Teachers are doing more hands-on activities.

3: Better morale for students and teachers.

Prof: Is it generally agreed that things have changed for the better?

(Affirmatives from everyone)

5: Everyone is working harder.

2: I like to see planning and working together as a team because it saves time. Teachers are teaching smarter.

12: Teachers work later and stay later. [The principal] is here too. It is not unusual to see her here at 6:00 [p.m.].

Prof: Are the kids learning more?

5: I think so.

7: They look happier.

11: Attendance is up and they seem to enjoy school, so that is an important start.

12: [The changes] seem natural now especially for the third-graders who have been through them.

The university facilitator probed participants to get an idea of disadvantages or negative effects of the change efforts at Century Elementary. Staff members maintained that the opportunity for change, for collegiality, and for increased professionalism had prevented "burn out". However, they admitted that some role confusion existed as a result of the different initiatives. And there was some animated discussion involving the shift in disciplinary methods which had accompanied the principal's other change initiatives.

Prof: What is the down side to what is going on at Century Elementary?

11: We are not understanding what everyone else is doing and it can be very stressful. (Others agree)

Prof: What about discipline changes?

6: Discipline is more relaxed now. It is a lot less structured. There are pros and cons to that. The pros are that the kids seem happier and freer with more smiles in the morning. The cons are what comes natural to kids in that environment. They take advantage...In a lot of instances, the adults don't have the control and respect that should be there.

8: We are still setting the ground work. There are more consequences and more consistency than the first year [the principal] was here.

11: We have formed a task force here to work on discipline.

3: It was hard for [the principal] the first year. She thought that she could save them and the world...It is better this year. She wants the students to keep their self-respect, dignity, and ego.

2: When she came, that was the end of corporal punishment.

3: But she did try in-school suspension as a consequence.

12: She is firm and gives them a good talking to, but that's all they get. At least you feel like she tries to talk to them and make a difference.

4: She does follow through.

11: We have "Saturday School" and she would come in and so would the parent. She is trying to revise this.

5: Another thing is she makes sure the punishment fits the crime. She caught some students playing in the bathroom so they had to clean up the bathrooms.

Prof: Are any of you on the verge of burnout?

8: Before you can get tired of something, you can start something new.

2: Teachers can pool ideas to keep you fresh.

The facilitator asked next for information relating to parents and the change process. Some questions involved parental awareness of and feelings about specific changes. Other questions dealt with the different ways school staff related to parents as a result of the restructuring process. Responses to these questions were vague and general, possibly reflecting the fact that parents were not highly involved in decision-making or restructuring efforts at the school.

Prof: How do parents feel about the changes? Have they noticed what is going on in the classroom?

11: At first they didn't understand some things... We tried to work with the family. We had a family

night to do some of the hands-on activities we do in the classroom.

Prof: Are parents happier?

5: Some are.

3: That is hard to say with some parents. Some people you can never please.

Prof: Is there a difference now in the way you deal with parents since [the principal] has been here?

5: [The principal] is like a mediator.

3: She is good at working with parents. She can handle them well...knows the right things to say.

Prof: Have parents instigated any of the changes? (There were no responses relevant to the question)

Staff replies to the focus group interview questions were consistent with many responses to the annual end-of-year surveys and the in-depth interviews with the key informants. Teachers and assistants listed a variety of innovations in place at the school. They stated repeatedly that the purpose of these interventions was to improve student learning. Many individuals saw the principal as a facilitator for the implementation of new programs and practices, a supporter of risk-taking, and a provider of various resources (including time, staff development, and

money). Most responses indicated that morale was higher for students and staff following the introduction of specific change initiatives. And distinctive aspects of a site-based management process were mentioned.

Comments regarding competition and non-support among staff members were omitted from focus group responses. Since this was a face-to-face discussion among participants, it is unlikely that co-workers would have felt comfortable making such statements. Staff had also reported, on end-of-year surveys, improved relationships among co-workers by the end of the third year of restructuring. On the other hand, many comments made during the interview indicated that individuals were not hesitant to report that they were still disturbed by the principal's approach to student discipline.

Remarks made during the staff focus group interview demonstrated that a majority of the teachers volunteered to participate in project positions and responsibilities initiated as part of the restructuring effort. By the end of the third year, most teachers employed on a full-time basis at Century Elementary had become involved to some extent in these change initiatives. The areas of participation for the various faculty who were were still on staff at the school at the close of the study are shown in Table 10. As mentioned previously, there were several changes in personnel during the research period. Table 11 illustrates

the movement of teachers and assistants out of and into Century Elementary during the three years of the study.

Table 10
Identification of Teacher Involvement in Various Change Initiatives

Teacher/ Duty	Yrs.at School	Initiatives								
		OBE	LS	Incl	E.Int	M/S	Sch	Peer	Tech	Total
A-KIND.	4	X	X			X				3
B-KIND.	2									0
C-KIND.	3			X		X				2
D-FIRST	4	X	X	X		X	X			5
E-FIRST	2	X		X	X	X	X	X		6
F-FIRST	6					X	X	X		3
G-FIRST	5			X		X	X			3
H-SECOND	17			X		X	X			3
I-SECOND	2			X		X	X			3
J-SECOND	3	X				X	X			3
K-THIRD	2		X	X		X	X	X		5
L-THIRD	1					X	X	X		3
M-THIRD	17	X		X		X	X	X	X	6
N-THIRD	7			X		X	X	X		4
O-P.E.	1	X		X				X		3
P-GUID.	3							X		1
Q-MEDIA	4						X		X	2
R-SP.ED.	10		X	X						2
S-CHPT.1	5									0
T-SP.ED.	6			X						1
U-SPEECH	5		X	X						2
V-A.TECH.	3			X				X	X	3
TOTALS		6	5	14	1	13	12	8	3	63

Note. OBE = Outcome Based Education; LS = Learning Styles; Incl = Inclusion; E.Int = early intervention; M/S = math/science projects; Sch = "flexible" scheduling; Peer = "peer helpers"; Tech = use of technology in media center and in assistive technology. "A.Tech." = assistive technology staff position.

Table 11
Time-Ordered Matrix: Changes in Staff at Century Elementary(C.E.)

Conditions: Staff Leaving C.E.	End of First Year 1991-1992	End of Second Year - 1992-1993	End of Third Year 1993-1994
Requested Transfer Out		"K" Teacher- Vet. 18 yrs. at C.E. P.E.Teacher- Vet. 4 yrs. at C.E.	
"Forced" Resignation		Teacher Asst-Vet. 2 yrs. at C.E.	Spec.Ed. Teacher Vet. 6 mos. C.E.
Non-Renewal	2nd gr. Teacher - ICP-1 yr. at C.E.		
Promotion		1st gr.Teacher to Asst. Principal - (5) Yrs. at C.E.	
Resignation for personal reasons	3rd gr. Teacher - Veteran - 2 yrs. at C.E. Spec.Ed. Teacher- Vet.1 yr. C.E. Spec. Ed. Asst. - Vet. 4 yr. C.E.		

Conditions - Staff Hired	Beginning of 1st Yr. - 1991-1992	Beginning of 2nd Yr. - 1992-1993	Beginning of 3rd Year - 1993-1994
Requested Transfer In		1st gr. Teacher - Veteran	Spec. Ed. Teacher-Vet. P.E.Teacher-Vet.
Promotion			T.A. to Teacher
Replacements/New Positions to C.E.	2nd gr. Teacher - 1st yr. Teaching Teacher asst. - 1st yr.	"K" Teacher-1st yr.Teaching 2nd gr.Teacher- Vet. 3rd gr.Teacher - 1st yr.Teaching 2 - Reg.Ed.Teach. Assts.- 1st yr.	3rd gr. Teacher- 1st yr.Teaching 2 - Reg.Ed. T.A.- 1st yr. 2 - Spec.Ed. T.A. 1st yr. 1 - Spec.Ed. T.A. Veteran

Note. "T.A." and "T.Asst." = teacher assistant; "ICP" = initially certified personnel (teachers in their first or second year of teaching); "Vet" = veteran teachers. Teachers generally left/resigned at the end of the school year and were hired at the beginning of the school year. "Forced" resignations followed documentation by the principal of inadequate staff performance.

On the same day that she facilitated the focus group process with staff, the university faculty member conducted a focus group composed of parents of Century Elementary students. The facilitator began by validating that all parents had a long-term involvement with the school that predated the arrival of the principal/researcher. She then asked if parents had noticed any changes at Century Elementary during the previous three years. Most of the ensuing conversation focused on the inclusion program (there were many comments pro and con) and merger. Many of the responses illustrated the fact that parents are often confused about educational procedures; that parents are frequently left out of planning and implementation processes at Century Elementary. Comments/questions generated by the facilitator are identified by "Prof." Responses by participants are numbered for each individual (i.e., 1-9).

> Prof: In the past three years, what changes have you observed at Century Elementary? Have there been any changes at the school?
>
> 3: Inclusion program.
>
> 6: The inclusion program has worked really well.
>
> 7: My son has been in an inclusion class. He didn't require resource, but he needed just a little bit of edge, you know, to help. And inclusion has really done him well. He has achieved a whole lot higher.

3: I was a special education assistant with inclusion here. Inclusion is something that may have met with controversy, I think. It's something that [the principal] started and there are some... wondrous things about the program itself... (Describes a previously self-contained setting and how differently-abled children had enjoyed being moved into an inclusion room). [The children] thrived off it. It was, I think, more scary for the adults than it was for the other children...I think the only negative aspect of it has been that there are some children that will never be ready for inclusion... So that is something that I have seen the principal do a wonderful job with...

Prof: Does everybody agree with that? (Most people nod). With inclusion, it is fairly controversial in that your kids that are not special ed. are now going to school with kids who are special ed. Were any of you skeptical about that in the beginning? Were any of you reluctant about that happening?

7: I was glad. My daughter talks about it all the time. I don't know the child that is in her class, but it makes them not afraid of other handicapped children.

4: (Tells another "success story" of her daughter working with a handicapped student and no longer being afraid of handicapped individuals).

2: I have not been involved with it personally... but I know there are some parents who don't think of it as a positive. In some cases they may feel like it is going to hold their child back...

Prof: As you think of the process of introducing that program and how you as parents were affected, how was it done in terms of creating change in the school? Did you just suddenly find out it happened?

9: It just happened. But it happened that way system wide. I don't think any school prepared people well enough for it.

3: I don't think the parents were approached with the idea...It was great confusion. We heard a lot of flack especially with the more severe kids... Some didn't realize that an extra assistant was going to be in there...

5: I think that it's good. My girlfriend's children come home with me in the afternoon. There are two handicapped children...three in wheelchairs. They love them...talk about them all the time.

3: There were parents that pulled students out of classrooms if they knew inclusion was going to take place.

Prof: What other changes have you noticed?

3: Consolidation, year round schools.

6: I have a comment on consolidation. I don't understand. I haven't seen anything better yet. They don't even have enough money to pay the teachers. (Note: this was an inaccurate statement. Additional statements were made by parents expressing dissatisfaction with and confusion about merger.)

The facilitator worked to redirect parents to address specific changes in instruction and programming at Century Elementary. Parents made many statements that indicated bewilderment about new teaching strategies. Finding it difficult to discuss educational techniques, parents kept

returning to a deliberation of the principal. They were fairly consistent in emphasizing that the principal's first priority was the teaching and safe-keeping of students, even if they did not agree with all her decisions.

> Prof: When you think about the way it was [before the principal/researcher came] and the way it's moved, can you think of how it might or might not have been different from the way it used to be? In terms of the programs, in terms of your roles in the school, how the teachers work, in terms of how the kids are taught?
>
> 6: Kids are learning more...All this great stuff. I understand this. But what I worry about is that they don't concentrate on the little words, ..."the" ..."was" and stuff like this. They don't go back to them and I wonder if when they get older are they going to know the great big long words and not the little bitty ones.
>
> Prof: Is that the move to whole language?
>
> 6: Yes, when they went to using words that they are reading about and studying about and not using their spelling books. I wasn't crazy about the spelling books...
>
> Prof: How do you feel about the way that the children are taught now compared to the way they used to be?
>
> 4: Do they not teach phonics anymore?
>
> 1: Back and forth. It varies from teacher to teacher.

Prof: So you don't really notice a difference in the way they teach language arts or math or other subjects? (Note: parents do not answer this question. Instead, they revert to discussing the principal).

3: I think that [the principal] has been a good morale booster...She is very much behind the staff...She is definitely out for change whether it is radical like inclusion. I don't know if that is good or bad...What is best for the school and what is best for the children.

2: I think [the principal] is more involved with the curriculum than principals in the past...

6: It helps a lot that she has children, too. I mean before, you tell them something and they might say "Okay" (laughter around table).

4: She seems to notice when children are having problems too. (Reports an incident involving her daughter where the principal saw a problem and helped the child, notifying the mother).

Prof: Are you invited to participate more in school activities?

1-9: Yes!

Prof: Tell me about the differences you see.

8: I was going to say she is real strict on people coming in. Not just anybody can walk in and come into the classroom.

6: That's one thing when [the principal] came she was very strict on...You used to be able to walk into the child's room and get the child out and nothing was said. Now it is. Which is good because

it does not disturb the teachers teaching the child.

4: Yeah, I was real offended by it at first. I thought, "this is my child and you will not stop me from getting my child." But if you think about it, it could be an intruder in the school and you realize that it is not such a bad idea.

3: She's a great mediator.

Prof: Is that different from what you had years before?

1-9: Yes.

4: She will talk to you. You might not like what she says, but, you know she hears your issue no matter what side she is on. She hears you and tells you her side.

3: She also voices a lot more than I heard from other principals that "it's your child and you make the difference...I need you in here with the teacher"...With her here, the kids are first, the parents are second.

8: She will really get in and get involved with problem solving [in working with the parent and teacher].

Prof: Aside from the inclusion program, have any of you heard of some things that are going on in the classroom that are unusual or different? Learning styles, whole language, any of that?

6: My daughter was in a class where they do the stations...she seemed to like that...I don't know that she learned any more.

9: I've seen cooperative groups, learning styles...very active.

3: Hands-on science.

Prof: How has that happened or why has that happened?

3: [The principal] has implemented a lot of this. Plus we have new teachers with good ideas...[The principal] says, "let me hear it and if the kids are going to learn then go ahead with it." I know that would not have happened prior to her being here. Another thing that [the principal] took away is paddling. Some disagree and some agree...She had been with older children and she came down here thinking that she could love them and not have to punish them. That first year was rough, but then she has turned discipline around. She does not have to paddle them. They respect her and they know that she is going to carry through with what she told them she was going to do...She has controlled some of the discipline problems that we have had.

6: I had always signed a paper that you were not to put a hand on my child anyway. But when I came to her to sign the piece of paper, she said, "I don't do it anyway." It worked for me.

Shifting the direction of the interview, the facilitator asked the parents if they felt they had been responsible for any changes at the school? The only response from the group was that many of the parents and business partner employees volunteered at the school, particularly with the reading program.

The facilitator completed the group process by asking if there was anything that made change at Century Elementary difficult. She also asked if there were things that parents felt they needed or could use to make change easier. The parents echoed the teachers and assistants by first stating that money would makes changing easier. They also said that trees separating the playground from the highway and an improved parking situation would be helpful. When asked who would be most likely to spearhead the effort to make these improvements, they indicated that the principal would be responsible.

Parent responses indicate that many of these stakeholders were uninformed about and uninvolved with changes during the three years of restructuring. At the same time, the parents interviewed seemed to agree that they were more immersed in their children's education than had been the case prior to the arrival of the principal/researcher. As a means of examining the level of parent/community participation in school activities, the researcher compared records of attendance at school events and volunteer hours given to the school during the last two years of the research period. She also explored the results of a community survey sent to parents during the winter of 1991, when restructuring efforts were just beginning.

The community/school relations survey asked 12 questions pertaining to the public's perception of Century Elementary School. It was distributed as part of the Southern Association of Colleges and Schools (SACS) 10-year accreditation process. The response rate for the survey was 29 percent. According to survey responses, the major concern expressed by respondents addressed a lack of awareness on the part of the community regarding educational programming; a problem that was still apparent at the end of three years. (see Table 12).

Table 12

Results of Community/School Relations Survey: Winter 1991

	Responses		
Questions	Favorable	Neutral	Unfavorable
1. The mission of the school in our community is clear.	79.0%	17.1%	3.8%
2. A high quality of education	73.0%	19.3%	6.7%
3. Parent involvement is evident in our school.	80.4%	12.7%	5.9%
4. School goals are consistent with local values.	78.9%	19.2%	1.8%
5. The community is aware of programs in our school.	64.5%	25.0%	10.5%
6. Parents feel welcome in in our school.	92.2%	3.9%	2.9%
7. The school administration is accessible to parents.	82.6%	13.6%	1.9%
8. Students in our school are motivated to do their best.	82.6%	15.5%	1.9%
9. Community input is collected and considered in decisions.	60.2%	36.9%	2.9%
10. A complete curriculum is being implemented.	70.8%	24.3%	4.9%
11. High expectations for students are evident.	85.7%	9.5%	3.8%
12. Strong leadership is evident.	84.9%	11.3%	3.8%

A comparison of volunteer hours recorded at Century Elementary during the second and third years of the study shows a decline in participation at the school over that time. Parents and community volunteers "signed in" for approximately 906 hours, during the 1992-93 school year. That number dwindled to approximately 700 hours the following year.

In contrast to the decline in volunteer hours, attendance at scheduled parent conferences rose at Century Elementary in 1993-94. Each November, the school system arranged and publicized a parent conference day. In 1992, 64% of the students in grades pre-kindergarten through third had parents who attended the conferences. In November 1993, this number rose to 79%.

Attendance at Parent Teacher Organization (PTO) meetings also increased at the school over the course of the study period. Three PTO meetings were held each year; once in the fall, once before the winter holiday break, and once at the close of the year. Numbers of parents who "signed in" at the meetings demonstrated an increase in participation of 162% from the 1991-92 to the 1992-93 school year. Attendance decreased slightly during the 1993-94 school year. However, there remained a 155% increase in attendance from 1991-92 to 1993-94 (see Table 13).

Table 13

Summary: PTO Attendance at Century Elementary From 1991-1994

Grades	1991 - 1992	1992 - 1993	1993 - 1994
Pre-Kindergarten and Kindergarten	95	134	152
1st Grade	56	175	179
2nd Grade	105	130	87
3rd Grade	90	127	119
Exceptional Children	2	2	2
Annual Totals	348	565	539

The contrasting data make it difficult to draw conclusions relating to trends in parent and community involvement during the study period. Many of the volunteers at Century Elementary were employees of the company which had "adopted" the school. The number of volunteer hours may have fallen as a result of financial difficulties experienced by the business partner employees. Early retirements were being encouraged and some employees had been "laid off" by the company, reducing the number of business tutors available to the school. Participants of both focus groups commented that the school might have to recruit a new business "adopter" for this reason.

Many teachers had begun to use student-led conferencing techniques by the third year of restructuring. This practice

could be one reason for increased attendance at parent conferences. A more open attitude and enhanced system for communicating with parents (alluded to by parent and staff participants in focus groups) may have contributed to greated attendance at PTO meetings and parent conferences.

Several instructional programs that were instituted during the restructuring period, whether they were recognized and understood by parents or not, received much attention outside the school. Inclusion was one very visible program that gained much attention, both positive and negative, from people inside and outside the school environment. Inclusion represents a major shift in service delivery for differently-abled students and requires a huge investment of resources (in staff and materials) in order to succeed. For these reasons, this approach has been the center of much discussion and some litigation at local, state, and national levels. Despite its controversial nature, the inclusion strategy at Century Elementary, together with a similar procedure at the near-by intermediate school, was recognized by many as a "model program" by the end of the 1993-94 school year. The State Department of Public Instruction invited several staff members from both Century Elementary and the neighboring intermediate school to a meeting in September 1993 for the purpose of developing a "best practices" manual for

inclusion. Employees from one other school in the state were also invited to participate in the meeting. By June 1994, 10 different associations/school systems had sent representatives to visit Century Elementary's inclusion settings.

The following is a portion of a letter sent to the principal/researcher, written spontaneously by a principal who had brought several groups of teachers to the elementary school to experience inclusion:

> I wish to thank you and your entire staff for allowing our teams to visit your school on three different trips. You are to be commended for the innovative and progressive program you have developed in Inclusion. We have visited many programs in the state but yours is the best example of special students being included in regular class activities.

A post-card sent to the principal/researcher by a visiting teacher expressed similar perceptions of the program:

> Thank you for the hospitality that you and your staff extended to our group. Your inclusion practices are exemplary!

Two other initiatives involving the media center drew additional visitors to Century Elementary. The change from "fixed" to "flexible" scheduling allowed teachers to program time as needed for group and individual research as well as for classroom projects. Designed to make the media center

more accessible to students and staff, the schedule caused some controversy among teachers. Each year, several individuals commented that changes in scheduling had been helpful. And each year, other employees stated that they would like to be able to choose fixed library times for their classrooms; sometimes commenting that it was too difficult to remember to schedule flexible times each week. Everyone at the school, however, appeared to appreciate the second innovation; the move to automated catalog and circulation systems. These two changes were seen as very innovative by other schools within the newly-merged system. By May 1994, Century Elementary had hosted visiting teams of media specialists or media advisory committees from five different elementary and intermediate schools within the county.

Century Elementary's participation in the GAMSEC: First Project also came under "outside" scrutiny. The Eisenhower Education Grant project guidelines stipulated that site- and project coordinators assess the level of commitment and success of the various schools involved in the math/science program. As part of the evaluation, each participating school completed needs assessment forms, developed school improvement plans, and answered post-project surveys. Although the evaluation report for the project provides general results and trends rather than findings for

specific, identified schools, some of the conclusions seem relevant for Century Elementary.

In presenting factors related to GAMSEC outcomes, Franklin (1993) stated that Highest Progress Schools (HPS) in the study: a) were smaller than Lowest Progress Schools (LPS) and had a mean student enrollment of 415; b) were not identifiable in terms of ethnicity of students; c) had fewer poor students than did LPS; and d) had lower turnovers in "team" members than did LPS. Franklin also found that principals of HPS were more likely to be female than were LPS principals. HPS principals were highly involved in the project; providing resources, arranging for planning time, assisting in writing the improvement plan, and replacing team members when they left. Franklin stated that an unexpected outcome of the evaluation was that the HPS tended to be involved in projects that competed with GAMSEC for time and resources. LPS were most often not involved in other projects or change initiatives. Century Elementary has many factors in place that are representative of HPS as reported by Franklin (1993): a female principal who was highly involved in the GAMSEC process; a student enrollment of little more than 300 students; and commitment to a large number of competing projects.

The GAMSEC evaluation report relied heavily on personal accounts of lead teachers and other staff members along with

observations made by site-coordinators in assessing which schools were HPS and which were LPS. The researcher decided that trends in student outcomes at Century Elementary must also be considered in determining whether it is indeed a Highest Progressing School (HPS).

The principal/researcher examined student outcomes in the areas of attendance, discipline, and academic achievement. In focus group interviews, parents and staff consistently stated that students appeared to be happier at school and seemed to attend more regularly as a result of restructuring. Data collected at Century Elementary for the school system verified the impression that attendance was improving, although changes in attendance were small over the three years of school improvement efforts (see Table 14). By the end of the 1993-94 school year, Century Elementary ranked second of 26 schools in the merged system in regards to attendance. The other elementary schools in the city zone ranked 15th, 18th, and 19th.

Table 14

Summary: Attendance Data for Century Elementary

1990-1991	1991-1992	1992-1993	1993-1994
93.9%	95.6%	95%	96%

Staff consistently indicated dissatisfaction, on end-of-year surveys and in response to focus group questions, with new disciplinary measures taken by the principal at Century Elementary. A firmer approach and stricter guidelines were frequently called for, particularly during the first two years of restructuring. During the third year, there was some consensus that discipline was gradually "improving" (i.e., getting "tougher"). However, one staff member maintained that she missed the use of corporal punishment at the school. Trends in the use of in-school suspension (ISS) and out-of-school suspension (OSS) as disciplinary techniques, reported to the central office on annual, mandated reports are presented in Table 15. Also included in Table 15 is the annual number of weekends that the principal held "Saturday School" as a disciplinary measure. During Saturday School, parents were required to sit in the conference room with their student (rarely did weekend detention involve more than one student) for one hour, completing teacher-made assignments. The principal remained in her office, working on various projects, during these sessions. Table 15 illustrates the fact that different disciplinary measures were used in varying degrees over the three-year period; with ISS and Saturday School ultimately being used more than OSS.

Table 15

Summary: Discipline Data for Century Elementary

Disciplinary Measures	1991-1992	1992-1993	1993-1994
ISS (number of cases)	32	13	65
ISS (number of different students)	18	9	33
OSS (number of cases)	4	14	8
OSS (number of different students)	3	9	8
Saturday School (number of weekends)	4	3	12

The researcher examined kindergarten screening scores (on pre- and post-administrations of the locally-constructed, criteria-based kindergarten inventory) as a method of determining gains made by kindergarten students each year of the study. Table 16 outlines pre- and post-test means for individual classrooms of kindergarten students for each year. The inclusion of differently-abled students into one kindergarten class during the 1993-94 school year and the turn-over in staff may have affected scores.

Table 16

Pre- and Post-Test Means for Kindergarten Classrooms at Century Elementary

	Classrooms									
	A		B		C		D		E	
Year	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
1991-92	13.6	35.7	13.5	33.4	13.5	35.4	17.2	41.9	-	-
1992-93	-	-	14.1	33.4	18.4	39.9	14.8	39.0	15.9	34.6
1993-94	-	-	-	-	11.9	26.3	16.7	35.3	19.4	41.6

Note. The teacher in classroom "A" moved to a pre-kindergarten position at another school in 1992-93. The teacher in classroom "B" requested a transfer to another school in 1993-94. The teacher in classroom "E" was a first-year teacher hired by the principal at the beginning of the 1992-93 school year. "C" was an inclusion classroom in 1993-94; scores of differently-abled students are included in the total.

In further examining progress made by kindergarten students over time, the researcher compared the numbers of students who were below the mean for pre-test and post-test scores each year on the kindergarten inventory. The researcher found that: in 1991-92, 27.8% of the students moved above the school mean; in 1992-93, 9.6% moved above the mean; and in 1993-94, the number was 14.6%.

End-Of-Grade (EOG) test scores, reported by the state and disaggregated by central office staff, also relate to student achievement during the research period. State EOG tests were first mandated for the 1992-93 school year and were administered to third-grade students at the school in

the spring of 1993 and in the spring of 1994. Therefore, two years of test scores are available, for third-grade students, for the restructuring period. The researcher acknowledges that these data are very limited. Since End-Of-Grade testing begins with third grade, there is no way to compare Century Elementary third graders as a cohort. Comparisons between different groups of students are not a valid means of determining achievement. However, it is reasonable to examine the disaggregated scores in analyzing the achievement of various segments of the student population as a possible result of restructuring. Table 17 provides a comparison of the percent of students scoring at or above grade level (designated as Levels III and IV on the EOG test reports) at Century Elementary with the percent of students state-wide who scored at or above grade level for each of the two years the EOG test was given. Results are broken down by academic area (i.e., reading and mathematics) and population (i.e., Female-White, Female-Black, Male-White, and Male-Black).

Table 17

Percent of Students Scoring At or Above Grade Level on End-Of-Grade Tests

	1992-1993						1993-1994					
	Reading			Math			Reading			Math		
Population	C.E.	State	Diff.	C.E.	State	Diff.	C.E.	State	Diff.	C.E.	State	Diff.
All Students	45	59	-14	44	60	-16	41	60	-19	42	60	-18
Female-White	75	75	0	83	71	+12	48	76	-28	71	72	- 1
Female-Black	26	48	-22	17	40	-23	39	49	-10	26	40	-14
Male-White	58	67	- 9	67	67	0	50	68	-18	40	69	-29
Male-Black	37	35	+ 2	26	35	- 9	25	36	-11	31	32	- 1

Note. C.E. = Century Elementary. "Diff." = the difference between Century Elementary and State test results. Data for the "All Others" population are omitted from the table. Results were available for two students in this category in 1992-93; for four students in 1993-94.

Test results indicate that, overall, students at Century Elementary scored below students state-wide in the areas of reading and mathematics for both years of testing. An analysis of sub-population scores shows that, in 1992-93: a) a higher percentage of white females at Century Elementary scored at or above grade level in the area of mathematics than was true for that population state-wide; b) white males at the school scored commensurate with their comparison group in mathematics; c) white females scored commensurate with their peers state-wide in reading; d) black males at Century Elementary surpassed their peer group in reading skills; and e) all other populations demonstrated achievement levels which fell below those of the state. End-Of-Grade test scores also indicate that, in

1993-94 all sub-populations at Century Elementary fell below their state-wide comparison groups in reading and math scores. The population composed of black females was the only group to improve in reading and mathematics in the second year of testing.

Differences in student achievement over time, as reflected in the End-Of-Grade scores, may be due to differences between the two groups of third-grade students that were tested. The scores may also reflect the fact that an increased number of "inclusion" students were tested within the "regular" classroom during the 1993-94 school year. There is also a possibility that the scores point to a failure of the school improvement initiatives to increase student achievement at Century Elementary. However these scores are interpreted, it is clear that many members of the student population at Century Elementary continued to be highly at risk of academic failure at the end of the study period.

End-Of-Grade test scores and kindergarten inventory gains are not sufficient for determining the impact of school improvement efforts on student learning. These assessments were not designed to measure the results of specific initiatives put in place at the school. Rather, they are tools created prior to restructuring (the kindergarten inventory) or are standardized tests developed

at the state level (EOG). Such methods of accountability, according to David (1991), put teachers in a "time warp". Educators interested in reform are being asked to teach higher-order thinking skills and problem-solving to their students. However, traditional or imposed measures of accountability often emphasize rote memorization and coverage of content. Eisner (1993) maintained that such tension over accountability "suggests that school restructuring should consist in large part of inventing individual and school-level indicators of performance that reflect what teachers and administrators are trying to accomplish, rather than what external authorities think they should be accomplishing" (p. 23).

On the other hand, using purely qualitative measures to determine the success of school improvement efforts can be as misleading as the sole use of test scores. Huberman and Miles (1984) caution that individuals involved in a joint restructuring effort may exhibit "consensual delusions". That is, "in order to justify the effort expended [participants may see] more results than are objectively there" (p. 229). Huberman and Miles give the example that participants may report improvements in student attitudes and achievement when there is little hard evidence to support these assumptions.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

This case study traces the change process at Century Elementary School over a three year period. From the fall of 1991 through the spring of 1994, the researcher examined the effects of change on students, staff, and school culture while employed at the school as its first female principal. This unique position allowed the principal/researcher to participate in the initiation and implementation of various restructuring efforts. It also allowed her to access data related to the change process that would have been unavailable to researchers with time or financial constraints.

The researcher collected and analyzed data from six sources as a means of triangulating information and reducing researcher bias. These sources included: a) interviews with three key informants; b) annual, anonymous staff surveys; c) End-Of-Grade (EOG) test results; d) kindergarten screening results; e) unobtrusive measures including informal observations of and conversations with staff as well as the examination of a variety of documents; and f) transcribed

notes from two focus groups, one composed of parents and another composed of staff members.

In conducting this study, the researcher focused on an investigation of power shifts within the organization, changes in teaching strategies, structural transformations within the school environment, and shifts in cultural norms of the school. Four research questions addressed specific issues which formed the boundaries of the case. The questions together with findings relating to each inquiry follow:

1. Are staff members consistent in their conceptions of: a) the major source(s) of change; b) the reason(s) for initiating change; c) support structures for change; d) barriers to change; and, e) benefits/liabilities of initiating the various programs/changes?

As the researcher examined the conceptions held by staff regarding the multi-faceted change process, she found reports to be surprisingly consistent. Staff members related that both the principal and staff were responsible for initiating change. Specifically, the principal was instrumental in initiating: GAMSEC, Learning Styles, "flexible" scheduling, a focus on technology, site-based decision-making, and changes in student discipline.

Individual teachers or teacher teams promoted and/or initiated: a learning styles research project, SAMS, parental choice of teachers, inclusion, several scheduling improvements, the peer helper program, an early intervention project, the change to a Year Round Education calendar, and several grants. Both veteran and "new" teachers worked together in implementing the various change strategies. There was no pattern, in tracing teacher participation in projects (see Table 10), that differentiated between veteran and new teachers and their level of involvement in restructuring.

Consistently, teachers and assistants stated that improved student learning and a more individualized approach to instruction were the basis for change at Century Elementary. Staff reported that the principal would allow much flexibility as long as the students stood to benefit. Parents also reported that the principal's criteria for initiating change were student-centered; focusing on student safety and educational gains. This finding is in line with work done by Huberman and Miles in 1984. Those researchers determined that improved instruction and better school management, rather than problem solving, were basic motivators for change for both teachers and administrators.

Staff members were very consistent in enumerating the different support structures they felt should be in place to

support change and those that were actually in place at the school. Key informants agreed that time for planning and communicating with peers, money for resources, staff development, and administrative support were essential for successful change. At the beginning of the restructuring effort, however, money and supplies were scarce, planning time was not included in the schedule, but the administrator was supportive. That was sufficient for initiation and initial use of several innovations.

To ensure successful implementation and routinization over time, additional support structures had to be institutionalized. Soliciting staff input, the principal made changes in the schedule and purchased needed supplies. She provided time in the weekly schedule for planning and collaboration and created a central supply room. The principal was awarded an Eisenhower grant for the purchase of science and math manipulatives/equipment.

As recommended in the literature (Daresh, 1987; Fullan with Stiegelbaur, 1991; Hoyle, 1974; Huberman & Miles, 1984; Lezotte, 1989), the principal contracted for and made available a variety of staff development opportunities specific to certain school initiatives and needs. She offered training to all staff members, thereby helping to create shared "cognitive maps" (Miles, 1993) and goals. In the case of the GAMSEC project, teachers trained their peers

in new teaching strategies; as recommended by Sparks and Loucks-Horsley (1989).

The researcher found that projects were more successful in situations where staff development was on-going (e.g., GAMSEC). The OBE project involved initial staff development but little follow-up. This program did not progress as expected. In situations where no staff development was made available (e.g., concerning new disciplinary measures) the principal found staff to be compliant with new measures, but not committed to the procedures.

The researcher/principal also found that employing site-based management techniques enhanced the success of school level initiatives. She put together a school improvement team and encouraged shared decision-making (and was occasionally "out voted" by staff members on issues concerning specific initiatives). The principal also modeled risk-taking; establishing a culture that encouraged mistakes as a part of the learning process. She used volunteers whenever possible to increase staff ownership in change initiatives.

The principal obtained input from staff to find and solve problems as school improvement efforts progressed. Using end-of-year surveys, annual reports, focus group responses, interviews, and unobtrusive measures, she obtained needed information and monitored results of the

process. These actions were recognized by staff as positive and supportive aspects of the change process.

Factors which limited successful change at Century Elementary, as reported by staff and observed by the researcher, were consistent with those enumerated in the literature. Value, power, practical, and psychological barriers (Dalin, 1978) were all evident during the restructuring period. Staff concentrated on lack of money and materials (examples of practical barriers) in discussing hurdles to change. They also mentioned lack of administrative support (a power barrier) as a potential limiting factor. Value barriers in the form of control issues (e.g., regarding new disciplinary measures and learning styles) and psychological barriers in the form of fears (e.g., of the unknown or of placing differently-abled students into regular classes) were also apparent.

Staff reported specific benefits and liabilities that they felt resulted from the restructuring efforts. Benefits included: a) students that were happier, coming to school more, and probably (staff were not sure) learning more than they had prior to the principal/researcher's arrival and the onset of restructuring; b) improvements in most instructional programs; c) better communication with colleagues; d) more input into decision-making; e) improved scheduling; f) additional materials; g) harder working

teachers; h) a more nurturing environment for students; i) improved morale; and, j) fair policies.

Liabilities listed by staff members differed according to the year and included: a) problems with discipline; b) continuing problems in some instructional areas; c) staff competition, jealousy, and friction which escalated in the second year but improved by the third; and, d) confusion among staff regarding new roles and responsibilities.

2. Have there been improvements in student/staff outcomes (e.g., attendance, test scores, disciplinary statistics, attitudes, increased collegiality) that can be documented as having occurred following the specific change initiatives?

Quantitative student outcomes were varied. Attendance improved slightly over the three year period. Data on disciplinary reports indicated that more students received in-school suspension and Saturday School at the end of the study than during the first year. Fewer students received out-of-school suspension in the third year. Student gains on kindergarten inventory scores did not reflect a set pattern of achievement. End-Of-Grade test scores demonstrated that, at the end of the study period, students at Century Elementary continued to be at risk of academic failure in

reading and mathematics when compared to their peers statewide.

Qualitative data provide a more optimistic view of the change process and its results. The researcher's observations and access to much anecdotal information, together with staff responses to surveys and interviews, confirms that teachers were working harder, using improved instructional strategies, communicating more effectively with their peers, and experiencing improved morale at the end of the research period. Many reports (provided by staff and parents and confirmed by administrative observations) indicate that students were happier and more involved in the educational process after three years of restructuring than they had been previously.

3. Has the principal at Century Elementary followed "good practice" in initiating and supporting restructuring efforts?

Steps taken by the principal to provide resources and training (Huberman & Miles, 1984), establish time for planning and evaluation (David, 1991; Fullan & Miles, 1992; Sagor, 1992), establish an appropriate psychological setting of trust and risk-taking (Fullan with Stiegelbaur, 1991; House, 1974), develop shared goals (Bennis & Nanus, 1985),

find and solve problems (Jackson & Achilles, 1990), and practically implement change strategies (Gross, 1979) are recognized as "good practices" in the literature. Similarly, the principal's use of shared decision-making and the fact that she tackled many aspects of the organization at once helped support positive change efforts (Elmore, 1990; Fullan & Miles, 1992; Joyce, et al, 1993; Miles, 1993).

The principal did not, according to some staff, recognize individual efforts adequately. However, when individual recognition was instituted (e.g., the "Chief Achiever" teacher recognition provided by adopt-a-school business partner) it proved to be a "dissatisfier" for at least one survey respondent (Bennis & Nanus, 1985).

4. Have school improvement programs and staff members progressed through stages identified in the literature as typical of successful restructuring efforts?

Change is multi-dimensional (Conley, 1993; Dalin, 1978; Elmore, 1990; Eisner, 1992; Fullan with Stiegelbaur, 1991; Joyce, Wolf, & Calhoun, 1993). At Century Elementary, staff members dealt with restructuring efforts that impacted all aspects of the organization: a) student attitudes and learning; b) attitudes and skills of staff; c) capacity of the organization to solve problems; and d) support from the

community or district. School staff and programs evolved in unique ways during the restructuring process.

From the outset, staff members reacted individually to change. Some teachers (e.g., Amy, Gayle, and Jane) were excited about change and the opportunities it presented. Such teachers most closely fit Rogers's (1962) category of front-runners or Barker's (1992) paradigm shifters. These individuals reported that they thrive on the opportunity for novel experiences, increased collegiality, and enhanced professionalism. Such incentives were apparently adequate to offset some fears regarding change and the knowledge that participation in projects would mean additional work. The promise of teacher empowerment and the opportunity to have fun in their work (Bennis & Nanus, 1985) motivated a few teachers from other schools to request transfers into Century Elementary. Because there were many front-runners and early adopter staff members at Century Elementary, an "invitation to change" (David, 1991), issued by the principal, was often all that was necessary to obtain volunteers for projects. This group of employees remained comfortable with change throughout the restructuring effort; continuing to initiate projects independently or in teams (e.g., grants, learning styles research) and to "push" the principal for additional changes (e.g., the Year Round Education proposal).

Several individuals were uncomfortable with changing roles and responsibilities. These teachers and assistants handled their discomfort in a variety of ways. The most traditional, Rogers's laggards (1962), quit their jobs or requested transfers to other schools. Some teachers participated in projects, when asked by the principal, even though they had reservations about the outcomes. A few initially reluctant teachers changed their minds and became proponents of specific programs (e.g., inclusion); early or later majority behavior. Others continued to voice concerns about specific initiatives even after three years of restructuring. Individuals developed a capacity to handle change as their understanding of initiatives grew and as learning, teaching, and communicating among peers continued (Achilles, 1986).

As explained above, some people at Century Elementary progressed through stages. Similarly, some programs progressed through stages over time, following Fullan with Stiegelbaur's (1991) model; moving from initiation to implementation/initial use and on to continuation/ routinization. However, not all progressions were linear or to the same degree.

Hands-on instruction in math and science was initiated, implemented, and routinized at the school (with continued administrative and project support and on-going staff

development). Site-based decision-making and specific schedule changes were appreciated by the staff and were also continued/routinized. Outcome Based Education (OBE), learning styles strategies, and the advanced use of technology were implemented by specific teachers on an on-going basis but were not routinized on a large scale by the end of the study. New student disciplinary measures were initiated by the principal, implemented by the staff, continued, but never internalized by a majority of the school personnel.

Inclusion was a success in that teachers became increasingly more interested in participating in this new service model. Diffusion of information about the program helped dispel fears of the unknown (Dalin, 1978; Rogers, 1962). The program expanded and was recognized as a "best practices" program by schools in other districts and by the State Department of Public Education. It was routinized as a part of the service model for the school but not for all teachers or all differently-abled students.

The proposal to make Century Elementary a Year Round Education site on a school-within-a-school basis was approved by the school board in February 1994. The first steps in implementing the program (i.e., educating parents and soliciting their choice of calendar) were underway as the study ended.

Conclusions

Dalin (1978) stated that the school is the focal point of change. House (1974) emphasized that the teacher is the ultimate consumer of change and is therefore the controlling factor in restructuring efforts. With one exception (i.e., OBE), school improvement efforts pursued by staff at Century Elementary were initiated and implemented by the administrator or teachers at the school. Central office staff, parents, and special interest groups played almost no part in restructuring the school. On the surface, then, Dalin and House appear to be correct in their assertions. Indeed, the centrality of the school and the teacher to change were major concepts in the development of this study. Following the examination of data from this three year study, however, the researcher now concludes that change based solely at the school building level may not be able to survive major shifts in the environment; that the focal point of change may need to be a larger arena.

The researcher believes that it is imperative for school improvement efforts to "fit" the context of the individual school. She acknowledges the importance of making decisions based on what is known about particular school communities, staffs, and student needs in making change

meaningful for those involved (Glickman, 1993; Hopkins, 1984; Jackson & Achilles, 1990; Kent, '79; Rubin, 1978).

The researcher emphasizes that the fit between the change initiatives at Century Elementary and the context of the school is one reason why so many staff members demonstrated a higher degree of enthusiasm for change than is usually reported in the literature. Rogers (1962), for example, reported that 16% of the population is composed of front-runners and early adopters. Table 10 identifies the 22 certified staff members employed at the school at the end of the study. Of these, 11 (or 50%) initiated their own projects or volunteered for projects as they were introduced by others. Rogers' projections would allow for only three-and-one-half such innovators.

The researcher has determined, however, that change based at the school level alone is a very fragile entity. In the case of Century Elementary, the staff developed a high degree of dependency upon the principal for support, resources, expertise, and forgiveness of mistakes. At the close of the study, the newly merged school system of which Century Elementary is a part had not yet articulated policies to deal with many restructuring issues (e.g., corporal punishment, learning styles, use of trade books rather than basal readers, staff/student ratios, inclusion, etc.). Parents, although supportive of the principal and

staff, were uninformed about or confused by most restructuring efforts. A simple change in administration at the school, in this case, might be enough to halt specific school improvement programs and practices. Fullan and Miles (1992) expressed similar concerns about the durability of change strategies at the school level.

It appears to this researcher that the school district must develop external support structures (e.g., policy statements, shared vision, increased parental involvement, alternative methods of assessing student progress) to enhance the possibility of sustained school improvement efforts within the individual building. Support at the district rather than state level appears to be desirable. State efforts often prove to be constraining rather than supporting to the school since state officials are often too removed to be sensitive to local needs.

There were no major changes in the environment at Century Elementary during the study; teachers and assistants were continuing to initiate and implement change strategies at the end of the three year period. The researcher postulates that a culture of continual improvement developed at Century Elementary. Joyce, Hersh, and McKibben (1983) hypothesized that an administrator could facilitate the creation of a "homeostasis of change" which would encourage a constant adoption of school improvement measures much like

that experienced at Century Elementary. Glickman (1993) referred to this state as disequilibrium; a condition of constant searching and continual improvement.

The researcher agrees that the building administrator is responsible for facilitating the development of a self-renewing culture. She found that many initiatives could be put in place and implemented with a shortage of funds and materials. Administrative support was, however, essential to the success of all change efforts. Based on findings at Century Elementary, the three most important resources which an administrator must provide along with general support are: a) on-going, relevant staff development to large numbers of staff members so that common goals and language can develop; b) time for planning and sharing among staff; and c) monitoring of results. Means of collecting staff input and reactions along with alternative assessment measures that align with change efforts are needed to accomplish this last task.

Recommendations for Further Study

1. Continue to trace student progress at Century Elementary as restructuring efforts proceed. Compare individual EOG test scores of 1992-93 and 1993-94 third-grade students with

individual scores on the same students' sixth-grade EOG tests. Examine gains in light of system and state gains.

2. Evaluate/develop possible alternatives to standardized testing as a means of establishing accountability for teachers participating in restructuring efforts. David (1991) suggests that researchers ask the questions:

   a. How can we measure the results we care about?
   b. How can we allocate responsibility in a way that matches authority?
   c. How can we create a "system of shared accountability based on measures of valued goals" as a critical requirement for school change? (p. 15)

3. Investigate durability of change strategies at Century Elementary if "conditions under which they are developed are changed"; i.e., if key people leave, innovators burn out, support lessens under a change at central office, etc. (Fullan & Miles, 1992, p. 748)

4. Investigate the spread of restructuring efforts from a single "renewing" school in a system to other, more traditional schools. What are the diffusion patterns and how is diffusion supported?

5. Investigate district-wide structures that successfully support restructuring efforts at individual schools.

6. Trace the progress of specific initiatives put in place at Century Elementary School (e.g., site-based management,

OBE) in light of the historical and philosophical contexts of these initiatives.

CHAPTER VI

EPILOGUE

In the year following the conclusion of this study, Century Elementary continues to work to improve instruction and to be recognized for this effort. The following activities have occurred or are on-going at the school during the 1994-95 school year:

a) Century Elementary was recognized in a prominent educational publication for its inclusion program.

b) Century Elementary's P.E. teacher was recognized as the state Elementary P.E. Teacher of the Year, partially due to her work with differently-abled students.

c) Staff members are designing a proposal to make Century Elementary a Year Round Education magnet school.

d) Staff members are designing a proposal for an alternative teacher evaluation model through a university grant project.

e) A bus parking area has been created at the side of the school building to improve safety for children and efficiency in conducting traffic.

REFERENCES

Achilles, C.M. (1986, November). New perspectives on change and change processes: Teaching/Learning as viewed through communication elements and change processes.

Achilles, C.M., & Norman, C.D. (1974, Fall). Communication and change in education. Planning and Changing, V (3), 138-142.

Baldridge, V. (1983). Strategic planning in higher education: Does the emperor have any clothes? In V. Baldridge & T. Deal(Eds.), The dynamics of organizational change in education (pp. 167-185). Berkeley: McCutchan.

Baldridge, V., & Deal, T. (1983). The basics of change in educational organizations. In V. Baldridge & T. Deal (Eds.), The dynamics of organizational change in education (pp. 1-11). Berkeley: McCutchan.

Barker, J. (1992). Future edge: Discovering the new paradigms of success. New York: William Morrow.

Bennis, W., & Nanus, B. (1985). Leaders: The strategies for taking charge. New York: Harper & Row.

Bogdan, R., & Biklen, S.K. (1982). Qualitative research for education: An introduction to theory and methods. Boston: Allyn and Bacon.

Bushnell, D. (1971). A systematic strategy for school renewal. In D. Bushnell & D. Rappaport (Eds.), Planned change in education (pp. 3-17). New York: Harcourt Brace Jovanovich.

Conley, D. (1993, January). Restructuring: In search of a definition. Principal, 72 (3), 13-16.

Dalin, P. (1978). Limits to educational change. New York: St. Martin's Press.

Daresh, J. (1987). Administrator in-service: A route to continuous learning and growing. In W. Greenfield (Ed.), Instructional leadership: Concepts, issues, and controversies (pp. 328-340). Boston: Allyn & Bacon.

David, J. (1991, May). What it takes to restructure education. Educational Leadership, 48 (8), 11-15.

Edmonds, R. (1979). What do we know about teaching and learning in urban schools? A discussion of the literature and issues related to effective schooling (Vol. 6). St. Louis, MO: CEMREL, Inc.

Eisner, E. (1992, Summer). Educational reform and the ecology of schooling. Teachers College Record. 93 (4), 610-627.

Elmore, R. (1990). Introduction: On changing the structure of public schools. In F. Elmore and Associates (Eds.), Restructuring schools: The next generation of educational reform (pp. 1-28). San Francisco: Jossey-Bass.

Foster, W. (1986). Paradigms and promises: New approaches to educational administration. Buffalo: Prometheus Books.

Franklin, M. (1993, November). Statewide improvement in elementary mathematics and science education through peer teacher training (Final Report of Project R168D00258-92). Chapel Hill: University of North Carolina-Chapel Hill, The Mathematics and Science Education Network.

Frymier, J. (1969). Fostering educational change. Columbus, Ohio: Charles E. Merrill.

Fullan, M., & Miles, M. (1992, June). Getting reform right: What works and what doesn't. Phi Delta Kappan, 73 (10), 745-752.

Fullan, M., with Stiegelbaur, S. (1991). The new meaning of educational change (2nd ed.). New York: Teachers' College Press.

Glaser, B., & Strauss, A. (1967). The discovery of grounded theory: Strategies for qualitative research. Chicago: Aldine Publishing.

Glickman, C. (1993). Renewing America's schools: A guide for school-based action. San Francisco: Jossey-Bass.

Gross, N. (1979). Basic issues in the management of educational change efforts. In R. Herriott & N. Gross (Eds.), The dynamics of planned educational change: Case studies and analyses (pp. 20-46). Berkeley: McCutchan.

Guba, E. & Clark, D. (1975, April). The configurational perspective: A new view of educational knowledge production and utilization. Educational Research, 6-9.

Hall, G., & Loucks, S. (1977, Summer). A developmental model for determining whether the treatment is actually implemented. American Educational Research Journal, 14 (3), 263-276.

Havelock, R.G. (1973). The change agent's guide to innovation in education. Englewood Cliffs, N.J.: Educational Technology.

Hefferlin, J.B. (1969). Dynamics of academic reform. San Francisco: Jossey-Bass.

Herriott, R., & Gross, N. (1979). The complex nature of educational change. In R. Herriott & N. Gross (Eds.), The dynamics of planned educational change: Case studies and analyses (pp. 3-19). Berkeley: McCutchan.

Herriott, R., & Gross, N. (1979). Theoretical and practical implications. In R. Herriott & N. Gross (Eds.), The dynamics of planned educational change: Case studies and analyses (pp. 353-379). Berkeley: McCutchan.

Hopkins, D. (1984). What is school improvement? Staking out the territory. In D. Hopkins & M. Wideen (Eds.), Alternative perspectives on school improvement (pp. 7-20). New York: Falmer Press.

Hopkins, D., & Wideen, M. (1984). Introduction: Alternative perspectives on school improvement. In D. Hopkins & M. Wideen (Eds.), Alternative perspectives on school improvement (pp. 1-4). New York: Falmer Press.

Hoyle, E. (1974). Innovation and the social organization of the school. Creativity of the school: Position papers by member countries. (Technical Report No. 1, pp. 45-60). Organization for Economic Cooperation and Development, Center for Educational Research and Innovation.

House, E. (1974). The politics of educational innovation. Berkeley: McCutchan.

Huberman, M., & Miles, M. (1984). Innovation up close: How school improvement works. New York: Plenum Press.

Jackson, C., & Achilles, C.M. (1990, Spring). Education reform depends on problem clarity. Planning & Changing, 21 (1), 26-33.

Joyce, B., Hersh, R., & McKibben, M. (1983). The structure of school improvement. New York: Longman.

Joyce, B., Wolf, J., & Calhoun, E. (1993). The self-renewing school. Alexandria, VA.: ASCD.

Kent, J. (1979). The management of educational change efforts in school systems. In R. Herriott & N. Gross (Eds.), The dynamics of planned educational change: Case studies and analyses (pp. 239-257). Berkeley: McCutchan.

Levine, A. (1980). Why innovation fails. Albany: State University of New York Press.

Lezotte, L. (1989, August). Base school improvement on what we know about effective schools. The American School Board Journal, pp. 18-20.

Lippitt, R. (1979). Consultation: Traps and potentialities. In R. Herriott & N. Gross (Eds.), The dynamics of planned educational change: Case studies and analyses (pp. 258-273). Berkeley: McCutchan.

Mann, D. (1975). Synthesis of Case Studies, Part B: Staff Development. Federal programs supporting educational change, Vol. III: The process of change (pp. III-21 - III-54). Santa Monica, CA: RAND.

Marshall, C. (1985). Appropriate criteria of trustworthiness and goodness for qualitative research on education organizations. Quality and Quantity, 19, 353-373.

McCall, J. (1988). The provident principal (rev. ed.). Chapel Hill: University of North Carolina, Institute of Government.

McLaughlin, M.(1975). Synthesis of Case Studies, Part A: Classroom Organization. Federal programs supporting educational change, Vol.III: The process of change (pp.III-1 - III-20). Santa Monica, CA: RAND.

Miles, M. (1993, May). 40 years of change in schools: Some personal reflections. Educational Administration Quarterly, 29 (2), 213-248.

Miles, M., & Huberman, A. (1984). Qualitative data analysis: a sourcebook of new methods. Beverly Hills, CA: SAGE.

Mills, H. (1987). Motivating your staff to excellence. NAASP Bulletin, 71 (503), 37-40.

Mitchell, A. (1969). American values. Palo Alto, CA: Stanford Research Institute.

Normann, R. (1971). Organizational innovativeness: Product variation and reorientation. Administrative Science Quarterly, 16 (2), 203-215.

O'Sullivan, R., Strahan, D., & Harper, D. (1992, April). When people who can won't: Perspectives on a teacher empowerment project from an administrator, a middle grades specialist and an evaluator. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, CA.

Rogers, E. (1962). Diffusion of innovations. New York: Free Press.

Rubin, L. (1978). The reformation of schooling. In L. Rubin (Ed.), Educational reform for a changing society: Anticipating tomorrow's schools (pp. 195-210). Boston: Allyn and Bacon.

Ruddock, J. (1984). Introducing innovation to pupils. In D. Hopkins & M. Wideen (Eds) Alternative perspectives on school improvement (pp. 53-66). New York: Falmer Press.

Sagor, R. (1992). How to conduct collaborative action research. Alexandria, VA: ASCD.

Sarason, S. (1972). The creation of settings and the future societies. San Francisco: Jossey-Bass.

Sarason, S. (1993). The case for change: Rethinking the preparation of educators. San Francisco: Jossey-Bass.

SouthEastern Regional Vision for Education (SERVE). (1992). Hot topics: Usable research - Comprehensive school improvement (rev. ed.) (Contract No. RP91002010). Greensboro, NC: University of North Carolina, School of Education.

Sparks, D. & Loucks-Horsley, S. (1989, Fall). Five models of staff development for teachers. Journal of Staff Development, 10 (4), 40-57.

Stake, R. (1978). The case study method in social inquiry. Educational Researcher, 7 (2), 5-8.

Stake, R. (1985). Case study. In J. Nisbet (Ed.), World yearbook of education 1985: Research, policy, and education (pp. 277-284). (note: will try to find publisher)

Stake, R. (1988). Case study methods in educational research: Seeking Sweet Water. In R. Jaeger (Ed) Complementary Methods (pp. 253-265). Washington: American Educational Research Association.

Task Force on Excellence in Secondary Education. (1989). Socioeconomics of the education environment: County-by-county profile. Raleigh, NC: Information Center, Division of Communication Services, North Carolina department of Public Instruction.

APPENDIX A

QUESTIONS: KEY INFORMANT INTERVIEW RE: GAMSEC-FIRST PROJECT

Overall interest: In this era of educational reform, change is being brought to the schools in a number of ways. How do teachers involved in the change process view this process and how can change best be facilitated?

1. You have volunteered to become involved in a model for instructional change. What is your goal in making this change?

2. How is this goal different from the goal of the more traditional, text oriented math/science program?

3. What steps does an administrator have to take in implementing the First Project school improvement plans?

4. What steps do the lead teachers have to take in implementing the First Project school improvement plans?

5. What barriers, if any, exist that hinder implementation of the plan?

6. What leadership skills have been important in making the program work?

7. What specific objections have staff members had to implementing the program.

8. What strategies can administrators use in overcoming these objections?

9. How do you think the program is working at (your, most) site(s)?

10. What are some errors that leadership may make in implementing the program?

QUESTIONS: KEY INFORMANT INTERVIEW RE: OBE

Overall interest: In this era of educational reform, change is being brought to the schools in a number of ways. How do teachers involved in the change process view this process and how can change best be facilitated?

1. You have volunteered to become involved in a model for instructional change. What are your goals in making this change?

2. What fears or excitement do you feel in taking this step?

3. What made you want to volunteer for this model? How did you get involved?

4. What barriers, if any, exist that may keep you from being able to effect this change?

5. What strategies can you use in overcoming these barriers?

6. There has been some talk among our staff members indicating that they feel teachers are becoming too competitive (with each other). Do you view what you are doing with the change initiative as a form of competition? Do you feel other staff members will view it this way?

7. What can be done at the school to assist you in making these changes?

8. What kinds of follow-up or support structures would you like to see put in place in the up-coming year to support the change initiative?

9. What are your expectations for next year?

10. What do you feel are the expectations of your principal and your trainer?

11. Have your view about this project changed any since your first became involved a month ago?

APPENDIX B

END OF YEAR SURVEY - 1991-92; 1992-93

The purpose of this survey is to provide valuable information to the principal regarding various aspects of Century Elementary School programs, procedures, facilities, etc. Please complete the questions as you deem appropriate. Surveys are to be anonymous (I promise I won't try to decipher your hand-writing). There will be an envelope on the table under the mailboxes for your responses. Please return them before you leave for the summer.

1. Century Elementary School is a place where _____

_____

_____

_____

2. Teachers at Century Elementary School _____

_____

_____

_____

3. The principal at Century Elementary School _____

_____

_____

_____

4. Policies at Century Elementary School _____

_____

_____

_____

5. The instructional program at Century Elementary School ___

_____

_____

_____

6. The way things get done at Century Elementary _____

_____

_____

_____

7. The things I like best about the past year at Century Elementary are: _____

_____

_____

_____

8. The things I like least about the past year at Century Elementary are: _____

_____

_____

_____

9. To make Century Elementary School a better place for students to learn we should_____

_____

_____

_____

10. To make Century Elementary School a better place for teachers to teach we should _____

_____

_____

_____

11. The Century Elementary School building _____

_____

_____

_____

_____

Please use the space below to make any other observations or comments you desire. Some areas you may want to address are: specific programs (e.g., cafeteria, computer lab, chapter 1, P.E., music, guidance, media, exceptional children, etc.) or procedures (e.g., duty roster, use of volunteers, discipline) or school climate issues (e.g., esprit de corps).

APPENDIX C

FOCUS GROUP QUESTIONS: STAFF

INTRODUCTION/EXPLANATION OF PROCESS:

I am Rita, a professor at _____. I am going to ask you some questions about the change process. Dot is particularly interested in the changes that have occurred at Century Elementary over the past three years. She is trying to understand how the process of restructuring has affected the school in the three years since she has been here. Have you all been here all three years since Dot has been here?

With your permission, I'm going to tape your responses. I will have a graduate student transcribe the tape and will give the transcription to Dot. No one else will see the responses. All responses given to Dot and used in her studies will be kept anonymous. So, please feel free to be candid in your comments. Is everyone comfortable with this procedure?

QUESTIONS:

1. What sorts of changes, if any, have taken place in the last three years at Century Elementary School?
   (If additional prompt needed):
   a. In policies?
   b. In practices?
   c. In programs?

2. Why do you think these changes were made? What were the reasons? (Look at individual change initiatives listed in question #1 and ask for basis for initiative.)

3. How were decisions to make changes made?
   (If additional prompt needed):
   a. Where did ideas come from?
   b. How were choices made (e.g., in allocating resources) ?
   c. How were final decisions reached?
   d. Examples.

4. What structures/resources were in place that supported the change efforts? That made it easier for you to make desired changes?
   (If additional prompt needed):
   a. What/who kept you going?
   b. What resources were available?

5. Were there any barriers which stood in the way of implementing any of the changes?
   (If additional prompt needed):
   a. What were these barriers?
   b. Would others agree that these particular barriers exist?

6. Have there been any benefits resulting from these changes?
   a. Benefits for staff members?
   b. Benefits for students?
   c. Benefits for parents?

7. Are there any liabilities involved in implementing any of these changes?
   a. Problems for staff members?
   b. Problems for students?
   c. Problems for parents?

8. How does the principal fit into the change process?

9. Can you tell me how you or the staff as a whole felt about _____ (specific change initiative) when it was first introduced? How do you and/or the staff feel about _____ (specific change initiative) now?

10. Is there anything else you think Dot should know about how changes that took place between 1991-1994 have affected the school and the people in it?

Thank you for your time. Dot and I appreciate the time and input you have shared. If you have any additional information you feel would be helpful on the subject of change, you may write it down and put it in a sealed envelope. Dot will mail it to me at _____.

FOCUS GROUP QUESTIONS: PARENTS

INTRODUCTION/EXPLANATION OF PROCESS:

Dot is interested in tracing the process of change at Century Elementary over the last three years since she became principal. She is particularly interested in what you think and your perspectives regarding this change process. She wants to know how Century Elementary has changed if it has changed at all and what has helped make it change.

I am going to ask you several questions about the change process and I would like you to answer them and anything else you can think about as we go along in helping Dot understand how Century Elementary has changed; maybe what the good changes are and the not so good changes. Any questions about what we are going to do? First of all, have all of you been parents here the past three years? Has anybody not been a parent here for the past three years?

QUESTIONS

1. In the past three years, what changes have you observed at Century Elementary? Have there been any changes at Century Elementary?
   (If prompt is needed):
   a. In programs?
   b. In policies?
   c. In practices?

2. Why do you think these changes were made? What were the reasons? How has that happened? (Look at individual initiatives given for question #1 and look for basis of initiatives.)

3. How do you think people have responded to the changes? How do you feel about them? (Look at individual initiatives given for question #1 and look for parental response).

4. Have the parents created any changes in the school in the last three years? If you needed to correct something in your child's classroom, how would you do it?
   (If additional prompt is needed):
   a. In programs?
   b. In practices?
   c. In policies?

5. In terms of how things have changed at this school for better or for worse, is there anything else that Dot needs to know about in terms of ways to improve the process? To make it easer? To make it less traumatic on you and your children?

Thank you for your time and input.

APPENDIX D

LETTER TO PARENTS: "CHOICE" OF TEACHER

May 24, 1993

Dear Parents/Guardians:

Those of us who work with your child(ren) at Century Elementary School know how important your input and involvement are when it comes to offering a positive and effective educational environment for your child. We would like to offer you an opportunity to give us information which will help us match your child with a teacher who can meet your child's particular learning needs and styles.

First, we want to invite you to attend an Open House at Century Elementary School on Memorial Day, May 31, between the hours of 2:45 and 4:00 p.m. At this time, teachers will be available to talk with you about their educational philosophies, classroom structures, and teaching styles. If you will check by the office before going into teacher classrooms, we will give you a list of teachers for each grade level and a short description of each teacher's classroom/style as a reference.

On or about June 15, we will mail each parent a letter containing the names and descriptions of each of these teachers and their classrooms (please be sure we have an updated address on file in the office). There will probably be 3 or 4 teachers listed for each grade level. You will be able to indicate a preference for 2 of the teachers at a grade level.

****Your preferences will not be considered as a first or second choice, but as 2 equal preferences. You must list 2 preferences for your request to be considered.****

Please understand that we will continue to follow the School Board directive of balancing classes by ability, race, and sex. Therefore, all requests for teachers will be grouped by ability, race, and sex and then drawn in a random manner until classes are filled. For this reason, you must understand that:

WE WANT YOUR INPUT BUT YOUR REQUEST DOES NOT GUARANTEE THAT YOUR CHILD WILL HAVE ONE OF THE TEACHERS YOU INDICATE.

Let me give you an example of the drawing process we will use:

If you indicate teachers A and B, your request will be put in a box will all requests for teacher A who have the same general ability, race, and sex as your child. The class for teacher A will be drawn. If your child's name is not drawn, his/her name will be put in the box with requests for teacher B. If your child's name is not drawn again, your child will be placed in teacher C's class.

We will ask you to return the completed request form to Century Elementary School by July 2, 1993. Requests made after this date will not be considered since it is important for us to establish class lists, schedules, etc. during the summer months. If you have questions or find that this time-table is inconvenient for you, please contact me at the school (phone #) before choice letters are sent out on June 15, 1993.

Requests made for specific teachers will remain confidential.

The faculty and staff at Century Elementary School have designed this process in an effort to enhance positive teacher-parent relationships. We look forward to working with you and your child(ren) next year.

If you have questions or have a new student who would like a tour of the building, please feel free to come visit me at Century Elementary over the summer.

Sincerely,

_____, Principal