A Methodological Examination of Naturally Occurring School Improvement in Louisiana Schools.

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A METHODOLOGICAL EXAMINATION
OF NATURALLY OCCURRING SCHOOL IMPROVEMENT
IN LOUISIANA SCHOOLS

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Administrative and Foundational Services

by
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May 1997
DEDICATED

TO

JENNIFER AND STEPHANIE.

THANKS FOR BELIEVING.
ACKNOWLEDGMENTS

The completion of the doctoral program at LSU is the culmination of many years of sacrifice, not only for myself, but for my family and friends as well. Knowing that I could not have accomplished this feat without the help and support of my family and friends, I would like to take this opportunity to thank some of these people.

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ABSTRACT

The study was conducted as an exploratory investigation of naturally occurring school improvement, which refers to improvement in a school’s effectiveness status that is achieved without external change forces. The research design for the study used mixed methodologies divided into three phases to identify and examine schools that improved longitudinally in a “natural” environment.

Phase I utilized regression (ordinary least squares) methods to create a database containing all elementary schools in Louisiana, categorized by their level of change. As a result, some 20% of the schools in Louisiana were identified as having improved over a three-year period. This approximated an average change of 0.33 standard deviations on a composite measure of school effectiveness, which partially replicated the results of Gray et al. (1995) in the UK.

Phase II involved the administration of a survey to principals in all improving schools and a sample of stable schools, designed to collect data on change processes within these schools over the past three years. These data were divided into six dependent variable groups, each statistically analyzed to determine if significant differences existed between schools across three independent variables; change status, SES status, and community type. Results
from these analyses indicated that within each of the six dependent variable
groups differences did exist, particularly regarding principal’s ethnicity,
percentage of teachers with at least a Master’s degree, student attendance,
suspension, and expulsion, as well as the principal’s perception of change
processes in the schools.

Phase III consisted of a purposeful sampling of eight schools identified
as improving in a natural environment assigned to four categories: low-SES,
rural; low-SES, metropolitan; mid-SES, rural; and mid-SES, metropolitan. On­
site visitations were conducted for the purpose of gathering qualitative data
through observations, interviews, and document analysis. After analyzing these
data, four of the schools were rejected from the study because they did not meet
the specific criteria for naturally occurring school improvement. An analysis of
the four remaining case studies indicated a differentiation in change processes
by community type, across 11 dimensions.
CHAPTER 1: INTRODUCTION

Statement of the Problem

For more than forty years, public education in the U.S. has undergone a series of reform efforts at the national and state levels. Many of these reforms resulted from events that emphasized that our schools were not as effective as we wanted them to be. One such event was the launching of the first space satellite, "Sputnik," by the former Soviet Union. With the launch of this satellite, the nation was gripped by panic, fanned by the Cold War-induced fear that Sputnik was armed with nuclear weapons. The hysteria surrounding Sputnik eventually subsided, but the lingering effect of this traumatic event was the realization that our "enemy" was at that moment technologically superior. The solution to this problem lay in the adequate preparation of young minds to excel in science and mathematics. Testing data revealed that U.S. students were performing very poorly in these areas and the public education system received much of the blame.

Mobilized by education leaders who considered "progressive education" to be the reason that we trailed the Soviet Union, and by other leaders who perceived a direct correlation between the quality of our education system and our nation's defense (Rickover, 1959), an immediate emphasis was...
placed upon reforming math and science curricula. The federal government supplied billions of dollars for this effort.

**Education Reform in the U.S.**

During the past fifteen years, the federal government and various private foundations have released many research reports describing the desperate need to improve the quality of public education (e.g., Carnegie Forum on Education and the Economy, 1986; Holmes Group, 1986; National Commission on Excellence in Education, 1983). Because of these reports, the public has become more attuned to the idea of education reform, which in turn has led it to become a primary campaign issue for politicians seeking elective office. In reality, the result of this politicalization of education reform has been a cycle of campaign promises followed by a series of failed reform attempts (Cuban, 1990; Maxcy & Maxcy, 1993).

The latest government reform movement, Goals 2000 (U.S. Department of Education, 1994), is an initiative that established eight goals that all school districts in America should strive to attain by the year 2000. As with earlier reform initiatives, Goals 2000 has been viewed by many as a solution to the problems inherent in the public education system. Given the history of education reform (Cuban, 1990), the prospects for the success of Goals 2000 are not very promising.
Why has education reform failed? According to Astuto, Clark, Read, McGree, and Fernandez (1994), the basic cause of past failures to reform education is the lack of imagination by policymakers, education researchers, education administrators, and classroom teachers who develop reform proposals. These reform proposals have been based on ideas that are practical and feasible, but fail to consider the culture and social makeup of the individual school. "What we have experienced so far are practices and policies rooted firmly in a set of dominant assumptions that reflect orthodox views and conservative interpretations of the knowledge bases and practices of organizational studies, schooling, and education policy" (Astuto et al., 1994, p. 5).

Based on this idea, an alternative approach to reform and change in schools must take place. Astuto et al. (1994) contend that an internal culture exists in each school and consideration of that culture must be included in any school improvement effort. The reason many reform efforts fail is that school improvement plans often do not address the needs of the individual school.

Recently, some nationwide special strategies (e.g., Accelerated Schools, Restructuring) have incorporated context study within their models, such as Taking Stock in Accelerated Schools (Finnan, St. John, McCarthy, &
Slovacek, 1996). Restructuring efforts also have begun to consider the need
to address all aspects of the school's organizational life before improvement
can take place (Chrispeels, 1992). The contextual differences between
schools are evident in recent school effectiveness research (SER),
summarized in Chapter 2. Contextually sensitive SER may provide a
foundation for future school improvement efforts, if the chasm between that
research and school improvement research is narrowed (Reynolds, Hopkins,
& Stoll, 1993).

**Definition of School Improvement**

The term school improvement can be defined in two ways (Hopkins,
Ainscow, & West, 1994). The first meaning relates to the interpretation of
the term as a general effort to make schools better places for students to
learn. Hopkins et al. (1994) provide a second, more technical interpretation
of school improvement as follows:

A distinct approach to educational change that enhances student
outcomes as well as strengthening the school’s capacity for managing
change. In this sense school improvement is about raising student
achievement through focusing on the teaching-learning process and the
conditions which support it. It is about strategies for improving the
school’s capacity for providing quality education in times of change,
rather than blindly accepting the edicts of centralized policies, and
striving to implement these directives uncritically. (p. 3)
It is this second definition that marks the distinction between the early school improvement research and a new paradigm shift regarding school reform and change. Many researchers today feel that only by reassessing the internal processes of change in schools can there be any hope of successfully improving them (Gray, Reynolds, & Hopkins, 1994).

Assumptions about School Improvement

Roland Barth (1990) contrasts two approaches to school improvement derived from very different assumptions. He describes what he considers to be the dominant approach as follows:

1. Schools do not have the capacity or the will to improve themselves; improvements must therefore come from sources outside the school.

2. What needs to be improved about schools is the level of pupil performance and achievement, best measured by standardized tests.

3. Schools can be found in which pupils are achieving beyond what might be predicted. By observing these schools, we can identify their characteristics as 'desirable'.

4. Teachers and heads in other schools can be trained to display the desirable traits of their counterparts in high-achieving schools. Then their pupils too will excel.

5. School improvement, then, is an attempt to identify what school people should know and be able to do and to devise ways to get them to know and do it. (p. 38)

Barth (1990) then argues in favor of the opposite assumption about school improvement. He feels that school reform should be based on the
abilities and desires of those that have the highest stake in the school: teachers, building administrators, and parents. These assumptions contradict those held by the “list makers” mentioned above:

1. Schools have the capacity to improve themselves, if the conditions are right. A major responsibility of those outside the school is to help provide these conditions for those inside.

2. When the need and purpose are there, when the conditions are right, adults and students alike learn and each energizes and contributes to the learning of the other.

3. What needs to be improved about schools is their culture, the quality of interpersonal relationships, and the nature and quality of the learning experiences.

4. School improvement is an effort to determine and provide, from without and within, conditions under which the adults and youngsters who inhabit schools will promote and sustain learning among themselves. (p. 45)

The present study was grounded in Barth’s (1990) second set of assumptions, particularly the assumption that schools can improve themselves. By identifying schools where internally generated school improvement plans have taken place, a better understanding of the processes necessary to bring this about may be forthcoming.

**What Can We Learn from Naturally Occurring School Improvement?**

With so much emphasis on reforming and improving schools in this country, why are schools, as a whole, still perceived to be failing? The
answer to this question may lie in the fact that there has been minimal scientific research into change processes that occur in schools (Gray et al., 1994). As noted above, the literature on school effectiveness and school improvement research describes many efforts to determine what an effective school is. However, fewer efforts have been made to determine how a school becomes effective (Gray et al., 1994).

With public confidence in education low, education reform has become a major "industry" in America with new ideas sprouting from all directions. Restructuring, site-based management, outcomes-based education, magnet schools, redesign, total quality management, charter schools, vouchers, etc., have all been touted as the reform effort that will solve the problems of public education in America.

In a recent issue of Education Week, a series of articles ran detailing the latest efforts at education reform. Included in the issue was a composite list of 36 organizations, foundations, and companies that promote and commonly sell school improvement (School reform networks at a glance, Nov. 2, 1994, pp. 34-41). Despite the many innovations and the many dedicated researchers and practitioners involved in attempting to improve public education, none have proven to be the answer.
Because a definitive solution to school improvement does not exist, it was the purpose of this study to conduct an exploratory investigation into the concept of "naturally occurring" school improvement (Teddlie & Stringfield, 1993). Huberman and Miles (1984). Fullan (1991). Hopkins et al. (1994). and others have conducted in-depth studies concerning externally introduced school improvement processes. Conceptually, the idea of investigating improvement or change in environments not "contaminated" by externally imposed initiatives provides an opportunity to observe the processes of change that naturally develop within schools. By isolating and identifying these processes in the current study, it may be possible to determine whether there are differences between external and internal change processes and whether the processes in "natural" environments can contribute to the overall field of school improvement.

The Concept of Naturally Occurring School Improvement

During the Louisiana School Effectiveness Study (LSES), unexpected results were generated that Stringfield and Teddlie (1990) labeled naturally occurring school improvement. The term naturally occurring school improvement has been criticized as a misnomer by some who contend that improvement cannot occur spontaneously, without cause. In this study, the term is used in the sense that improvement is generated internally in relation
to the school organization; that is, the idea for innovative change originates with the principal, the teachers, or the community rather than with mandates from the central office or state department. In this study we will continue to use the term naturally occurring school improvement, which may also be referred to as internally generated school change. Also, naturally occurring improvement may be distinguished from restructuring which does not involve impetus from the outside.

The LSES was a multiphased study using similar methodology and instrumentation as the earlier Brookover, Beady, Flood, Schweitzer, and Wisenbaker (1979) study conducted in Michigan, while offering analyses and interpretations that were an advance to earlier studies (Teddlie & Stringfield, 1993). Phase III of the study (LSES-III) was designed to collect detailed, qualitative data from eight matched pairs of schools (each containing a more effective and a less effective school) that could be used to inform school improvement activities. While collecting these qualitative data in LSES-III, it became apparent that four of the eight historically low outliers (less effective schools) were involved in attempts to improve their academic performance. These data also indicated that these schools had shown some improvement in relation to their original classification status (Stringfield & Teddlie, 1990).
In an attempt to explain this unexpected phenomenon, Stringfield and Teddlie (1990) developed a two-factor model for naturally occurring school improvement. The first factor was described as "technical," in which superficial efforts were made to improve students' standardized achievement test scores without major attempts to improve the quality of the education the children received (Pechman, 1985). Results from the LSES indicated that in 1990 virtually every school in the study was spending some time teaching "test taking skills" (Stringfield & Teddlie, 1990).

The second factor involved meaningful efforts to improve schools, schooling, and actual student achievement that targeted specific points along a continuum stretching from "creating order out of chaos," to increasing time on task, to achieving coordinated instructional and curricular excellence (Stringfield & Teddlie, 1990). This second factor was grounded in organizational change and sought to improve the entire education environment, rather than simply attacking an isolated problem through superficial manipulation.

While the results reported from LSES-III regarding naturally occurring school improvement were interesting and suggested potential for examining how change processes work in schools, it was not the major emphasis of that study. The discovery of this phenomenon provided an opportunity for an
initial examination, and the objective of the present study was to examine that phenomenon in greater detail. To identify schools that are improving "naturally," a specific step-by-step process is required. Therefore, a major portion of this study involved the development of a statistically sound procedure for identifying schools in Louisiana that were actually improving longitudinally, over the selected time period (1991-1994). From that point, the next step involved the determination of which schools were improving without the use of externally initiated school improvement efforts.

Purpose of the Study

By studying the change processes that occur within a school over time in an environment not exposed to external school improvement plans, it may be possible to identify specific processes that affect change within all schools. Therefore, the global objectives of this study can be stated as follows:

1. To develop a method for identifying improving, stable, and declining elementary schools in the state of Louisiana;

2. To explore the contextual contrasts between improving and stable elementary schools that will help to determine the settings in which school improvement is most likely to take place; and

3. To develop "natural histories" of eight outlier (improving) schools to document the processes that led to each school’s improvement.
Based upon the objectives of this study, the design was established to entail three phases, with each phase designed to address a single objective. The overall research design will be more fully detailed in Chapter 3.

Significance of the Study

The significance of the present study lies in three areas: (a) developing a longitudinal method that can be utilized in the identification of school improvement; (b) making a contribution to the literature that attempts to merge the school effectiveness and school improvement research areas; and (c) providing a technique to identify processes that are indicative of school change and improvement, for practical use by local administrators and policymakers.

The first area, identification of improvement over time, involved the quantitative analysis of composite student achievement data. Currently the Louisiana Department of Education (LDE) maintains data on student achievement and various contextual variables. An interest exists among officials at the LDE to develop a method of reporting change in relation to school effectiveness indicators; that is, there is an interest in developing a school performance model that would systematically track individual schools with regard to their improvement and decline over time.
Concerning the second area, many researchers in the school effectiveness and the school improvement traditions are calling for the merger of these two research areas (Gray, Reynolds, Fitz-Gibbon, & Jesson, 1996; Reynolds et al., 1993). The present study, by utilizing methodologies previously incorporated in school effectiveness research, (i.e., regression models previously utilized to identify effective schools that were incorporated in this study to identify improving schools over time), has made a contribution to bridging the gap between school effectiveness and school improvement research. As an indicator of the validity of the proposed study, researchers in the UK have implemented a school improvement study that began in Fall 1995 (Gray et al., 1994). That study also included a component involving the examination of naturally occurring school improvement. These are the only known studies to focus on naturally occurring school improvement since its "discovery" (Stringfield & Teddlie, 1990).

The third area of significance for this study lies in the value that such an analysis can have for district and school level administrators. It has been noted that many central office administrators and some school administrators are not aware that their schools are improving (Teddlie & Stringfield, 1993). By developing a technique for identifying and analyzing school improvement in a particular school, these administrators can become aware that something
positive is occurring in these schools. Through identification of the processes leading to this improvement, they could then support, encourage, and even contribute to the overall continued improvement in the school.

Research Questions

Since the methodology for the study was divided into three phases, the research questions that guided this study are grouped according to the particular phase that they address:

Phase I Study

1. What is the frequency distribution of elementary schools that can be classified as improving, declining, or stable in Louisiana?

2. What is the breakdown of frequency distributions in relation to SES and community type of school across the state?

Phase II Study

What context and other variables differentiate between improving and stable schools?

Phase III Study

What are the processes that are ongoing in naturally occurring school improvement and do they differ by context variables?
Operational Definitions

The following terms and operational definitions were used throughout this study:

**Naturally Occurring School Improvement**

Any school categorized as improving, in which the idea and implementation of innovative change originated within the school or community. Implementation of that change must be at the direction of the school building administrator or faculty, but the idea could come from a perceived need of the community (Teddlie & Stringfield, 1993).

**School**

For purposes of this study, the term school was operationally defined as any public elementary school in the state of Louisiana that contained a grade configuration that included grade three, but does not include any grade above grade six.

**Declining School**

Based on results from a regression analysis conducted in Phase I, the residual changes from school year 1991-92 to school year 1992-93, and the residual change from school year 1992-93 to school year 1993-94 were split at the median. The school was categorized as declining if the residual change in both cases was below the median.
Improving School

Based on results from a regression analysis conducted in Phase I, the residual changes from school year 1991-92 to school year 1992-93, and the residual change from school year 1992-93 to school year 1993-94 were split at the median. The school was categorized as improving if the residual change in both cases was above the median. Improvement must be consistent over all three years (Gray et al., 1994).

Stable School

Based on results from a regression analysis conducted in Phase I, the residual change from school year 1991-92 to school year 1992-93, and the residual change from school year 1992-93 to school year 1993-94 was split at the median. The school was categorized as stable if the residual change in either case was above the median while the other case was below the median.

Summary of Chapters

Chapter 2 provides a review of the literature surrounding school effectiveness and school improvement research. Since the concept of naturally occurring school improvement originated from these areas, it was determined that both areas should be included. The literature concerning the development of school effectiveness indicators was included to support the use of a school effectiveness indicator to identify schools in Louisiana as improving, stable, or declining.
Chapter 3 describes the research methodology for this study. The chapter is divided into three main sections, each describing a phase of the study. It also includes a description of the sampling techniques and the data analysis methods used to conduct the study.

Chapter 4 presents the results of the quantitative portions of the study (Phases I and II). Phase I describes the creation of the database of improving, stable, and declining schools through a series of regression models, and provides a series of tables that provide frequency distributions of schools crossed by SES and community type. The section covering Phase II provides the results generated through various statistical analyses (ANOVA, MANOVA, and chi-square) to determine if six groups of dependent variables are significantly different in improving and stable schools.

Chapter 5 presents the results of the qualitative component of this study. Phase III of the study involved gathering on-site data at eight schools determined by procedures in Phases I and II to be improving in a natural environment. Case studies are presented for each school and a contrasting analysis of the schools across 11 dimensions are discussed.

Chapter 6 presents a summary of the study. It includes a presentation of all conclusions reached, along with recommendations for further study.
CHAPTER 2: REVIEW OF RELATED LITERATURE

"Naturally Occurring" School Improvement

Naturally occurring school improvement as a focus of research has only recently emerged, and since the topic has recent origins, the literature pertaining directly to naturally occurring school improvement is limited. Consequently, the research design for the present study employed methodologies that have roots in both school effectiveness research literature and school improvement research literature, both of which are represented in this review. This chapter also presents a review of the literature related to school effectiveness indices, which played an important role in establishing the criteria for identifying naturally occurring school improvement in this study.

The research strategies utilized in this study to identify the pertinent literature related to naturally occurring school improvement included a computer search conducted through Education Resources Information Center (ERIC), and also a manual search of bibliographies of selected books, papers, articles, and technical reports, and many volumes of Dissertation Abstracts International. From this search, more than 150 citations to journal articles, paper presentations, and books are included in the reference section of this study.
This literature review is divided into five major areas related to the methodology and procedures used to conduct this study. These five areas include:

1. a review of the research concerning naturally occurring school improvement;
2. a general review of the School Effectiveness Research (SER) literature;
3. a review of issues related to the development of school effectiveness indices (SEIs);
4. a review of the literature regarding the effect of the two context variables used in this study (socioeconomic status of student body [SES] and community type); and
5. a general review of school improvement research literature.

The first section presents the small amount of extant research and theory related to the topic of naturally occurring school improvement. Emphasis is placed on the differentiation between naturally occurring school improvement and externally initiated school improvement to set the stage for the presentation of literature related to the research methodologies utilized, particularly the case study research presented in Chapter 5.

The reviews of SER and the school improvement literature provide a general background for the present study and indicate how the two research
areas are related. Since the present study relied heavily on SER to identify schools categorized by their level of change status, the SER literature is an important part of this review.

A brief review of two context variables (SES and community type) sets the stage for their potential effect on improving and stable schools. These two context variables consistently appear in the literature concerning the effect of background factors on the level of school effectiveness. By presenting the literature related to these context variables, a case was made for determining their effect on naturally occurring school improvement, as well.

The review of issues related to SEIs was essential to the present study, since the calculation of such indices within a school improvement context was a feature of the present study's design. However, instead of designating schools as "effective," "typical," or "ineffective," SEIs were used in this study to designate schools as "improving," "stable," or "declining" over a three-year period. Literature is also presented to provide a logical basis for such a designation.

The Louisiana School Effectiveness Study and the Identification of Naturally Occurring School Improvement

The Louisiana School Effectiveness Study (LSES) (Teddlie & Stringfield. 1993) is recognized as one of the most important studies yet
conducted in school effectiveness research (e.g., Reynolds et al., 1994; Scheerens, 1992). The LSES addressed certain weaknesses found in previous school effectiveness research by utilizing a variety of sophisticated methodological techniques, such as: (a) the incorporation of context factors into research designs; (b) the embedding of teacher effects studies within studies of school effectiveness; and (c) the utilization of longitudinal research designs (Teddlie & Stringfield, 1993).

With the introduction of more advanced research methodologies into a particular area of study, there are times when certain unexpected or "serendipitous" results may occur. Such an event occurred during the LSES, when Stringfield & Teddlie (1990) discovered the "phenomenon" they referred to as naturally occurring school improvement.

LSES was a multiphase study in which the first two phases (1980-1984) included a pilot and a macrolevel investigation of a stratified random sample of schools across Louisiana. The methodology and instrumentation for these studies were similar to those used by Brookover et al. (1979) in their study conducted in Michigan, although the analyses and interpretations of LSES provided advances to those earlier studies (Teddlie, Falkowski, Stringfield, Desselle, & Garvue, 1984; Teddlie, Stringfield, & Desselle, 1985).
Phase III of the LSES study was designed to collect microlevel qualitative data in eight matched pairs of schools in order further to study the processes associated with differentially effective schooling and teaching. Phase IV of the study was designed as a five-year follow-up to Phase III that focused on the stability of effective and ineffective schools, the stability of school processes, and the causes for stability and change (Stringfield, Teddlie, Wimpelberg, & Kirby, 1990).

While collecting qualitative data for LSES-III and -IV, Stringfield and Teddlie (1990) discovered that four of the eight historically less effective schools were apparently engaged to improve their performance. From those efforts, the four schools improved beyond their originally designated levels of effectiveness. The authors concluded that:

These efforts were occurring independently of the LSES, without a unified state or local school improvement program, and without clear mandates or programmatic support from the local districts. The improvement efforts were occurring independently of other actions being taken in their districts and state. (Stringfield & Teddlie, 1990, p. 5)

In an attempt to explain this phenomenon, Stringfield and Teddlie (1990) developed a two-factor model of naturally occurring school improvement. The first of these two factors was labeled “technical improvements.” In most school effectiveness studies, aggregated student
scores on norm-referenced tests (NRTs) and criterion-referenced tests (CRTs) are used to evaluate a school’s effectiveness. Stringfield and Teddlie (1990) found that raising these test scores without major efforts at curriculum redesign or changes in teaching strategies, and without improving the quality of the students’ education is possible and occurs frequently in environments in which high performance is stressed (e.g., Pechman, 1985; Stringfield & Hartman, 1985). LSES researchers found that in school year 1989-1990 virtually every school in the study had spent some time teaching “test taking skills” (Stringfield & Teddlie, 1990).

The second factor presented by Stringfield and Teddlie (1990) was more deeply rooted in organizational change, rather than a superficial adjustment of teaching techniques. Change efforts of this type consisted of meaningful attempts to improve the delivery of instruction and actual student achievement. By targeting specific points along a continuum stretching from “creating order out of chaos,” to increasing time-on-task, to achieving coordinated instructional and curricular excellence, the “whole” school can be improved (Stringfield & Teddlie, 1990).

Stringfield and Teddlie (1990) compared the four schools that exhibited naturally occurring school improvement to Huberman and Miles’ (1984) seven areas of externally generated school improvement, which had been
developed from a series of large scale research studies examining externally initiated change, or innovation in schools. These seven areas are as follows:

1. **Settings and actors.** Huberman and Miles (1984) found that educational innovations appeared to be adopted or developed in districts where reasonable environmental stability was present and at least a "moderate" past interest in new programs existed. The implementing schools were more traditional, where much of the district-level dynamism for school improvement came from the central office administrators (usually coordinators or assistant superintendents for curriculum and instruction), who kept their eyes open for promising practices outside the district or energetically promoted a local product. The central office administrator thus became the prime advocate of the new practice, often reaching directly into the schools to implement it and thereby leaving the building principals to play a secondary role (Huberman & Miles, 1984, p. 271).

2. **Motives and attitudes toward adoption.** Externally initiated innovations were adopted as the result of a variety of motives. Nearly half the users adopted the new practice because of administrative pressure, but their attitudes toward it were usually neutral to favorable, especially when the innovation was central or salient. When the pressure was lower, users often invoked motives of professional growth; the practice might build up their instructional repertoire, help them in other aspects of their teaching, put
them in contact with specialists, and stretch them beyond what they were currently doing. In brief, there was less user interest in innovation-specific benefits than in second-order rewards.

Administrators, who live in a different institutional world, were more interested in improving classroom-level instruction or school-wide management, but they also liked the added funds and resources made available by externally assisted projects. It is interesting that few cases were adopted because of a perceived problem for which the innovation was seen as a solution, either by the users of the innovation or by the administrators setting up the innovation.

In roughly half the Huberman and Miles (1984) cases, the incentives for adoption were tied up with career plans for moving in, over, or away, or alternatively, for consolidating one's position. In the later phases of these innovations, too many career-driven incentives crippled a project, but too few deprived it of the necessary energy to follow through to stable continuation. Sometimes, career incentives surfaced later in the life of the project—notably at the sites where implementation was successful. Nevertheless, unwanted job mobility could also occur because of unexpected budget and personnel cuts (Huberman & Miles, 1984, pp. 271-272).
3. **Initial perceptions and assessments.** These externally imposed innovations posed problems initially for their target users, who sized them up as complex, hard to do, unclear, and flexible—sometimes too flexible. The classroom fit was seen as only fair; the users felt the new practice would make demands calling for substantial changes in the way they managed their yearly work.

By contrast, most of the administrators saw the practice initially as simple, straightforward, and manageable, and they anticipated that varying amounts of organizational change would result from the adoption. There was a tendency for administrators to overweight the merits and to minimize the drawbacks of the practice, and to be ready to jump in to set things right as problems arose (Huberman & Miles, 1984, p. 272).

4. **Early implementation.** Initial use was nearly always rough; few sites experienced a smooth early period. At the classroom level, teachers complained of day-to-day coping, unsuccessful attempts to "make it work like it is supposed to." continuous cycles of trial and error, inability to get through daily or weekly segments, and the sacrifice of other core activities.

Usually, the basic tension in school-based innovation was that of hanging onto the original change plan, despite the inappropriateness to the particular school. This tension involved the users of the innovation, but it
also related closely to what administrators did when a change-bearing project upset local practices and procedures. The administrators who responded favorably—and rapidly—to users' requests to make changes in the innovation often consented implicitly to a watering down of the project, and thereby to far more modest results. Those who held out for fidelity to the original model were sometimes initially cast in unpleasant authoritarian roles, but they were able, under certain conditions, to deliver more sizable results (Huberman & Miles, 1984, pp. 272-273).

5. Assistance. Large-scale, change-bearing externally initiated innovations lived or died by the amount and quality of assistance that their users received once the change process was under way. More help was forthcoming when the projects were more ambitious; smaller-scale ventures required and got less internal or external aid. The forms of assistance were various. The high-assistance sites set up external conferences, in service training sessions, visits, committee structures, and team meetings. They also furnished much ongoing assistance in the form of materials, peer consultation, access to external consultants, and rapid access to central office personnel. Even close relatives helped a good deal, often by hand holding and talking through difficulties. Although strong assistance did not usually succeed in smoothing the way in early implementation, especially for the
more demanding innovations, it paid handsome dividends later by substantially increasing the levels of commitment and practice mastery (Huberman & Miles, 1984, p. 273).

6. Transformations in innovations over time. As the new practices were executed, they were modified. From the moment of initial use to the end of data collection, over half the sites changed from one-third to two-thirds of the core components of the innovation-as-designed, by variously reducing them, adding to them, or reconfiguring them; the main trend was toward attrition. Whether and how much the innovation was changed, depended on the intensity of the demands it made locally and, in response to that intensity, on the micropolitics of the schools. A poor innovation-classroom fit led users to ask building administrators for authorization to make changes. A poor innovation-building fit led principals to do the same at the central office (Huberman & Miles, 1984, p. 274).

7. Changes in users’ practices and perceptions. While consolidating an externally imposed innovation, there were often substantial and widespread changes in the users’ practices and attitudes: (a) changes in everyday classroom routines and expansion of instructional repertoires; (b) changes in interpersonal ties, cognitive growth, shifts in attitudes toward pupils or peers; (c) shifts in professional self-image, and (d) transfers of innovation-specific
skills to other parts of the user’s practice. The users in this sample typically saw themselves as having become better “clinicians”—more instructionally skillful, and better able to diagnose problems and differentiate instructional treatments—and as being interpersonally closer to pupils (Huberman & Miles, 1984, p. 275).

Stringfield and Teddlie (1990) found specific differences between externally initiated improvement efforts and naturally occurring improvement efforts in three areas: (a) assistance from the central office; (b) transformation in innovations over time; and (c) changes in users’ practices and perception.

Huberman and Miles (1984) found that the eventual success or failure of an externally imposed innovation was directly related to the amount and quality of the assistance received from the central office. Stringfield and Teddlie (1990) found that the four naturally improving schools in the LSES did not have a central office striving for excellence. Only one school was obtaining a great deal of assistance from the central office, but that assistance ended with the loss of the curriculum coordinator and the principal.

Transformation of externally initiated innovations was greatest in schools that held out for fidelity of the change model, according to Huberman and Miles (1984). They found that the chances for success
diminished if the innovation was refitted to address the needs of the individual school. Contrary to these findings, three of the four LSES schools had no model to refit. According to Stringfield and Teddlie (1990), the rule for these schools was transformation through the implementation of "locally invented" change.

Huberman and Miles (1984) found that innovators generally perceived themselves as becoming better "clinicians" who had gotten to know their students better. Faculty members in the four LSES schools rarely mention becoming better teachers. Stringfield and Teddlie (1990) noted that teachers in these schools saw improvement related to increased orderliness and higher student achievement.

These contrasting results suggested that there appeared to be some differences in the change processes found in schools with externally imposed innovations as opposed to those that were improving naturally. While these results regarding naturally occurring school improvement were interesting and indicated potential for examining change processes in schools, the intent of the present study was to build upon these initial findings and to examine naturally occurring school improvement in much greater detail.

Similar studies are currently ongoing in the UK. For instance, Gray, Reynolds, and Hopkins (1994) initiated a study during Fall 1995 that seeks to
examine the extent of naturally occurring school improvement in the UK and
to examine the factors that contribute to the phenomenon. As stated by
Hopkins (1995), "there is also a need to distinguish between 'naturally
occurring,' 'internally driven,' and 'externally supported' school
improvement and to define more clearly the characteristics of 'developing'
and also 'effective' schools" (p. 273). Although the results from the Gray et
al. (1994) study have not been presented, the objectives are as follows:

1. To develop better estimates of the extent to which schools have
changed in their effectiveness over time;

2. To explore some of the factors and strategies associated with such
changes in performance; and

3. To describe through case studies the routes to improvement that
schools, particularly "ineffective" ones have pursued.

Another recent study from the UK conducted by Gray, Jesson,
Goldstein, Hedger, and Rasbash (1995), parallels the current study's attempt
to develop a method to analyze changes in schools' performance over time.
Gray et al. (1995) compared the performance of secondary school students
from 30 different schools on a final compulsory examination. The 30 schools
were ranked by quartiles according to their residual scores in 1990 and 1992.
The Gray et al. (1995) results indicated that the number and percentage of
schools that improved, deteriorated, or remained the same over this three-year period. The current study partially replicated the Gray et al. (1995) study. (For details of the comparison between the two studies, see Chapter 4.)

**School Effectiveness Research: A General Background**

This section of the literature review provides a brief history of SER and describes the evolutionary development of the research methods used to study effective schools. The importance of understanding SER in the context of the present study lies in the fact that the phenomenon of naturally occurring school improvement was discovered during a SER study, and the procedures utilized to identify the schools as improving, stable, and declining were all derived from SER.

This section begins with a brief review of the beginning and early years of SER, followed by a discussion of the Effective Schools Movement. The section ends with a description of the more sophisticated research studies conducted in recent years.

**The Early Years**

School effectiveness research began during the mid-1960s when federal involvement in public education was greatly increased. With this increased federal support, the U.S. Congress mandated more accountability regarding
educational outcomes as they relate to the investment made in education. As part of this mandate for accountability, Congress commissioned an evaluation study to measure the effect of public education on U.S. students.

The Coleman Report (Coleman et al., 1966) presented the pessimistic results of that evaluation, which concluded that school-based factors cannot overcome input factors, such as SES and the academic ability of students. In short, the Coleman Report stated that "schools do not make a difference" in a student's ability to achieve academically (Reynolds et al., 1994). These results were based upon an economically driven model of school effects that compared educational inputs with subsequent educational outcomes.

The Coleman Report was followed closely by the Plowden Report (Plowden Committee, 1967) in the UK, and another U.S. study, Jencks et al. (1972), that both reached similar conclusions. For policymakers with a personal stake in obtaining government funding for education, the findings from these reports were disheartening.

As part of the resulting wave of criticism that followed the Coleman, Plowden, and Jencks Reports, Klitgaard and Hall (1974) attacked the methodology used in these studies that utilized averaged standardized achievement scores across all schools in the sample, as the sole source of outcome data. They argued that it made more sense, conceptually, to
examine the effects of schools using the individual school, and its particular inputs, as the unit of analysis (Klitgaard & Hall, 1974). Additionally, critics pointed out that input-output studies did not measure true school process variables (Geske & Teddlie, 1990). There was a general under-specification of the model, with many important school process variables left out. Methodological criticisms such as these raised serious questions about the validity and generalizability of the research findings presented in the Coleman, Jencks, and Plowden Reports (Creemers, 1994).

Buoyed by the noted methodological weaknesses of the Coleman Report, a group of researchers embarked upon their own research studies with the intent of contesting the results of the Coleman Report (and also the Plowden and Jencks Reports). These “responsive” research studies produced a more optimistic view of the effects of school-based factors on student performance (Brookover et al., 1979; Edmonds, 1979a, 1979b; Rutter, Maughan, Mortimore, & Ouston, with Smith, 1979; Weber, 1971) by proving that schools do affect student performance. For instance, Rutter et al. (1979), while conducting a three-year study of 12 urban secondary schools, discovered that some of the schools differed as to the degree of academic and social success that their students were achieving. With each report, similar conclusions were reached concerning “effective school characteristics” that
might explain differences between schools in relation to their students' educational outcomes (e.g., Purkey & Smith, 1983).

As SER progressed, the design and methodology of these studies became more sophisticated, and the results they produced increased the overall validity of the results. For instance, Brookover et al. (1979) conducted a study in Michigan elementary schools that combined the educational production function approach of Coleman et al. (1966) and Jencks et al. (1972), with outlier studies. In outlier studies (see a later section of this chapter for a more detailed description of outlier studies), schools that scored either much better (positive outliers) or much worse (negative outliers) on indices of school effectiveness were singled out for in-depth investigation.

Another methodological advance of the Brookover et al. (1979) study was the introduction of scales that assessed the perceptions of school climate at the individual student, classroom, and principal levels, which Miller (1983) traced to social psychology literature. School climate variables (such as teacher expectations and student self-perception of internal/external locus of control) are potentially malleable, unlike the hard-to-change SES factors.

Data collected through these “school climate” scales were entered into regression models that predicted student academic achievement. While this
procedure explained much of the variance in student achievement, using school climate variables, the statistical problem of multicollinearity between SES and these climate variables made interpretation of the results difficult (e.g., Brookover et al., 1978, 1979; Kennedy, Stringfield, & Teddlie, 1993; Teddlie et al., 1984).

Although criticism was leveled against the Brookover et al. (1979) study, particularly concerning the interpretability of the analyses (Brookover et al., 1978, 1979; Kennedy, Stringfield, & Teddlie, 1983; Teddlie et al., 1984), the study marked a pivotal stage in the methodological development of school effectiveness research, primarily through the introduction of scales that assessed school process variables.

**Effective Schools Movement**

School effectiveness studies that utilized positive outliers (effective schools) began to be widely reported in the 1970s (e.g., Edmonds, 1979a, 1979b; Weber, 1971). Because of these studies, the five-factor model of school effectiveness was developed (Edmonds, 1979a, 1979b). This model identified five characteristics consistently associated with school effectiveness: (a) strong educational leadership; (b) high expectations of student achievement; (c) an emphasis on basic skills; (d) a safe and orderly
climate; and (e) frequent evaluation of pupils' progress. This five-factor model eventually became the model for the Effective Schools Movement.

The Effective Schools Movement was built upon an equity model, which emphasized school improvement and the desire to create effective schools in the worst socioeconomic environments, such as in low-SES, inner city elementary school environments (Edmonds, 1979a, 1979b; Weber, 1971). Since this environment was the focus of the movement, most of the effective schools research was conducted in that particular context (low-SES, inner city elementary schools).

Ralph and Fennessey (1983), and Scheerens and Creemers (1989), among others, considered the five-factor model to be flawed. In their criticism, Ralph and Fennessey (1983) raised four questions concerning the use of the five-factor approach to SER:

1. Are the factors the causes rather than the effects of high achievement?;

2. Is there a tautology in the emphasis on basic skills as a determinant of outcomes and also measuring basic skills as the dependent variable?;

3. Are the five factors really independent variables?; and.

4. In terms of locus of the factors, are they aspects of school leadership (e.g., Sweeney, 1982). or are they aspects of school climate?
Criticism was also leveled at the Effective Schools Movement for its political orientations (e.g., Ralph & Fennessey, 1983; Rowan, 1984), with authors contending that the research was actually reform passing as science. Cuban (1993) stated that the practical effect of this criticism was to banish research associated with the Effective Schools Movement to the "netherworld of pop-research and exemplars of what-not-to-do for doctoral students." (p. ix)

The equity orientation, upon which the Effective Schools Movement was based, received much criticism from the educational research community in the early to mid-1980s, primarily for its emphasis on school improvement and its sampling biases (e.g., Cuban, 1983, 1984; Firestone & Herriott, 1982; Good & Brophy, 1986; Purkey & Smith, 1983; Rowan, 1984; Rowan, Bossert, & Dwyer, 1983). However, it was the criticism of those using the equity approach that paved the way for more sophisticated studies of SER. Wimpelberg, Teddlie, and Stringfield (1989) asserted that the criticism aimed at this reform-oriented equity ideal actually revolved around the issue of context:

Context was elevated as a critical issue because the conclusions about the nature, behavior, and internal characteristics of the effective (urban elementary) schools either did not fit the intuitive understanding that people had about other schools or were not replicated in the findings of research on secondary and higher SES schools. (p. 5)
With the introduction of context into the methodologies utilized in SER, researchers began to explore the differences in school effects that occur across multiple school contexts, rather than concentrating on a particular factor. Along with these context studies, a shift in values took place that saw the efficiency ideal begin to replace the equity ideal. This new “value base” was appropriate for studying schools that served students in all types of contexts. In other words, researchers could now address the question: how can we produce better schools for all students, instead of only the urban, low-SES students?

More Sophisticated Models and Studies of School Effectiveness

Two important SER studies appeared in the mid-1980s and early 1990s (Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Teddlie & Stringfield, 1993) that utilized more sophisticated methods in studying SER. The Mortimore et al. (1988) study began in 1980 by selecting a random sample of 2,000 seven-year-old students from 50 elementary schools. They followed these students for four years in an attempt to answer the following questions:

1. Are some schools more effective than others in promoting students’ learning and development when student background factors are considered?
2. Are some schools more effective than others for particular groups of children (for males or females, for those of different social class origins, or different racial backgrounds)?

3. If some schools are more effective than others, what factors contribute to such positive effects?

Data collected from this sample included students' characteristics, students' learning and development, and school characteristics. After establishing baseline data during the first year, the students' progress was measured over the next three-year period. Academic attainment was measured after considering the students' background.

The results from this study indicated that strong relationships existed between background factors (especially age, social class, sex, and race) and students' academic attainment and development. These context factors make school effectiveness and school improvement research problematic, because there is no one set of correlates that cuts across all situations, settings, and cultures. However, the results provided strong evidence that context factors have to be considered before the effects of schools on the students' performance in school can be measured (Mortimore & Sammons, 1987).

The second SER study that utilized more sophisticated methods was the LSES study conducted by Teddlie and Stringfield (1993). The results of this
study have been described in other sections of this literature review.

Together, the Mortimore et al. (1988) study, the Teddlie and Stringfield (1993) study, and other recent studies have greatly advanced the methodological sophistication of SER. Progress in SER has been made in a variety of areas (Teddlie & Roberts, 1993) such as:

1. the consistency and stability of school effects (e.g., Lang, Teddlie, & Oescher, 1992; Mandeville, 1988; Mandeville & Anderson, 1987);

2. theory development in school effects (e.g., Slater & Teddlie, 1992; Wimpelberg, 1993);

3. the multilevel nature of school effects (e.g., Bryk & Raudenbush, 1992; Mandeville & Kennedy, 1991; Raudenbush & Bryk, 1986);

4. the context of school effects (e.g., Buttram & Carlson, 1983; Conklin & Olson, 1988; Evans & Teddlie, 1993; Hallinger & Murphy, 1986; Hannaway & Talbert, 1991; Heck, 1992; Lomotey & Swanson, 1990; Stringfield & Teddlie, 1991b; Teddlie & Stringfield, 1985; Virgilio, Teddlie, & Oescher, 1991);

5. the role of leadership in school effects (e.g., Hallinger & Heck, 1996; Heck, 1992; Murphy, 1990a; Wimpelberg, 1993);

6. the interaction of teacher and school effects (Teddlie, Kirby, & Stringfield, 1989; Virgilio et al., 1991); and

The early to mid-1980s also saw the development of more sophisticated models of school effectiveness (e.g., Blom, Brandsma, & Stoel, 1986; Clauset & Gaynor, 1982; Duckworth, 1983; Ellett & Walberg, 1979; Glasman & Biniaminov, 1981; Murphy, Weil, Hallinger, & Mitman, 1982; Schmuck, 1980; Squires, Hewitt, & Segars, 1983). These models typically contained at least two levels of defined effectiveness indicators: the school level and the classroom level. They also accounted for the background characteristics of pupils as control variables at the individual student level, rather than at the school level only.

With the arrival of these more sophisticated methods and models in SER, the knowledge base reached a “critical mass” that allowed reformers to apply the results to school improvement research. The literature that calls for a merger between the two areas is presented in a later section in this chapter.

Outlier studies.

Since the current study employed outlier research methods, this section will briefly review the SER literature regarding this methodological approach. By definition, outliers are unusual events that fall outside the predicted patterns of research studies (Stringfield, 1994). While some school
effectiveness research seeks to identify typical schools, outlier research identifies unusually effective or ineffective schools for conducting focused research on the processes at work in those schools.

The use of outlier studies in school effectiveness research has been criticized as being susceptible to the identification of false positive outliers. If the regression model does not fit the sample perfectly. However, Klitgaard and Hall (1974) argue that if "lumpiness" and "unusual tails" appear consistently in histograms constructed from residuals over many years, then this is strong evidence that outliers exist in the sample (e.g., Austin, 1978; Brookover & Schneider, 1975; Lezotte, Edmonds, & Ratner, 1974).

Purkey & Smith (1983) note that outlier studies suffer from five weaknesses: (a) narrow and relatively small samples used for intensive study; (b) errors in identification of outlier schools; (c) aggregating achievement data at the school level; (d) inappropriate comparisons; and (e) subjective criteria used for determining school success.

Despite the criticisms leveled against the use of outlier studies, most literature reviews of SER include results from studies that have utilized outliers in their designs (e.g., Good & Brophy, 1986; Hoffman & Rutherford, 1984; Levine, 1992; Levine & Lezotte, 1990; Purkey & Smith, 1983). The
consistency of these results provide evidence for the validity of the outlier approach in SER.

Four types of outlier studies were identified in these reviews: (a) positive outlier only; (b) studies contrasting between positive and negative outliers; (c) comparisons between positive outliers and typical schools; and (d) examining positive outliers, typical schools, and negative outliers. Each type of outlier design has its own advantages and disadvantages. In the present study, only positive outliers were included. These positive naturally occurring improvers were contrasted with typical schools, a methodological strategy suggested by several authors (Anderson, et al., 1992; Stringfield et al., 1993; Weber, 1971). The case studies from this outlier study are included in Chapter 5.

Development of School Effectiveness Indices (SEI)

A major problem that surfaces in the SER literature concerns the establishment of a generally accepted operational definition for the school effectiveness status of individual schools. Purkey and Smith (1983) identified a great deal of variance in the methods for defining effectiveness levels. Despite this, several studies have been conducted that attempted to use a common definition (i.e., one or two standard deviation scores away
from the studentized residual mean) for effectiveness (e.g., Lang, 1991; Scheerens, 1992).

School Effectiveness Indices: A General Background

School effectiveness indices (SEIs) are statistics that allow value judgements to be made about key aspects of the functioning of educational systems (Scheerens, 1990). In SER, SEIs are used by researchers to classify a school in terms of a particular level of effectiveness (e.g., highly ineffective or moderately effective, etc.).

The SEI literature includes concepts that are central to the development of a valid index of school effectiveness. These concepts are: (a) that the SEI includes characteristics that are measurable within the existing educational system; (b) that the purpose of the SEI is to measure a “key aspect” of an educational system (Nuttall, 1989); and (c) that the SEI should show something about the quality of schooling, which implies that indices are statistics that have a reference point (or standard) against which value-judgements can be made (Scheerens, 1990).

The Relationship of School Effectiveness Research to School Effectiveness Indices

The input/output focus of early SER has influenced SEI development, but input/output variables are not all that are needed in indicator systems.
The importance of the first generation of SER regarding educational indicators can be seen in the following conclusions from that period:

(a) school process variables account for relatively little variance in educational achievement; (b) resources and “material” inputs are not very promising in explaining school output (a conclusion that has been widely criticized since then; and (c) pupil background characteristics (such as socioeconomic status or race) should be used to adjust raw output measures to arrive at fair and valid performance indicators and to allow an unbiased interpretation of the influence of process characteristics on the functioning of schools (Scheerens, 1990).

Which inputs lead to more output, after allowing for the cost of the inputs? This is the basic question posed in the education production function research conducted by the early school effectiveness researchers. This approach is very similar to other types of educational effectiveness research in that the relationships between school characteristics and achievement are investigated while adjusting for the background characteristics of pupils (such as level of intelligence and SES). The characteristic that sets this research tradition (education production function) apart is the choice of a particular category of inputs that are readily expressed in monetary terms.
such as teacher salary, teacher experience, teacher-pupil ratio, teacher qualifications, and per pupil expenditure (Scheerens, 1990).

As stated earlier in this review, the results from this line of research have been disappointing and controversial. Research reviews (e.g., Averich, Carroll, Donaldson, Kiesling, & Pincus, 1974; Geske & Teddlie, 1990; Glasman & Biniaminov, 1981; Hanushek, 1979, 1986; Mosteller & Moynihan, 1972) agree that there has been inconsistency in the research findings and that the input variables have produced rather small effect sizes.

Using process variables as SEIs makes operationally defining and gathering them more difficult. The process characteristics of education are usually gathered at both the teacher (classroom) and school levels. Existing research reviews in this area (e.g., Good & Brophy, 1986; Kyle, 1985) and a growing number of quantitative syntheses of research on educational productivity have become available (Fraser, Walberg, Welch, & Hattie 1987; Kulik & Kulik, 1982; Walberg, 1984).

**The Regression Model and the Use of Residuals, or “Value-Added” Scores**

Although an extensive literature base has been developed in SER over the past 25 years, a major “chink in the armor” has remained the lack of a universally accepted criterion of effectiveness for classifying schools (e.g., Good & Brophy, 1986; Levine & Lezotte, 1990; Purkey & Smith, 1983; Rowan et al., 1983).
For more than 20 years, the regression model (and its resultant residual values) has been the most frequently used technique for determining SEIs (e.g., Dyer, Lynn, & Patton, 1969; Lang, 1991; Mandeville & Heidari, 1988). Mandeville and Anderson (1987) concluded that the regression model was empirically the strongest available analysis procedure in SER, due to its effectiveness in controlling for pupil background factors (Abalos, Jolly, & Johnson, 1985; Matthews, Soder, Ramey, & Sanders, 1981). In the UK, these regression-based SEIs are known as “value-added” scores (Fitz-Gibbon, 1996).

Criticisms have been leveled regarding the use of school averages as either dependent or independent variables in SER. These criticisms have focused on the idea that mean scores may “mask” ineffective delivery of educational services to low income or low achieving students (e.g., Geske & Teddlie, 1990; Good & Brophy, 1986; Purkey & Smith, 1983; Rowan et al., 1983). While Teddlie, Lang, and Oescher (1995) found that mean masking occurred in about 17% of the schools in their study, Rutter et al. (1979) found that “exemplary” schools were equally effective with different subgroups.

Another criticism concerns the fact that the concept of school effectiveness is multilevel (including student, class, and school levels) yet the
The regression model only uses the school level (Sirotnik & Burstein, 1985). The last several years has witnessed an increase in the use of hierarchical linear models (HLM) (Raudenbush & Bryk, 1992). HLM is an advanced version of the slope model (Raudenbush & Bryk, 1986) that analyzes data at all levels simultaneously. While HLM does correct problems inherent in the slope model (such as a limit of one independent variable for the within-group regression and increased error variance in smaller data sets within some schools), it too suffers from stability problems (Mandeville & Heidari, 1988).

While some advocate the use of more advanced multilevel models for the generation of SEIs, research shows that multilevel models (focusing on the school level) and regression models (with the school as the unit of analysis) yield similar statistics (Fitz-Gibbon, 1996; Kennedy et al., 1993). Based upon these findings, regression (ordinary least squares) methods utilizing school level composite scores, school level SES, and community type (where the school was found), were utilized for the present study.

Student Achievement as a Basis for School Effectiveness Indices

A great deal of controversy exists in the school effectiveness literature concerning the use of aggregated student achievement scores as the basis for SEIs. This study does not suggest that the sole criteria for school
effectiveness should be achievement indices; however, at this time, a consensus does not exist for any other alternative indices.

**Norm- and criterion-referenced tests (NRTs and CRTs).**

There have been ancillary arguments concerning the use of NRTs or CRTs in establishing SEIs. NRTs are useful when the required information relates to relative ability or knowledge attainment, while CRTs are useful when the needed information pertains to a wide range of knowledge and/or skills (Nitko, 1984). Berk (1984) says that conceptually one test could provide both CRT and NRT information, but that it would be unlikely that the same test would provide maximum information along both modes (ability/attainment and knowledge/skill).

The primary differences between CRTs and NRTs lie in their purpose and design, particularly in the selection of test items (Popham & Husek, 1969). NRTs give preference to variability over content, while CRTs give preference to content over variability. The NRT item selection process avoids items with low discrimination indices because low indices restrict variability and reduce reliability. If an item is too easy, too difficult, or ambiguous it will not discriminate between individuals, which results in reduced variability (Lang, 1991).

The rationale for the design of the CRT is that variability is not important for them, because they are measures of absolute performance.
Popham and Husek (1969) suggest that the most important issue in item selection for CRTs is how well the item reflects the skills or knowledge being measured. Since content balance was the most important aspect of CRT design, variability was often sacrificed for content (Lang, 1991).

**Consistency of test results.**

Of some concern in the present study is the issue of consistency of school effectiveness indicators. When the test type used in establishing some school effectiveness indicator changes, the classification of the school often changes as well. For example, if the student achievement measurement used as the criterion variable in a regression model is based on reading scores, the school effectiveness classification may be different when the classification is based on mathematics scores (Witte & Walsh, 1990).

Concerns have also been raised about the use of tests as school effectiveness indicators when only one subject area or grade level in used. Purkey and Smith (1983) felt that using only one subject area or grade level as the measure of student achievement gave a very limited view of a school’s effectiveness. Teddlie and Stringfield (1993) reported differences in retention rates for teachers from different grade levels in their longitudinal study of school effectiveness, suggesting teachers in different grade levels develop their own grade level “ethos” or climate.
Composite scores.

Many researchers have expressed concern with the use of only one subject area or grade level as the SEI, due to the issue of consistency and the limited view that one subject area test score provides (Purkey & Smith, 1983). One possible solution to the problem of consistency of SEIs across subject area and grade level is the use of composite scores, or multiple measures of a school’s performance.

Although Mandeville and Anderson (1987) reported finding no “appreciably higher” consistency of scores with a combined reading-mathematics score, they stated that a composite score should provide increased reliability. Crone, Lang, Franklin, and Halbrook (1994) concluded that composite scores using NRT and CRT scores across subject area and grade levels do, in fact, provide a broader, more consistent basis from which to build a model for school effectiveness. The results from their study support the idea that the use of more than one subject area enhances the validity of school effectiveness categorization (Levine & Lezotte, 1990; Purkey & Smith, 1983; Witte & Walsh, 1990). Also, Crone et al. (1995), using a combined language arts-mathematics score as the criterion variable in the regression model found that composite scores yield more stable results than component scores.
Based upon literature supporting the use of composite scores for calculating the effectiveness of schools, the SEI used in this study was based on the SIPSCORE, a standardized composite score generated by the Louisiana Department of Education (LDE), Bureau of School Accountability, as part of the Louisiana School Incentive Program (SIP) (Brooks & Oescher, 1992; Crone et al., 1992). These scores are generated across grade level and subject area using portions of the state administered norm-referenced (NRT) and criterion-referenced (CRT) standardized test scores for each individual school in the state. (See Chapter 3 for more details on SIPSCORES.)

Context Variables

The SER literature details the use of context variables and their effect on student achievement. There are four primary context variables cited in the literature: (a) socioeconomic status (Evans, 1988; Hallinger & Murphy, 1986; Teddlie et al., 1985, 1989); (b) community type (Buttram & Carlson, 1983; Hannaway & Talbert, 1991; Stringfield & Teddlie, 1991); (c) grade level configurations (Heck, 1992; Virgilio et al., 1991); and (d) governance structure of the school (Coleman, Hoffman, & Kilgore, 1981; Coleman & Hoffer, 1987; McPherson & Willms, 1986).

For the present study two of the variables were chosen for inclusion, SES and community type. Grade level configurations were not included.
because the present study only included elementary schools for examination. Although there are some differences in grade configuration among the schools in the study, the criteria for selection of schools included a provision that exempted any grade above the sixth grade. Therefore, there were no dramatic breaks in the configuration, such as high school/elementary that might affect the determination of the level of school effectiveness. Also, there were no governance structure differences among the schools in this study, which were all public.

Socioeconomic Status

The most frequently accepted truism in school effectiveness research is that the environment in which some child lives affects that child’s performance in school. The research of Coleman et al. (1966) and Jencks et al. (1972) was correct in that SES is a major indicator of how well a student will perform in school, although they overestimated that effect compared with the effect of schooling processes. Therefore, in comparisons of effectiveness across schools, the SES factor must be taken into consideration.

Many studies have shown that the composition of the SES backgrounds of all the students attending a school can affect the students’ achievement beyond the effects associated with the students’ individual ability and/or
social class (e.g., Brookover et al., 1978, 1979; Henderson, Mieszkowski, & Sauvageau, 1978; McDill, Rigsby, & Myers, 1969; Rutter et al., 1979; Shavit & Williams, 1985; Summers & Wolfe, 1977; Willms, 1985, 1986; Willms & Raudenbush, 1989). In a recent UK study, Blakely and Heath (1992) concluded that when measuring a student's performance, “we need to take into account both his or her own social class background and the background of the other children in the school” (p. 127).

In a Scottish secondary school study, Willms (1986) demonstrated that contextual effects were more strongly related to the proportion of higher SES students in a school than to the proportion of lower SES students, a phenomenon he called the “balance” effect. He also concluded that the school SES context effects were “equally strong for pupils of high and low ability alike” (p. 224). This implies that students from all ability levels benefit in terms of academic achievement from attending higher SES schools. Murnane (1981) had earlier concluded that the higher the average SES or academic ability of the student body, the more positive was the effect on individual students (Miller, 1983).

Some researchers feel that this SES contextual effect may be caused by peer group pressures (e.g., Blakely & Heath, 1992; Clifford & Heath, 1984; Erbing & Young, 1979), but other factors may be present (Willms, 1986).
Willms (1992) has suggested several other advantages that schools with higher SES student bodies may have over those with lower SES students: (a) they have greater support from parents; (b) they have fewer discipline problems; (c) they have atmospheres that are more conducive to learning; and (d) they are more likely to attract and retain excellent teachers.

School effectiveness researchers during the mid-1980s began to investigate context variables in schools, in relation to their effectiveness status (e.g., Andrews, Soder, & Jacoby, 1986; Chubb & Moe, 1985; Hallinger & Murphy, 1986; Rowan & Denk, 1984; Teddlie & Stringfield, 1985). Social context was typically operationalized as SES of the student body. Most of these studies sampled mid- and low-SES schools, but a few studied affluent schools (e.g., Hallinger & Murphy, 1986; Miller & Sayre, 1986).

According to Levine and Lezotte (1990) and Scheerens (1992), there have been two comprehensive product-process studies using SES as a context variable in the U.S.; one by Hallinger and Murphy (1986) and one by Teddlie and Stringfield (1985, 1993). An interesting aspect of these two studies is that their results were similar, despite differences in methodologies and study populations.
The Hallinger and Murphy (1986) study involved case studies of eight elementary schools selected from a population of schools that had scored above prediction for three consecutive years on a standardized achievement test. Two of these schools were low-SES, two were classified as lower-middle, two were middle, and two were upper-middle. The Teddlie and Stringfield (1993) study included 76 schools divided along two dimensions: (a) effectiveness status (more typical, typical, less effective); and (b) SES of student body (middle-, low-SES). Hallinger and Murphy were able to identify four distinct levels of SES communities for their study in California, while Teddlie and Stringfield (1993) used only two levels because Louisiana had fewer affluent communities.

Teddlie and Stringfield (1993) reported that effective schools had implemented different strategies, depending on the SES classification of the school. These different characteristics between low- and mid-SES schools involve six areas:

1. **Promotion of educational expectations.** Mid-SES schools promoted both high present and future educational expectations, while low-SES schools emphasized present educational expectations only.
2. **Principal leadership style.** Effective mid-SES principals tended to be good managers, while effective low-SES principals tended to be initiators who wanted to make changes in the schools.

3. **The use of external reward structures.** Visible external academic rewards were emphasized in low-SES schools, while they were downplayed in mid-SES schools.

4. **Emphasis in the school curriculum.** Curricular offerings were focused on the basic skills in effective low-SES schools, while effective mid-SES schools had an expanded curriculum.

5. **Parental contact with the school.** Parental involvement was encouraged in mid-SES schools, while principals and staff in many low-SES schools created boundaries to buffer the school from negative community influences.

6. **Experience level of teachers.** Effective mid-SES schools had more experienced teachers, while effective low-SES schools had less experienced teachers.

The Hallinger and Murphy (1986) study confirmed the differences between schools with students from different SES backgrounds, particularly in the following areas:
1. **Differences in curriculum.** Curriculum in low-SES schools was narrow, focusing on basic skills; curriculum in high-SES schools was broad, focusing on a variety of academic skills;

2. **Differential student expectations.** The source of expectations in low-SES schools was the school itself and tended to be moderate; in high-SES schools, the sources were the home and the school and they tended to be very high.

3. **Differences in principal leadership style.** Principal leadership style in effective low-SES schools was high regarding control of instruction and task orientation; in effective high-SES schools it was low to moderate regarding control of instruction and moderate regarding task orientation.

4. **Differential parental involvement.** Home linkages were weak in effective low-SES schools and strong in effective schools serving students from different SES backgrounds.

The determination of a school’s overall SES is often problematic, because data concerning students’ family income and the educational background of the parents were not easy to obtain from schools. One acceptable method of determining a school’s SES is to use the percentage of students in the school enrolled in the free lunch program. These data were maintained by the schools and were reported to the LDE. Since the
requirements for enrollment in the free lunch program are related to family income, the higher the percentage of free lunch participants, the lower the SES of the school (Crone et al., 1992).

**Community Type**

There have been fewer studies that have examined community type as a context factor in SER. Three such studies are described below: (a) Cuttance’s (1988) study of the impact of community type on variation in achievement among Scottish secondary schools; (b) Witte and Walsh’s (1990) comparison of Milwaukee city and suburban schools; and (c) the Hannaway and Talbert (1993) study of the High School & Beyond (HS&B) database.

Cuttance (1988) studied variation in achievement among Scottish schools associated with three typologies: (a) type of school (seven types of comprehensive and selective); (b) type of community (city, large burgh, rural, new town); and (c) educational authority (17 LEAs). He employed multilevel modeling looking at sector effects for the three typologies listed above. While there were complex interactions, Cuttance (1988) concluded that community type had some discernible effects:

... in comparison with the less urbanized sectors, there was considerably greater variation in adjusted attainment among city schools. Overall there is evidence that the range of variation in
effectiveness within community types decreases as they become less urban. The city and urban sectors had lower median levels of adjusted attainment among their schools than the burgh and new town sectors. (p. 212)

Using regression analyses, Witte and Walsh (1990) conducted what they called "a systematic test of the effective schools model" using data from elementary, middle, and high schools. After examining the data by community type, the authors concluded that:

The Milwaukee metropolitan setting, which we suspect is very similar to a number of other cities, by itself is difficult to understand because there are two very separate educational worlds—one in the city and one in the suburbs. In statistical terms, the variables describing the different components of the educational system and educational achievement form two district clusters . . . . (Witte & Walsh, 1990, pp. 192-193, italics in original).

The authors described these two distinct "educational worlds" as follows: in the city schools, students came from poor, often African American or Hispanic families; in the suburbs, the students were almost all white and most came from middle-class or higher SES backgrounds. On achievement indices, the suburban schools performed higher than the city schools. Furthermore, the city schools were larger and had fewer teachers with Master's degrees that the suburban schools. The teachers in the two community types described their schools differently, with the city teachers perceiving a more negative school environment.
Witte and Walsh (1990) concluded that student characteristics were very important in determining a school's effectiveness in their study, and that the effects of these characteristics were compounded by the class and racial segregation that exist between Milwaukee city and suburban schools.

Two studies in the U.S. (Hannaway & Talbert, 1991; Purkey & Rutter, 1987) examined schools from different community types using the HS&B database. This type of database, composed of archived data with community type encoded, may be convenient for those researchers lacking the resources to gather on-site data across community types.

Hannaway & Talbert (1991) examined the relationship between three levels of community type (urban, suburban, rural) and two dimensions of what they called the “effective school process” (strong principal leadership, teacher community) using HS&B datasets. They reported several differences due to community type, including the following:

1. School size had a positive effect on teacher community and principal leadership in suburban schools and a negative effect on those two variables in urban schools;

2. Principals in urban high schools had far less autonomy in matters of school policy, personnel decisions, and resource allocation than did principals from other community types;
3. The reported influence of teacher unions was greater in urban high schools than in other community types;

4. The clientele of suburban schools were more wealthy and better educated than the clientele for urban schools; and

5. There was a lack of school size effects for rural schools.

Although few studies have examined community type as a factor in school effects that limited literature suggests that contrasts do exist. Studies that have examined rural school effectiveness (e.g., Buttram & Carlson, 1983; Conklin & Olson, 1988; Lomotey & Swanson, 1990; Stringfield & Teddlie, 1991a) have noted two distinct areas of differentiation between rural and urban schools: resource allocation and cohesiveness. That is, rural schools are generally characterized by scarcer resources than urban schools (Buttram & Carlson, 1983; Stringfield & Teddlie, 1991a), and rural schools typically have smaller faculties and student bodies that are more culturally homogenous, which in turn leads to more cohesiveness (Conklin & Olson, 1988; Lomotey & Swanson, 1990). These differences show that different processes are required for urban and rural communities to produce an effective school.

Other studies concerning community type as a contextual variable have focused on national survey-based data and quantitative analyses of
these databases (Hannaway & Talbert, 1991). Most of these studies have been national in scope, with a focus on private-public sector effects (Chubb & Moe, 1990; Coleman & Hoffer, 1987; Coleman, Hoffer, & Kilgore, 1982). However, two studies focused on urban-suburban differences using large scale survey data. Purkey and Rutter (1987) concluded that students “encounter a less positive educational environment” and teaching “is a more difficult task in urban schools than in suburban schools” (p. 388). Variables such as student achievement, SES, parent involvement, and teacher control, all seem to cluster according to the urban status of the school (Hannaway & Talbert, 1991). Based on the SER literature concerning community type as a context variable, it was decided that the level of school effectiveness is differentiated by the type of community in which the school is found, thus community type was included in this study as an independent variable.

School Improvement Research

Although there are many common areas found in school effectiveness research and school improvement research, most of these commonalities are found at the level of practice and not theory (Reynolds et al., 1993). While over half of all schools in the U.S. have introduced school improvement efforts based on some aspect of school effectiveness research (General Accounting Office, 1989; Taylor, 1990), most are based on the earlier “five-factor” theories of Edmonds (1979a, 1979b) and Lezotte (1989), rather than
the more advanced school effectiveness studies of Teddlie and Stringfield (1993) and Mortimore et al. (1988). The literature review did reveal a few large demonstration projects in school improvement practice that have used enhanced school effectiveness practices (e.g., McCormack-Larkin, 1985; McCormack-Larkin & Kritek, 1982). In terms of mixing the SER and school improvement research, however, these examples are the exception.

This section of the literature review will present a brief outline of school improvement studies over the past 30 years. It will be followed by a presentation of the most recent literature that seeks to combine the two research areas, an attempt that is a central focus of the present study.

School Improvement in the U.S.

Complicating any attempt to synthesize the school improvement research literature is the fact that the attempts to develop school improvement as a science number in the thousands. Federal, state, and local efforts are constantly being introduced from a variety of theories, or in many cases from no theory at all. The history of school improvement in the U.S. has witnessed literally thousands of programs aimed at the school level, the teacher level, and the student level.

School improvement efforts have been made through changes in the curriculum, changes in the delivery of classroom instruction, changes in the
role of the administrator, and changes in the organizational makeup of
schools as a whole. With so many different approaches to school
improvement and so many programs attached to each approach, it would
literally take thousands of pages to present a complete review of the school
improvement literature. To condense this field, an outline presented by
Sashkin and Egermeier (1992) was incorporated into this review. They have
identified three broad perspectives on school improvement in the U.S. over
the past 30 years, based on the research of Chin and Benne (1969) and House
(1981). The three perspectives are each described as follows.

1. The rational-scientific perspective. The rational-scientific
perspective dominated attempts to improve schools from the late 1950s to the
1970s. This perspective on improvement assumed that if people are given
the necessary information to improve their schools, they will use it. One
example of this perspective is the set of curriculum development and
diffusion programs sponsored by the National Science Foundation (Sashkin
& Egermeier, 1992).

2. The political perspective. This perspective was prevalent in the
many top-down, state level reform initiatives in the early 1980s, and was
characterized by "strong external policy controls derived through processes
of bargaining and political compromise among power groups" (Sashkin & Egermeier, 1992, p. 2). An example relevant to this perspective could be a state legislature enacting a law and expecting the schools to implement the law, or formally “waiving” certain regulations if the school can demonstrate that certain desired outcomes are being achieved.

McDonnell and Elmore (1987) describe four “policy instruments” used by states to bring about school improvement: (a) mandates; (b) inducements; (c) capacity building; and (d) system changing. Further evidence that this perspective on school improvement is currently making a comeback can be seen in the adoption by several states (i.e., Kentucky, Louisiana, etc.) of “school accountability” programs that offer “rewards and punishments” based on the performance of the local schools.

3. The cultural perspective. The cultural perspective emphasizes changes in meanings and values within the organization experiencing change. The culture changes because of the actions of leaders who “transform” their organization (Leithwood, 1992). Transformation, as a metaphor, implies that the culture of the school must change, since it is the old, bureaucratic culture that is stymieing change and preventing the school from improving. This idea reflects current approaches to the problem of change in the business sector (Moorman & Egermeier, 1992).
The attempts to implement school change across the three perspectives listed above are further divided into four operational strategies, by Sashkin and Egermeier (1992). Throughout the past 30 years, each strategy represents an attempt to incorporate one or more of the three perspectives. The four strategies are described below along with examples of attempts at implementation using the strategy.

1. **Fix the Parts: Transferring Innovations**

The focus of this strategy is the transfer and implementation of specific educational innovations. Programs can include specific curricular content, such as a new English textbook; or it may focus on practices, such as inservice programs to teach principals how to become instructional leaders. Therefore, the main idea is to fix the ineffective parts of schooling by implementing a new idea that will produce better results for students.

This strategy is based almost entirely on the rational-scientific perspective. Over the past 30 years many efforts, particularly federally funded efforts, have been undertaken to study and perfect the processes by which teachers and administrators learn of and adopt new programs and practices that lead to educational improvements. One study, a Rand Corporation study of four federally-funded programs that centered on 293 innovative projects revealed findings that were less than positive. The results showed that the
money and effort invested in a project made little difference, nor did the specific project content matter. The study found that the innovations were often adapted and changed, not simply adopted, by users. Even when there were positive effects, they began to fade when the money ran out (McLaughlin, 1990). Related to the present study, McLaughlin (1990) observed that what mattered most was local capacity and will, thereby contradicting Huberman and Miles' (1984) call for maintaining the "fidelity" of the innovation.

Many programs involving distribution of innovations were particularly successful when a program was supported by various forms of additional assistance or support (Sashkin & Egermeier, 1992). One successful program was the Department of Education's National Diffusion Network (NDN) that disseminated curricula and programs to schools developed locally and have been proven to work. Emrick and Peterson (1978) noted that the evaluation of NDN determined that it was one of the few highly successful federal efforts to make wide-scale use of important developmental improvements.

While many reviews of innovation dissemination programs have been positive, House (1974) denounced the dissemination of the innovation approach, by detailing how the internal politics of school systems resist and defeat any external political, top-down force for innovation. However, he
IQ also correctly predicted that the federal government would continue to support this approach to improving schools, an approach that could not, in his view, succeed (Sashkin & Egermeier, 1992).

Several attempts have been made to use a dissemination of innovations approach to affect "comprehensive" school-level change. Usually, the approach involved gaining acceptance and adoption of several school innovations, simultaneously, that will lead to change in the school as a "system." Four particular programs of this type include the Ford Foundation's Comprehensive School Improvement Program (CSIP) (Ford Foundation, 1972); the Experimental School Program (ESP) (Doyle, 1978); the Individually Guided Education (IGE) program developed at the University of Wisconsin's Center for Education Research (Klausmeier, 1990); and the effective schools approach (e.g., Bossert, 1985; Corcoran, 1985; Edmonds, 1979a, 1979b).

The early 1980s witnessed the development of school change projects based on the effective schools research (e.g., Brookover & Lezotte, 1979; Brookover et al., 1984; Edmonds, 1979a, 1979b), which in turn led to a new type of research based primarily on the results from school change efforts in large cities (e.g., Clark & McCarthy, 1983; McCormack-Larkin & Kritek, 1982). A five-factor model for school improvement was widely proposed.
(e.g., D'Amico, 1982; Lezotte, 1992) based on the effective school characteristics in poor, urban elementary schools. School improvement studies as an area of educational research (e.g., Chrispeels & Pollack, 1989; Taylor, 1990) expanded when the federal government required the inclusion of the "correlates" of effective schooling (GAO, 1989) in improvement programs funded with Chapter 1 and 2 monies.

Results from the listed school-level improvement approaches undertaken as dissemination projects show that successful adoption of innovations is far more complex and costly a process than might have been expected. In summary, the "fix the parts" strategy has proven that even if an innovation is successfully transferred into schools, it may not be a catalyst for improvement (Sashkin & Egermeier, 1992).

2. Fix the People: Training and Developing Professionals

The second strategy relied on the idea that school improvement is best achieved by first improving the knowledge and skills of teachers and administrators, making them better able to perform their assigned roles (Sashkin & Egermeier, 1992). This strategy reflects the rational-scientific perspective, but also incorporates the cultural perspective.

Most research under this strategy focuses on how to develop staff, rather than determining whether the "developed staff" improves the school.
Fullan’s (1990) work is an exception to this line of research in that he seeks to link staff development to institutional development. He identified three approaches to staff development: (a) staff development used to adopt innovations; (b) staff development considered an innovation in its own right; and (c) linking classroom improvement with staff development.

Levine and Lezotte (1990) concluded that ongoing, practice oriented staff development is more effective than the traditional “one-shot” in service training programs that are so common. Stedman (1987) described several elements involved in ongoing, practical staff development at unusually effective schools: (a) the training was tailored to specific needs of staff members and students; (b) demonstration lessons were given to inexperienced teachers; (c) inexperienced teachers were allowed to observe experienced teachers; (d) inexperienced teachers were allowed to observe experienced, effective teachers; and (e) videotapes of effective teaching practices were presented to teachers needing improvement.

3. **Fix the School: Developing Organizations’ Capacities to Solve their Problems**

The third strategy is centered on the school as a social organization. This concept arose from a practice field called “organizational development” or OD. With OD, efforts are aimed to help people in organizations learn to
solve their global organizational problems rather than dealing with problems that affect parts of the organization, or certain technical skills of individual organization members (Sashkin & Egermeier, 1992). This strategy draws mostly from the cultural perspective described above, but it can involve one or two of the other perspectives as well. OD is an applied field with a substantial research and practice literature dating back more than 50 years (Sashkin & Burke, 1987). OD involves the collection of data to identify problems and prescribe solutions to those problems, and also to evaluate how well those solutions actually work (Sashkin & Egermeier, 1992).

In a review of OD in schools, Fullan, Miles, and Taylor (1981) recommend that it should only be used when a school or district meets certain “readiness” criteria (i.e., openness of communication: high communication skills; a widespread desire for collaborative work; and agreement about the educational goals of restructuring). Since this review, the number of schools and districts using OD has not grown significantly, but a variety of OD-based “school improvement models” have been developed.

One model that has been widely used is the “Onward to Excellence” (OTE) program developed by the Northwest Regional Educational Laboratory (NWREL) (Butler, 1989). The NWREL staff designed, tested, and refined a school improvement approach that creates a faculty-
administrator team that learns to collect and analyze data to be used in a step-wise problem solving process. Teams from many schools are trained at the same time, but they receive very little assistance from outside experts (Sashkin & Egermeier, 1992).

Butler (1989) has determined that the long term effect of OTE includes positive impacts on standardized test scores, but there are two significant weaknesses in the model. First, OTE-based approaches are not usually available, since NWREL has only trained a few hundred teams, while there are more than 100,000 schools in this country. The second weakness of OTE, according to Butler (1989) is the fact that the approach typically targets individual schools and not districts or entire states.

4. Fix the System: Comprehensive Restructuring

This fourth strategy for school improvement focuses on comprehensive school change or "restructuring." This approach goes beyond new techniques and innovations, better teaching and more effective administration of schools, and more effective problem-solving at the school building level. Comprehensive restructuring encompasses the first three strategies in a new and broader context that extends to the community, the school district, state education agencies, professional development
institutions, and even the national level, to focus specifically on cultural change (Sashkin & Egermeier, 1992).

Because the term restructuring has taken on the status of "buzzword" in the 1990s, there is a danger that the term will be so widely applied to so many different innovations that it will become meaningless. Also, there is not a clear set of research findings that indicate the success or failure of restructuring. According to McDonnell (1990), the present research knowledge is insufficient to establish a causal link between restructuring and student outcomes.

Although a comprehensive definition of restructuring is still vague, there are four components that seem consistently to appear in the literature when referring to restructuring. First, restructuring means decentralizing authority, devolving from the state level to the district level, then from the district level to the school building level, and from building administrators to the teachers to push the decision-making down to the lowest level in the system (Bailey, 1992). Site-based management (SBM) means more than delegating authority to the lowest possible level; also, it implies the existence of a coherent system. In such a system, roles and relationships between the school and the district, and the district and the state are not eliminated, but are changed in a fundamental way (David, 1989; Hill & Bonan, 1991).
However, the change in authority may be made without affecting the
teaching-learning core of schools (Taylor & Teddlie, 1992).

Secondly, restructuring involves a basic change in accountability.
Timar (1989) cites the South Carolina approach as a successful example, in
which the state required schools to provide remedial instruction to students
functioning below grade level, yet left the organization of the program to the
individual schools to develop.

This change in accountability relates to a set of changes in the
“governance” of schools. Murphy (1990) calls these changes “voice and
choice” and they involve three elements: (a) restructuring schools empower
parents and community leaders; (b) they expand the school community by
uniting parents, professional educators, businesses, universities, foundations,
and the general populace; and (c) the notion of parental choice is thoroughly
intertwined in discussions about transforming the relationship between
schools and their communities.

International Efforts in School Improvement

Today, the role of school improvement research has taken on a
decidedly international context, with much of the state-of-the-art knowledge
being derived from projects such as the “Learning Consortium” (Erskine-
Cullan, 1995), recent books concerning the merging of school effectiveness
research and school improvement research (Gray et al., 1996), and the annual meetings of the International Congress for School Effectiveness and School Improvement (e.g., Hopkins, 1995; Houtveen & Osinga, 1994; Stoll, Harrington, & Myers, 1994; Stringfield et al., 1994; Townsend, 1994), where researchers from all over the world convene and discuss the issues of school improvement.

Hopkins et al. (1994) define “school improvement as a strategy for educational change that enhances student outcomes and strengthens the school’s capacity for managing change” (p. 3). This definition views school improvement as a process that emphasizes the importance of strategies (school improvement plans and programs) that have always been a keystone in school improvement research, but the definition also includes a component that addresses the school’s internal conditions.

Improving the Quality of Education for All (IQEA) at the Cambridge Institute of Education, is a school improvement program that uses methods and strategies that are normally found in either school effectiveness research or school improvement research, to develop a program that will appeal to both the researcher and the practitioner. From this ongoing research, Hopkins (1995) presents ten components that should be a part of any school improvement plan.
1. **Adapting external change for internal purposes.** School improvement is not about how to implement external innovations in a more effective way. It is instead about how to use external reform ideas to "improve" or "develop" a school (Hopkins, 1995). This component is at the center of the present study of naturally occurring school improvement. Those schools that recognize the extent to which internally identified priorities coincide or overlap with external pressures are better able to respond to external demands from within.

2. **Building partnerships.** The evidence in school effectiveness literature suggests that schools are more successful when they are associated with a sense of identity and involvement that extend beyond the school (Hopkins, 1995). Whether this takes the form of university, intradistrict, or community-based partnerships, the best fit is what Hopkins (1995) calls "loose and tight." The tighter the school is about goals, the looser it can be about the means to achieve those goals.

3. **Focusing on student learning rather than broad aims.** While all schools have the broad goal of increasing the performance outcomes of its students, those that may be the most successful at managing school change begin with specific learning goals for their students (Hopkins, 1995).
strategy can then be developed to address those goals and attach an external change that will help them achieve those goals.

4. Establishing context specificity before designing the strategy. This is a key contribution that school effectiveness research has offered school improvement. The contextual situation in each individual school is different and calls for a diagnosis of the school’s situation before introducing a change plan. Too many school improvement programs are adopted and implemented without any consideration of their own specific needs and organizational contexts (Hopkins, 1995). The individual character of the school and the will to improve will best be maintained when policies and priorities are controlled at the school level.

5. Planning strategically, not tactically. Hopkins (1995) describes a strategy as providing the framework for solving problems in development planning, and tactics as the detailed operational activities required to put the strategy in effect. To achieve school improvement requires the establishment of a clear strategy, before agonizing over the tactics to use in implementing the strategy. He also warns against abandoning a strategy if a particular tactic does not work.

6. Building capacity - nurturing the conditions. Without capacity building, the substantive change becomes marginalized in a process that is.
caused by a natural phase of resistance or "internal turbulence" (Hopkins, 1995). Without effective working relationships between members of the organization to overcome this resistance, the innovation may stall, the organization may begin to look for a new innovation and a cycle of failure then develops. With effective working relationships within the organization, the resistance is overcome by adapting or accommodating the internal conditions of the organization to meet the demands of the change.

7. Moving beyond case study - polishing the independent variables.
"Unless we capitalize on naturally occurring experiments and use schools and classrooms as their own control, we will not make the conceptual and operational advances the field needs" (Hopkins, 1995, p. 270). Researchers are better defining the dependent variables (i.e., outcomes), so it is relevant now to try to determine which of the strategies (i.e., the independent variables) are actually affecting outcomes.

8. Developing appropriate research methods. The methods used in school improvement research (i.e., interviews, questionnaires, and observations) are very time consuming. The development of more user-friendly and comprehensive techniques for measuring the complex processes and relationships involved in mapping school change are needed (Ainscow, Hargreaves, Hopkins, Balshaw, & Black-Hawkins, 1994).
9. **Differentiating school improvement strategies.** School effectiveness literature has established that there are both positive and negative outliers in terms of their level of school effectiveness. The school improvement strategy that would be necessary to take a highly ineffective school to the level of a typical school, is different from the strategy necessary to take a typical school to the level of a highly effective school (Hopkins, 1995). When examining the various school improvement plans to determine which ones are affecting outcomes, it is important to establish a design that analyzes schools across effectiveness status to help determine which strategies are most effective with a particular type of school.

10. **Theorizing about how schools develop.** Schools develop by adapting external change to internal purposes through a process of structural and cultural accommodations. How structures influence cultures and vice versa is still a mystery. “There is also a need to distinguish between ‘naturally occurring,’ ‘internally driven,’ and ‘externally supported’ school improvement, and to define more clearly the characteristics of ‘developing’ and also ‘effective’ schools” (Hopkins, 1995, p. 273).

**Merging School Effectiveness and School Improvement Research**

The reviews of the school effectiveness research literature and the school improvement research literature, indicate that the two fields have...
developed from different places both methodologically and theoretically (Gray et al., 1996). Table 2.1 provides a generalization of the contrasts between school effectiveness and school improvement, as proposed by Reynolds et al. (1993).

Table 2.1
The Separate Traditions of School Effectiveness and School Improvement (Reynolds et al., 1993, p. 44)

<table>
<thead>
<tr>
<th>SCHOOL EFFECTIVENESS</th>
<th>SCHOOL IMPROVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>IN THE 1980s</td>
<td>IN THE 1980s</td>
</tr>
<tr>
<td>Focus on schools</td>
<td>Focus on individual teachers or groups of teachers</td>
</tr>
<tr>
<td>Focus on school organization</td>
<td>Focus on school processes</td>
</tr>
<tr>
<td>Data driven, with emphasis on outcomes</td>
<td>Rare empirical evaluation of effects of changes</td>
</tr>
<tr>
<td>Quantitative in orientation</td>
<td>Qualitative in orientation</td>
</tr>
<tr>
<td>Lack of knowledge about how to implement change strategies</td>
<td>Concerned with change in schools exclusively</td>
</tr>
<tr>
<td>More concerned with change in pupil outcomes</td>
<td>More concerned with the journey of school improvement than its destination</td>
</tr>
<tr>
<td>More concerned with schools at a point in time</td>
<td>More concern with schools as changing</td>
</tr>
<tr>
<td>Based on research knowledge</td>
<td>Focus on practitioner knowledge</td>
</tr>
</tbody>
</table>
In spite of the differences between the two fields, recently researchers from both camps have called for a synthesis of school effectiveness and school improvement research. For example, Mortimore (1991) called for transferring the "energy, knowledge, and skills of school effectiveness research to the study of school improvement" (p. 223). Stoll and Fink (1992) stated that "it is only when school effectiveness research is merged with what is known about school improvement, planned change, and staff development, that schools and teachers can be empowered and supported in their growth toward effectiveness" (p. 104). In addition, Murphy (1992) has called for change that will realize the potential of conventional school improvement and also the more radical restructuring of the entire educational system, including its power relations, and the teaching–learning processes in schools. Furthermore, the international journal, *School Effectiveness and School Improvement*, in its mission statement argued for "empirical rationality" in assessing the validity of models in both school effectiveness and school improvement (Creemers & Reynolds, 1990).

With this increased emphasis on attempting to combine school effectiveness and school improvement research, Reynolds et al. (1993) have developed a series of suggestions that would facilitate this merger.
1. Develop more case studies in school effectiveness research so that the transfer of knowledge to the school improvement community (with its emphasis on qualitative data) will be more relevant.

2. School effectiveness research should put more emphasis on process factors such as attitudes, values, relationships, and climate, which are needed by school improvement research.

3. School effectiveness research tends to take “snapshots” of schools rather than taking moving pictures of schools over time. School improvement research needs to know how schools became effective or ineffective to know how to replicate the process.

4. More emphasis should be placed on studying the variable of principal leadership outside the U.S.

5. Most school effectiveness research has neglected the potential impact of other layers above the school level. There is evidence in school improvement research that these other layers may be crucial to generating improvement.

6. School effectiveness research should attempt to isolate the direction and strength of the influences that link school process variables together.
7. School effectiveness research should attempt to determine which process variables are causes of school effectiveness. For example, does high teacher expectation cause improved student performance or does high student performance cause higher teacher expectations.

8. Dated school effectiveness research from the 1980s may not be sufficient to address school improvement schemes of the 1990s. Therefore, it is important to make sure that the factors that identified effectiveness in the past are still relevant today.

9. Context research in school effectiveness has only been utilized a short time. At the present stage, the results are not specific enough to assist school improvement research in determining what will work in different schools.

10. The knowledge required of improvers of ineffective schools is not found in school effectiveness research. Assuming that what works in an effective school will work in an ineffective school is not sufficient.

11. School improvement research needs to address the impact of innovations upon student performance or outcomes. Without this data understanding the causal relationships between school processes and outcomes is impossible.
12. School improvement strategies need to move away from whole-school programs, based on evidence from school effectiveness research that indicates that schools can have differential effects on students (Nuttall et al., 1989). School improvement programs should vary within the school in terms of their content, their focus, and their target population.

13. School improvement researchers need to concentrate on why changes occur more than on how much change occurred.

14. School improvement researchers need to address the class level and the school level. Many school improvement programs disregard the nature of instructional practices altogether.

Summary

This chapter has provided a detailed review of the literature regarding school effectiveness and school improvement to support the present study's attempt to investigate the phenomenon of naturally occurring school improvement. Because the literature related to this topic is limited, the theoretical foundation for studying naturally occurring school improvement was adapted from both areas of research.

The review of the literature began with a presentation of the background of naturally occurring school improvement, particularly its "discovery" during the LSES study by Teddlie and Stringfield (1993). Also
included was a description of several recent or ongoing studies that have incorporated the concept of naturally occurring school improvement.

Identifying schools that have improved over some period required borrowing methodologies from school effectiveness research. The literature regarding the entire process for developing SEIs using composite scores and two types of context variables (SES and community type) was presented in this chapter.

Procedures for investigating the change processes of improving schools relied on the extant literature concerning school improvement. This is a widely divergent field of study requiring a focus limited to the present study. The literature review in this chapter attempted to present an overview of school improvement, with a special emphasis upon the research of Huberman and Miles (1984) and Hopkins et al. (1994), in relation to the research findings concerning externally initiated change as contrasted with the results of the present study regarding internally generated improvement.

The literature contained in this chapter provided a rationale for studying naturally occurring school improvement and supported the methodologies utilized in the present study. The small number of research studies concerning naturally occurring school improvement is because the phenomenon was presented by Teddlie and Stringfield (1993) less than five
years ago. The lack of knowledge surrounding this concept justified the exploratory nature of the present study. It is hoped that the results from the present study will make a contribution toward expanding the literature regarding naturally occurring school improvement and toward the ultimate merger of school effectiveness research and school improvement research.
CHAPTER 3: METHODOLOGY

Introduction

As stated in Chapter 1, the purpose of this research study was to conduct an exploratory examination of the phenomenon identified as "naturally occurring" school improvement (Teddlie & Stringfield, 1993). While the study of school improvement and change has received a great deal of attention by researchers from the perspective of externally imposed change forces (e.g., Fullan, 1994), very little emphasis has been placed on the processes related to internally generated school improvement (Gray et al., 1994). This research affords an opportunity to study naturally occurring or internally generated school improvement in settings without the "contamination" of externally initiated and implemented school improvement programs.

A contingency theory of school effectiveness (Slater & Teddlie, 1992) states that once a school reaches a high level of effectiveness, different processes are required to maintain that level of effectiveness, or the school will begin to decline. From that perspective, this study of naturally occurring improvement could also involve the study of decline in school effectiveness; however, that issue was left for further research. While this study will
document the incidence of school effectiveness decline, it will not address
the processes associated with that decline.

The present study uses both quantitative and qualitative research
methods divided into three phases that had the following goals: (a) to
establish a database containing all prescribed elementary schools in the state
of Louisiana categorized as “improving,” “stable,” or “declining” in relation
to each school’s level of school effectiveness; (b) to develop and administer a
survey to principals in a random sample of improving and stable schools, for
identifying differences between those two categories of schools regarding a
series of variables; and (c) to identify eight naturally improving elementary
schools, based on data collected from the survey, and to conduct case study
research in each school for examining the change processes that were
instrumental to that school’s improvement.

Research Questions

The progressive nature of the research design for this study was
necessary because a concrete, operational definition of naturally occurring
school improvement did not exist a priori. Therefore, the first two phases of
the study led to the development of this operational definition and to a
method for selecting through purposeful sampling techniques the eight
schools examined in Phase III.
To facilitate this design, a series of research questions was followed. The specific research questions (and the particular phases that those questions involved) are listed below.

**Phase I Study**

1. What is the frequency distribution of elementary schools that can be classified as improving, declining, or stable in Louisiana?
2. What is the breakdown of frequency distributions in relation to SES and community type across the state?

**Phase II Study**

What context and other variables differentiate between improving and stable schools?

**Phase III Study**

What are the processes that are ongoing in naturally occurring school improvement and do they differ by context variables?

**Methodology for Phase I Study**

The initial phase of this study focused on the establishment of a database consisting of a population of 634 prescribed elementary schools in Louisiana assigned to one of three categories (improving, stable, or declining). In order for an elementary school to be included in the database.
the configuration of the school had to include third grade, with no grade higher than sixth grade.

The methodology used to create this database consisted of a step-by-step statistical analysis using bivariate correlational and regression (ordinary least squares) methods. The dependent variable throughout Phase I consisted of school level composite student achievement scores, known as SIPSCORES in this study. The independent variables throughout Phase I consisted of two hard-to-control variables: socioeconomic status (SES) and community type.

**Process for Establishing the School Effectiveness Index (SEI)**

Much controversy exists in the school effectiveness literature concerning the use of aggregated student achievement scores as indices of school effectiveness status. This study does not suggest that the sole criteria upon which school effectiveness should rely are achievement indicators; however, at this time, a consensus does not exist for alternative indicators.

The process for developing the school effectiveness index (SEI) for this study included establishing a regression procedure by which the criterion variable (composite student achievement scores) was regressed onto two predictor variables (SES and community type). The result of this regression procedure was a set of actual and predicted scores for each prescribed elementary school in the state of Louisiana. The difference between the
actual score and the predicted score is the residual score, which was a positive or negative score that indicated how well the school performed in relation to how well it should have performed, given its contextual or demographic environment. These residual scores served as the SEI in this study. The following sections describe in detail, the step-by-step process used in this study for determining the residual score.

Process for Generating SIPSCORES, the Criterion Variable

Since the literature favors using a composite score as the criterion variable in the regression model to increase the consistency and reliability of school effectiveness classifications (Crone, Lang, Teddlie, & Franklin, 1995; Purkey & Smith, 1983), this study used composite indices called SIPSCORES (Brooks & Oescher, 1992; Crone et al., 1992).

The SIPSCORE was developed by staff members at the Louisiana Department of Education (LDE), Bureau of School Accountability, as part of the Louisiana School Incentive Program (SIP) (Crone et al., 1992). Table 3.1 illustrates the process involved in generating SIPSCORES, which utilized grade level and subject area standardized scores from portions of the state administered norm-referenced (NRT) and criterion-referenced (CRT) standardized tests. Under SIP, those schools that attained a minimum
criterion score were recognized for improving their student performance on these particular student outcome measures.

Table 3.1
Conversion of Student Raw Scores into SIPSCORES

1. Students' raw scores on CRT mathematics and language arts for 3rd and 5th grade LEAP tests, and NRT total battery raw scores on 4th and 6th grade CAT tests
   ↓ converted to
2. Students' scaled scores for each subject area and grade level
   ↓ converted to
3. Students' \( z \) scores for each subject area and grade level
   ↓ converted to
4. Students' mean \( z \) scores for each subject area and grade level
   ↓ converted to
5. A school level \( z \) score for each subject area and grade level
   ↓ converted to
6. A SIPSCORE by dividing the school level \( z \) scores at each subject area and grade level by the number of subject areas and grade levels in the school

Data used for the generation of SIPSCORES in this study were obtained with the permission of the LDE (see Appendix A) and included both CRT and NRT testing data for three years (1991-92, 1992-93, and 1993-94). The CRTs consisted of scaled student scores for the language arts and mathematics portions of the Louisiana Educational Assessment Program (LEAP) tests administered to all third and fifth grade students in Louisiana.
public elementary schools during the three school years designated. The
NRTs consisted of scaled student scores on the total battery of the California
Achievement Tests administered to all fourth and sixth grade students during
the same school years (Louisiana Department of Education, 1994b).

Using the SAS statistical package (SAS Institute, 1985), each individual
student’s raw scores on NRTs and CRTs were converted into student scaled
scores. These student scaled scores were transformed into a z score, using
the state means and standard deviations for each subject area and grade level.
Since the z score is a standardized score expressed as standard deviations
above or below the mean (positive or negative), combining NRTs and CRTs
was appropriate (Hinkle, Wiersma, & Jurs, 1988). The individual student z
scores in each school were averaged in each individual subject area and
grade level by summing the scaled scores for each subject area and grade
level of each test and dividing by the number of students in the school that
participated in those particular tests (Crone et al., 1992). Once a mean z
score was established for each subject area and grade level, they were then
averaged across grade level and subject area, based on the number of subject
areas and grade levels that each school administered. The result of this
process was one composite mean z score, or SIPSCORE, for the entire
school.
The result of this transformational process (by which raw scores across grade level and subject area are converted into one standard score), was a list containing each elementary school in Louisiana along with its standard mean $z$ scores for three consecutive years. These three standard mean $z$ scores (SIPSCORES) were utilized as the dependent or criterion variable in the three regression models.

**Determination of SES Classification, a Predictor Variable**

The school effectiveness research literature regarding the impact of socioeconomic status upon the academic performance of students is detailed in Chapter 2. This literature concludes that the environment in which some child lives has an effect upon that child's performance in school (e.g., Coleman et al., 1966; Jencks et al., 1972). Therefore, when comparing the level of effectiveness across schools, socioeconomic factors must be taken into consideration.

Since accurate data concerning students' family income and the educational background of the parents are not normally maintained by schools, the determination of the overall socioeconomic status of a school's student body is often problematic. One method for determining this school level SES is to use the percentage of students enrolled in the school's free lunch program, since these data are maintained by the schools and are
reported to the LDE. Requirements for enrollment in the free lunch program are related to family income (i.e., the higher the percentage of free lunch participants, the lower the socioeconomic status of the school).

In Louisiana, the percentage of students participating in the free lunch program is determined by the number of students enrolled in the free lunch program divided by the total number of students attending the school (Crone et al., 1992). The percentage of students enrolled in the free lunch program alone, not including students eligible for reduced price lunch, was used as the measure of SES, because it has been demonstrated to be a better indicator of student achievement (Crone et al., 1992).

Data for determining the SES level of each school were obtained from the LDE Bureau of Food and Nutrition, which maintains a database that includes the number of students enrolled in the free lunch program in each school. By creating a data file in SAS (SAS Institute, 1985), a program was written to compute the percentage of free lunch students at the school by dividing the total number of students in the free lunch program by the total number of students enrolled in the school.

Since Louisiana is generally regarded as an impoverished state, finding schools in the database that had 100% of the students enrolled in the free lunch program was common. Based on the high poverty rate across the state,
the criterion for the establishment of the two levels of SES was 70%: those schools that had a percentage of free lunch students at or above 70% were designated as low-SES; those below 70% were designated as mid-SES. Using this procedure, 31% of the schools were designated mid-SES and 69% of the schools were designated low-SES.

For Phase I, each individual school’s percentage of free lunch was entered into the regression model as a predictor variable. This criterion was also used in designating SES levels for schools surveyed in Phase II.

**Determination of Community Type, a Predictor Variable**

Results from the school effectiveness literature concerning community type as a predictor of student performance is contained in Chapter 2. This literature suggests that the type of community setting in which students reside has an effect upon their performance in school. Consequently, community type was utilized as the second predictor variable in the regression model.

Community type (COMTYPE) data were also obtained from the LDE (Louisiana Department of Education, 1994a). This variable defined a school based upon certain demographic characteristics of the community in which the school was found. The characteristics for each community type are listed as follows:
1. **Metropolitan Core City**: In terms of community type, schools that are found in a city determined by the United States Office of Management and Budget to be a social and economic hub of a Metropolitan Statistical Area (MSA), and with a minimum population of 25,000. In Louisiana these cities include New Orleans, Baton Rouge, Shreveport, Alexandria, Monroe, Lafayette, and Lake Charles.

2. **Urban Fringe**: In terms of community type, schools that are found in a closely settled area contiguous to a Metropolitan Core City, with a minimum population of 2,500 and/or a population density of at least 1,000 per square mile. An example of this type of community would be Metairie.

3. **City**: In terms of community type, schools that are located in an area that is not a metropolitan core city or urban fringe, with a minimum population of 2,500 and/or a population density of at least 1,000 per square mile. An example of this type of community would be Crowley.

4. **Town**: In terms of community type, schools that are located in an area that is not contiguous to any city or urban area, with a minimum population of 2,500 and/or a population density of at least 1,000 per square mile. An example of this type of community would be Winnfield.
5. **Rural**: In terms of community type, schools that are located in an area with less than 2,500 and/or a population density of less than 1,000 per square mile. An example of this type of community would be Iota.

The community type of each school was entered into a SAS data file to be included in the regression procedure as a predictor variable. Since the data were listed as a categorical variable, it was necessary to recode the data as a continuous variable ranging from rural to metropolitan (Crone et al., 1992). The community type categories were numerically recoded at the school level as follows: Rural (1); Town (2); City (3); Urban Fringe (4), and Metropolitan Core City (5).

As mentioned above, the criterion for including an elementary school in this study was that the school grade configuration must contain third grade, with no grade higher than sixth grade. Based upon this criterion, it was determined that a population of 634 elementary schools exists in Louisiana. As noted in Table 3.2, these 634 elementary schools included 146 rural, 82 town, 88 city, 94 urban fringe, and 224 metropolitan core city schools. This indicated that approximately 25% of the schools were in rural areas, about 25% were in towns, and small cities, and approximately 50% of the schools were in urban or suburban areas.
Table 3.2
Number and Percentage of Louisiana Elementary Schools by Community Type

<table>
<thead>
<tr>
<th>Rural</th>
<th>Town</th>
<th>City</th>
<th>Urban Fringe</th>
<th>Metropolitan Core City</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>146</td>
<td>82</td>
<td>88</td>
<td>94</td>
<td>224</td>
<td>634</td>
</tr>
<tr>
<td>(23.03%)</td>
<td>(12.93%)</td>
<td>(13.88%)</td>
<td>(14.83%)</td>
<td>(35.33%)</td>
<td>(100%)</td>
</tr>
</tbody>
</table>

The Regression Procedure

As the SEI for this study, residual scores were the basis for determining whether a school should be classified as improving, stable, or declining over the three-year period from 1991-94. As noted above, the procedure for determining the SEI was a regression (ordinary least squares) analysis that allowed the dependent or criterion variable (SIPSCORES) to be regressed upon certain hard-to-control independent or predictor variables (SES and community type).

Programs were written to determine whether a significant relationship between the criterion and predictor variables existed, utilizing the General Linear Model (PROC GLM) Procedure and the Correlation Procedure (PROC CORR) in SAS (SAS Institute, 1985). The results of these analyses

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are discussed in detail in Chapter 4. They indicated that there were significant relationships among the variables.

The output files that resulted from these statistical procedures also included a list containing each elementary school in the state of Louisiana, with a residual score, or SEI, for three separate years. These residual scores were labeled as RES92, RES93, and RES94.

Categorization of Schools as Improving, Stable, or Declining

The final step in Phase I involved the actual assignment of each school to a specific category (improving, stable, or declining). The a priori criterion in this study for improving school status required that there be a consistent increase in the residual score for each of the three years. This standard was based on communication with experts in the field (e.g., A. Tashakkori, personal communication, July 9, 1994). Also, this criterion agreed with a standard designation of improvement used by the LDE, which called for continuous improvement over a three-year period (Louisiana Department of Education, 1992). A secondary consideration in establishing this criterion was the need to create a population of improving and stable schools significantly large enough to draw a sample for Phase II of the study.

The procedure for the determination of this criterion consisted of taking the difference between RES92 and RES93, which was labeled
RESCHANGE9293, and the difference between RES93 and RES94, which was labeled RESCHANGE9394. For both RESCHANGE scores a median split was created with those scores above the median coded 1, and those below the median coded 2. A cross-tab table was created and those schools coded 1 for both RESCHANGE scores were classified as improving schools, those schools coded 2 for both RESCHANGE scores were classified as declining schools, and those that were inconsistent (either 1, 2 or 2, 1) were classified as stable schools. Based on this regression analysis, 124 schools were designated as improving, 386 schools were designated as stable, and 124 schools were designated as declining. A more detailed description of these results is contained in Chapter 4.

Several other criteria were considered while searching for the most logical criterion for classifying schools based upon their improvement status. These alternative criteria involved analyzing the overall change between RES92 and RES94 in terms of standard deviation (sd) units. Chapter 4 contains results regarding these alternative criteria, including the frequencies for improving, stable, and declining schools based on a criterion of ±.674 sd, ±.333 sd, or ±.167 sd. These results are contrasted with the frequencies established by the a priori method in Chapter 4.
Methodology for Phase II Study

The research design for Phase II of this study involved the development of a survey instrument entitled *School Improvement Survey* (see Appendix B), and the administration of the survey to a random sample of principals in improving and stable schools, as designated from Phase I results. Data collected from these surveys were then analyzed using chi-square, MANOVA, and ANOVA procedures to determine if a significant difference existed between improving and stable schools across any of the survey variables.

Phase II of the study was purely exploratory in nature: that is, there were no *a priori* hypotheses, just one simple research question (What context and other variables differentiate between improving and stable schools?) The *School Improvement Survey* was developed using six different sources:

1. a set of principal demographic and school characteristic items, which were developed for the purposes of this study based on similar items from other surveys, designated as DVG-1;

2. a set of relevant items taken from the *1993-94 Progress Profiles*, published each year by the LDE (Louisiana Department of Education, 1995), designated as DVG-2;
3. a set of three items related to the three major areas of site-based management identified in a recent literature review of the restructuring field (Pol & Teddlie, 1996), designated as DVG-3;

4. a set of 10 items developed for this study based upon the areas that Miles and Huberman (1984) used to characterize external change processes, designated as DVG-4;

5. a set of 16 items adapted from a scale used in the UK for mapping change in schools (Ainscow et al., 1994), designated as DVG-5;

6. a set of five open-ended items developed for this study that allowed the principals to briefly describe new initiatives for improvement undertaken at their schools in the past four years, designated as DVG-6.

Phase II was exploratory in nature and the instrument consisted of a collection of items assessing a variety of widely diverse areas, therefore, no validation study was conducted on the instrument. The face validity of the item subsets developed for this study (DVG-1, DVG-3, DVG-4, and DVG-6) was determined to be adequate based upon a review by five experts (three educational administrators, two professors in a College of Education).

The reliability and validity ratings for the items taken from the 1993-94 Progress Profiles (DVG-2) were not reported by the LDE (Louisiana Department of Education, 1995). Despite this, these items are widely
referenced, basic school information gathered by the LDE for more than 130 years. These data were assumed to be highly reliable and valid measures of basic school characteristics (e.g., school population, faculty size, student suspensions, etc.).

The items for mapping change in school (DVG-5), also, had no reported reliability and validity ratings (Ainscow et al., 1994). They were developed in the UK as part of a series of new, more user-friendly, yet penetrating techniques for investigating and measuring the complex processes and relationships involved in mapping the processes of school change. The development of these techniques involved four stages, including two field tests in UK schools participating in the IQEA school improvement project based at the University of Cambridge Institute of Education. While statistical evidence of validity and reliability of the techniques was not available, there was face validity for the items, evidenced by the fact that the techniques were incorporated into the data collection activities in the IQEA school improvement project (Ainscow et al., 1994).

In the current study, DVG-5 items were used to contrast schools designated as improving and stable. If significant results were found, then the instrument could be said to be discriminating between two groups that differ on degree of change in effectiveness status (one group stable, one
group improving). If such results were to be obtained, then this would constitute a construct validation of the instrument.

The results for the quantitative analyses of the first five sets of variables are presented as a series of five separate MANOVAs (followed by univariate ANOVAs when appropriate) in Chapter 4. The five sets were analyzed separately because they contain such widely diverse items.

The responses to DVG-6 were analyzed both quantitatively and qualitatively. The quantitative analyses consisted of chi-squares analyses of the frequencies of yes-no responses and are reported in Chapter 4. More detailed descriptions of each of the DVG sets are contained in the next sections of this chapter.

**Dependent Variable Group 1 (DVG-1)**

The items associated with DVG-1 can be considered descriptive in nature, focusing on basic principal demographic information and school characteristics. The following list details the items found in this dependent variable group: principal’s gender; principal’s ethnicity; principal’s age; principal’s tenure at the school; principal’s total tenure; number of new faculty members; change in attendance zone (yes, no); school departmentalization (yes, no); and participation in an external school...
improvement plan (yes, no). These items are numbered 1 through 3, 5 through 8, and 10 in Section I of the survey (see Appendix B).

Dependent Variable Group 2 (DVG-2)

Although not included in the survey data, certain other demographic variables were added to the data set of each school. As noted above, this information was gleaned from the 1993-94 Progress Profiles compiled by the LDE (Louisiana Department of Education, 1995). The data included numeric and percentage values for the following:

1. School population
2. Faculty size
3. Percentage of faculty with Master's degree
4. Percentage of student daily attendance
5. Percentage of student suspensions
6. Percentage of student expulsions

Dependent Variable Group 3 (DVG-3)

DVG-3 contained responses to three items seeking information about the degree of site-based management that principals perceive to be taking place in their schools. The three general topics referred to are site-based management decisions concerning leadership, curriculum, and budget. These are the three major areas of restructuring, as identified in a recent literature
review by Pol and Teddlie (1996). The items in DVG-3 were numbered 9A through 9C in Section I of the survey (see Appendix B).

**Dependent Variable Group 4 (DVG-4)**

Also included in the survey was a list of 10 closed-ended questions related to seven areas associated with successful change in educational settings, according to Huberman and Miles (1984). These items were included to determine if change processes in naturally occurring environments differ from those change processes associated with external innovations.

Huberman and Miles (1984) summarized their findings regarding these seven areas as follows:

1. **Setting** - Innovations occurred when the school’s district was reasonably stable and had at least a moderate past interest in new programs. (Huberman & Miles, 1984);

2. **Motives and Attitudes toward Adoption** - Huberman and Miles (1984) identified four motives for innovations: administrative pressure, the promotion of professional growth and expansion, added funding, and (occasionally) a perceived need to solve specific problems;
3. **Initial Perceptions and Assessments** - Teachers and principals saw innovation as hard work, while central office staff saw it as an easy process (Huberman & Miles, 1984):

4. **Early Implementation** - A good predictor of success of an innovation is whether or not the principal and administrators held out for the fidelity of the implementation (Huberman & Miles, 1984);

5. **Assistance** - Large scale, change bearing innovations succeeded based upon the amount and quality of assistance that the users received after the innovation was underway (Huberman & Miles, 1984);

6. **Transformation** - Huberman and Miles (1984) found that transformation was greatest when local administrators maintained the fidelity of the change model and least when the change model was changed to meet the specific perceived needs of the local school; and

7. **Change in User Practice** - Users of the innovation will typically view any change as being within themselves. They saw themselves as becoming better practitioners and getting to know their students better (Huberman & Miles, 1984).

Stringfield and Teddlie (1990) used these seven areas to compare the data they had obtained from four schools they had identified as experiencing naturally occurring school improvement. They found that many assumptions
that hold true for externally directed school improvement did not hold true for the four schools that were improving naturally. It was hoped that these findings could be expanded in the current research by including survey questions based on these seven identified areas.

The 10 items in DVG-4 are numbered 1 through 10 in Section II of the survey (School Change Processes). An example of these items, related to assistance in implementation, follows (see Appendix B): Item #5, Section II

1 = The success of an innovative change in a school depends on a great deal of assistance from outside of the school

2 = The success of an innovative change in a school depends on some help from outside of the school

3 = The success of an innovative change in a school is internal to the school; success does not depend on any help from outside of the school

It was anticipated that principals in schools that had undergone substantial naturally occurring school improvement would be more likely to mark response number three.

**Dependent Variable Group 5 (DVG-5)**

Another set of 16 items was included in the survey based on the work of Ainscow et al. (1994), researchers at Cambridge University who have developed a system for mapping change in UK schools. The 16 items were
adapted from a set of 24 items that comprised a scale for measuring a
school's internal conditions and potential for innovation. The 16 items were
selected for inclusion in the survey as representing the items that would best
fit U.S. schools.

Some items were specific to the UK setting (i.e., items referring to UK
school organizations that differ from Louisiana elementary schools).

Ainscow et al. (1994) described the following "key" conditions within
schools that enhance the school's capacity for improvement:

1. proper attention to the potential benefits of inquiry and reflection;
2. a commitment to collaborative planning;
3. the involvement of staff, students, and the community;
4. a commitment to staff development;
5. effective coordination strategies; and
6. leadership at all levels of the school (Ainscow et al., 1994, p. 52).

These items were included to determine whether any differences existed in
the principals' perceptions regarding the conditions for change in improving
and stable schools.

The first area (Inquiry/Reflection) is represented by the following
questions in Section IV (numbers 1 through 3) of the survey, to be answered
by choosing one of four possible Likert scale responses ranging from most
positive (1) to least positive (4):
1. We talk about the quality of teaching.

2. We review the progress of changes that we introduce.

3. Teachers are encouraged to reflect on their teaching methods.

The remaining five areas are represented by items numbered 4 through 16 in Section IV of the survey (see Appendix B).

**Dependent Variable Group 6 (DVG-6)**

Section III of the survey contained five open-ended items (see Appendix B). The first three items asked the principal to consider the last four years at the school and determine whether any new programs have been implemented in the areas of academic programs, discipline programs, and staff development programs. A yes-no response was requested along with directions to describe these programs. A secondary question asked the principal to rate the success of the program.

The fourth item in this section asked whether the central office monitors the school's attempts to improve, and the fifth question asked the principal to describe the impact the community had on change at the school. These questions were then analyzed by using chi-square tests to determine if improving and stable schools differed in their yes-no responses to these items.

**Determination of the Sample**
The survey was administered to principals from the entire population of 124 improving schools and 124 stable schools randomly selected from a population of 386 stable schools identified in Phase I, using a table of random numbers (Borg & Gall, 1989).

The principal of the school was designated to complete the survey and return it to the researcher. The sample size for each group was set at +100, which is the recommendation by Sudman (1976) as the minimum sample size for survey research.

**Administration of the Survey**

Once the sample was selected, a packet was sent to each school containing an individualized cover letter addressed to the principal explaining the study and detailing the instructions for completing the survey (see Appendix C), plus a copy of an introductory letter from Mr. Sam Pernici, Director of the Bureau of School Accountability, Louisiana Department of Education (see Appendix D). The packet also included a copy of a color-coded survey (white for improving; yellow for stable) (see Appendix B) along with a self-addressed, stamped return envelope. The principals were unaware of their particular group membership.

The first mailout took place on May 22, 1995. The overall response rate after the first mailout was 54%. Due to this less than desirable response rate,
a second mailout was sent to the schools on July 21, 1995. After the second mailout the response rate increased to 64% (70% for stable schools and 58% for improving schools), which is just below the typical response rate after two mailouts (68%), as reported by Borg and Gall (1989). The second mailout contained the same items as the first mailout, except that the cover letter was revised to indicate that a previous mailout was sent to the principal (see Appendix E).

A third mailout was administered on March 11, 1996 in an attempt to increase the overall response rate. Because of the third mailout, the final response rate rose to 69% (73% for stable schools and 65% for improving schools), which is below the typical response rate after three mailouts (79.9%) as reported by Borg and Gall (1989). Nevertheless, the nearly 70% response rate was considered adequate for the purposes of this exploratory study.

Methodology for Phase III Study

Using data from Phases I and II, outliers in the category of improving schools were identified and from this group of schools, preliminary interviews with principals were conducted to determine whether these schools were improving naturally. Naturally occurring school improvement was determined to exist in any school that initiated a school improvement project where the idea for the innovation originated from within the school
community. School community was determined to include parents and local businesses, and also teachers and administrators.

**Selection of Eight Schools for Case Study Research**

The following procedure was utilized in selecting the final sample of eight improving schools for the case studies. First, the survey responses to open-ended item number four (Does the central office monitor the results of your attempts to improve your school? Does the central office make efforts to encourage and promote change from within your school?) was checked. If the principal marked "yes" to this response, then their school was eliminated from the sample for Phase III.

Second, all responses to open-ended items, numbers one through three, were read closely to determine the degree of involvement between the principal and the central office. If the principal responses indicated that these programs were mandated by the central office, then their school was eliminated from the sample for Phase III.

Third, eight schools were selected that matched the criteria for inclusion and were stratified by the following four "types" through purposeful sampling techniques: urban, mid-SES; urban, low-SES; rural, mid-SES; and rural, low-SES (Patton, 1990). Consideration was also given to location, with each geographical region of the state represented.
A final check was then used to determine whether the improvement occurred. This involved contacting the principal of the eight potential schools and conducting an interview focusing on the types of school improvement projects that have been ongoing for the past three years at that particular school. Inquiries about whether the idea for the plan originated within the school community or whether it was mandated from the district or state level were also made. Another line of inquiry focused on the implementation of the program and whether the district provided support for the program after initial implementation.

Further contact was then made to gain entree to each school for conducting an on-site qualitative investigation. The principals of the eight schools were again contacted and asked to participate in the study, and all eight schools agreed. Permission was then sought and obtained from the central office of each school’s local education agency (LEA) (see Appendix F).

Data Collection for Case Study Research

Data collection in each of the eight schools was conducted over a two-day period. During this time, all third grade classes were observed for a minimum of 50 minutes. Field notes were taken and two observation instruments were employed to gain a sense of the curriculum and the
teaching methods used by the faculty of these schools. The observation instruments were the Stallings Time-on-Task and the Virgilio Teacher Behavior Inventory (see Appendixes G and H).

These instruments were used by Teddlie and Stringfield (1993) in the Louisiana School Effectiveness Study as part of the determination of the level of effectiveness in each school. In this study, the data obtained by these instruments were used to provide class level data regarding the delivery of instruction in the schools to provide a measure of the effectiveness of instruction, and to provide an indication of the type of teaching methods and strategies utilized in the school.

An interview was conducted with the principal and at least half the faculty during the two-day visits to the outlier schools. The protocol for these interviews included questions used by Gray et al. (1994) in a similar study in the UK. The interview protocols consisted of open-ended, semi-structured questions covering the following areas:

1. **Short-Term Tactics** - What strategies have the schools employed to bring about a change in curriculum and student performance? Do these strategies include “teaching the test” tactics?

2. **School Personnel** - What is the teachers’ attrition rate in the school over the past three years? Have key teachers left the school, or have any
“super” teachers been hired by the school? What are the procedures for recruiting teachers to the school? How long has the principal been in office? Was he promoted from within or without?

3. **School Development/Improvement Strategies** - Did the school develop any particular improvement goals over the past three years? How did the school develop these goals? Why did the school feel that an improvement plan was necessary? What was the key motivation for developing a change strategy?

4. **The Context of Change** - Was there any time in the past three years when the school was in the spotlight of the community? Were any external evaluations of the school conducted? Are there any factors that enhance local competition between schools? What influence have national or state reforms played in the school’s improvement? Have there been any significant changes in the students served by the school? Have expectations from the community changed in relation to the school? What is the influence of school-initiated ideas on the school’s improvement?

5. **The Experience of Change** - How have the teachers responded to the changes in the school over the past three years? Are the teachers aware that their school is improving? Has the overall teachers’ morale in the school
changed in the last three years? How do the people in the school explain the changes over the past three years?

These interview protocols were designed to be administered to the principal, one-third to one-half of the faculty, key central office staff, and other members of the school and community. Field notes and interview responses generated from these on-site visits were analyzed using Qualpro, a qualitative text management software program (Blackman, 1993). Emergent themes were identified using various qualitative data analysis techniques, particularly the constant-comparative technique (Lincoln & Guba, 1985).

The overall purpose of collecting these data was to reconstruct the events of the past three years and construct case studies of the eight schools (Patton, 1990; Yin, 1989).
CHAPTER 4: QUANTITATIVE RESULTS FROM PHASES I AND II

Phase I Study

Background for Phase I Study

Although the primary focus of this study was school improvement in naturally occurring settings, the methodology for Phase I involved the creation of a database that assigned all prescribed elementary schools in Louisiana to one of three categories (improving, stable, or declining). Based upon a longitudinal analysis of each school's effectiveness index (residual z scores) over a three-year period (1991-1994), this database served the purpose of providing descriptive information concerning the change status of Louisiana elementary schools, as well as providing the criteria upon which a sample of improving and stable schools were selected and surveyed during Phase II.

The methodology in Phase I was guided by the following research questions:

1. What is the frequency of elementary schools in Louisiana that can be classified by the categories, “improving,” “declining,” or “stable?”; and

2. What is the breakdown of these category frequencies in relation to SES and community type across the state?
Establishment of a School Effectiveness Index

One aspect of the overall methodology used to answer these research questions included the establishment of an acceptable school effectiveness index (SEI). Although school effectiveness research has developed an extensive literature base over the past 25 years, a "chink in the armor" continues to be a lack of a universally accepted method of classifying schools based on their level of effectiveness (e.g., Good & Brophy, 1986; Levine & Lezotte, 1990; Purkey & Smith, 1983; Rowan et al., 1983). The most widely used technique in the U.S., the regression (ordinary least squares or OLS) model which establishes SEIs based on residual scores, has shown some problems in terms of stability of effectiveness estimates over time (e.g., Mandeville & Anderson, 1987; Purkey & Smith, 1983; Rowan et al., 1983). However, for more than 20 years, since Dyer et al. (1969) attempted to control for student context and demographic variables, the regression model has been the most frequently used technique for establishing SEIs (e.g., Lang, 1991; Mandeville & Heidari, 1988).

In the UK, these regression-based SEIs are known as "value-added" scores (Fitz-Gibbon, 1996). While some advocate the use of more advanced multilevel models for the generation of SEIs, research shows that multilevel models (focusing on the school level) and regression models (with the school
as the unit of analysis) yield similar statistics (e.g., Kennedy et al., 1993; Fitz-Gibbon, 1996). Due to the ease of interpretability and historical precedence (especially within the state in which this study was conducted), residual scores based on regression analyses were used as the SEI in this study.

**Stability of school effectiveness indices.**

The stability of school effectiveness indices is a major issue often cited in the school effectiveness literature. Stability refers to how constant the measures of school effectiveness are across different points in time (Crone et al., 1994). Since the focus of this study is to identify improvement or change in schools over a specific period of time, the lack of stability in SEI estimates is not a major concern for this study.

As a matter of fact, Good and Brophy (1986) stated that some instability in SEI estimates is expected to exist: “The conditions of effective schools may be only temporary, and as principals, teachers, and student cohorts change, so too may the level of school effectiveness” (p. 573). This idea is further expanded by a contingency theory of school effectiveness (Slater & Teddlie, 1992) that states that once a school reaches a high level of effectiveness, other processes may be required to maintain that level of effectiveness or the school will begin to decline (the principle of entropy).
Therefore, the lack of stability over time may not be related to the reliability of the index, but to an actual change in the level of effectiveness that is, to a certain degree, expected.

**Consistency of school effectiveness indices.**

Of some concern in the present study was the issue of consistency of SEIs. When the method used to establish a SEI differs, the classification of the school often changes as well. For example, if the student achievement measurement used as the criterion variable in a regression model is based on reading scores, the school effectiveness classification may be different from a classification based on mathematics scores (e.g., Witte & Walsh, 1990). Therefore, Purkey and Smith (1983) suggested that using only one subject area or grade level as the measure of student achievement may give a very limited view of a school's effectiveness.

Mandeville and Anderson (1987) reported finding no "appreciably higher" consistency of scores with a combined reading-mathematics score, but stated that a composite should provide increased reliability. Crone et al. (1995), using a combined language arts/mathematics score as the criterion variable in a regression model found that the composite scores yielded a higher consistency of scores than the component scores.
Results from Phase I Study

Bivariate Correlations of Predictor and Criterion Variables

Results from Phase I of this study were analyzed using both bivariate correlation and multiple regression. Means, standard deviations, and Pearson correlations for all three models appear in Tables 4.1, 4.2, and 4.3. The bivariate correlations revealed that both predictor variables (socioeconomic status [SES] and community type [COMTYPE]) were significantly related to the criterion variable (school level composite z score) in each successive regression model. In Model 1 for Academic Year 1991-92, SES92 ($r = -.80$) and COMTYPE ($r = -.23$) were significantly related to achievement ($92Z$) at $p < .0001$, and both were in the predicted direction. In Model 2 for

Table 4.1
Means, Standard Deviations, and Intercorrelations for Model 1, Academic Year 1991-92

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>sd</th>
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<th>2</th>
<th>3</th>
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</thead>
<tbody>
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<td></td>
<td></td>
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<tr>
<td>2. SES92</td>
<td>60.41</td>
<td>24.59</td>
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<td></td>
</tr>
<tr>
<td>3. COMTYPE</td>
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<td>1.60</td>
<td>-.23*</td>
<td>.12**</td>
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</tr>
</tbody>
</table>

Note. N = 634: *$p < .0001$; **$p < .005$
Table 4.2
Means, Standard Deviations, and Intercorrelations for Model 2.
Academic Year 1992-93

<table>
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<th>Variable</th>
<th>Mean</th>
<th>sd</th>
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<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 93Z</td>
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<tr>
<td>2. SES93</td>
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<td>3. COMTYPE</td>
<td>3.26</td>
<td>1.60</td>
<td>-.21*</td>
<td>.12**</td>
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</tr>
</tbody>
</table>

Note. N = 634 *p < .0001 **p < .005

Table 4.3
Means, Standard Deviations, and Intercorrelations for Model 3.
Academic Year 1993-94

<table>
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<tr>
<th>Variable</th>
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<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>1. 94Z</td>
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<td>2. SES94</td>
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<td>3. COMTYPE</td>
<td>3.26</td>
<td>1.60</td>
<td>-.20*</td>
<td>.11**</td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 634 *p < .0001 **p < .01

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Academic Year 1992-93, SES93 ($r = -.80$) and COMTYPE ($r = -.21$) were significantly related to achievement (93Z) at the $p < .0001$, and both were in the predicted direction. In Model 3 for Academic Year 1993-94, SES94 ($r = -.77$) and COMTYPE ($r = -.20$) were significantly related to achievement (94Z) at $p < .0001$, and both were in the predicted direction.

**Results from Multiple Regression Models**

Using three separate multiple regression models, the $z$ scores for each of the three years were regressed on the linear combination of SES and COMTYPE for the three like years. The results of the equation for all three models are contained in Tables 4.4, 4.5, and 4.6.

In Model 1, the equation containing the predictor variables, SES92 and COMTYPE accounted for 66% of the variance in the criterion variable 92Z [$F(2,631) = 601.07$, $p < .0001$, adjusted $R^2 = .65$]. In Model 2, the linear equation of SES93 and COMTYPE accounted for 65% of the variance in 93Z [$F(2,631) = 577.32$, $p < .0001$, adjusted $R^2 = .65$]. In Model 3, the linear equation containing SES94 and COMTYPE accounted for 60% of the variance in the criterion variable 94Z [$F(2,631) = 479.29$, $p < .0001$, adjusted $R^2 = .60$].
Table 4.4
**Model 1. Criterion Variable 92Z**

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<tr>
<th>Source</th>
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<th>R²</th>
<th>Adj. R²</th>
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<td>Total</td>
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Table 4.5
**Model 2. Criterion Variable 93Z**

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<th>Prob &gt;F</th>
<th>R²</th>
<th>Adj. R²</th>
</tr>
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<tbody>
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<td>204.66</td>
<td>577.32</td>
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Table 4.6
**Model 3. Criterion Variable 94Z**

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<th>Source</th>
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<th>Prob &gt;F</th>
<th>R²</th>
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</table>
Results Concerning the Overall Classification of Schools

Restatement of research questions guiding Phase I.

As stated earlier, the research questions guiding Phase I of the study are as follows:

1. What is the frequency of elementary schools in Louisiana that can be classified by the categories, “improving,” “declining,” or “stable”; and

2. What is the breakdown of these category frequencies in relation to SES and community type across the state?

After analyzing all variables and determining that a significant relationship existed between them, the next step involved establishing a criterion for “improving,” “stable,” and “declining” schools. Based upon the parameters established for the inclusion of a school into the study (an elementary school that has a configuration containing a third grade, but does not include a grade higher than sixth grade), the N for elementary schools in Louisiana is 634.

Using the General Linear Model (GLM) Procedure in SAS (SAS Institute, 1985), regressions were run for each of the three years, using the composite z scores as the criterion variable, and the school’s SES and community type as predictor variables. This regression procedure created actual and predicted z scores for each school. The difference between the
actual z score and the predicted z score established a residual z score for each school, labeled as RES92, RES93, and RES94, respectively.

**Establishment of the criteria for improving schools.**

The criteria established to designate a school as improving included a requirement that the school demonstrate a consistent increase in its residual scores over the prescribed three-year period. The procedure for determining whether a school met this value involved creating a new variable called RESCHANGE9293. This variable was equal to the difference between RES92 and RES93. Likewise, a new variable called RESCHANGE9394 was created that equaled the difference between RES93 and RES94. For both RESCHANGE scores a median split was established, with those scores above the median being coded as 1, and those below the median coded 2. A cross-tab table was created and those schools coded 1 for both RESCHANGE scores were classified as improving schools, those schools coded 2 for both RESCHANGE scores were classified as declining schools, and those that were inconsistent (either 1, 2 or 2, 1) were classified as stable schools.

Several other standards were examined to find the most logical criterion for classifying schools based upon their improvement status. A major consideration in establishing this criterion was the need to establish a
population of improving and stable schools significantly large enough for Phase II of the study. Other standards involved analyzing the overall change between RES92 and RES94. Depending on how far above or below the mean each school's residual change score fell over the three-year period, the classifications for improving, stable, and declining were established. Table 4.7 contains the frequencies for improving, stable, and declining schools based on a criterion of ±.674 \( \text{sd} \), ±.333 \( \text{sd} \), and ±.167 \( \text{sd} \), in contrast to the frequencies established by the present study method described above.

<table>
<thead>
<tr>
<th>Study Method</th>
<th>.674 sd</th>
<th>.333 sd</th>
<th>.167 sd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving</td>
<td>124</td>
<td>41</td>
<td>137</td>
</tr>
<tr>
<td></td>
<td>(19.56%)</td>
<td>(6.5%)</td>
<td>(21.6%)</td>
</tr>
<tr>
<td>Stable</td>
<td>386</td>
<td>545</td>
<td>358</td>
</tr>
<tr>
<td></td>
<td>(60.88%)</td>
<td>(86.0%)</td>
<td>(56.5%)</td>
</tr>
<tr>
<td>Declining</td>
<td>124</td>
<td>48</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>(19.56%)</td>
<td>(7.6%)</td>
<td>(21.9%)</td>
</tr>
</tbody>
</table>

As Table 4.7 indicates, a change in classification standards substantially alters the frequency for each category. Using standard deviations as the criterion, the frequencies established by the criterion of
±.333 \text{sd} \text{ closely resemble} the frequencies obtained by the procedure used in the present study.

Based upon the literature regarding the establishment of criteria for effective schools, it was predetermined that this study would recognize a change of +.674 \text{sd} above the mean across all three years as representing an improving school. The logical "leap" from effectiveness to improvement was suggested by Lang (1991) and Scheerens (1992), who determined that such a deviation generated a set of SEIs with desirable properties for effective schools. The assumption was made that if a SEI of +.674 \text{sd} indicates an effective school, then a change of +.674 \text{sd} over a period of time would indicate an improving school. However, as Table 4.7 indicates, only 6.5% of the schools were classified as improving. This criterion significantly reduced the chances of finding schools that were improving in a naturally occurring environment.

Consideration for using the .333 \text{sd} (or consistent improvement) as a criterion has face validity because it indicates that an improving school can gain one-half the difference between an effective and/or average school in only two years. Since many school improvers (e.g., Fullan, 1994; Accelerated Schools; etc.) indicate that true change takes 3-5 years, then change of this size seems appropriate to classify a school as improving.
Partial Replication of the Gray et al. (1995) Study

This study actually constituted a partial replication of a study conducted in the UK using data from the same time period. In measuring the degree of change in 30 secondary schools over a three-year period in the UK, Gray et al. (1995), grouped the schools' residuals into the top quarter, the middle half, and the bottom quarter for the years 1990 and 1992. Similarly, the schools' residuals in the present study were grouped for the years 1992 and 1994.

It should be emphasized that the present study is not a complete replication of the Gray et al. (1995) study, as indicated by the many dissimilarities between the two, including a difference in sample size (Gray et al. [1995] examined 30 schools, the present study included 634), and school configurations (Gray et al. [1995] looked at secondary schools, the present study looked at elementary schools). It is also important to note that the Gray et al. (1995) study used a more complex mathematical model (HLM) in determining residual scores, and the SEIs that were used were different as well.

The fact that so many methodological dissimilarities existed between the studies makes the similarities in results very interesting. Table 4.8 generated by Gray et al. (1995) and Table 4.9 generated by Freeman &

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Teddlie (1996) presents a comparison between the two studies. Data from Table 4.8 indicates that 67% of the schools in the Gray et al. (1995) study were similarly assessed in terms of effectiveness over the three-year period, while 33% of the schools experienced some changes. Of the schools changing in terms of effectiveness, 18% improved and 15% declined over the three years. Table 4.9 indicates that 64.7% of the schools in the Freeman and Teddlie (1996) study were similarly assessed in terms of effectiveness over a three-year period, while 36.3% of the schools experienced some change. Of the schools experiencing some change, 18.6% improved and 17.7% declined.

Table 4.8
Changes in Schools’ Effectiveness over Time (Gray et al., 1995)

<table>
<thead>
<tr>
<th>Position in 1990</th>
<th>Position in 1992</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Quarter</td>
<td></td>
</tr>
<tr>
<td>Middle Half</td>
<td></td>
</tr>
<tr>
<td>Bottom Quarter</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Top Quarter</th>
<th>Middle Half</th>
<th>Bottom Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) 15%</td>
<td>(2) 6%</td>
<td>(3) 0%</td>
</tr>
<tr>
<td>(4) 9%</td>
<td>(5) 34%</td>
<td>(6) 9%</td>
</tr>
<tr>
<td>(7) 0%</td>
<td>(8) 9%</td>
<td>(9) 18%</td>
</tr>
</tbody>
</table>

Note: Table cell numbers are in parentheses.
The only noticeable difference between the two tables appears in the number of schools that demonstrated substantial changes over the three-year period. In the Gray et al. (1995) study (Table 4.8), there were no schools that improved from the bottom quarter to the top quarter and no schools that declined from the top quarter to the bottom quarter over the three-year period. However, in the Freeman and Teddlie (1996) study (Table 4.9), there were four schools that improved from the bottom quarter to the top quarter and nine schools that declined from the top quarter to the bottom quarter over the three-year period. Readers should keep in mind that the $N$ in the present study is 634 and the $N$ in the Gray study was 30. Therefore, sample size alone may explain why some schools improved or declined so much in the Louisiana study and not in the UK study.

The comparison between the results found in the present study and the results of the Gray et al. (1995) study provided a degree of face validity to the study's method of selection and categorization of schools as improving, stable, and declining. This determination is based on the fact that the criterion selected for determination of these categories in the present study has provided a similar rate of change in school effectiveness to that found by the Gray et al. (1995) study.
Table 4.9
Changes in Schools’ Effectiveness over Time (Freeman & Teddlie, 1996)

<table>
<thead>
<tr>
<th>Position in 1992</th>
<th>Top Quarter</th>
<th>Middle Half</th>
<th>Bottom Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top Quarter</td>
<td>(1) 99</td>
<td>(2) 51</td>
<td>(3) 9</td>
</tr>
<tr>
<td></td>
<td>(15.62%)</td>
<td>(8.04%)</td>
<td>(1.42%)</td>
</tr>
<tr>
<td>Middle Half</td>
<td>(4) 56</td>
<td>(5) 208</td>
<td>(6) 52</td>
</tr>
<tr>
<td></td>
<td>(8.83%)</td>
<td>(32.81%)</td>
<td>(8.20%)</td>
</tr>
<tr>
<td>Bottom Quarter</td>
<td>(7) 4</td>
<td>(8) 58</td>
<td>(9) 97</td>
</tr>
<tr>
<td></td>
<td>(0.63%)</td>
<td>(9.15%)</td>
<td>(15.30%)</td>
</tr>
</tbody>
</table>

Note. Table cell numbers are in parentheses. Cell percentages are indicated.

Results Concerning the Frequency of Schools Across Context Variables

The answer to Research Question 2 for Phase I of this study, (i.e., what is the breakdown of category frequencies in relation to SES and community type across the state?), is contained in Tables 4.10 through 4.12.

Table 4.10 illustrates the results of the analysis of the population of all 634 elementary schools in the state of Louisiana. As noted above, 124 (19.56%) of the schools were classified as improving over the prescribed three year period, while 386 (60.88%) were classified as stable. An additional 124 (19.56%) of the schools were classified as declining. Table 4.10 further illustrates the frequency of schools identified by community type. The largest number of schools was in metropolitan areas, 224
(35.33%), and the smallest number of schools was in towns, 82 (12.93%).

Rural areas contained 146 (23.03%), urban fringe areas contained 94 (14.83%), and cities contained 88 (13.88%) of the total number of schools.

Table 4.10
Frequency of Schools by Change Status and Community Type

<table>
<thead>
<tr>
<th></th>
<th>Rural</th>
<th>Town</th>
<th>City</th>
<th>Urban Fringe</th>
<th>Metropolitan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>10</td>
<td>20</td>
<td>22</td>
<td>42</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>(20.5%)</td>
<td>(12.3%)</td>
<td>(22.7%)</td>
<td>(23.4%)</td>
<td>(18.7%)</td>
<td>(19.6%)</td>
</tr>
<tr>
<td></td>
<td>(24.2%)</td>
<td>(8.1%)</td>
<td>(16.1%)</td>
<td>(17.7%)</td>
<td>(33.9%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Stable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>83</td>
<td>57</td>
<td>55</td>
<td>60</td>
<td>131</td>
<td>386</td>
</tr>
<tr>
<td></td>
<td>(56.9%)</td>
<td>(69.3%)</td>
<td>(62.5%)</td>
<td>(63.8%)</td>
<td>(58.5%)</td>
<td>(60.8%)</td>
</tr>
<tr>
<td></td>
<td>(21.5%)</td>
<td>(14.8%)</td>
<td>(14.2%)</td>
<td>(15.6%)</td>
<td>(33.9%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Declining</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>15</td>
<td>13</td>
<td>12</td>
<td>51</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>(22.6%)</td>
<td>(18.4%)</td>
<td>(14.8%)</td>
<td>(12.8%)</td>
<td>(22.8%)</td>
<td>(19.6%)</td>
</tr>
<tr>
<td></td>
<td>(26.6%)</td>
<td>(14.8%)</td>
<td>(10.5%)</td>
<td>(9.7%)</td>
<td>(41.1%)</td>
<td>(100%)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>146</td>
<td>82</td>
<td>88</td>
<td>94</td>
<td>224</td>
<td>634</td>
</tr>
<tr>
<td></td>
<td>(23.0%)</td>
<td>(12.9%)</td>
<td>(13.9%)</td>
<td>(14.8%)</td>
<td>(35.4%)</td>
<td>(100.0%)</td>
</tr>
<tr>
<td></td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
<td></td>
</tr>
</tbody>
</table>

Note. Column percentages are in boldface. Row percentages are in italics.

When the improvement status of the school is crossed with community type, the data show that of the schools designated as improving, 24.2% were rural schools, 8.1% were town schools, 16.1% were city schools, 17.7% were urban fringe schools, and 33.9% were metropolitan schools (See Table 4.10). Stable schools had the following frequencies by community type: rural, 21.5%; town, 14.8%; city, 14.2%; urban fringe.
15.6%; and metropolitan, 33.9%. Declining schools had the following frequencies when crossed with community type: rural, 26.6%; town, 12.1%; city, 10.5%; urban fringe, 9.7%; and metropolitan, 41.1%.

These data indicate that proportionally more of the rural, city, and urban fringe schools were improving. On the other hand, proportionally more of the rural, town, and metropolitan schools were declining.

**Consolidation of categories of community type.**

Further exploration of the differences in frequency distributions when the improvement status of the schools is crossed by community type was required, since the patterns in the 5 x 3 table above (Table 4.10) were muddled. When community type is consolidated from five categories into three categories by combining rural and town, city and urban fringe, and using metropolitan core city as the third category, more distinctions emerge.

These particular three new categories were created because they (a) reduced the total number of cells from 15 to 9; (b) combined categories that were contiguous to each other; and (c) generated the most equal distribution of schools possible (36%, 29%, and 35% across community types). Chi-square procedures were run on the frequency tables for the three new categories and a significant difference in the frequency of schools in the city and urban fringe category was detected ($\chi^2 = 8.35, \text{ df} = 2, p < .05$) (See Table 4.11).
<table>
<thead>
<tr>
<th>Change Status</th>
<th>Rural/Town</th>
<th>City/Urban Fringe</th>
<th>Metropolitan</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving</td>
<td>40 (16.5%)</td>
<td>42 (22.5%)</td>
<td>42 (19%)</td>
<td>124 (20%)</td>
</tr>
<tr>
<td>Stable</td>
<td>140 (63%)</td>
<td>115 (63%)</td>
<td>131 (58%)</td>
<td>386 (60%)</td>
</tr>
<tr>
<td>Declining</td>
<td>48 (20.5%)</td>
<td>25 (14.5%)</td>
<td>51 (23%)</td>
<td>124 (20%)</td>
</tr>
<tr>
<td>Total</td>
<td>228 (100%)</td>
<td>182 (100%)</td>
<td>224 (100%)</td>
<td>634 (100.0%)</td>
</tr>
</tbody>
</table>

Note: Column percentages are in boldface.

The distribution of data indicate that city/urban fringe schools may partially account for the overall difference in effectiveness or improvement status, since a higher percentage of improving schools is located in the city/urban fringe areas.

Similar differential community type results have been found in other studies (Cuttance, 1987; Hannaway & Talbert, 1991). Because of the results obtained in Phase I, the recategorization of schools into three groups of community type were utilized in the analysis of the survey data gathered in Phase II.
Table 4.12
Frequency of Schools by Change Status and SES Status

<table>
<thead>
<tr>
<th></th>
<th>Low-SES</th>
<th>Mid-SES</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving</td>
<td>80 (12.62%)</td>
<td>44 (6.94%)</td>
<td>124 (19.56%)</td>
</tr>
<tr>
<td>Stable</td>
<td>264 (41.64%)</td>
<td>122 (19.24%)</td>
<td>386 (60.88%)</td>
</tr>
<tr>
<td>Declining</td>
<td>92 (14.51%)</td>
<td>32 (5.05%)</td>
<td>124 (19.56%)</td>
</tr>
<tr>
<td>Total</td>
<td>436 (68.77%)</td>
<td>198 (31.23%)</td>
<td>634 (100.0%)</td>
</tr>
</tbody>
</table>

Note: Column percentages are in boldface.

Table 4.12 provides a breakdown of schools by improvement status crossed by SES status. The table indicates that 68.77% (436) of the schools were classified as low-SES, while 31.23% (198) were classified as mid-SES. As might be expected, a slightly higher percentage (22.22%) of the mid-SES schools was improving than low-SES schools (18.35%). Chi-square results
using an expected frequency of 20% (based on the total distribution) revealed
that the actual frequency of low-SES improving schools was not significantly
different from the overall expected frequency for the study (chi-square
results).

The "Additive Effect" in relation to Phase I results.

These results indicating that a significant number of low-SES schools
were improving, was somewhat unexpected. There is a repeated trend in
school effectiveness research that indicates that schools that serve students
from low-SES homes are more likely to be stable, ineffective ones, while
schools that serve students from mid- or high-SES homes are more likely to
be stable, effective ones (Teddlie, 1996). This trend is referred to as the
"additive" effect in the UK school effectiveness research (Teddlie &
Reynolds, 1996).

A further description of the "additive" effect indicates that schools
serving students from low-SES environments typically receive fewer
instructional resources and usually have faculties that are less experienced
than schools that serve students from mid- and high-SES backgrounds.
These differences in resource allocations compound the effects that poverty
has on students' academic achievement (Teddlie, 1996).
The reality of the "additive effect" can be observed in a recent school effectiveness study in the East Baton Rouge Parish, Louisiana (EBR) school district. School effectiveness indices were measured over a three-year period, and the findings matched the trends associated with the "additive" effect. Of the schools examined in EBR, 30 of the 44 schools that were ineffective over multiple years had predicted scores that were below the state mean (Teddle, 1996). In other words, these schools were predicted to do poorly and actually performed worse than expected, and did so consistently. These trends indicated that schooling in EBR during this period "actually exacerbated the effect of poverty" (Teddle, 1996, p.12).

Phase II Study

Results from Phase II Study

The principal survey (see Appendix B) was mailed to all 124 identified improving schools and a random sample of 124 stable schools. The sample size was set at 100+ for each category, which is the recommendation by Sudman (1976) as the minimum sample size for survey research. As indicated in Chapter 3, three mailouts yielded a response rate of 69% (170 of 248). Approximately 73% of the principals in stable schools responded, while 65% of those in improving schools returned the questionnaires. This overall response rate was slightly below the typical
response rate after three mailouts (79.9%) as reported by Borg and Gall (1989), yet was deemed adequate for the purposes of this study.

**Demographic Characteristics of Survey Respondents**

The 170 principals responding to the survey had demographic characteristics as illustrated in Tables 4.13-4.18. By gender, the respondents were evenly divided between female (52%) and male (48%). However, by ethnicity, the respondents were overwhelmingly white (76%), with only (21%) African American and (3%) classifying themselves as other race. In relation to the general age of the respondents, only 1% of the principals were between the ages of 25 and 35, while 23% were aged 36-45, 60% were aged 46-55, and 16% were over 56 years of age. Forty-seven percent (47%) of the principals responding were from schools identified as improving, while 53% were from schools identified as stable. The distribution of respondents across community type was 40% in rural-town, 35% in city-urban fringe, and 25% in metropolitan areas. In relation to the SES status of the schools, 32% of the respondents were in low-SES schools, while 68% of the respondents were from mid-SES schools. It should be noted that the distribution of respondents based upon SES status was not affected by the response rate, since SES status was not a consideration in selecting the sample. In other words, the sample did not include 50% from low-SES schools and 50% from mid-SES schools.
### Table 4.13
**Demographic Characteristics of Survey Respondents (Principal’s Gender)**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>88</td>
<td>51.8%</td>
</tr>
<tr>
<td>Male</td>
<td>82</td>
<td>48.2%</td>
</tr>
</tbody>
</table>

### Table 4.14
**Demographic Characteristics of Survey Respondents (Principal’s Ethnicity)**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>32</td>
<td>21.2%</td>
</tr>
<tr>
<td>White</td>
<td>115</td>
<td>76.2%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

### Table 4.15
**Demographic Characteristics of Survey Respondents (Principal’s Age)**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-35</td>
<td>2</td>
<td>1.2%</td>
</tr>
<tr>
<td>36-45</td>
<td>39</td>
<td>23.4%</td>
</tr>
<tr>
<td>46-55</td>
<td>100</td>
<td>59.9%</td>
</tr>
<tr>
<td>+56</td>
<td>26</td>
<td>15.6%</td>
</tr>
</tbody>
</table>

### Table 4.16
**Demographic Characteristics of Survey Respondents (School Change Status)**

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improving</td>
<td>79</td>
<td>46.5%</td>
</tr>
<tr>
<td>Stable</td>
<td>91</td>
<td>53.5%</td>
</tr>
</tbody>
</table>

### Table 4.17
**Demographic Characteristics of Survey Respondents (School Community Type)**

<table>
<thead>
<tr>
<th>Community Type</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural-Town</td>
<td>68</td>
<td>40.0%</td>
</tr>
<tr>
<td>City-Urban Fringe</td>
<td>59</td>
<td>34.7%</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>43</td>
<td>25.3%</td>
</tr>
</tbody>
</table>

### Table 4.18
**Demographic Characteristics of Survey Respondents (School SES Status)**

<table>
<thead>
<tr>
<th>SES Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-SES</td>
<td>55</td>
<td>32.4%</td>
</tr>
<tr>
<td>Mid-SES</td>
<td>115</td>
<td>67.6%</td>
</tr>
</tbody>
</table>
Statistical Analyses of the Principal Survey Responses

The statistical analyses of the survey data in Phase II included a series of MANOVA, ANOVA and chi-square analyses to determine if statistically significant differences existed between any of the independent variables (change status, SES status, and community type) and the six dependent variable groups, based on the principals’ responses to the survey items.

As indicated in Chapter 3, the dependent variables were broken down into six groups due to the diversity among the survey items, which were taken from a variety of sources. Phase II of the study was purely exploratory in nature, so there were no a priori hypotheses. The research question to be answered in Phase II was:

What context and other variables differentiate between improving and stable schools?

The six dependent variable groups were:

1. a set of principal demographic and school characteristic items, which were developed for the purposes of this study based on similar items from other surveys, designated as DVG-1;

2. a set of relevant items taken from the *Louisiana School Report Card*, published each year by the LDE (Louisiana Department of Education, 1995), designated as DVG-2;
3. a set of three items related to the three major areas of site-based management identified in a recent literature review of the restructuring field (Pol & Teddlie, 1996), designated as DVG-3;

4. a set of 10 items developed for this study based upon the areas that Miles and Huberman (1984) felt were related to external change processes, designated as DVG-4;

5. a set of 16 items adapted from a scale used in the UK for mapping change in schools (Ainscow et al., 1994), designated as DVG-5;

6. a set of five open-ended items developed for this study that allowed the principals briefly to describe new initiatives for improvement undertaken at their schools in the past four years, designated as DVG-6. (See Chapter 3 for more information regarding these variable sets.)

The results for the first five sets of dependent variables were reported as a series of three-way MANOVAs and ANOVAs in which the independent variables were the schools’ change status, SES status, and community type. A MANOVA was first run for each set of dependent variables. If a significant multivariate effect was found for that variable set, then the univariate ANOVAs for that effect were examined. In a few cases, marginal results were reported (p < .10) if the information appeared to further explain an important issue. Since this part of the study was exploratory, it seemed
appropriate to relax the standard for avoiding Type I errors in order to better understand the complex set of relationships that emerged.

The sixth dependent variable group was analyzed using chi-square procedures since the data were categorical in nature (frequencies of yes/no responses). In these chi-squares analyses, the frequencies of yes/no responses were crossed by whether schools were improving or stable to determine if there were differences in the response patterns of principals in these two types of schools.

The specific open-ended questions in DVG-6 were as follows:

1. In the past four years (or in the time that you have been at the school) have any new academic programs been implemented in your school? If so, describe the program(s).

2. In the past four years (or in the time that you have been at the school) have any new discipline programs been implemented in your school? If so, describe the program(s).

3. In the past four years (or in the time that you have been at the school) have any new staff development programs been implemented in your school? If so, describe the program(s).
4. Does the central office monitor the results of your attempts to improve your school? Does the central office make efforts to encourage and promote change from within your school? Please explain.

5. (Consider the community to include parents, business organizations, civic organizations, etc.) Has the community had an impact on changes that have been made in the school over the last four years?

**Analysis of Dependent Variable Group 1 (DVG-1)**

The items in DVG-1 were demographic questions and questions associated with changes in attendance zones, departmentalization of the school, and the presence or absence of a school improvement plan. These variables were analyzed using three-way MANOVAs and ANOVAs to determine if differences existed between the school groups in terms of their principals' responses and their general characteristics.

**MANOVA results for DVG-1.**

The survey data pertaining to DVG-1 were first analyzed using three-way MANOVAs, with change status, SES status, and community type as the independent variables. This analysis revealed significant multivariate effects for change status, [Wilks' lambda = .78, F(9, 118) = 3.69, p < .0005]; for SES status, [Wilks' lambda = .74, F(9, 118) = 4.57, p < .0001]; and for
community type combined with SES status, \[\text{Wilks' lambda} = .76, F(18, 236) = 1.93, p < .05\].

**Univariate ANOVA results for DVG-1.**

Since the MANOVA results indicated a significant effect for change status, SES status, and community type combined with SES status, the results of the univariate ANOVAs for DVG-1 were then examined. These results are contained in Tables 4.19 through 4.21. Only those variables that revealed either a significant main effect or an interaction effect were included in the tables.

Table 4.19 reveals that there was a significant univariate effect for principal’s ethnicity and whether or not the school had engaged in a school-wide improvement project. In terms of principal’s ethnicity, a response consisted of 1 = African American, 2 = white, and 3 = other. The mean for improving schools was 1.64, while the mean for stable schools was 1.88. This indicates that both change status categories had more white principals, but the improving schools had a higher percentage of African American principals (36%) than did the stable schools (12%).

Also, in Table 4.19, there was a significant difference between the principal responses from improving and stable schools in relation to whether the school had undertaken a school improvement project within the last four
Table 4.19
**Significant Univariate ANOVA Values for DVG-1: Independent Variable = Change Status**

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Improving Mean</th>
<th>Stable Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal’s Ethnicity</td>
<td>1, 126</td>
<td>10.2</td>
<td>&lt;.005</td>
<td>1.64</td>
<td>1.88</td>
</tr>
<tr>
<td>School Improvement Plan</td>
<td>1, 126</td>
<td>7.23</td>
<td>&lt;.01</td>
<td>1.21</td>
<td>1.46</td>
</tr>
</tbody>
</table>

years. A response of 1 = yes, and 2 = no. The mean for improving schools was 1.21, while the mean for stable schools was 1.46. This indicates that more improving schools (46%) had undertaken a school improvement project that was internally generated than had the stable schools (21%), and these plans appear to be having a positive effect on the schools.

Table 4.20 reveals the significant univariate effects when comparing the schools by SES status. When comparing low-SES and mid-SES schools, there appeared to be a significant difference in terms of principal’s ethnicity. When comparing the means for the two categories of schools, the mean for low-SES schools was 1.57, while the mean for mid-SES schools was 1.95. These results indicate that the vast majority of principals in mid-SES schools (95%) were white, while the low-SES schools were almost evenly split...
Table 4.20
Significant Univariate ANOVA Values for DVG-1: Independent Variable = SES Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Low-SES</th>
<th>Mid-SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principal's Ethnicity</td>
<td>1, 126</td>
<td>26.01</td>
<td>&lt;.0001</td>
<td>1.57</td>
<td>1.95</td>
</tr>
</tbody>
</table>

between white and African American principals. In other words, African American principals were more likely to be found in low-SES schools rather than mid-SES schools.

Table 4.21 illustrates the results of a series of univariate ANOVAs when the independent variables, community type and SES status are combined. This further divided the schools into six categories: low-SES, rural/town: low-SES, city/urban fringe; low-SES, metropolitan; mid-SES, rural/town: mid-SES, city/urban fringe; and mid-SES, metropolitan.

By examining the means for principal ethnicity across these six categories, it is apparent that the vast majority of African American principals (65%) were found in low-SES, metropolitan schools. The mean for mid-SES, metropolitan schools indicated that almost all principals were white. Interestingly, the number of African American principals decreased from low-SES, metropolitan to low-SES, city/urban fringe to low-SES, rural, but the results were somewhat inverted in the three categories of
mid-SES schools. This means that while there were more African American principals in low-SES, metropolitan schools than in low-SES, rural schools, there were fewer African American principals in mid-SES, metropolitan schools than in mid-SES, rural schools.

**Analysis of Dependent Variable Group 2 (DVG-2)**

The items in DVG-2 included school-level data obtained from the LDE, such as student population, percentage of teachers possessing a master's degree, student attendance, and student suspensions and expulsions. These variables were analyzed using three-way MANOVAs and ANOVAs to determine if differences existed between the school groups in terms of their general characteristics.

**MANOVA results for DVG-2.**

The survey data pertaining to DVG-2 were first analyzed using three-way MANOVAs, with change status, SES status, and community type as the
independent variables. This analysis revealed a significant multivariate effect for change status, [Wilks' lambda = .91, F(9, 149) = 1.69, p < .10]; for SES status, [Wilks' lambda = .82, F(9, 149) = 3.73, p < .0005]; for community type, [Wilks' lambda = .82, F(18, 298) = 1.75, p < .05]; for change status combined with SES status, [Wilks' lambda = .89, F(9, 149) = 1.99, p < .05]; and for community type combined with SES status, [Wilks' lambda = .82, F(18, 298) = 1.70, p < .05].

Univariate ANOVA results for DVG-2.

Since the MANOVA results indicated a significant effect in the specified cases, the results of the univariate ANOVAs for DVG-2 were then examined. These results are detailed in Tables 4.22 through 4.25. Only those variables that revealed either a significant main effect or an interaction effect were included in the tables.

Table 4.22 illustrates the variables within DVG-2 that received significantly different responses based on SES status. Not surprisingly, the percentage of teachers possessing at least a Master's degree was greater in mid-SES schools. This is consistent with the research literature (Frantz, 1994) that suggests that low-SES schools, particularly inner-city schools have a higher percentage of inexperienced teachers due to the fact that most school districts have a policy that allows transfer requests based on seniority.
Those teachers with the most seniority, which usually includes those with advanced degrees, usually opt for the more affluent suburban schools.

Table 4.22
Significant Univariate ANOVA Values for DVG-2: Independent Variable = SES Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Low-SES Mean</th>
<th>Mid-SES Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters' Degree</td>
<td>1, 157</td>
<td>3.82</td>
<td>&lt;.10</td>
<td>38.98%</td>
<td>43.48%</td>
</tr>
<tr>
<td>Attendance</td>
<td>1, 157</td>
<td>20.65</td>
<td>&lt;.10</td>
<td>94.59%</td>
<td>95.69%</td>
</tr>
<tr>
<td>Suspensions</td>
<td>1, 157</td>
<td>7.50</td>
<td>&lt;.10</td>
<td>3.69%</td>
<td>2.25%</td>
</tr>
<tr>
<td>Expulsions</td>
<td>1, 157</td>
<td>6.04</td>
<td>&lt;.05</td>
<td>.13%</td>
<td>.04%</td>
</tr>
</tbody>
</table>

The results regarding the variables student attendance, suspensions, and expulsions are also consistent with the literature regarding the context variable, SES. Attendance is lower in low-SES schools, while suspensions and expulsions are higher in low-SES schools. However, caution should be taken regarding suspensions and expulsions, since the policy regarding discipline varies greatly from district to district, with many districts opting not to include expulsion as a method of discipline in elementary schools.

Table 4.23 indicates that when schools are compared by community type, the only variable in DVG-2 that demonstrated a significant difference
was the percentage of teachers with at least a Master's degree. The mean percentages increased from rural to metropolitan community types, which may be explained by the fact that teachers in the metropolitan areas have more access to universities to pursue advanced degrees.

Table 4.23
Significant Univariate ANOVA Values for DVG-2: Independent Variable = Community Type

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Rural Mean</th>
<th>City Mean</th>
<th>Metropolitan Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pct. Master's</td>
<td>2</td>
<td>157</td>
<td>&lt;.01</td>
<td>38.01%</td>
<td>39.13%</td>
<td>46.55%</td>
</tr>
</tbody>
</table>

Table 4.24 combines change status with SES status. The only variable in DVG-2 that showed a significant difference was expulsions. Schools categorized as low-SES, improving had the highest percentage of expulsions by far. This may indicate that the low-SES environment would preclude more disciplinary problems, and by removing the more severe disciplinary problems through expulsions, the school would begin to improve. This would be consistent with the behavior of a principal in LSES-III and LSES-IV, referred to as tighten up, lighten up (Teddlie & Stringfield, 1993). However, again, the great amount of variance in the percentage of expulsions may be due to differences in district discipline policies.
Table 4.24
Significant Univariate ANOVA Values for DVG-2; Independent Variable = Change Status Combined with SES Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>LI Mean</th>
<th>LS Mean</th>
<th>MI Mean</th>
<th>MS Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expulsion</td>
<td>1</td>
<td>157</td>
<td>.01</td>
<td>.21%</td>
<td>.02%</td>
<td>.06%</td>
<td>.07%</td>
</tr>
</tbody>
</table>

Note: LI = Low-SES, Improving; LS = Low-SES, Stable; MI = Mid-SES, Improving; and MS = Mid-SES, Stable.

Analysis of Dependent Variable Group 3 (DVG-3)

The items in DVG-3 included three survey items that asked the principals to respond to the areas in which their school was engaged in site-based management. These variables were analyzed using three-way MANOVAs and ANOVAs to determine if differences existed between the school groups in terms of their responses.

MANOVA results for DVG-3.

The survey data pertaining to DVG-3 were first analyzed using three-way MANOVAs, with change status, SES status, and community type as the independent variables. This analysis revealed a significant multivariate effect for SES status, [Wilks’ lambda = .87, F(3, 153) = 7.31, p < .0001].
Univariate ANOVA results for DVG-3.

Since the MANOVA results indicated a significant effect for SES status, the results of the univariate ANOVAs for DVG-3 were then examined. These results are contained in Table 4.25. Only those variables that revealed either a significant main effect or an interaction effect were included in the table.

Table 4.25 reveals that the only significant difference between variables in DVG-3 was the principal’s responses to part A of the site-based management item concerning the principal’s leadership style and its facilitation of shared decisionmaking among the faculty. The responses to this item were on a four-point Likert scale with 1 = always and 4 = never. The means for this variable (low-SES - 1.54, and mid-SES - 1.87) indicated that the low-SES schools are more

Table 4.25
Significant Univariate ANOVA Values for DVG-3; Independent Variable = SES Status

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Low-SES Mean</th>
<th>Mid-SES Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBMGTA</td>
<td>1.155</td>
<td>19.71</td>
<td>&lt;.0001</td>
<td>1.54</td>
<td>1.87</td>
</tr>
</tbody>
</table>
likely to have a principal with a leadership style that encourages shared decisionmaking. It should be noted that these responses are on the positive end of the scale, perhaps reflecting socially desirable responses.

**Analysis of Dependent Variable Group 4 (DVG-4)**

The items in DVG-4 included questions related to the processes of change taking place in the principal’s particular school. These data were analyzed using three-way MANOVAs and ANOVAs to determine if differences existed between the school groups in terms of their general characteristics.

**MANOVA results for DVG-4.**

The survey data pertaining to DVG-4 were first analyzed using three-way MANOVAs, with change status, SES status, and community type as the independent variables. This analysis revealed a significant multivariate effect for community type, [Wilks’ lambda = .77, F(20, 276) = 1.88, p < .05]; and for change status combined with community type, [Wilks’ lambda = .82, F(20, 276) = 1.45, p < .10].

**Univariate ANOVA results for DVG-4.**

Since the MANOVA results indicated a significant effect with regard to community type and change status combined with community type, the results of the univariate ANOVAs for DVG-4 were then examined. These
results are contained in Tables 4.26 and 4.27. Only those variables that revealed either a significant main effect or an interaction effect were included in the tables.

Table 4.26 indicates that the principal's response to the items identified as ChgPro7 and ChgPro 8 are significantly different when contrasted across schools based on community type. ChgPro7 included a list of three statements concerning the goal of school change. A response of 1 was the most desirable response in relation to the presence of an environment suited to accept change. More of the rural/town and city/urban fringe schools indicated that the goal of change is to make school a better place for children to learn. More metropolitan schools indicated that the goal of change should be to improve schools and to improve the professionalism of the teachers and administrators.

<table>
<thead>
<tr>
<th>Variable</th>
<th>df</th>
<th>F</th>
<th>p</th>
<th>Rural Mean</th>
<th>City Mean</th>
<th>Met. Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>ChgPro7</td>
<td>2, 147</td>
<td>5.24</td>
<td>&lt;.01</td>
<td>1.13</td>
<td>1.14</td>
<td>1.44</td>
</tr>
<tr>
<td>ChgPro8</td>
<td>2, 147</td>
<td>5.09</td>
<td>&lt;.01</td>
<td>2.82</td>
<td>2.80</td>
<td>2.53</td>
</tr>
</tbody>
</table>

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With ChgPro8, 1 represents the least desirable response and 3 represents the most desirable response. Again, rural/town and city/urban fringe schools were more likely to select the most desirable response, which stated that teachers could make a great deal of difference in the effectiveness of the school.

Table 4.27 reveals that when community type is combined with change status, the dependent variables in DVG-4 that emerge as having responses that are significantly different are ChgPro3 and ChgPro9. These are 2 of 16 items that were used in the principal’s survey to indicate what change processes take place in schools.

ChgPro3 asked the principals to indicate whether they felt that the process of change involved a great deal of hard work (1) to the process is very easy (4). The most desirable answer was the first, and the stable.

<table>
<thead>
<tr>
<th>Table 4.27 Significant Univariate ANOVA Values for DVG-4: Independent Variable = Community Type Combined with Change Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>ChgPro3</td>
</tr>
<tr>
<td>ChgPro9</td>
</tr>
</tbody>
</table>

rural/town schools provided the most desirable response on average. The
stable, metropolitan schools provided the least desirable response on average.

ChgPro9 provided a list of four possible responses related to the
structure of instruction in the school. The responses could range from,
instruction is very structured in my school, with no deviation in the schedule
allowed (1) to instruction is very flexible and teaching innovations are
strongly encouraged (4). On this item, a response of 4 was considered to be
the most desirable response, while a response of 1 was considered to be the
least desirable response. The results were the opposite of the responses in
ChgPro3. In this particular case, stable, rural/town schools provided the least
desirable responses, while the stable, metropolitan schools provided the most
desirable responses.

It is interesting that the stable, rural and improving, metropolitan
schools described their schools as having the most structured instruction.
This probably occurs for very different reasons: instruction may be more
structured in rural, stable schools because community members are happy
with that; instruction may be more structured in metropolitan, improving
schools because that approach is necessary for the first phase of
improvement to occur.
Analysis of Dependent Variable Group 5 (DVG-5)

The items in DVG-5 included questions related to the principal's perceptions of how change takes place in their particular school. These data were analyzed using three-way MANOVAs and ANOVAs to determine if differences existed between the school groups in terms of their responses.

MANOVA results for DVG-5.

The survey data pertaining to DVG-5 were first analyzed using three-way MANOVAs, with change status, SES status, and community type as the independent variables. This analysis revealed a significant multivariate effect for community type, \( \text{Wilks' lambda} = .68, F(32, 262) = 1.76, \ p < .01 \).

Univariate ANOVA results for DVG-5.

Since the MANOVA results indicated a significant effect for community type, the results of the univariate ANOVAs for DVG-5 were then examined. These results were included in Table 4.28. Only those variables that revealed either a significant main effect or an interaction effect were included in the tables.

Table 4.28 indicates that the only variables in DVG-5 that had responses that were significantly different across community type was ChgPer7, ChgPer10, and ChgPer11. Each of these items consisted of a statement regarding the principal's of school change processes. Each item
required a response ranging from nearly always (1) to rarely (4). For each of these three items, a response of 1 was the most desirable and 4 was the least desirable.

ChgPer7 stated that parents' opinions are taken into consideration when curricular changes are made. In this case, the means reported in Table 4.28 indicated that the metropolitan schools were the most likely to provide the most desirable response. Metropolitan schools were also the most likely to respond in the most desirable manner for items ChgPer10 and ChgPer11. ChgPer10 stated that professional learning and staff development are emphasized when devising plans for school change. ChgPer11 stated that the school calendar includes adequate time for professional development. The results in DVG-5 could indicate that metropolitan principals are more familiar with the latest trends in education.
Analysis of Dependent Variable Group 6 (DVG-6)

The five open-ended questions contained in the principal’s survey were grouped together as DVG-6. Since these responses were in the form of yes-no answers, the frequencies of yes-no answers for each question were separated by improving and stable schools. Chi-square tests were used to analyze these responses for the purpose of determining whether there were any differences in the response patterns between improving and stable schools. Table 4.29 shows the frequencies of responses for all five questions.

Table 4.29
Frequency Distribution of Yes-No Responses to Five Questions in DVG-6

<table>
<thead>
<tr>
<th>Question #</th>
<th>Improving Schools</th>
<th>Stable Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>1</td>
<td>67</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>59</td>
<td>18</td>
</tr>
<tr>
<td>3*</td>
<td>65</td>
<td>10</td>
</tr>
<tr>
<td>4*</td>
<td>71</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>74</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: * Indicates that there was a significant difference in the frequency of responses between improving and stable schools.

Chi-square test results indicated that there were significant differences in the frequency of yes/no responses between improving and stable schools, for questions 3 and 4. For question 3, (In the past four years [or in the time...
that you have been at the school] have any new staff development programs been implemented in your school? If so, describe the program(s).), 65 (87%) improving schools responded yes, while 60 (73%) stable schools responded yes, indicating a greater frequency of staff development programs initiated internally over the past four years. For question 4, (Does the central office monitor the results of your attempts to improve your school? Does the central office make efforts to encourage and promote change from within your school? Please explain.), 71 (90%) improving schools responded yes, while 67 (80%) stable schools responded yes, indicating a greater frequency in improving schools regarding district encouragement of internally initiated programs.

Summary of Results from Phase II Study

Methodological problems.

During the analysis of the Phase II survey data, it became obvious that principals are accustomed to providing the "right" answers when they are questioned about school improvement activities, especially those concerning the highly publicized correlates of effective schooling (e.g., Edmonds, 1979a, 1979b) or with the restructuring movement (Barth, 1990; Murphy, 1992). These socially desirable responses to the closed-ended questions probably skewed the results and clouded any real differences that may have existed between improving schools and stable schools. This problem should be
addressed in future research by administering the survey to faculty members at each of the schools, in addition to the principal.

Although the results of the analyses of the closed-ended responses were limited, the responses to the open-ended questions did reveal some differences between improving schools and stable schools. Particularly, the improving schools were more likely to have been engaged in staff and professional development activities that originated within the school, and they were also more likely to have a central office staff that encouraged the school to engage in internally generated improvement activities. Similar results have been demonstrated in a recent study of restructuring in Louisiana (Pol, 1996). In that study, the most highly restructured district in the state actively encouraged internally generated change efforts, and schools in that district often initiated their own staff development programs.

**Community differences within improving and stable schools.**

During the analysis of Phase II survey data, a theme emerged in which differences between improving and stable schools were associated with “community type” data. Improving, metropolitan schools appeared to be unique from the standpoint that some of their improvement derived from what might be characterized as a “tighten up, then lighten up” approach (Teddlie & Stringfield, 1993). They first attack any apparent discipline problems, using suspension and expulsion as a disciplinary procedure. Only
after the school has "tightened up" does the school then address any curricular problems. A similar description of the "tighten up. lighten up" approach can be found in Teddlie and Stringfield's (1993) description of an improving, urban school with a principal that demonstrated the same pattern of behavior as those exhibited during the present study.

Principals in stable, rural schools appeared to display a similar set of behaviors, at least as far as the "tighten up" component was concerned. Those schools have higher rates of suspension and expulsion and a greater incidence of traditional teaching. So long as students in these schools perform adequately on achievement tests, there is little community pressure for more "progressive" educational practices. Many of these differences in community type will be further explored in case studies in Chapter 5.
CHAPTER 5: QUALITATIVE RESEARCH RESULTS

Introduction

The quantitative results in Chapter 4 identified a population of improving schools in the state of Louisiana. The next phase of the study entailed the identification of which of these improving schools were improving naturally, without externally initiated school improvement projects. In order to accomplish that objective, purposeful sampling techniques (Patton, 1990) were utilized to select eight schools to participate in case study research (Phase III).

Although the results of Phase III are included in a separate chapter, these qualitative results in Chapter 5 should be viewed as complementary to the quantitative results in Chapter 4. This mixed methodological approach was utilized as an attempt to thoroughly explore the research questions that have guided this study from the beginning.

Case Study as Qualitative Methodology

Lincoln and Guba (1985) asserted that “... while the literature is replete with references to case studies and with examples of case study reports, there seems to be little agreement about what a case study is” (p. 360). Very often, “case study” is used as a synonym for qualitative research
(Lancy, 1993) by researchers who write about methodology (e.g., Merriam, 1988; Yin, 1984).

To Yin (1984) the case study has:

... at least four different applications. The most important is to explain the causal links in real-life interventions that are too complex for the survey or experimental strategies. A second application is to describe the real-life context in which an intervention has occurred. Third, an evaluation can benefit, again in a descriptive mode, from an illustrative case study—even a journalistic account—of the intervention itself. Finally, the case study strategy may be used to explore those situations in which the intervention being evaluated has no clear, single set of outcomes. (p. 25)

Yin's (1984) second application seems to match the use of case studies in the present study. While quantitative methods were used to define improving schools (Phase I), and to identify and contrast certain characteristics of improving schools in a variety of contexts in Phase II, qualitative methods, i.e., case studies, were used to describe the processes that enabled those schools to improve in "natural" settings. This complementary relationship between quantitative and qualitative research methods is what Brown, Riddell, and Duffield (1996) refer to as "unpacking" the quantitative results from large scale school effectiveness research.

Qualitative Sampling Design Methods

While quantitative methods depend on large, randomly selected samples that are statistically representative and permit generalization from
the sample to the larger population, the logic and power of qualitative, purposeful sampling lies in selecting information-rich cases for in-depth study. Patton (1990) stated that “information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research, thus the term purposeful sampling (p. 169).”

Patton (1990) identified 15 strategies for purposeful sampling. The strategy utilized in the present study is referred to as stratified purposeful sampling, which can be employed to capture major variations rather than to identify a common core, although the latter may also emerge in the process (Patton, 1990).

**Predetermined Contrasts Based on SES and Community Type**

The rationale for using this particular strategy was to select schools that fit into different categories based on SES and community type. With a 2 x 2 design, schools were selected based on their classification as either low-SES, metropolitan; low-SES, rural; mid-SES, metropolitan; or mid-SES, rural. Two schools were placed in each cell of the matrix for a total of eight schools. Each strata constituted a fairly homogeneous sample, but because the sample sizes were small, the results lacked generalizability to the population as a whole (Patton, 1990).

The decision to select schools for participation in the case study research based on SES status and community type was made a priori.
Low-SES and mid-SES were established as the categories for SES status, as has been the configuration used in previous school effectiveness research conducted in Louisiana (e.g., Teddlie & Stringfield, 1993). Rural and metropolitan categories were chosen for community type, based on the assumption that outliers in community type would provide the greatest differentiation.

Because of time constraints in the present study, the selection of schools to participate in the case study research was made before the quantitative data were thoroughly analyzed. After analyzing the quantitative data, it was determined that schools in the combined category of city/urban fringe experienced the most improvement. In hindsight, it would have been advantageous to have included this category in the case study research.

Process for Selecting the Case Study Sites

Initially, a 2 x 2 matrix was established based upon the previously stated classification between SES status and community type. Included in the principal’s survey was a specific question regarding the school’s participation in a school improvement project originating from outside the school. All schools that replied “yes” to this question were immediately eliminated from consideration as part of the sample. The 34 schools responding “no” to this item, were placed in the matrix according to their
classification based on SES and community type. (See Table 5.1 for the five-step process involved in selecting case study schools.)

Two schools were selected from each cell of this matrix after analyzing the open-ended responses to the survey items concerning whether any new programs had been implemented in the school over the past four years, and whether the central office monitored the improvement results or encouraged and promoted change within the school. The responses to these open-ended items provided an initial indication as to whether these schools were undertaking school improvement with the assistance of the central office or whether these schools were initiating these improvements internally.

Since this was an exploratory investigation into naturally occurring school improvement, selecting two schools in each cell was also looked upon as a safety measure in the event that a selected school might not eventually meet the criteria of naturally occurring school improvement. This proved to be a useful method since four of the schools were eventually eliminated from the study. After closer inspection, it was determined that these four schools were not improving, or their improvement was superficial and strictly related to "teach to the test" tactics. A brief description of these schools and the reasons for their rejection will be included at the end of this chapter.
Table 5.1
Process for Selecting Schools for Participation in the Case Studies

- 124 elementary schools in Louisiana identified as improving
- 34 of 124 improving schools responded “no” to the survey item concerning the school’s participation in a school improvement project originating from outside the school. The 90 schools responding “yes” were eliminated from consideration.
- The 34 improving schools were placed in a 2 x 2 matrix based on SES status and community type categories, with the following distribution: 6 low-SES, rural; 11 mid-SES, rural; 12 low-SES, metropolitan; and 5 mid-SES, metropolitan.
- For each cell of the matrix, the principal’s responses to the open-ended questions regarding whether any new programs had been implemented in the school over the past four years, and whether the central office encouraged change within the school were analyzed, and two schools that responded favorably to these questions were selected for participation in the case studies.
- Of the eight schools selected for participation in the case studies, four were rejected after visits to those sites (one from each cell of the matrix). These schools were rejected for a variety of reasons, which are described at the end of this chapter.

The eight schools selected were located over a wide area of the state, extending from the extreme southwestern section of the state to the extreme northeastern section of the state. Two of the schools, a mid-SES, rural and a mid-SES, metropolitan school, were located within the same district. However, both schools were later rejected due to policies originating from the central office. The four schools included in the study are described in
Table 5.2
Characteristics of the Four Case Study Schools

<table>
<thead>
<tr>
<th>School Name</th>
<th>SES Status</th>
<th>Community Type</th>
<th>Principal's Ethnicity</th>
<th>Principal's Gender</th>
<th>RES 92</th>
<th>RES 93</th>
<th>RES 94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shambala Elementary</td>
<td>Low SES</td>
<td>Metropolitan</td>
<td>African American</td>
<td>Female</td>
<td>1.07</td>
<td>7.04</td>
<td>8.05</td>
</tr>
<tr>
<td>Lost Bayou Elementary</td>
<td>Mid SES</td>
<td>Metropolitan</td>
<td>White</td>
<td>Female</td>
<td>4.23</td>
<td>6.00</td>
<td>6.21</td>
</tr>
<tr>
<td>Nilatir Elementary</td>
<td>Low SES</td>
<td>Rural</td>
<td>African American</td>
<td>Male</td>
<td>-2.41</td>
<td>-1.14</td>
<td>-0.60</td>
</tr>
<tr>
<td>Great Plains Elementary</td>
<td>Mid SES</td>
<td>Rural</td>
<td>White</td>
<td>Male</td>
<td>1.26</td>
<td>3.61</td>
<td>4.55</td>
</tr>
</tbody>
</table>

Permission to Conduct the Case Studies

Once the schools were identified, the principal of each school was contacted by telephone. After giving the principal a description of the study, an impromptu interview was conducted to verify the responses to the survey items. If the school passed this inquiry, the principal was given an invitation to participate in the study. The principal from each of the eight selected schools agreed to participate by allowing on-site visitations to the school. At this point permission to conduct the study was sought through the central office. Copies of permission letters and other correspondence with the districts are included in Appendix F.

The permission process varied from district to district, with the smaller district superintendents typically granting permission over the
telephone. The larger districts required a written request detailing the study and specifying what data were to be collected. One district required a complete proposal (see Appendix F) that had to be approved by a committee of supervisors, a process taking a month to complete.

After permission was received from the central office, each principal was called and appointments for on-site visitations were made. Since time was a factor in the completion of the study, it was determined that a two-day "blitzkrieg" approach to data collection was the minimum time that would be required to collect sufficient data to develop descriptive case studies of these eight schools.

Data Collection Procedures and Instrumentation

Data collection began each day before school opened. On the first day, a grand tour (Spradley, 1980) was conducted to get the feel of the school and to gather information about the location and layout of the school plant. In several schools, this also proved to be a good time for informal interviews with teachers, principals, and custodians.

Classroom observations were conducted in each third grade classroom to gather sample data related to the delivery of instruction and the curriculum in the school. Both high inference and low inference observation instruments were utilized, as well as extensive observation field notes.
The high-inference observation instrument used was the Virgilio Teacher Behavior Inventory (VTBI) (see Appendix H). The VTBI was developed for the purpose of assessing the overall effectiveness of a school's faculty (Teddlie, Virgilio, & Oescher, 1990). After conducting a thorough review of the research literature on teacher effectiveness, Virgilio (1987) identified three major skill areas: classroom management, instruction, and classroom climate. Ten competencies related to these skill areas were identified and 35 specific teacher behaviors were generated for these competencies. Individual item scores on the VTBI range from one (poor) to five (excellent). A psychometric study conducted on the instrument indicated that the VTBI is a valid and reliable instrument which can be administered with confidence in elementary schools (Teddlie, Virgilio, & Oescher, 1990).

The low inference observation instrument used in the present study was the Stallings Classroom Snapshot (Stallings & Kaskowitz, 1974) (see Appendix G). This instrument was used to collect time-on-task data at several discrete moments during a classroom lesson. The scale provides data on the activities of each adult and student in the classroom at a given moment, and it allows frequency counts across 13 specific behaviors at predetermined time intervals during the class period. In the present study, the time intervals consisted of six minutes.
The results of this snapshot approach provided an estimate of the percentage of interactive and noninteractive time-on-task for that particular classroom. Interactive time-on-task includes all activities in which the students and the teacher interact, while noninteractive time-on-task includes all activities in which the students are actively engaged in learning, but without any interaction with teachers. Interactive and noninteractive time-on-task are combined to determine total time-on-task (Stallings & Kaskowitz, 1974).

The VTBI and the Stallings Classroom Snapshot were used to collect classroom-level data in the eight schools during on-site visitations. These data were included in the case studies as a measure of the teacher effectiveness in each school. These measures were then used to contrast the eight schools across SES and community type, with regard to the level of teacher performance in the schools.

Interviews were conducted with the principal of each school and a minimum of one half of the faculty members, using a standardized open-ended (Patton, 1990) interview protocol (see Appendix J). This type of interview has the exact wording and sequence of questions determined in advance. All interviewees are asked the same basic questions in the same order, but the questions are worded in a completely open-ended format.
(Patton, 1990, p. 289). The interview protocol was established to gather data that were descriptive of the school and the processes that took place in the school. Questions concerning the 11 dimensions noted below were included. Notes were taken detailing the responses to all of the interview questions and were later analyzed using the constant-comparative method (Lincoln & Guba, 1985).

The qualitative analysis of more than 200 pages of field notes and interview responses resulted in a synthesized series of case studies of the eight schools. Those case studies are presented below, followed by an analysis of each school and a cross-analysis of schools based on SES and community type characteristics (Yin, 1989).

**Case Study Format**

In case study research it is important to remember that the "qualitative design needs to remain sufficiently open and flexible to permit exploration of whatever the phenomenon under study offers for inquiry. Qualitative designs continue to be emergent even after data collection begins" (Patton, 1990, p. 196). In the present study, the original design called for an organization of the data based on the Stringfield and Teddlie (1990) contrasts of naturally occurring school improvement with the findings of Huberman and Miles (1984).
The interview protocol used during the on-site visits to the case study participant schools was adapted a priori from an interview protocol used during a simultaneous study of naturally occurring school improvement in the UK (Gray et al., 1994) and questions used to gather data in the International School Effectiveness Research Program (ISERP) (Creemers, Reynolds, Stringfield, & Teddlie, 1996). After the data were collected using the adapted interview protocol (see Appendix K) and in an attempt to find the best way to organize the case studies, the 11 dimensions of schools used in ISERP appeared to emerge as the most logical method of organization.

The case studies were written using the 11 dimensions (see Appendix K) used by researchers during the ISERP (Creemers et al., 1996) to compare schools across eight countries, as a guide. These dimensions are as follows:

1. **School Characteristics** (SES, characteristics of the students, academic achievement, and physical condition of the school)

2. **Instructional Style of the Teacher** (classroom climate, management of the class, skill of instructional delivery, and use of innovative practice)

3. **Curriculum** (faculty input into curriculum, curriculum initiatives at the school level)

4. **Parental Influence** (helping children with homework and other academic matters, and attending PTO meetings, raising money for the school)
5. **Principal’s Leadership Style** (top/down or bottom/up, management of daily routine, active commitment to the instructional process, selection/replacement of teachers, and guidance of the school into new programs)

6. **School’s Expectations for Student Performance** (expectations for academic performance, expectation for behavior in the school, and expectations for social development)

7. **School Goals** (focus in academic goals, focus on increased parental involvement, focus on staff development, and focus on the total development of the child)

8. **Inter-Staff Relations** (collegiality/camaraderie among staff members, and collective academic planning)

9. **Resources** (physical plant, technology in classrooms, extra financial resources for enhancements, and availability of materials)

10. **Relationship with the Central Office** (degree of autonomy given to the principal and the faculty, attitude of the central office staff toward the school, and attitude of the principal and the faculty toward the central office staff)

11. **School Image** (image in parental community, and image in the academic community)
Results

Four Schools Accepted for Case Study Research

Shambala Elementary School (Low-SES, Metropolitan)

In comparison to the other three case studies, the reader will note that much more detail is included for Shambala Elementary School than for the others. The reason for this imbalance is that the case study for Shambala Elementary proved to be very rich. It appeared that the principal, Ms. Jefferson, may be representative of a pattern of leadership for naturally occurring school improvement in low-SES, metropolitan schools that others have also described (e.g., Levine & Lezotte, 1990; Lightfoot, 1983; Teddlie & Stringfield, 1993). That pattern involved strong, direct academic leadership by the principal and an emphasis on the creation of a safe, orderly environment.

The question arises, can Ms. Jefferson sustain the improvement in her school after her initial, top-down improvement strategies. The literature describes principals in similar situations that were not able to sustain the gains they initially achieved. For example, Mr. Jameson at Hoover Elementary, described in the LSES (Teddlie & Stringfield, 1993), failed to sustain his improvements due to district problems and the instability of his faculty. However, Ms. Jefferson appeared to have marshalled all of her
forces toward continuing the success she has achieved to this point. She enjoys a positive image with the community and the school board, and she has gained enough leverage to keep the central office from undermining her achievements. Her techniques described in the following case study could be used as a model for improving any school.

**School characteristics.**

Scenes of abandoned houses, boarded-up businesses, and trash-filled, empty city lots can be observed as one drives to Shambala Elementary. The school is located on a dead-end street created by the interstate highway that cuts the neighborhood in half. A large railroad switchyard that services the many petrochemical plants within sight and smell of the school is located less than 100 yards away. The loud "boom" of railcars being connected could be heard and "felt" from within the school.

Shambala Elementary School is surrounded by economic and social blight, and nothing I observed upon my arrival at the school led me to believe that I was on my way to one of the most highly improving schools in the state. However, Shambala Elementary proved to be a "oasis in the desert:" a school that had apparently undergone a remarkable transformation over the past six years.
The school has a configuration of Pre-K-5 with 548 students. One of 59 schools in the district, it is housed in a converted high school. Ten years ago, the school, then called Maple Street Elementary was moved to its present location after the district built a new high school. Two years ago, the name of the school was finally changed to Shambala Elementary, primarily due to the fact the school was no longer located on Maple Street. The fact that it took the district eight years to rename the school is an indication of a severe lack of attention from the central office. This, along with the indication that the school ranked so low on standardized measures of academic achievement for so long, provided *prima facie* evidence that the school’s dramatic improvement was not initiated from the central office.

The school was renamed in honor of an African American female who had been the high school principal for nearly 40 years, when the school system was still segregated. During those years, she was the only female principal in the district. Ironically, six years ago, when the present principal was appointed, only six of the 59 schools had a female principal.

The old high school was historically an African American school until desegregation in the late 1960s. Today, the school is still 99% African American, due primarily to the fact that it is located in a segregated residential area.
Of the 548 students in the school, 160 are classified as out of the attendance zone. Many of these students live with relatives in the attendance zone, strictly for the purpose of attending the school. The principal remarked "... people are trying to get into the school because over the last few years, the school has received a lot of publicity for its programs and its improvement in student achievement scores." This positive image is in direct contrast to the image presented six years earlier, when the enrollment was 310 and the school ranked among the lowest achieving elementary schools in the state based on student achievement scores, according to information provided by the principal of the school, Ms. Jefferson.

The faculty and staff have changed dramatically during the tenure of Ms. Jefferson. Normally, a high attrition rate is considered to be one indicator of an ineffective school and there has been a 60% attrition rate among the faculty since the arrival of the principal. This attrition rate was due to the fact that Ms. Jefferson established performance expectations for her faculty that some teachers could not, or would not meet. "I told them when I got here that I expect a lot from you as teachers and if you don't think you can give me what I expect, then you need to leave."

This is an example of what Teddlie and Stringfield (1993) referred to as "tighten up, lighten up." In their LSES case study on an urban school, the
principal had a similar attrition rate. In these two cases, the high attrition rate was really an indication that the principals intended to build their own faculty.

After her appointment as principal at Shambala Elementary, Ms. Jefferson was given a great deal of authority to hire new faculty members. Having earlier served as a regional coordinator for a statewide teacher evaluation program, she stated, "I knew who the good teachers were in the area and as soon as I became principal, I recruited the better teachers for the school, and many of them came."

The community is located in a historically African American, segregated area of the city. It is an economically depressed area surrounded by petrochemical plants and other industries. Despite its proximity to these industries, the parents who send their children to Shambala had, until recently, a 50% unemployment rate. This is primarily a result of the fact that the educational attainment of these parents did not match those required by the industries in the area.

Today, the community is still a low-SES area, but the unemployment rate has dropped to about 15% after the opening of gambling casinos in the city, according to information provided during an interview with Ms. Jefferson. Although many of these jobs are low-paying and unskilled, the
fact that so many of the parents are working, has raised the level of self-esteem among the parents, and the children as well.

Sixty-five percent (65%) of the students who attend the school live in single-parent households with no male presence. The school experiences typical social problems with the local child services agency being a frequent visitor to the campus.

The student population is transient, with 25 students leaving and 30 entering the school every six weeks on the average. According to Ms. Jefferson, this mobile student population has hindered the school-improvement process because the majority of the students that arrive at the school have deficiencies and the teachers have to work extra hard with them to bring them up to speed. The only discipline problems are those coming from outside, because, as Ms. Jefferson stated, “They are not aware of what is expected of them here, and they have to be shown that we mean business.”

“We have children that come to us from bad home environments. We have crack-babies, momma’s out in the bars, and daddies not around at all. We empathize with them, we love them, we care for them, but we make sure that they understand from the beginning that’s no excuse. They are expected to do their work, obey the rules that we set, and succeed. We tell them, we don’t expect you to make Cs, we expect you to make As.”
The principal cited the lack of building maintenance as a major problem for the school. Although the school was remodeled in 1988, it was built in the 1950s and structural problems do exist. Despite the age of the building and its maintenance problems, the school appeared to be a safe and healthy environment for the students. The tile floors were brightly polished and no trash was visible in the halls or in the yard outside.

The hallways in the school were decorated with artwork and other projects produced by the students, as well as displays used as motivational tools. The bulletin board outside of the principal's office contained newspaper clippings recognizing the school for its innovative programs (e.g., Computer Curriculum Corporation (CCC) Laboratory; Role Models; and For Boys Only Club) and individual students who had received special recognitions.

Near the front entrance, a "holiday" tree sits in the corner. At the time of the visitation, it was decorated for Mardi Gras. The principal explained that several years ago she became tired of pulling the tree out for Christmas, and then putting it away again after the season was over. The tree is now permanently displayed, with the decorations changing to reflect the particular holiday season.
The cafeteria at the school is very large, but it has maintained an image of a family kitchen and dining room, with the tables covered with tablecloths and floral centerpieces. The cafeteria workers are provided with a sense of ownership in the school through efforts by the principal to include them in many of the activities and incentive programs at the school.

There are two gymnasia, although only one is used for physical education classes. A playground is located on the campus, but only the Pre-K and Kindergarten classes make use of it. The other grades do not use the playground, because the schedule does not include time for recess. The reason cited by Ms. Jefferson for eliminating recess from the schedule was to allow time for “skill drills.” While the opportunity to learn is improved by the increase in the number of minutes available for classroom instruction, the lack of exercise during the day can be self-defeating. When I asked Ms. Jefferson about that possibility, she stated that “the school building is very large and every class has lab time during the day. The walk from the classroom to the lab and back provides adequate exercise, plus I do allow the teachers to use playground time as a reward, or if the teacher feels that the class needs to let off steam.”

Teachers’ instructional style.

The academic programs at Shambala Elementary are very structured. The 30 teachers, including six special education teachers, prepare weekly
schedules of what content areas will be taught in each classroom. Each schedule is submitted to the principal for her approval to insure that the teachers are following the approved curriculum. While interviewing teachers, several of them informed me that if their schedule does not meet with the principal's approval they are called in and asked to revise the schedule. These teachers assured me that the practice of turning in these schedules is not "busy work." In other words, Ms. Jefferson takes the time to examine each and every schedule and to provide feedback when needed.

In terms of instruction, the lower elementary teachers are traditionally oriented, with whole group instruction being the primary method. In the upper elementary grades, there were several teachers who were very involved in using more creative forms of instruction, including cooperative grouping and hands-on science and mathematics instruction. The results of the Stallings Classroom Snapshot instrument used during the third grade class observations indicated that the interactive time on task was around 83%, which is very high relative to other reports of time-on-task for effective schools (e.g., Crone et al., 1995; Teddlie & Stringfield, 1993).

The VTBI results indicated that on a five point Likert scale, where 1 equals "poor" and 5 equals "excellent," the teachers at Shambala Elementary averaged 4.25 over all 35 items on the instrument. Again, this is very high
relative to other school effectiveness studies that have utilized this instrument (Teddlie & Stringfield, 1993; Virgilio et al., 1991).

The most impressive example of innovative teaching methods observed during my on-site visit to Shambala Elementary occurred in a fifth grade class. At the end of the second day, I noticed a group of students on the concrete driveway outside the fifth grade classroom. From a distance I observed that the class was crowded around two students who were rolling something back and forth to each other on the concrete. As I walked closer, I could hear a “whirring” noise as well.

As I watched, the teacher began to explain the objective of the class activity. It was a science experiment in which a metal coffee can was filled with ice surrounding a smaller can containing ice cream mix. The “whirring” sound was coming from an electric ice cream freezer. The students were taking turns rolling the can back and forth quickly, imitating the action of the ice cream maker. The object of the experiment was to determine which mix would freeze first.

I began to quiz some of the students as to what they were trying to accomplish and why they thought they were getting the observed results. The responses were surprising. While I expected simplistic responses,
instead I received thoughtful discourses on mass and heat transference that would have sufficed for a high school physics class.

I conducted an informal interview with the teacher and soon realized that she was one of the cadre of star teachers that had been recruited for the school. Ms. Taylor had personally written and received eight grants for her class from the Tandy Corporation, BellSouth Corporation, the LDE, and various other agencies and corporations. She has also been active in conducting workshops throughout the state in the area of science education.

Ms. Taylor is very active in the local, regional, and state science fairs. All of her students are required to participate, and if the parents fail to pay for the materials they need, Ms. Taylor buys it for them. She introduced me to one of her students who had developed a science fair project comparing the performance of her classmates on a series of math problems, half using calculators and half without calculators. The teacher insisted that the student developed the idea herself. It was a very sophisticated project for a fifth grade student.

The curriculum.

Like most schools in the U.S. today, the principal and the faculty of Shambala Elementary feel the pressure to perform well on standardized achievement tests. Although their improvement in test scores over the past
six years has been extraordinary, I did not observe any indication that they
were "teaching the test." The school's efforts at test improvement centered
on the use of "Skill Drills." Every morning, each class spent 10 minutes
working on a particular skill that may be included on the standardized tests.
Most of the skills covered during my observations covered various rules of
grammar and punctuation. No sample test items were introduced at anytime.
The particular skill is included in the teacher's lesson plans and the principal
checks the lesson plans to monitor what skills are being covered. Skill Drills
began in Kindergarten and they began on the first day of each school year.

Recently a new reading series was adopted in the school, but phonics
was not stressed. To overcome this lack of phonics in the curriculum, the
school paid a consultant to come to the school and train the teachers to use
the Spalding Method. Ms. Jefferson indicated that the idea for incorporating
the Spalding Method originated with one of the teachers she had hired from
out of state. That teacher was using the Spalding Method in her class and
Ms. Jefferson liked the impact the program was having. As a result, she
adopted it for the entire school.

The curriculum is technology based, having received the funds for
computers, computer assisted instructional programs, and a closed circuit
television system from Title 1 monies and school initiated grants written by
Ms. Jefferson. To support the curriculum, the school has three separate computer labs: the Writing to Read lab, the Multimedia lab, and the CCC lab.

The Writing to Read lab contains five IBM PCs for use in Kindergarten and Grade 1. The commercial computer software is designed to encourage reading through a series of projects that allow the students to write about their perceptions of the stories they read. Spelling and punctuation are not stressed at this point, to prevent the students from losing interest in expressing their ideas. Ms. Jefferson noted that the proper methods of writing began to be stressed in the second grade, after the students are comfortable in writing their thoughts.

The Multimedia Lab contains 24 Power Mac computers that all contain software for word processing and graphics design. There is access to America Online for research purposes in the lab as well. At the time of the visitation, students were utilizing the lab to conduct research and prepare their science and social studies fair projects. The teacher who instructs these students in the use of the computers makes the lab available to students throughout the day, as well as their scheduled class time. All the students in Kindergarten through grade 5 are allowed to use this lab.
The centerpiece of technology in the school is the Computer Curriculum Corporation (CCC) Lab. Every student in grades 2-5 spends 30 minutes each day in the lab. With 32 Power Macs loaded with this commercial computer-assisted instructional software, the students are able to work at their own level. A lab manager works with each teacher by providing printed progress reports on each student during the six weeks grading period. The teachers were able to see where the students were having trouble and adjusted the classroom lesson plans accordingly. Ms. Jefferson stated that she was fortunate to still have the lab manager, (a white, female in her early 40s), who recently went back to get her GED. She received recognition from the CCC Company as one of the best managers in the country.

The students enjoy their lab time, and regular competitions are established between classes to see who can achieve the highest percentage that day. The lab is not established as a “break” for the teachers, since each teacher is expected to be with the class while in the lab. They monitor the students and coordinate the lessons with the lab manager.

Other projects in the school include the Accelerated Reader Program conducted by the librarian. Students check out books that have a yellow dot. They read the book and then take a computerized comprehension test. Each
student has a record of what books they have read and how well they did on the tests. Incentives are provided in the form of school money that the students can use to purchase items from the school store, provided by the librarian at her own expense.

**Parental involvement.**

Given the fact that the majority of the students live in single-parent families, in which the mother works, it is very difficult to get parents to participate in school related activities. Ms. Jefferson attempts to accommodate this situation by holding PTO meetings at night and on Saturdays so that more parents can attend.

As in most schools the PTO participation is usually in the form of fundraising, and to that extent, Ms. Jefferson indicated that they have been very successful. Since the school relies very heavily on Title I funds, the PTO has been mobilized to replace any funds lost in potential federal cutbacks, so that the school’s programs will not suffer. Only time will tell if the PTO will be successful in this endeavor.

Ms. Jefferson also organizes parent workshops to help parents understand how to encourage and assist their children with homework. These well-attended workshops are held at the school during evenings.
The principal's leadership style.

Ms. Jefferson is an African American female in her early 50s. appointed as principal six years ago. She grew up in the neighborhood surrounding Shambala Elementary and taught English for 22 years in a local middle school. She prides herself on being one of "them," referring to the community. The similarities to the improving urban school principal in the LSES study by Teddlie and Stringfield (1993) are apparent. That principal also taught at the secondary level for many years before becoming an elementary principal.

During our initial conversations, Ms. Jefferson appeared to be very guarded and exhibited a rather cold, yet highly professional manner. By the second day I had succeeded in getting her to drop some of her barriers and she began to exhibit a very warm and caring attitude, particularly toward her students.

Ms. Jefferson is very goal oriented and appears to plan well. Her success is well documented in the press and by the reputation she has attained from her colleagues throughout the state. While she could be considered a "rising star" in the district, she did not exhibit a desire to move to the central office. She indicated that her role at the school is "missionary" in nature. The children and the community are in need of a strong
educational system and positive role models, and she is content to help provide these things.

**School-level expectations.**

The expectation level for student learning at Shambala Elementary can be described as very high for both students and teachers. Ms. Jefferson related that the students come to Shambala Elementary from economically depressed communities where high unemployment, single-parent families, "crack babies," domestic violence, and all of the other social ills are present. She remarked that social service agencies are almost considered to be part of the staff at the school, because they visit so often.

As previously stated, Ms. Jefferson expects students in the school to excel regardless of the fact that they come from disadvantaged homes. This expectation to excel extends beyond their time at Shambala Elementary School. Ms. Jefferson indicated that her goal is to insure that these students have the tools to succeed in middle school, high school, college, and life. The school is attempting to lay a foundation for success that will remain with the students for their entire lives. The Role Models program is an important part of this approach. Ms. Jefferson enlists the assistance of African American professionals in the community who come to the school and talk to the students about the importance of education in their personal success.
As for the expectation level of the administration toward the teachers, Ms. Jefferson noted, “my teachers have to work very hard. They cannot afford to have a lax attitude. This is what I expect and if you cannot give it to me, I do not want you here.” She takes this attitude primarily because the students require more from these teachers than is usually the case in other schools. “These teachers have to be all things to these students.”

In a low-SES school, it is usual for teachers and principals to spend much time building the self-esteem of students through various motivational programs. They have to create the expectation levels for the students because they are not instilled at home, which is a consistent finding with other context studies in school effectiveness literature (e.g., Brown, Riddell, & Duffield, 1996; Hallinger & Murphy, 1986; Teddlie & Stringfield, 1993).

Ms. Jefferson described a series of programs initiated by the school to address the self-esteem of its students. For instance, on the last day of each month, every child in the school born during that month has a birthday party, with one of the school’s Business Partners providing gifts and cake and ice cream. Also, each Christmas the Business Partners provide a Christmas present for each child.

Ms. Jefferson insisted that these programs were very important to the children because many of them do not receive this type of attention at home.
She also indicated that there was an ulterior motive in her actions. According to her, "students are expected to follow the school rules and behave in class, and because we do these extra things for them, we can remind them from time to time that since they receive these nice things, they should not misbehave and risk losing the privileges."

Another source of pride for the principal was the program called "Got Caught Being Good." She referred to it as a positive approach to discipline in which the students are not always reminded when they are bad, but also when they have done something right. This program was obviously based on Skinnerian principles of positive reinforcement.

Throughout the school, teachers, custodians, lunchroom workers, bus drivers, and office staff all have tokens with them at all times. Whenever they notice a student doing something that is very polite, the adult writes the student’s name on the token and drops it in a box. Every Friday, ten tokens are pulled from the box, and those students who match the tokens receive a prize. This "sublime form of bribery" is financed through donations from the Business Partners.

The school has three major Business Partners that together donate thousands of dollars for birthday and Christmas presents, as well as teaching supplies. While one of the Business Partners is an African American
franchisee for a major restaurant chain, and another is an African American legal firm in the city, the major Business Partner is a local petrochemical company. The importance of this fact is that it demonstrates that Ms. Jefferson has taken a two-pronged approach to obtaining support for the school. She has successfully enlisted African American businesses and professionals by encouraging them to help “their” community, but she has also reached into the business community outside of the African American community by enlisting the assistance of a major corporation recognized by the entire city. In a real sense, Ms. Jefferson has succeeded in publicizing the success of Shambala Elementary to the community at-large to the point that the district school system is now using the school as a role model for all schools, not just inner-city schools.

One serious problem that Ms. Jefferson addresses in the self-esteem programs at the school is the lack of male role models for the students. Most of these students come from single-parent households, where the mother is the single parent. Ms. Jefferson established a program in which successful African American men come to the school and work with the students in the classroom. They give motivational talks and they provide information on careers and opportunities for life which they would not normally be exposed. Many of these same men also participate in the “For Boys Only Club” that
meets on Saturdays at the school. In this program, these African American men spend the morning with young boys, playing sports, or just talking to them. Ms. Jefferson stated that this program has been very successful, with at least 30 students attending each week.

**School goals.**

The school motto at Shambala Elementary speaks directly to the goals of the school, “I am, I can, I will.” If you examine the dramatic rise in student achievement scores, it would be apparent that one of the goals for the school is to improve student achievement as measured on standardized test scores. and that truly has been a major focus for the school. For instance, there has been a definite movement toward improving the curriculum and gearing that curriculum to student achievement. However, that is not the sole goal, and perhaps not even the most important goal.

In an extended interview conducted during my site visit, Ms. Jefferson revealed to me that the real goal of the school is to provide an environment where every student is made to feel important. “The life that these students lead at home is self-defeating. Unless the chain of despair is broken, the children will never escape that environment.” Ms. Jefferson appears to understand implicitly the school effectiveness research results regarding external locus of control or the “sense of academic futility” (e.g., Brookover
et al., 1979; Coleman et al., 1966; Teddlie & Stringfield, 1993). Her comment is very similar to the Coleman et al. (1966) conclusion:

Public schools are the principal means in our society for providing opportunity by developing mental skills and imparting knowledge. Their task is most critical for those groups which, through economic or cultural deprivation or social exclusion, are least able to transmit to their children the skills that will provide them with opportunity in our Nation today. (p. 36)

Shambala Elementary gears its total program toward insuring that these students realize their self-worth and realize the fact that they can do anything that they desire to do with their lives. Success in school is one way for these students to develop an attitude that they can succeed in life.

**Inter-staff relations.**

The faculty at Shambala Elementary meets in grade level committees weekly and the entire faculty meets monthly. The teachers are encouraged to contribute ideas and many decisions about the curriculum and the operation of the school are made by the faculty. Communication between the faculty is enhanced through the computer lab programs, because the lab instructors provide individual feedback about each student to the teachers.

The only negative comment made during the teacher interviews came from the librarian who commented that some teachers work with her on scheduling the Accelerated Reader Program, but others are "islands unto
themselves.” Without gathering sociometric data, it is impossible to measure social isolation in the faculty, but that did not seem to be a problem at the school.

Resources.

Although the school is located in an economically depressed area, the school is well funded in terms of technology. The fact that the school has three complete computer labs and a closed-circuit television system in each classroom demonstrates not only the school’s commitment to technology, but the commitment of the district as well. The initial funds for the computers were provided through Title I, when the school included computer labs in their school improvement plan. However, a great deal of the money generated for the school comes from other grants that were written at the school, as well as school fundraising activities. The grant writing for the school was coordinated by Ms. Jefferson soon after she became principal. Her personal interests are centered around educational technology, so with her personal knowledge of how to incorporate technology into the learning environment that became a primary focus for the school as well.

Although the school resources are excellent in terms of technology, there is an obvious lack of other materials in the classroom. One teacher noted that there is not enough money for construction paper and other
materials that students use for science and social studies fairs, and the
teachers usually have to purchase these items for their classrooms.

**Relationship with the central office.**

When she was appointed as principal, Ms. Jefferson found the school
to be ineffective and the central office did not give her any indication that
they were interested in improving the school. (Again, the parallel to Mr.
Jameson at Hoover Elementary School [Teddlie & Stringfield, 1993, pp. 140-
145] is quite remarkable). Immediately upon becoming principal, she made
demands upon the central office in terms of personnel, insisting that she
receive the authority to hire the teachers that she wanted, as well as free rein
to make the curricular changes that she felt were needed.

At first the central office was willing to let Ms. Jefferson alone
because they did not want to be bothered with the school. After the changes
began to take effect and the school developed a positive image, they were
afraid to refuse anything that she wanted. At this point Ms. Jefferson has the
political support and the prestige in the community to get just about anything
that she wants from the school board. For example, Ms. Jefferson wanted to
put telephones in each classroom so that each class could use a modem, as
well as providing convenience to the teacher in communicating with parents.
When the central office refused to allow this, Ms. Jefferson then took her
request to the School Board and they approved it. Of course, these tactics have not won her many friends in the central office, but she insisted that she did not care. Her only concern is the school and the students that attend the school.

These actions taken by Ms. Jefferson can be characterized as a "maverick orientation" (Levine & Lezotte, 1990) in which the principal views her role as being outside of the normal bureaucratic structure of the school system. Ms. Jefferson established her vision for the school, but she felt that the central office was working against her efforts to improve the school. Without regard for how her actions would be perceived within the bureaucracy of the district school system, she took a pragmatic approach to achieve her goals.

During interviews with the teachers it was noted that some of the central office staff, particularly the supervisor responsible for technology within the schools, had been very helpful in terms of training the teachers how to use the computers. The central office provides computer classes to all teachers in the district at no charge, and the teachers at Shambala Elementary have all taken advantage of the classes.

Image.

Ms. Jefferson has worked very hard to expand the role of the school in relation to the community. The school serves as a pseudo-community center.
with community organizations using the facilities after hours. For instance the cafeteria is used by civic groups for meetings, and the computers are used to train parents and other adults in the community in the use of computer software that increases their job skills.

There is also an apparent side effect to the involvement of the community within the school. Because the school has received a great deal of publicity in the press and from the state education department for its innovative programs and success at improving the school, the community now has something to hold up to the public and point to with pride. Their children now attend one of the most effective schools in the entire state and it is not located in an affluent suburb.

For all of her efforts at bringing about this transformation in the school and for her work in the community, the N.A.A.C.P. recently recognized Ms. Jefferson as the city’s outstanding community leader for 1995.

Lost Bayou Elementary School (Mid-SES, Metropolitan)

As a prelude to this case study it should be noted that Lost Bayou Elementary School has been an exemplary school for many years. All of the typical measures that are used to indicate that a school is effective were present at the school. The standardized test scores were among the highest in
the district and the rate of improvement over the past three years has been exceptional. The school had a faculty that was very stable and experienced and included among the faculty were national teaching award winners. Despite all of the success that the school has enjoyed, plus the fact that it was one of the few schools in the district that could be considered effective, it is unbelievable that the district chose to close the school as part of a recently approved desegregation agreement.

**School characteristics.**

Lost Bayou Elementary School is located in a bedroom community adjacent to a large metropolitan area. The school, built in 1960, serves 268 students in Kindergarten through Grade 5, with a faculty size of 23. The majority of the student population lives in blue-collar, middle-class families.

Fifteen (15) years ago, due to a desegregation order in the school district, students were bused to the school from an African American community 10 miles away, and minority teachers were transferred to the school to satisfy racial quotas. At first this change created problems, according to the principal of 23 years, Ms. Carter. The parents of the students bused in did not have a feeling of ownership in the school, and the fact that they were 10 miles away prevented many parents from becoming more involved in the school. This, combined with the animosity felt by the
parents of the students who lived in the surrounding community, and the teachers who had taught in the school for many years, caused disharmony in the school that lasted for many years. According to Ms. Carter, these problems were eventually overcome, and today parents from both communities served by Lost Bayou Elementary feel very protective and attached to the school.

The success in overcoming this feeling of animosity required a concerted effort on the part of the faculty to make these new parents feel welcome and to let them know that their children are an important part of the school. One way this was achieved was through personal contacts with each student’s parents, a practice that has continued. As soon as the class rosters are given to the teachers for the new school year, Ms. Carter insists that the teachers phone each parent and set up a “get acquainted” conference. Allowances were made for the distance and the work schedules of the parents so that every effort was made to make personal contact.

Whatever animosity that had existed among the faculty eventually disappeared. Based on extensive teacher interviews during the on-site visits to the school, the principal, Ms. Carter, is given much of the credit for this fact. Most of the teachers have been at the school for over 20 years and they indicated no desire to teach at any other school.
Although 36 years of age, the school building is in very good condition. The architectural style of the school is commonly found in schools built in the early 1960s, with a series of long, flat-roofed buildings forming rows of classrooms. The office area is located at the front of the campus, with a shotgun style hallway that extends through the building, leading out the back door to the classroom areas.

The grounds were well-mown and no trash was visible. The buildings appeared to have been recently painted, giving the appearance of a relatively new school. Although classified as a metropolitan school, the school is located on a narrow two-lane road with very little traffic during the day. Due to the location of the school on a large tract of land, located in an older residential area with large lots and tall oak and pine trees, there is a slight feeling of being in the country, with a sense of remoteness not normally found in schools located in this community type.

**Teachers' instructional style.**

Teacher retention at Lost Bayou Elementary School is stable: only 5 of 23 teachers on the faculty have been with the school less than 20 years. As one first grade teacher with 37 years total experience stated, "We have a few young teachers, but not many. However, there are a lot of young-at-
heart teachers who are willing to try new things and evaluate whether it works or not.”

This same first grade teacher was asked whether she intended to retire soon. She replied, “I have been at this school for 25 years and I still feel like I matter and I feel that these children need me. I know I’m doing something worthwhile after all these years. When these students leave my class they can read, and that still amazes me and excites me after all these years. As long as I get up in the morning and I don’t feel like I am going to work, then I will continue to teach. On the day that I say to myself, I have to go to work, then I will retire.”

The teachers at Lost Bayou Elementary School are engaged in a lot of planning; for instance, they turn in weekly lesson plans on Monday or Friday. While it is a requirement, the teachers do not complain about the procedure, citing that it helps them stay on track as to what they need to be doing. “Ms. Carter is always on top of the lesson plans. We know that we had better be teaching what we said we were going to teach, because she will come around and check us out.”

Several of the teachers insisted that they do not teach to the test, but instead teach skills. Each child’s California Achievement Test scores are analyzed and posted on a chart for the teachers’ use in helping to plan instruction. This helps the teacher identify each individual student’s
strengths and weaknesses and reinforces those areas which the students need to concentrate. Because the faculty is so stable at this school, the teachers meet before the school year begins and discuss each child's strengths and weaknesses with the student's previous teacher. The result of this process, which is aided by the relatively small class size in the school, is individualized instruction based on the specific needs of the students. The teachers indicated that this process has been ongoing for many years and that it was begun at the insistence of Ms. Carter. Each year, the staff starts teaching skills in August, so that by April the students are prepared to do well on the test.

This is a school wide plan, and all teachers participate. It involves a great deal of record keeping, but it helps in providing individualized instruction to the students. The records generated in this process are used during parent conferences, where the teachers give suggestions and activities to the parents to use at home to help the students improve in certain areas.

The results of the Stallings Classroom Snapshot revealed that the teachers observed averaged almost 90% time-on-task. This is exceptionally high in relation to other school effectiveness research that has utilized the Stallings Classroom Snapshot (Teddlie & Stringfield, 1993). It should be noted that the 90% time-on-task included both interactive and noninteractive
time-on-task. Some classes had a high noninteractive time-on-task percentage, particularly one class that combined second and third grades. The teacher in this class taught an assignment to the third grade students while the second grade students were engaged in seatwork. Although there was a great deal of noninteractive time-on-task, the teacher did a good job of monitoring the entire class and based on my observations, most of the students were engaged.

The VTBI results showed that these teachers averaged 3.81 across all 35 competencies measured. This is somewhat lower than the average for Shambala Elementary School, but is more consistent with the results obtained in other school effectiveness research that has utilized the VTBI (Teddlie & Stringfield, 1993; Virgilio et al., 1991).

The curriculum.

One teacher stated that “we use what we feel will motivate the students and help them learn. However, any program that we adopt is evaluated beforehand to determine if it helps the student.” The curriculum is very structured, but the teachers have the flexibility to alter it if they feel that it is needed. “Ms. Carter is on the ball in that regard.” For example, an innovative reading program was being considered for adoption. Samples of the materials in the program were reviewed by all of the teachers and then
the teachers were permitted to choose the one that they thought would be most beneficial to the students.

Lost Bayou Elementary School is part of a district wide program called redesign, instituted as part of a recent desegregation plan. By concentrating on a particular program in a school, the idea was that parents who were interested in that particular program for their children would send them to that school regardless of the location. Lost Bayou Elementary School established a redesign program centered around health and physical activity. As part of this program the students receive physical fitness report card, and the grounds at the school are large enough to accommodate a physical fitness track that is used by the physical education classes at the school, as well as the community at large.

One classroom contained a combined second and third grade class. The reason for this structure as stated by the teacher was that the second and third grade enrollment was not large enough for an additional class at each grade level, so they combined the classes. The class assignments were established to pair low ability third graders with high ability second graders, which in essence provided for ability tracking to a certain extent. While observing this classroom, it was obvious that the teacher was utilizing the
same assignment for both grades, but allowed for individual differences in
the lesson.

The fourth and fifth grade classes were departmentalized. The
students changed classes four times per day, which permitted them to
become accustomed to changing classes, in preparation for middle school.

The teachers use curriculum guides from the state, as well as those
provided by book publishers to help guide their lesson plans. These
materials were used primarily to insure that the teachers were covering all of
the required skills that are included on the standardized tests each spring.

Parental involvement.

Ms. Carter indicated that parents have always been very active in the
school. There are many community people who give freely of their time to
help in the classroom so that instruction time is not taken up with menial
tasks. As she stated, "the more time that we can teach, the more the students
can learn."

She required teachers to make personal contact with the parents before
the school year begins as an ice breaker. She then requires parent
conferences with every parent at the beginning of the school year. During
the second grading period, conferences are held with parents of students who
are discipline problems. For serious problems, students are referred to the
School Building Level Committee to determine whether they should be
tested referred to pupil appraisal.

During the third nine weeks period, conferences are held with parents
that want to meet as well as all students who are scoring low on their report
cards. All of these conferences are established with the parents’ schedules in
mind, in an attempt to accommodate working parents.

Regardless of the community involvement in the school, Ms. Carter
said there is not much support for the PTO. This is a concern at most
schools, with the same few parents usually attending all of the meetings.

**The principal’s leadership style.**

Ms. Carter is a white female in her mid-60s, who has been the
principal at Lost Bayou Elementary School for 23 years. A serious minded
woman, who appeared to lack a sense of humor, she nevertheless had earned
the respect and admiration of the faculty and the community as evidenced by
the remarks made during teacher interviews conducted during on-site visits.
Most of the teachers indicated that much of the credit for the improvement of
the school belongs to Ms. Carter.

During the teacher interviews at Lost Bayou Elementary, several
teachers indicated that the characteristic that they appreciated most, with
regard to Ms. Carter, was her thoroughness and attention to detail. One
teacher indicated that she put a lot of effort into her lesson plans because
"you can be sure that Ms. Carter will check on you to see that you are
covering the areas that you said you would cover." This statement did not
appear to be made with resentment, but instead with a true appreciation that
Ms. Carter showed an interest in what they were doing in their classrooms.

Another teacher stated that Ms. Carter was very supportive of their
needs in the classroom, especially in terms of materials. "Whenever we
adopt a new textbook series, Ms. Carter always finds the money to buy all
the manuals and extra teaching aids that go along with the series. I really
appreciate that, because it helps to make my job a little easier."

Although nearing the age when many principals are considering
retirement, Ms. Carter gave no indication that she was ready. She related to
me that her job was "still very rewarding, and I feel that I am making a
contribution toward the lives of these children." As a sidenote, when the
district closed Lost Bayou Elementary School, Ms. Carter accepted a transfer
to another school rather than retire, and she is doing very well.

School-level expectations.

The expectations for the school appear to center on providing a safe,
orderly environment in which the students can learn. The expectations that
the principal has for the teachers is spelled out in the structured curriculum
and the watchful eye that she exerts over the faculty. The fact that the
faculty has been stable for so many years is a good indication that the faculty and the principal have a good working relationship.

The expectations for student performance are spelled out in bulletin board displays around the school that tout the achievement of the students on national physical fitness tests. Disruptive behavior is not tolerated by the teachers or the principal and all students are encouraged to perform to the best of their ability.

School goals.

The school maintained the belief that every child can achieve, and they attempt to build as much self-esteem as possible. Improvement has been consistent and is a result of planning by the teachers and the principal.

Because the school was a redesign school, with health and physical fitness as the focus, the goal of the school seemed to center on these activities. Much of the posted displays around the school concerned the Presidential Physical Fitness Program and the standing that the students maintained in relation to that program.

Inter-staff relations.

The principal consistently encouraged the faculty to provide input into every aspect of the school. Grade level committees met every Wednesday morning, and the faculty provided both support and constructive criticism to
each other. One teacher stated, “we offer each other suggestions, such as ‘have you tried this?’ but we also feel obligated to let fellow faculty members know when they are doing something they shouldn’t be doing.” Another teacher commented that “we have problems, but we meet them head on and go on from there.”

Accomplishments by the faculty were recognized by the principal and by the parents. As one teacher stated, “You know when you are doing the right thing. Everybody is proud when the school shows up in the list of high achieving schools.”

It was obvious from the comments made by some of the teachers during on-site interviews that most of the faculty feels a great sense of dedication to the school. “All of the teachers are at the school during the summer, preparing for the coming school year, only because they want to.”

Resources.

Lost Bayou Elementary School is one of 104 schools in a large urban school district. The history of the district has centered around an on-going school desegregation court order that lasted for 40 years. Because of the “white flight” that has occurred over this period of time, there is little desire by the general public to raise taxes for the benefit of the school system. For this reason, the district as a whole is woefully short of resources. Even
copier paper has to be purchased by teachers themselves for use in their classrooms.

Because the district does not have a great deal of money to give to the school, like many other schools around the state, the parents and the teachers have to stage fundraisers to raise money for extra materials. At the time of my visit to Lost Bayou Elementary, the students were engaged in a recycling program, which provided money to buy two computers the previous year.

Relationship with the central office.

The school district is very large and the central office has been in political turmoil for many years. Because of this situation, Lost Bayou Elementary has been allowed to exist with very little interference from the central office staff. The greatest of ironies is that since these visits to Lost Bayou Elementary, the school has been closed. In spite of the fact that the school was highly effective and enjoyed a great deal of support from the community, it was included in a new desegregation plan that called for the campus to be closed and the principal and the faculty to be reassigned to other schools around the district.

The new superintendent has stated that it will be a great experiment to see if a successful group of teachers can be moved into an ineffective school and improve the situation in that school. Despite this optimistic vent, the
result of this move is that the district chose to close one of the few effective schools in the district in an attempt to settle a desegregation suit. It appears to be another example of reform that does not take into consideration the wishes or the interests of parents and children in the community.

When the closure was announced, the community organized protests and many tearful pleas from parents who had themselves attended the school fell on deaf ears. The superintendent, who had only recently been hired from another state, along with a highly paid consultant from the Northeast, pushed for the closure of the school, again with the understanding that the faculty would be dispersed to ineffective schools around the district in an attempt to improve those schools. It is a great irony that the strongest voices in deciding that this community had to give up its school came from strangers to the community who appeared to give very little consideration to the wishes of the parents and teachers of Lost Bayou Elementary School.

Image.

Perhaps image is the one thing that the school failed to capitalize upon. In spite of the fact that the school was improving at a phenomenal rate compared to other schools in the district, very little notice was taken of how effective the school actually was. Either the central office was not aware of how well the school was performing or they did not care.
The image of the school was that of a small school in the northern end of the district that was doing okay, nothing special. It is possible that if the administration and faculty of Lost Bayou Elementary School had been more diligent in publicizing the positive aspects of the school, i.e., the school's test scores were climbing much faster than any other school in the district and one of their teachers was a finalist for the National Disney Teaching Award. Also, Lost Bayou Elementary was the only school in the district with an on-campus science museum, the superintendent and the school board might have received more opposition to the plan to close the school.

Nilatir Elementary School (Low-SES, Rural)

School characteristics.

Nilatir Elementary School is a K-6 school located in the southern part of a rural region of southeast Louisiana. The entire district is rural, with the largest town having a population of around 3,000 people. The economic condition of the district is primarily low income and high unemployment. Most of the jobs in the district are low paying, agricultural jobs with a few large landowners controlling most of the land.

Located on a two-lane country road that follows the course of a small bayou through miles of plowed fields, the school appears rather suddenly only two miles before leaving the district. Because of the school's location in relation to the rest of the district, some students have to travel many miles
to reach the school. However, in a small town less than two miles away, the children are not allowed to attend Nilatir Elementary School due to the fact that the town is in a different school district.

This location causes attendance problems for the school. As the image of the school improved and more and more parents desired to send their children to the school, many students were beginning to illegally cross district attendance zones to attend the school.

Before, the late 1960s, Nilatir Elementary was a segregated African American school. Today, although the total parish population is predominantly African American, Nilatir Elementary is 70% white and 30% African American, with only seven of 31 teachers being African American.

Although the district has legally been desegregated for almost 30 years, today it is still divided by race. Most of the population is located in the northern end of the district where most of the white students attend private or parochial schools. As a result, the public schools there are predominantly African American.

On the other hand, Nilatir Elementary School feeds into a small 7-12 school in the southern end of the district where a majority white population has been maintained due to residential patterns. This helps to explain why
Nilatir Elementary was transformed from a segregated African American school to a majority white school, after a desegregation settlement.

An administration building and gymnasium were built in 1980 giving the campus the look of a modern school from the highway. However, the classroom buildings were built in the mid-1960s and show their age, although they have been maintained very well on the inside. A number of temporary buildings are located in the rear of the campus, although the covered walkways and concrete steps to the buildings indicate that they are probably more permanent than temporary.

The campus is spread out with two main classroom buildings extending lengthwise from the administration building for about 50 yards. The classrooms in both wings open onto an open courtyard that separates the two wings by approximately 30 yards. Opposite the administration building on the far end of the classroom buildings is the library.

Beyond the library is a large playground without equipment except for three sets of swings. During my visits to the school, the temperature was in the 30s, although the sun was shining. Even in these cold conditions the children were allowed to go outside and play. The playground was still wet from a recent rainfall and only one of the swingsets could be used due to water puddled in the holes worn beneath the swings. The entire playground
was surrounded by a five-foot chain-link fence. While standing in the middle of the playground after the children went back inside the classrooms, I was struck with the image of how remote this school really was. A row of trees stood several miles away, left by the landowner as a windbreak for his crops. Other than that sight, there was nothing to break the monotony of flat plowed fields.

**Teachers' instructional style.**

During the classroom observations conducted during on-site visits to Nilatir Elementary School, it became apparent that the curriculum and the teaching methods utilized by the teachers were traditional. All classes consisted of whole group instruction, except in isolated instances in which students were segregated to work with the Title I instructors and tutors. While several teachers used innovative lessons during the on-site observations, most lessons consisted of ditto worksheets. Despite the lack of innovative practices, as a whole, the faculty seemed to be dedicated to instructional responsibilities.

Results of the Stallings Classroom Snapshot revealed that the average classroom total time-on-task was 85%. while the average rating across all 35 items on the VTBI was 3.9. In relation to research conducted during the LSES (Teddlie & Stringfield, 1993) both scores are rather high, although it
should be expected that the delivery of instruction in an improving school
would be higher than average.

The curriculum.

Based on classroom observations, class scheduling at Nilatir
Elementary School was very complex, with some degree of student
“tracking” included. The students operated under a flex schedule, rather than
grades being divided into sections for all day self-contained classes, that
seemed to be prevalent in the upper grades, than in the lower grades. In
discussing this scheduling procedure with the principal it was related that the
purpose of this schedule was to group students based on their performance
on standardized tests, in specific content areas.

The curriculum itself was not at all innovative, although the school
had made efforts to bring technology into the classroom for research
purposes. The computer lab had various computer-assisted instructional
software, as well as access to the Internet.

Parental involvement.

Like all the other schools included in these case studies, Nilatir
Elementary School is also faced with the problem of low attendance at PTO
meetings. However, there does seem to be a great deal of involvement from
the parents that do participate.
Mr. Johnson mentioned that each year the district provided the school with only $10 per student for materials. It was necessary for the PTO to conduct fundraisers in order to provide the school with the extras that they needed to conduct school. The PTO not only conducted the fundraisers, but also retained the money. Mr. Johnson had to go to the PTO and request money for special projects, with the PTO deciding whether to disperse the money or not. Mr. Johnson indicated that he preferred this arrangement because it more directly involved the parents in the actions of the school, plus it removed any potential questions that the parents may have as to how the money is spent.

The PTO had been very supportive of Mr. Johnson and his attempts to improve the school. Teachers were encouraged to attend workshops throughout the year and Mr. Johnson convinced the PTO to provide the funds for these teachers to attend, since the district did not supply any money for this purpose.

Other areas in which the parents have been supportive of the school, include discipline. Mr. Johnson involved the parents in the discipline process and required them to meet with him if a student’s behavior warranted such action.
The principal’s leadership style.

Mr. Johnson is an African American male in his mid-50s, who was appointed as principal of Nilatir Elementary School five years ago, after serving for two years at another elementary school in the district. Although his administrative experience lies strictly in elementary schools, his teaching experience came as a high school band director at one of the high schools in the district. During an interview, he mentioned that he was lost when he began as an elementary principal because the methods and the curriculum were foreign to him. However, he saw that as a plus in many ways, particularly since he had to rely on his teachers for their expertise, thus allowing him to involve them in the decisionmaking process.

Mr. Johnson is a man of great energy; for example, it was very hard for him to remain seated during the interview. He was constantly moving around, and he criticized the previous principal for being “slow-moving.” As he said, “this is a large campus and you have to move quickly to get around to all of the areas of the school. He was a good man, a good school man, but he was slow.”

The reaction from the teachers concerning the principal’s leadership style was consistent: most of the teachers cited his arrival as having a great deal to do with the improvement of the school. The teachers primarily liked the fact that although everyone knew that Mr. Johnson was the “boss,” they
also knew that he would try to get them anything they needed to teach their classes. Mr. Johnson felt that he had a good working relationship with his faculty. He said that the faculty implicitly “knew that I bust my butt for them, and they are expected to bust their butts for me in return.”

In describing his career goals, Mr. Johnson stated that he had ambitions to reach the highest levels of administration in the district. He has steadily moved to larger schools, feeling that if he is the principal at the largest and the best school in the district that this will enhance his marketability in the district. So while Mr. Johnson has worked very hard to improve the school, his motives are not exactly altruistic. While it is readily apparent that most school administrators who rise to the highest levels in their field have a great deal of ambition, it is rare to find one who will readily admit it. Whatever motivation moves a principal to attempt to improve a school, if it is successful, then the school reaps the benefits.

School-level expectations.

When asked to describe the areas that have been improved the most in the last five years, the teachers at Nilatir Elementary consistently mentioned that discipline had greatly improved. Although the teachers worked with the principal to institute a new discipline policy after the arrival of Mr. Johnson, the policy does not seem to be innovative and it does not utilize rewards and
incentives as seen in some of the other case study schools. Although very structured, the discipline policy is characterized by a great deal of follow-through from the faculty and the School Building Level Committee. Despite these efforts, Mr. Johnson cited his little “cupboard” as having a great deal to do with the school’s improvement in discipline.

The cupboard hangs on the wall in the teacher’s lounge. During a guided tour of the school, Mr. Johnson removed a padlock and opened double doors to reveal 50 small pigeonholes each containing prescription medication belonging to students. When I commented about the large number of students on medication, he remarked that 90% of the medication was Ritalin. My first reaction was shock that so much Ritalin was needed in the school, but Mr. Johnson’s comment was that “we couldn’t have school if it wasn’t for Ritalin.” He indicated that many of the more disruptive students were now taking the medication, but he did not indicate a profile of which students were taking Ritalin.

School goals.

The school’s goals are stated in the school improvement plan written for the present school year:

1. To improve academic achievement in Reading and Mathematics.
2. To improve behavior management of students.
3. To promote academic and social growth among the students.

4. To increase community and parental involvement in the school.

5. To improve staff development among the faculty.

While these are rather general goals, it does appear that much of the effort of the administration and the faculty has been centered on improving these areas. For example, tutoring and resource programs were set up in reading and mathematics and Mr. Johnson indicated that the test scores in these areas had improved. Mention has previously been made of the attempts at instituting a school wide discipline program. Also, Mr. Johnson made a concerted effort to involve the parents in the activities of the school and he works to increase attendance at the PTO meetings. Mr. Johnson utilized the PTO funds to send his teachers to workshops or to bring people into the school to conduct inservice programs. All of these activities follow very closely the designated goals described above.

**Inter-staff relations.**

The history of the school district has always involved race to some degree. The fact that the school has a majority white student body and faculty, and an African American principal, might on the surface seem to create a tense situation. However, there was no evidence of this during the visits to the school. Mr. Johnson broached the situation when he stated, “race is never a topic of discussion in my dealings with the faculty or
parents.” He indicated that he makes parents, teachers, and students aware that he does not base his decisions on race and he refuses to let them make an issue of race either. Apparently, Mr. Johnson has succeeded in expressing this position to his faculty, as teachers of both races commented during interviews how much they respected his leadership.

All of the teachers mentioned that the faculty works well together. When there are areas of disagreement between teachers they bring the problems out into the open and discuss them. One particular comment by a teacher at the school was very revealing about the relationship between the faculty members. An experienced, African American female teacher responded to a question that asked whether the faculty had input into the decisionmaking processes at the school. She stated that “we meet once a week as a family.” I came back to this point a little later and asked her about using the term family instead of faculty. She responded that “we try really hard to get along. We discuss things together until we come to an agreement on things that we have disagreed on. It is a time of sharing, and I think of these teachers as family.”

The School Building Level Committee, whose membership is determined by district policy, meets and makes determinations about whether or not students should be referred to Pupil Appraisal for academic testing or
behavior modification. The committee consisted of five members: the principal, a teacher who acts as chair, and three other teachers, all of whom are selected by the principal. While the intent of the School Building Level Committee is to involve the teachers in the decisionmaking processes of the school, it is apparent by the structure of the committee that the principal maintains a great deal of influence over the committee.

Resources.

Nilatir Elementary is located in a poor school district. Other than money that is received through Title I grants and PTO fundraising efforts, there is only $10 per student allotted to the school for operating funds. So while the school has a new computer lab, the classrooms lack materials.

Relationship with the central office.

Even before directly asking the question about the involvement of the central office in the operation of the school, Mr. Johnson made a point to tell me that all of the improvement that the school has undergone over the past four or five years is directly attributable to what he and his faculty have done.

Mr. Johnson's relationship with the school board members was typical of the familiarity of such relations in smaller school districts in the state. He mentioned one board member, a former student, who had recently been
elected. Mr. Johnson instructed the board member on how to deal with complaints from parents. He told him that the first thing he should ask the parent is, “have you talked to Mr. Johnson?” If they say that they have not, then tell them to call him before calling a board member. He told the board member that it would save him a “lot of trouble and a lot of phone calls.”

Mr. Johnson mentioned how some of the supervisors in the central office have their favorite schools. “They are buddies with certain principals. But they know me, I will make a lot of noise if I have to.” I inferred from these comments that Mr. Johnson does not have a lot of respect for the central office staff. It appeared that Mr. Johnson was determined to make his school outshine the other schools in the district in an effort to overcome some of the central office politics that may prevent him from moving up in the hierarchy.

Image.

Nilatir Elementary has the reputation of being the best elementary school in the district. While the school has shown considerable improvement over the last five years, much of the positive image of the school centers as much around the fact that the school has good discipline, as it does the curriculum. One teacher mentioned the fact that she drives more than 30 miles one way to teach at Nilatir Elementary because it is “safe.”
Apparently, the discipline at the school was out-of-control prior to the arrival of Mr. Johnson. Several of the teachers mentioned during interviews that prior to the arrival of Mr. Johnson they did not receive support from the administration concerning disciplinary matters. Students were disrupting the learning process, yet the former principal refused to suspend students “to keep from rocking the boat before he retires.”

_Great Plains Elementary School (Mid-SES, Rural)_

**School characteristics.**

Great Plains Elementary School is a Pre-K-6 school located in a rural area of central Louisiana. The two-story building in which the school is located was built in 1927 and was abandoned and condemned after a new high school was built several years ago. With the arrival of a new superintendent who had an affinity for older school buildings, the district decided to renovate the old school building instead of tearing it down. The elementary students were then moved into the old building. The teachers indicated that they enjoyed teaching in this old building. As one teacher remarked, “It feels like you are in school.”

The main building contained all of the classrooms, but with a total student body of less than 200 and a faculty of only eight, plus auxiliary and special education teachers, the one building sufficed. A library building sits
on one side of the main building and a cafeteria and teachers' lounge sits on the other side. The cafeteria does not have a kitchen, but is instead provided with lunches that are delivered from another school cafeteria located nearby. The gymnasium is located across the highway from the main building, but luckily for the students and the physical education teacher, the highway does not have a lot of traffic. It does present a dangerous situation, having students cross a highway, but the teacher does a good job of acting as a crossing guard.

**Teachers' instructional style.**

The classrooms were all arranged in traditional fashion with the wooden and metal desks facing the front of the classroom where most of the instruction took place. The classes that were observed consisted of traditional methods of textbook-guided lessons that included oral question and response techniques and a great deal of seatwork.

It was rather surprising, if not shocking, to find that the kindergarten class contained 27 students and engaged in traditional instructional methods. The class was very rigid in structure. Students were required to sit in their desk facing the front during the lesson. One little girl was talking out of turn and the teacher told her, in a harsh voice, that she would be placed in the hall, on her knees if she did not get quiet. The instruction was carried out
with ditto sheets and board work. When the class was preparing to leave for recess, the students were required to put their heads on the desk and remain quiet. When recess arrived, the students were dismissed by row.

Other than a reading center located in a corner of the room, there did not appear to be any allowances made for small group or individual instruction. My general impressions of this class and the teacher were rather negative, so I was surprised to learn during the principal’s interview that he had personally selected the teacher because she had been honored as the kindergarten teacher of the year by the school district. This indicated to me that either the observation was not indicative of what usually goes on in the kindergarten classroom, or it indicated that kindergarten instruction in the entire district leaves a lot to be desired.

Also, during the interview, the principal indicated that the faculty had tried some innovative teaching methods such as cooperative grouping, but they all decided to go back to the traditional whole group instruction.

The Stallings Classroom Snapshot revealed that the average time-on-task for the classes observed was 78%, and the average rating for the VTBI across all 35 items was 3.75.
**The curriculum.**

The principal indicated that the curriculum was driven by need. He analyzed test scores and determined the areas in which the class as a whole was deficient and then geared his improvement efforts to that particular area. For instance, last year social studies was targeted, and this year the social studies scores improved.

Another example cited by Mr. Monroe was in spelling. Several years ago, the spelling scores were very low. He discussed it with the faculty and they felt that the Spalding Method would be helpful. The central office was opposed to adopting the Spalding Method, but he used $2,000 from the school’s fundraising account to pay a consultant to come to the school and put on a two-week workshop for the school’s faculty concerning the use of the Spalding Method. The teachers have all used the method diligently and the spelling scores have improved dramatically. Other principals have now implemented the method into their curriculum.

**Parental involvement.**

The principal cited parental involvement as one of the reasons for the school’s improvement over the past five years. Great Plains Elementary School is classified as a mid-SES school, with less than 70% of its students eligible for the free lunch program. Often there is a relationship between SES level and parental involvement indicating that parents in lower SES
households do not become as involved in their children's education as parents from higher SES households. In the case of Great Plains Elementary, the community is very small and close-knit. The SES level is impacted by the agricultural, small-farm economy of the region.

The parents are very supportive of the school in terms of helping with fundraisers. They hold a yearly Halloween Carnival that is attended by the whole community, plus yearly barbecues, cake sales, candy sales, and raffles. The money generated from these fundraisers was used by the school to purchase school-wide textbook series and other instructional materials that the district cannot afford. As one first grade teacher noted, "Not all of the schools in the district can raise money, so they are jealous of our school."

**The principal's leadership style.**

Mr. Monroe is a white male in his early 60s. He had been employed in the district for many years as a junior high school physical education teacher and coach. He became principal at Great Plains Elementary eight years ago, and now talks a great deal about retirement.

The principal cited two keys to the success of the school: "a good, conscientious faculty that is easy to work with, and excellent parents that believe in education and who are willing to help when asked." Indeed the faculty appears to have a great deal of respect for "Mr. Jimmy." Mr. Monroe
indicated that his leadership style consisted of having the faculty tell him what they need, and then in turn, trying to get it for them.

Mr. Monroe also curries favor with the faculty by hosting Christmas parties at his house, where he does all of the cooking, and an annual crawfish boil at his home for the teachers and their spouses.

School-level expectations.

In terms of the expectations for the school, Mr. Monroe stated, "I am a disciplinarian. They have to be disciplined, then you can teach." There did not appear to be a recognized set of expectations for the school other than for the teachers to teach and the students to learn. The faculty and the principal seem to be content with addressing only those things that are not working. If it appears to be working leave it alone.

It did not appear from the interviews conducted with the principal and most of the faculty members at Great Plains Elementary School that the expectations for the students or the school as a whole were set very high. It appeared to be characteristic of many small rural communities to have a low ceiling of tolerance with regard to the schools.

School goals.

The school appeared to be at a level of performance that makes most of the faculty and parents content. They do not seem to be interested in
making the school outstanding. They are happy that the school is doing an adequate job.

While the principal and the faculty appeared to be conscientious and dedicated to their students, the goals of the school tended to be geared more toward "putting out fires" rather than improving the overall effectiveness of the curriculum. For instance, Mr. Monroe mentioned that after reviewing the test scores from the previous year, it appeared that the social studies scores were low. Because of this, efforts were made to concentrate on social studies for the current school year. New social studies textbooks were ordered and more social studies materials were added.

This approach does not consider that there may be serious instructional problems among the faculty, or that other content areas may be dropping while attempting to raise social studies. No mention was made concerning the introduction of innovative teaching methods.

Inter-staff relations.

On the surface, the faculty at Great Plains Elementary School seemed to get along very well. Many of the faculty were related to each other (there were five Monroes among the teachers) and grew up in the surrounding community.

There does not appear to be a very high attrition rate among the teachers, with only four teachers having less than five years of service at the
school. One teacher mentioned that she had graduated from the local high school, returned from college, and began teaching at Great Plains Elementary School 23 years ago. This same teacher's daughter is about to graduate from college and the daughter has plans to begin teaching at the school as soon as an opening develops.

Resources.

As in most rural schools, there seems to be an inadequate supply of resources for Great Plains Elementary School. As one of 36 schools in a district whose budget appeared to be very tight, much of the fundraising efforts by the school had to be geared toward purchasing materials that the district could not provide. Luckily for the school, they do have the support of the parents who are very involved in these fundraising activities.

The largest fundraiser for the school is a Halloween Carnival that takes place each year. The surrounding community is invited, and many parents opt for the carnival rather than allowing the children to go “trick-or-treating.” The money is donated to the school by the PTO, but a committee of teachers and parents determine what the critical need is and how the money will be used.

Relationship with the central office.

Because of its rural location, Great Plains Elementary School was not visited by staff from the central office very often. While Mr. Monroe noted
that the central office staff does not visit the school very often, he stated that he does have a good relationship with the supervisor assigned to his school.

An example of the working relationship Mr. Monroe maintained with the central office was the filling of teaching vacancies in the school. Mr. Monroe stated that when he has a teaching vacancy he notifies the personnel supervisor. The personnel supervisor then asks Mr. Monroe if he has anyone in mind. If he does have someone in mind, the supervisor makes every effort to see that Mr. Monroe is able to hire that person. This is a good relationship for a principal to have with the central office, if he has the vision and the desire to bring about constructive change in the school.

Image.

The image of Great Plains Elementary School is that of a very nice little school in the country. The added unique setting, along with the fact that the school has a reputation as an effective school gives the community a great deal of pride.

Four Schools Rejected from the Study

The following section summarizes information regarding four case study schools, that were rejected for inclusion in the current study for a variety of reasons. These reasons are spelled out in this section. Readers not interested in this aspect of the study should skip to the Comparative Summary of the Case Studies at the end of this chapter.
Rosehill Elementary School (Low-SES, Metropolitan)

Rosehill Elementary School, is a low-SES, metropolitan school located in a metropolitan district in the northern part of the state. Like most of the schools in the district, the school is predominantly African American (99.9%) and low-SES (100% free lunch). The school is actually a community-based school in terms of the residences of the students. Only one school bus (driven by the sixth grade math teacher; the only male teacher in the school) is used to transport students. The remainder of the students walk to school, which presents a dangerous problem. The school is located on a busy two-lane road with narrow shoulders and deep ditches on either side. There are no sidewalks for the children to use, so the custodian has to serve as a crossing guard during the mornings and afternoons when the students cross the busy street.

The principal, Mr. Truman, took me on a tour of the catchment area. Directly next to the school are mid-priced single-family homes. At one time the families in this residential area sent their children to Rosehill Elementary. Now the residents are older citizens with adult children, or transient renters of homes that cannot be sold due to the apparent decline of the surrounding neighborhood. Most of the children who attend Rosehill live in low-income housing projects that have been built in recent years.
The neighborhood has all of the social problems usually found in inner-city housing projects; single-parent families, drug and alcohol abuse, and child neglect and abuse. Many of the children receive their only hot meal of the day at the school.

Directly in front of the school is a city-owned park with children's playground equipment. At one time this park was a hangout where unemployed men congregated during the day. As the day progressed, it usually resulted in public drunkenness and trespassing on the school grounds.

The principal at Rosehill is an African American male in his late 50s, who has been employed as a teacher and administrator in the district for more than 30 years. He was asked to take the principalship at Rosehill Elementary seven years ago.

Mr. Truman has made many improvements at the school, including student discipline and staff development. Several teachers indicated that under the previous principal, teachers were not teaching and in some cases left students alone in class while they visited other teachers down the hall. Mr Truman changed this immediately by conducting evaluations and observations in the classes. However, observations and interviews conducted during on-site visits to the school revealed that faculty problems still exist. Several teachers were weak instructionally and those that were trying to
perform well lacked the skills and knowledge of innovative instructional methods.

The school, like so many across the state, was built as a high school. When a new high school is built, the elementary students inherit the building that was not suitable as a high school any longer. At the time of the visitations, half of the school building, which consisted of one long hallway with classrooms on either side, was undergoing construction and remodeling. As a result, classes were moved to the gymnasium. All of the class materials (Mr. Truman had to scavenge for texts) were moved to the gym and partitions were set up. The acoustics and the noise level made it hard for the students to hear or to concentrate. The principal’s office was set up on the stage at the front of the gymnasium. The confusion brought about by the construction made a bad situation impossible.

The custodian was an interesting individual. This young African American male was a key figure in the improvement of the school. He attended college for two years on a basketball scholarship, but dropped out due to a family emergency. He had hoped to become a teacher and a coach. Because of his knowledge and love of the game, he coaches the school’s basketball teams as an unpaid volunteer.
The custodian also acted as a monitor for Mr. Truman in the hallway. On several occasions he stopped different students for running. He did not scold the child, but in a firm voice, asked, “Why did I stop you?” The child replied, “because I was running.” Then he said, “Well if you already know that running was wrong, why did you do it?” The child was admonished not to run anymore, and she walked away.

I asked the custodian about parent reactions to his disciplining the students. He said that at first he got complaints from some parents as to why he was correcting their children, “but that stopped later on and now I get a lot of parents that thank me for watching out for their children.”

This man was also instrumental in cleaning up the park across the street. He became concerned about the drunkenness and profanity within sight and sound of these young children. Having grown up in the community, he knew some of these men, so he went to them and tried to convince them to go elsewhere during the day. They refused, so he called the police to clear the park. Although some of these men threatened his safety, he noted that later some of them apologized for what they were doing.

The school has improved over time and based on the lack of resources and the general lack of support from the central office, it could be described
as a naturally occurring setting. However, the school still had many areas in need of improvement. The fact that Mr. Truman was thinking of retirement indicated that the school will probably lose the gains it has already made or at best level off in terms of its overall effectiveness. Mr. Truman was getting as much out of the school as he could, given the social and financial conditions of the school. Due to the circumstances found at the school, particularly the confusion brought about by the construction in the building, it was determined that the school was not a logical subject for presentation in the case studies.

**Westend Elementary School (Low-SES, Rural)**

After interviewing the teachers, it was determined that most of the innovative programs were imposed by the central office, which contradicted the response by the principal. I did not get an opportunity to meet with the principal face-to-face. Even though I had scheduled my visits a month in advance, he chose to take annual leave on those days.

Based on comments from the teachers, and my impressions of the climate of the school. I decided that the school not only lacked the criteria for naturally occurring environments, but I had doubts as to whether the school was even improving. Because of these doubts, the school was rejected.
Northside Elementary School and Southside Elementary School
(Mid-SES, Metropolitan and Mid-SES, Rural)

These two schools are discussed together, because they are both located in the same district and it was a district-wide situation that led to the decision to reject them from the study. For sometime the district’s school board has been embroiled in an ugly fight with the superintendent. The superintendent, a white female, was hired from out of state a number of years ago. Her personality was confrontational and bordered on paranoia. Her problems with the School Board began when she recommended a friend for the position of Supervisor of Instruction. At the time, this person was serving as a principal in another state and had a doctorate in educational administration, however, he had never taught in the classroom. Five years teaching experience is required for a supervisor’s certificate in Louisiana. He noted this problem to the Superintendent; she assured him and the board that the problem could be solved. The school board, based on her recommendation signed him to a three-year contract as a supervisor. Soon thereafter, the Board of Elementary and Secondary Education (BSE) ruled that he could not be certified. The district school board moved to dismiss the supervisor, but he threatened to sue. To settle the case, the board was forced to buy out his contract for more than $200,000.
From that point, the school board became more and more dissatisfied with the performance of the Superintendent. They voted to fire her and even changed the locks on the building, so she could not get into her office. She got the courts to reinstate her based on a technicality. They then fired her again and hired a new Superintendent. The courts once again reinstated her.

This situation impacts Northside Elementary School directly. When I visited the school, the principal had been in the school for two months, arriving at mid-term. She had been a Chapter I Supervisor in the central office for many years. When the former principal announced suddenly that he was going to retire, the Superintendent forced her to take the principal’s position.

She has done much in a short time to improve the school, but the former principal did nothing but teach to the test. The school board stressed test results, and this principal had ambitions to be the new superintendent. In order to impress the school board he attempted to make drastic improvements in student test scores. Several teachers indicated that the former principal threatened to fire them if their class test scores did not improve each year.

The climate of the school was almost unbearable. Teachers were given copies of the test itself to use in the classes. Therefore, due to this obvious effort to teach to the test, the school was rejected.
Southside Elementary School, although in the same district, is located in a rural area of the district. The school gained notoriety a number of years ago during a desegregation order in which a group of white students were required to be bused into the city to attend a majority African American school. The parents protested and formed a community private school. Today, Southside is 99% white and community-based.

The principal is a white male in his 50s who had been the assistant principal at the local high school for many years. He was up front during our interview and stated that “if you are looking for a lot of flashy, fancy programs, you aren’t going to find them. We have a ‘meat and potatoes’ curriculum, and a lot of good teachers who teach hard every day.” He noted that although they stress test scores, they do not “teach the test.” Because of their isolated location, the directives from the central office are somewhat buffered. However, because of the history of the district, the school was rejected.

Comparative Summary of Case Studies

A Further Differentiation of the 11 ISERP Dimensions into Two Stages

The 11 dimensions adapted from the International School Effectiveness Research Programme (ISERP) for use in this study were sorted into two “stages” based on theoretical work of Stringfield and Teddlie
(1991a) and empirical work of Creemers et al. (1996). These authors postulated that there are some fundamental schooling processes which differentiate more from less effective schools in almost all contexts. The ISERP dimensions that appear to address these fundamental schooling processes are: school expectations, school goals, parental influence, image, resources, and principal’s leadership style (Creemers et al., 1996). For purposes of analyzing the results of the case studies, these dimensions are referred to as Stage 1 characteristics.

Stringfield and Teddlie (1991a) also postulated that there are curriculum, instruction, and interpersonal processes that further differentiate more from less effective schools and that these “advanced” process differences are more likely to occur in certain school contexts. The ISERP dimensions that coincide with these processes are: teachers’ instructional style, inter-staff relations, and curriculum (Creemers et al., 1996). For purposes of analyzing the results of the case studies, these dimensions are referred to as Stage 2 characteristics.

Therefore, Stage 1 dimensions are associated with establishing basic academic order at the school, and appear to be a stage that all schools have to go through, while Stage 2 is the point where the school can address the systemic changes that truly bring about improvement in the “instructional
core.” Stage 2 can only be reached after all or most of the dimensions in Stage 1 are met.

**Summary of Differences in Case Studies using ISERP Dimensions**

**Stage 1 dimensions.**

Results contained in Table 5.3 display the level of emphasis that each of the case study schools demonstrated on each of the Stage 1 dimensions.

These results indicate that three of the schools have been fairly successful in

<table>
<thead>
<tr>
<th>Table 5.3</th>
<th>Comparison of Case Study Schools Based on Stage 1 Dimensions</th>
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<tbody>
<tr>
<td>School Characteristics</td>
<td>Shambala</td>
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<td></td>
<td>Low-SES, Metro.</td>
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<tr>
<td>Expectations</td>
<td>●</td>
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<tr>
<td>School Goals</td>
<td>●</td>
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<td>Parental Involvement</td>
<td>●</td>
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<td>Image</td>
<td>●</td>
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<td>Resources</td>
<td>●</td>
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<tr>
<td>Principal’s Leadership Style*</td>
<td>●</td>
</tr>
</tbody>
</table>

*Note: Level of emphasis: ● = a lot; ○ = somewhat; ○ = very little.

*For Principal’s Leadership Style: ● = initiator; ○ = initiator/manager; ○ = manager
attaining Stage 1 characteristics. Only Great Plains Elementary failed to successfully attain most of the Stage 1 characteristics. The dimensions on which Great Plains Elementary was deficient were expectations, resources, and principal's leadership style.

The principal of Great Plains Elementary had a laissez faire style, and his expectations for the students in his school seemed to be set at a lower level than the other three schools. The principal, Mr. Monroe, indicated that he examined the standardized test scores, and if the students were scoring low in a particular subject area, he and the faculty made a concerted effort to raise those particular scores. The improvement in the school appears to be related to superficial, technical changes more than systemic changes in the instructional core.

**Stage 2 dimensions.**

Results found in Table 5.4 indicated that differentiation at Stage 2 was associated with the content variable, community type of the school. For example, both metropolitan schools were making somewhat successful efforts to emphasize the dimensions in Stage 2. Lost Bayou Elementary had accomplished more in terms of Stage 2 dimensions than any other case study
school; unfortunately, the school was closed soon after these observations were made.

Table 5.4  
**Comparison of Case Study Schools Based on Stage 2 Dimensions**

<table>
<thead>
<tr>
<th>School Characteristics</th>
<th>Shambala</th>
<th>Nilatir</th>
<th>Lost Bayou</th>
<th>Great Plains</th>
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<tbody>
<tr>
<td>Low-SES, Metro.</td>
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<td>Low-SES, Rural</td>
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<td>Mid-SES, Metro.</td>
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<tr>
<td>Mid-SES, Rural</td>
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Instructional Style:
- • = a lot
- ○ = somewhat
- O = very little

Inter-staff Relations:
- • = a lot
- ○ = somewhat
- O = very little

Curriculum:
- • = a lot
- ○ = somewhat
- O = very little

Note: Level of emphasis: • = a lot; ○ = somewhat; O = very little.

The rural schools did not appear to be going through this second stage of improvement identified by Stringfield and Teddlie (1991a). Naturally occurring school improvement in rural areas appears to be different from urban schools in that there is less focus on change in the classroom or at the "instructional core" of the school. Educational professionals appear to be more satisfied with what they are doing in the classroom. The instructional core in rural schools is characterized by a "... non-flashy, catch-phrase free, atheoretical nature of schooling. This fundamental conservatism buffered
rural schools from many of the worst aspects of educational fads, but tended to block some of the more thoughtful movements in education” (Stringfield & Teddlie, 1991a, p. 27).

Perhaps, due to the relative isolation in which rural schools exist, the chances of internally initiated change at the Stage 2 level are not great. Hord, Jolly, and Méndez-Morse (1992) noted that superintendents in rural districts suffer from such intellectual isolationism; therefore, principals trying to bring about change in their schools may be at this disadvantage also. Both Nilatir and Great Plains made initial efforts to bring about order and discipline to the school and to stress a positive image for the school. However, personnel at both schools seemed to lack the skills and the determination to change the instructional style of the teachers in those schools. The teachers in both schools utilized traditional teaching methods, and in the case of Great Plains, the teachers tried some innovative teaching techniques, did not like them, and returned to their more conservative approach to instruction, according to Mr. Monroe.

Both Nilatir and Great Plains were at about the same point of development in regard to Stage 1 and 2. However, Nilatir did appear to have a desire to continue their improvement. They were held back by a lack of resources and a sense that maintaining order was of paramount importance.
On the other hand, Great Plains was content to perform at the level that they had already reached. The attitude among the school community appeared to be "we're doing pretty good, so why mess with a good thing." They exhibited no real desire to continue to improve, but merely to maintain their present level.

**Overall Conclusions from Phase III**

This study has attempted to merge school effectiveness research with the study of school improvement. Based on the findings from the case studies, the processes that are taking place in natural environments are somewhat different from the processes that have been reported in the school effectiveness literature (Hallinger & Murphy, 1986; Teddlie & Stringfield, 1993).

These differences may be an important finding in relation to contingency theories of school effectiveness and school improvement (Slater & Teddlie, 1992). In other words, the conditions and processes that are required for a school to improve may be different from those necessary to maintain a school's effectiveness. For instance, community type may play a larger role in the evolution of naturally occurring school improvement, while SES of the student body may be a more important factor in the maintenance of an effective school environment.
CHAPTER 6: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FUTURE STUDY

Study Overview

Description of the Study

The original goal of the present study was to identify and examine schools in Louisiana that have undergone what Teddlie and Stringfield (1993) referred to as naturally occurring school improvement. The study was divided into three methodological phases:

1. **Phase I Study**: Phase I included the analysis of school-level data from all prescribed elementary schools in the state of Louisiana. The data were obtained from the LDE and included student achievement test (CAT for fourth and sixth grades, LEAP for third and fifth grades) results for the school years, 1991-92, 1992-93, and 1993-94. Also obtained were school-level data on the percentage of students eligible for the free lunch program at the school (SES status), and the categorization for each school in terms of community type in which the school was located (e.g., rural, town, city, urban fringe, metropolitan).

   These three variables were utilized in an OLS regression model to calculate predicted achievement scores based on the SES status and community type of the school. The residual scores for each school were
used to establish a school effectiveness index for purposes of ranking the school’s academic performance over a three-year period. The actual methodological design for the Phase I Study is located in Chapter 3. The results from this process are contained in Chapter 4.

2. **Phase II Study:** Phase II utilized the database created in Phase I for the purpose of conducting survey research in schools identified as improving or stable. The survey was created to collect demographic and other descriptive and perceptual data about those schools. Surveys (see Appendix B) were mailed to every school identified as improving (124) and a random sample of stable schools (124) to be completed by the principal. A response rate of almost 70% was achieved. The survey data were divided into six groups of dependent variables each of which were analyzed using MANOVA, ANOVA, and chi-square statistical procedures. The overall design for Phase II is located in Chapter 3, and the results are located in Chapter 4.

3. **Phase III Study:** While Phases I and II utilized quantitative methods, Phase III was viewed as a complementary phase designed to utilize qualitative data analyses to further investigate the processes present in schools experiencing naturally occurring school improvement. A purposeful sample of four schools identified as improving in natural environments were
selected, and on-site visitations were conducted at each school for the purpose of collecting observation and interview data. The design and procedures for selecting the case study schools are found in Chapter 5, along with the analysis and results.

Restatement of the Research Questions

The methods employed in the three phases of this study were designed to achieve results guided by the following research questions:

**Phase I Study**

1. What is the frequency distribution of elementary schools that can be classified as improving, declining, or stable in Louisiana?

2. What is the breakdown of frequency distributions in relation to SES and community type across the state?

**Phase II Study**

What context and other variables differentiate between improving and stable schools?

**Phase III Study**

What are the processes that are ongoing in naturally occurring school improvement and do they differ by context variables?
Answers to the Research Questions

Phase I Study, Question 1

The results that answer the first question under Phase I study, “What is the frequency distribution of elementary schools that can be classified as improving, declining, or stable in Louisiana?”, are contained in Table 4.7. With a population of 634 elementary schools in the state of Louisiana, the present study identified 124 (19.56%) that were classified as improving over a three-year period, 386 (60.88%) that remained stable in terms of their residual scores, and 124 (19.56%) that were classified as declining over a three-year period.

The establishment of a logical criterion for the classification of improving, stable, and declining schools, was decided a priori, although that criterion was later abandoned. This original criterion used +.674 sd as the minimum level for improving schools over the three-year period. However, as Table 4.7 indicates only 41 (6.5%) of the schools would have been classified as improving under this criterion. This was not a satisfactory distribution, primarily because the population of improving schools was too small to continue Phase II and III of the study. A criterion that allowed only 6.5% of the population of schools to be classified as improving seemed to be too stringent. Standard deviations of .333 sd and .167 sd were also examined.
to determine the frequency distribution of improving, stable, and declining schools. Table 4.7 contains the frequencies established using each of these criteria as well.

The criterion for categorizing the schools as improving, stable, and declining was eventually established by a process in which a median split of the residual change scores (i.e., the difference between the residual scores in 1991-92 and 1992-93; and also between 1992-93 and 1993-94) was established and entered into a cross-tab table. Those schools above the median were assigned the number one, while the schools below the median were assigned the number two. Only schools that received a one for both residual change scores were classified as improving. This criterion (above the median change score for two years) most closely matched the results of the distribution established by using .333 sd as the standard for classifying the schools as improving.

Interestingly, this pattern of results closely matched those from a recent study of school improvement conducted in the UK (Gray et al., 1995). While analyzing the SEIs in Phase I and attempting to formulate a criterion for improving, stable, and declining schools, an attempt was made to use the same procedure that Gray et al. (1995) used to measure change over time, i.e., dividing the schools into quarters based on the residual scores for the first and the third years.
This procedure provided a measure of how many schools had improved in effectiveness, how many had declined in effectiveness, and how many had stayed the same over a three-year period. By comparing the percentages of change in each cell of a matrix between the present study and the Gray et al. (1995) study, surprisingly, the percentages of change in each cell were almost identical.

There are many dissimilarities between the two studies; including a difference in sample size (Gray et al. [1995] examined 30 schools, the present study included 634), school configurations (Gray et al. [1995] looked at secondary schools, the present study looked at elementary schools), and the use of statistical methods (Gray et al. [1995] used HLM in determining residual scores, the present study used regression (OLS) methods. However, the fact that so many methodological dissimilarities existed between the studies made the similarities in results even more intriguing.

The similarity in results also provided a degree of face validity to the present study's method of selection and categorization of schools as improving, stable, and declining. The fact that schools in two different countries are changing at the same rate may have implications for further study. It brings to mind questions that go beyond the concept of naturally occurring improvement. Is there a contingency at work that leads schools to
improve and decline at a statistically predictable rate? Does this mean that some schools will decline no matter what efforts are made to improve it? Does it mean that all schools will improve on their own, given the right environment that is conducive to that particular school? The answers to these questions could have major implications for school effectiveness and school improvement research.

**Phase I Study, Question 2**

The second question guiding Phase I was, "What is the breakdown of frequency distributions in relation to SES and community type across the state?" After classifying the schools as improving, stable, and declining, the school SES status and community type were used as criteria for establishing a frequency distribution of schools in the state of Louisiana. The results of this distribution are contained in Table 4.10, which also illustrates the frequency of schools identified by community type.

These data indicated that proportionally more of the city and urban fringe schools were improving. On the other hand, proportionally more of the rural, town, and metropolitan schools were declining. No significant differences by SES were detected.

Further exploration of the differences in frequency distributions when the improvement status of the schools is crossed by community type was
required, since the patterns in the 5 x 3 table (Table 4.10) were not clear. In order to accomplish this, community type was consolidated into three categories by combining rural and town, city and urban fringe, and using metropolitan core city as the third category. These three new categories were created because they (a) reduced the total number of cells from 15 to 9; (b) combined categories that were contiguous to each other; and (c) generated the most equal distribution of schools possible (36%, 29%, and 35% across community types).

Chi-square procedures were run on the frequency tables for the three new categories and a significant difference in the frequency of schools in the city and urban fringe category was detected ($\chi^2 = 8.35, df = 2, p < .05$) (see Table 4.11). The distribution of data indicated that a higher percentage of improving schools is located in the city/urban fringe areas than in rural or metropolitan areas. Some 34% of the improving schools were city/urban fringe, while only 20% of the declining schools were city/urban fringe. Similar differential community type results have been found in other studies conducted in the UK and the U.S. (e.g., Cuttance, 1987; Hannaway & Talbert, 1991). It could be that schools in these city/urban fringe areas have more human and financial resources than rural or metropolitan areas, thus making it more possible for improvement to occur. Because of the results
obtained in Phase I, the consolidation of schools into three groups of community type was utilized in the analysis of the survey data gathered in Phase II.

**Phase II Study Question**

The question guiding the methodology in Phase II was, "What context and other variables differentiate between improving and stable schools?" As indicated in Chapter 3, three mailouts of the survey (see Appendix B) received a response rate of around 70%. Approximately 73% of the principals in stable schools responded, while 65% of those in improving schools returned the questionnaires. The 170 principals responding to the survey had demographic characteristics as reported in Tables 4.13-4.18.

The statistical analyses of the survey data in the Phase II Study included a series of MANOVA, ANOVA and chi-square analyses to determine if statistically significant effects existed for any of the independent variables (change status, SES status, and community type) on the six dependent variable groups.

The results for the first five sets of dependent variables were reported as a series of three-way MANOVAs and ANOVAs. The sixth dependent variable group was analyzed using chi-square procedures since the data were categorical in nature. In these chi-square analyses, the frequencies of yes/no
responses were crossed by whether schools were improving or stable to
determine if there were differences in the response patterns of principals in
these two types of schools.

Results from the analyses of DVG-1 through DVG-6.

The results of the three-way MANOVA conducted on DVG-1 revealed significant multivariate effects for change status, for SES status, and for community type combined with SES status. The most interesting of these significant results were:

1. Principal's ethnicity and change status (there was a higher percentage of African American principals in improving schools than African American principals in stable schools)

2. Principal's ethnicity and SES status of the school (mid-SES schools had 95% white principals, while low-SES schools were evenly split between white and African American)

3. Principal's ethnicity and SES status combined with community type (there are more African American principals in low-SES, metropolitan schools than in low, SES, rural schools; there are fewer African American principals in mid-SES, metropolitan schools than in mid-SES, rural schools)

The items in DVG-2 revealed a significant multivariate effect for change status, for SES status, for community type, for change status
combined with SES status, and for community type combined with SES status. The most interesting of these results were:

1. The ANOVA results for DVG-2 based on SES status indicate that the percentage of teachers possessing at least a Master’s degree, student attendance, suspensions, and expulsions were all greater in mid-SES schools.

2. When combining change status and SES status, the only variable in DVG-2 that showed a significant difference was expulsions. The low-SES, improving schools had the highest suspension rates indicating that these schools may be engaged in tactics designed to restore order to the learning environment by using suspensions as a disciplinary method.

The MANOVA analysis for DVG-3 revealed a significant multivariate effect for SES status. The results of the univariate ANOVAs for DVG-3 revealed that the only significant difference among variables in DVG-3 was in regard to the principal’s responses to the item regarding site-based management as it relates to the principal’s leadership style and facilitation of shared decisionmaking among the faculty. The interesting result in DVG-3 was that low-SES principals’ responses were significantly higher than mid-SES principals to this item. This is contrary to the literature that indicates that shared decisionmaking is more likely to occur in mid-SES schools.
The MANOVA analysis of DVG-4 revealed a significant multivariate effect for community type and for change status combined with community type. The most interesting results in DVG-4 in reference to community type were:

1. More rural/town and city/urban fringe schools indicated that the goal of change is to make school a better place for children to learn (most desirable response), while more metropolitan schools indicated that the goal of change should be to improve schools and to improve the professionalism of the teachers and administrators.

2. Rural/town and city/urban fringe were more likely to respond that teachers could make a great deal of difference in the effectiveness of the school (most desirable response).

When community type is combined with change status, the most interesting results were:

1. Stable, rural/town schools responded that change in schools requires a great deal of hard work (most desirable response), while stable metropolitan schools provided the least desirable response.

2. Stable, metropolitan schools provided the most desirable response to the item related to the structure of instruction in the school, i.e., instruction
is very flexible and teaching innovations are strongly encouraged while stable, rural schools provided the least desirable response.

The MANOVA results for DVG-5 indicated that the only variables in DVG-5 that some item responses were significantly different across community type. The most interesting results from this analysis were:

1. Metropolitan schools provided the most desirable response to the item that stated that parent’s opinions are taken into consideration when curricular changes are made.

2. Metropolitan schools provided the most desirable response to an item that stated that professional learning and staff development are emphasized when devising plans for school change.

3. Metropolitan schools provided the most desirable response to an item that stated the school calendar includes adequate time for professional development.

The five open-ended questions contained in the principal’s survey were grouped together as DVG-6. Chi-square results indicated that there were significant differences in the frequency of yes/no responses between improving and stable schools for two questions.

In response to the question, “In the past four years (or in the time that you have been at the school) have any new staff development programs been
implemented in your school? If so, describe the program(s),” 87% of the improving schools responded yes, while 73% of the stable schools responded yes, indicating a greater frequency of staff development programs initiated internally over the past four years in improving schools.

For the question, “Does the central office monitor the results of your attempts to improve your school? Does the central office make efforts to encourage and promote change from within your school?” 90% of the improving schools responded yes, while 80% of the stable schools responded yes, indicating a greater frequency in improving schools of district encouragement of internally initiated programs.

Phase III Study Question

The research question guiding Phase III was, “What are the processes that are ongoing in naturally occurring school improvement and do they differ by context variables?” This question was answered through a process involving purposeful sampling methods resulting in four schools that were intensively studied using the case study approach. After on-site data collection was completed, the information was organized using 11 dimensions employed in a previous international study of school effectiveness (ISERP). These 11 dimensions were further divided into two “stages” of school improvement based on theoretical work of Stringfield and
Teddlie (1991a) and empirical work of Creemers et al. (1996): Stage 1 - order; Stage 2 - instructional core.

Results contained in Table 5.3 display the level of emphasis that each of the case study schools demonstrated on each of the Stage 1 dimensions, indicating that three of the four schools have been fairly successful in attaining Stage 1 characteristics. Only Great Plains Elementary School failed to successfully attain most of the Stage 1 characteristics, with deficiencies occurring in the areas of principal's leadership style, expectations, and resources. These deficiencies stemmed from the principal who had a laissez faire style of leadership. Improvement at this school appears to have taken place as a result of technical applications in needy academic areas rather than any systemic changes in the instructional core.

Results found in Table 5.4 indicate that differentiation at Stage 2 is associated with the community type of the school. For example, both metropolitan schools were making fairly successful efforts to emphasize the dimensions in Stage 2. Lost Bayou Elementary had accomplished more in terms of Stage 2 dimensions than any other case study school; unfortunately, the school was closed soon after these observations were made.

The rural schools did not appear to be going through this second stage of improvement identified by Stringfield and Teddlie (1991a). Naturally
occurring school improvement in rural areas appears to be different than that found in urban schools considering that there is less focus on change in the classroom or at the "instructional core" of the school.

Summary of Major Findings

The following topics, previously discussed in this chapter, constitute the major research findings of this study:

* Determination of frequencies of improving, stable, and declining schools in various contexts - While determination of school classification based on change status is affected by the criterion used for that classification, the present study successfully developed a database of all elementary schools in the state of Louisiana, identified by change status, SES status, and community type. The procedure used to determine these frequencies is statistically valid and face validity was established based on the partial replication of Gray et al. (1995).

* Partial replication of the Gray et al. (1995) study - By partially replicating the procedures utilized by Gray et al. (1995) to measure change in effectiveness over time, the present study achieved the same results in terms of the percentages of schools that changed their effectiveness status or remained stable over a three-year period. It is an interesting finding from the perspective that the two studies were methodologically dissimilar in many ways, yet the results were almost identical.
* Process for establishing the school effectiveness index (SEI) - While many school effectiveness research studies utilize hierarchical linear models (HLM) to establish SEIs, the literature makes the point that in most situations, similar results can be obtained by using regression (OLS) models. In the present study, the residual scores that were calculated provided a valid criterion upon which to base the classification of school change status.

* Results concerning the frequency of schools across community type - There appear to be more improving schools in metropolitan areas, and fewer improving schools in towns. Although the general perception is that there are fewer improving schools in rural and metropolitan areas, the results of the frequency distribution across community type finds that the two categories, rural and metropolitan account for almost 60% of the improving schools.

* Consolidation of categories of community type - The five categories of community type were consolidated into three by combining rural/town and city/urban fringe. Statistical analyses of the frequency distribution using three categories revealed a significant difference in the number of improving schools in city/urban fringe. In other words, it was determined that there is a higher frequency of improving schools in city/urban fringe than in the other community types.
* **No indication of the “additive” effect** - The “additive” effect in school effectiveness literature recognizes a trend that low-SES schools are more likely to be stable, ineffective schools. The fact that low-SES schools receive fewer instructional resources and tend to have less experienced faculty compounds the effects of poverty on the academic performance of students. The result of analyses on the frequency of schools across SES status indicated that a significant number of low-SES schools were improving, which contradicted the “additive” effect.

* **Greater proportion of African American principals in improving schools** - A statistical analysis of the survey data from Phase II of the present study indicated that although there were significantly more white principals in both improving and stable schools, there was a significantly higher percentage of African American principals in improving schools, than in stable schools.

* **More evidence of staff development and central office support for internal change in improving schools, than in stable schools** - The analysis of categorical responses to five open-ended questions revealed that there was more evidence of staff development and central office support for internal change in improving schools than in stable schools. This may indicate that school districts that have central office staff who encourage internally
generated change at the school level may be related to overall school improvement.

* Most case study schools are through Stage 1, but the rural schools did not make it through Stage 2 - When the 11 dimensions used to analyze the case study data were divided into two stages, the results indicated that of the four case study schools, three had achieved most of the dimensions in Stage 1. In regard to Stage 2, which includes those dimensions related to improvement in the instructional core, the two metropolitan schools were making progress toward achieving those dimensions, while the two rural schools failed to achieve many of the Stage 2 dimensions. This indicated that the rural schools were more content to address technical changes rather than systemic changes in the delivery of instruction. It is also possible that the rural schools do not have access to the latest trends in education.

Recommendations for Future Study

The exploratory nature of the present study has provided an introductory examination of the topic, naturally occurring school improvement. As with most studies of this kind, hindsight provides a clearer picture of how the study should have been designed. From that perspective, I will conclude this project with a discussion of some of the difficulties that
were encountered in this study, along with recommendations for future study that will build upon the findings of the present study.

**Methodological Issues**

**Operational Definition**

The concept of naturally occurring school improvement is relatively new, therefore, it was necessary in this study to focus the research in a way that would allow certain characteristics to represent the concept. For instance, the definition of naturally occurring school improvement in this study included schools that had demonstrated consistent improvement over a three-year period without the introduction of outside school improvement projects. With all of the emphasis on school improvement today, the chance of finding a school that had not received some degree of outside assistance in attempting to improve was very small. Therefore, the definition was narrowed so that if the impetus for improving the school originated within the school, the environment was considered to be improving naturally.

**Survey Instrument**

The survey instrument was designed to retrieve a variety of data in an exploratory manner. The instrument's design attempted to cover as wide an area of information as possible. As a result, it may have failed to focus on certain important elements of the study.
The data obtained from the survey were reported by the principal, which means there is a possibility that the responses were socially desirable. This fact may have contributed to the lack of perceptual differences in the analysis of Phase II.

For future consideration, the teachers should also participate in the survey to act as verification of the responses received from the principal. Also, the development of a perceptual instrument that would be specific to schools undergoing naturally occurring improvement would be an important advancement in this area.

**Include City/Urban Fringe Schools Among the Case Studies**

The determination of the sample for the case studies in Phase III was made _a priori_ to the complete analyses of the quantitative data in Phases I and II. This was a result of time constraints and an attempt to collect on-site data before the school year proceeded too far. Unfortunately, the quantitative analysis revealed that there were more improving schools in the city/urban fringe community type than in the other two categories. The result was that there were no case studies representative of that community type. Future studies should make an effort to include schools from this community type in the case study research.
Reconsider the Definitions of Community Type

There may be a statistical problem in relation to the regression models used to determine the SEIs in Phase I. Community type data from the LDE is self-reported by the school principal. The actual census definitions of the various community types may be unfamiliar to these principals. There were a number of schools in which the accuracy of the school’s classification could be questioned, such as, several schools in the New Orleans area classified as rural. It is not known how many schools may be misclassified, but if the number is significant, it could have repercussions on the change status classification of schools.

Include More Open-Ended Responses on the Survey

While there was an attempt to include open-ended items on the survey, more should have been utilized. All indications hint that the responses to the closed-ended items were socially desirable in nature. However, the open-ended items appeared to provide the improving school principals more of a voice. and the inclusion of more questions of this type may have revealed more differences between these principals.

Survey Should be Administered to Declining Schools

While a conscious decision was made not to include declining schools in the survey research in Phase II, for future consideration, it may be a good
idea to include declining schools for more contrast in terms of the processes ongoing in the schools.

**More Time for the Case Studies**

Although I spent only two days in each school gathering data for the case studies, I feel that I was able to obtain an accurate picture of the processes taking place in these schools. However, more time would have been advantageous to developing a more complete case study. I would recommend that future research efforts should include a minimum of four days in each school.

**Case Study Protocol Should be Better Defined**

Yin (1984) provides a formula for developing a case study protocol. An attempt was made to follow this formula in planning the design, data collection, data analysis, and reporting of the case studies. However, because the topic for this study was new, mistakes were made in terms of data collection and analysis. In future research efforts, more attention should be paid to the processes for developing the case studies.

**Substantive Issues**

**Declining Schools**

While the issue of including declining schools was listed under methodological issues, it also falls under substantive issues. It is understood
that the processes that take place in declining schools differ from those processes in improving or stable schools, and therefore was not a part of this study, at least in terms of the case study research. From a substantive point of view, it would be a good idea to investigate the processes in declining schools as well as improving schools, to help further understand the processes in improving schools.

Study of City/Urban Fringe Phenomenon

An area for future study should include a study of the city/urban fringe phenomenon identified in this study. Why do schools in this community type improve at a higher rate than other community types? What are the causes for this improvement? Is it a human capital issue? Do schools in this community type have more access to resources and to better and more experienced teachers? All of these are questions that could be answered with further research.

Is the Greater Incidence of Improving Schools in City/Urban Fringe a True Phenomenon?

Another aspect to the city/urban fringe phenomenon that needs further study is simply the question, does this phenomenon really exist? Is this a trend or is it an aberration that appeared in the statistical analysis of the present study? Only additional study can answer this question.
Rural Phenomenon

The rural/metropolitan contrast would make a good dissertation topic in itself. There were many questions raised in the present study that were not answered, for instance, why do rural schools appear to neglect the instructional core in efforts to improve the school? Is this an indication that rural principals may not understand change processes? Is it an indication that the rural communities are more accepting of traditional methods of teaching?

Additive Effect

A real mystery among the results of the present study was why did the additive effect not appear in the frequency of schools by change status and SES status. A high percentage of low-SES schools in the present study were improving, which contradicts the additive effect. Further research may explain why it was not found in this case. Is it a matter of statistical frequency? Would it be found elsewhere?

Can the Gray et al. (1995) and Freeman and Teddlie (1996) Results be Replicated Again?

The results that revealed similar percentages of change over time between the Gray et al. (1995) study and the Freeman and Teddlie (1996) study were very interesting. It would be valuable to replicate these studies in the future and predict change frequencies based on $1/3 \text{ sd.}$ and then
determine if there really is a statistical method for predicting change in schools.

**Are the Frequencies Stable over Time?**

This question raises another area for future study. If the regression models are run each year using new achievement data, will the frequencies remain stable or will some aberration in the schools cause the frequencies to be skewed?

**Conclusions**

The study of naturally occurring school improvement was a difficult task for two reasons. First, the topic had not been studied, so there were no footsteps to follow while venturing into this uncharted territory. Second, the design of the study actually involved two dissertation topics, therefore, the time required to complete this project was longer than originally anticipated.

Now that the study is complete, I firmly believe that there exists a fertile ground for further research in this area. The findings reveal that indeed there appear to be different processes taking place in these natural environments. I hope that I have the opportunity to expand and improve on the research design used in this study in the future.
REFERENCES


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APPENDIX A: PERMISSION FORM TO OBTAIN LEAP DATA

I am requesting permission to use Louisiana Educational Assessment Program data for research purposes (see attached proposal).

Name  John A. Freeman

Position  Graduate Assistant, LSU, Dept. of Ed. and Adm. Serv.

Address  P. O. Box 2206

St. Francisville, LA 70775

I also acknowledge that all individual student information is confidential, and I agree to maintain confidentiality regarding all specific students.

Signature  John A. Freeman  Date  2-6-95

Approval:  Rebecca S. Christian, Director

Bureau of Pupil Accountability
LEAP DATA REQUEST

1. Abstract

One of the peripheral results of the ten year school effects study conducted by Teddlie and Stringfield was the discovery of a phenomenon which they termed "naturally occurring school improvement" (Teddlie & Stringfield, 1993). These were schools which were classified as ineffective at the beginning of the study, yet were later deemed to have improved beyond any reasonable expectation, given their contextual environment. Superficial examination of these schools revealed that there were no externally initiated school improvement projects on-going. Since this was not the focus of the Louisiana School Effectiveness Study, further examination of "naturally occurring school improvement" was left for future study.

It is this concept which will be the focus of my dissertation. "Improving schools" will be operationally defined as any school which includes grade three and whose configuration does not include grade seven or above, and whose SIPSCORES indicate a consistent increase of +.67 standard deviation over a three year period (Lang, 1991). Determining levels of effectiveness with standardized student achievement data has been criticized recently, yet it is still the accepted procedure for making such a determination (Good & Brophy, 1986).

There will be four phases to this study and it is the first phase which will necessitate the requested data and which will lay the foundation for the remaining phases:

Phase 1) In keeping with prior research at the Department of Education (Crone, Franklin, Caldas, Ducote & Killebrew, 1993), SIPSCORES will be constructed by transforming individual student-level LEAP component scores to z scores, then calculating an average school-level score for all students tested in a given school year.

Phase 2) Regression analysis will be utilized to determine if the expected achievement for each school over a three year period, based on demographic and contextual variables exceeds +.67 standard deviation. From these results, baseline data will be established for schools in Louisiana (with pre-established configurations) that will identify each school as "stable", "improving", or "declining" schools.

Phase 3) A survey will be distributed to the "stable" and "improving" schools that will seek to determine certain contrasting variables and to identify those schools that can be classified as "naturally improving". Statistical analyses will be performed on the results of this survey.

Phase 4) A qualitative component will be carried out in the form of case studies on four schools identified as "naturally improving" in order to examine the processes that are in place within the schools and to provide a naturalistic determination of why these schools have improved.

2. Description of Data Requested

In order to construct SIPSCORES, which will be used as the basis for determining "stable" and "improving" schools in this study, the following student component scores on state-administered criterion-referenced and norm-referenced (i.e., California Achievement) tests are requested:
1) Grade 3 CRT (language arts, mathematics).
2) Grade 4 NRT (reading, language, mathematics, word analysis, spelling, study skills, science, and social studies).
3) Grade 5 CRT (language arts, mathematics).
4) Grade 6 NRT (reading, language, mathematics, word analysis, spelling, study skills, science, and social studies).

SIPSCORES will be constructed and compared for three consecutive years to minimize the likelihood that school performance is attributable to measurement error or some other factor external to this study. **Three years of data is the accepted minimum needed to establish a definitive trend in the effectiveness status of schools** (Grey, Reynolds & Hopkins, 1994). **In keeping with this requirement, three years of test data are requested:** i.e., test scores for SIs 1991-92, 1992-93, and 1993-94.

3. Acknowledgement of Data Source

I hereby pledge to cite the Office of Research and Development, Bureau of Pupil Accountability, as the data source in my dissertation and in any paper presentations or journal articles that might arise from my dissertation.

4. Copy of Completed Research

I hereby pledge to provide the Office of Research and Development, Bureau of Pupil Accountability, a copy of my dissertation as well as copies of any professional papers or journal articles that might arise from my dissertation.

References


APPENDIX B: PRINCIPAL’S SURVEY

SCHOOL IMPROVEMENT SURVEY

I. Background Information.

Please provide the following information concerning you and your school by checking the
appropriate response or writing in the appropriate answer where requested:

A) Principal Information:

(1) Gender: _____ Female _____ Male.
(2) Ethnicity: _____ Black _____ White _____ Other.

B) School Information:

(4) School Name ________________________________________________________
(5) Number of years as principal AT THIS SCHOOL ___. Total years as a principal ___.
(6) Number of new faculty members AT THIS SCHOOL during ___ 1994-95 ___ 93-94
     ___ 92-93 ___ 91-92 (Leave a school year blank only if you were not at the
     school during that year and you do not have access to this information).
(7) Has the student attendance zone at this school changed significantly during the past four years
    (or during the time that you have principal)? _____ Yes _____ No. If yes,
    what caused this change?
(8) Is your school departmentalized? _____ Yes _____ No. If yes, for what subject areas?
(9) Site-based management can involve school-site control in three areas: leadership:
    curriculum: and budget. Given this general description, please check the most
    appropriate response:
    (A) As principal, my leadership style provides the faculty and staff an opportunity
to share the decision-making responsibilities through building level committees:
     _____ Always _____ Almost Always _____ Almost Never _____ Never.
    (B) Decisions regarding what teachers teach and how they teach it are made
within the school:
     _____ Always _____ Almost Always _____ Almost Never _____ Never.
    (C) Budget decisions are made within the school:
     _____ Always _____ Almost Always _____ Almost Never _____ Never.
(10) During the past four years, has your school participated in a school improvement
    program that originated from outside of your school? _____ Yes _____ No. If yes, briefly
    name and describe these programs and specify where they originated.
II. School Change Processes

Think about the process of school change as you consider the following descriptions.
Check one response for each item that best describes your perceptions of those processes.
(Mark ONE response per item)

(1) In my school, ideas for innovative change originate with
   _____ the state department.
   _____ the district central office staff.
   _____ parent groups.
   _____ the principal and assistant principal(s).
   _____ teacher committees or individual teachers.

(2) In my school, processes for school change are implemented
   _____ to meet state department guidelines and mandates.
   _____ to meet central office directives.
   _____ to satisfy a perceived need from within the community.
   _____ to address a specific problem within the school.

(3) I perceive the process of implementing innovative change as
   _____ involving a great deal of hard work.
   _____ involving some hard work.
   _____ being relatively easy work.
   _____ being a very easy process.

(4) The best indicator of long term success for an innovative change is the degree of dedication
   shown by those involved in implementing the change.
   _____ Strongly agree  _____ Agree  _____ Disagree  _____ Strongly disagree

(5) _____ The success of an innovative change in a school depends on a great deal of
   assistance from outside of the school.
   _____ The success of an innovative change in a school depends on some help from outside
   of the school.
   _____ The success of an innovative change in a school is internal to the school; success
   does not depend on any help from outside of the school.
The success of an innovative change depends on selecting a change model and never deviating from that model.
The success of an innovative change depends on selecting a change model and adapting it to fit your individual school needs.
The success of an innovative change depends on developing a change model that is appropriate for a particular school and then adjusting the model as the need arises.

The goal of school change is to make the school a better place for children to learn.
The goal of school change is to improve schools and to improve the professionalism of the teachers and administrators of the school.
The goal of school change is to improve the professional skills of teachers and administrators.

Teachers in my school feel that they cannot make a difference in the effectiveness of the school.
Teachers in my school feel that they can make some difference in the effectiveness of the school.
Teachers in my school feel that they can make a great deal of difference in the effectiveness of the school.

Instruction in my school is very structured with no deviation in the schedule allowed (i.e., tightly following state curriculum guides).
Instruction in my school is somewhat structured with some deviation from the norm.
Instruction in my school is very flexible and allows for innovations to be attempted.
Instruction in my school is flexible and teaching innovations are strongly encouraged.

School-wide standardized test scores are the best indicators of how well a school is performing.
III. Open-ended responses.

Please respond in detail to the following questions.

(1) In the past four years (or in the time that you have been at the school) have any new ACADEMIC PROGRAMS been implemented in your school? If so, briefly describe the program(s).

What is your assessment of the success of these ACADEMIC PROGRAMS to date?

(2) In the past four years (or in the time that you have been at the school) have any new DISCIPLINE PROGRAMS been implemented in your school? If so, briefly describe the program(s).

What is your assessment of the new DISCIPLINE PROGRAM(S) to date?

(3) In the past four years (or in the time that you have been at the school) have any new STAFF DEVELOPMENT PROGRAMS implemented in your school? If so, briefly describe the program(s).

What is your assessment of the new STAFF DEVELOPMENT PROGRAM(S) to date?
(4) Does the central office monitor the results of your attempts to improve your school? Does the central office make efforts to encourage and promote change from within your school? Please explain.

(5) (Consider the COMMUNITY to include parents, business organizations, civic organizations, etc.) What impact has the COMMUNITY had on changes that have been made in the school over the last four years?

IV. Perceptual Responses to the Processes of School Change.
Please check one response for each item that indicates your perceptions of how change takes place in your school.

1. We talk about the quality of teaching.
   ___ Very Often ___ Often ___ Sometimes ___ Rarely

2. We review the progress of changes that we introduce.
   ___ Very Often ___ Often ___ Sometimes ___ Rarely

3. Teachers are encouraged to reflect on their teaching methods.
   ___ Very Often ___ Often ___ Sometimes ___ Rarely
(4) Our long-term goals are reflected in written school plans.
   ____ Very Often ____ Often ____ Sometimes ____ Rarely

(5) The process of planning is regarded as being more important than the plan.
   ____ Always ____ Often ____ Sometimes ____ Rarely

(6) The school's improvement priorities are communicated to the entire faculty and staff.
   ____ Always ____ Often ____ Sometimes ____ Rarely

(7) We take parents' opinions into consideration when curricular changes are made.
   ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(8) Staff members from the school and the central office work as a team to determine goals for the school.
   ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(9) We utilize outside consultants for staff and program development.
   ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(10) Professional learning and staff development are emphasized when devising plans for school change.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(11) The school calendar includes adequate time for professional development.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(12) Collaboration among teachers is emphasized at this school.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(13) The faculty is kept informed concerning key administrative decisions.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(14) Class time is provided for teaching test taking skills
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(15) The teachers and administrators at this school have a clear vision of where they are going.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely

(16) Teachers are given opportunities to assume leadership roles, such as establishing a school-wide discipline policy.
    ____ Nearly always ____ Often ____ Sometimes ____ Rarely
Dear FIELD(SALUTATION)

Your school has been selected to participate in a survey designed to gather school-related demographic and perceptual information in relation to school improvement over the last four years. Your responses to the enclosed questionnaire will be utilized in a general analysis of improving schools in Louisiana. Although most of the questions are checkoff responses, there are five open-ended questions that will allow for the expression of your thoughts concerning specific school improvement efforts at your school. To these questions, please provide as much information as possible. If you need more space for your responses, please use the back of the page and simply label the response with the appropriate question number.

There is a blank space for the school's name on the survey, that is for purpose of matching your school to school report card data to be collected from the state department. Once the data have been entered into a database, your school will be given a code and the written surveys will be destroyed, allowing for total anonymity. All responses will be held in strict confidence, but a general summary report of the data analysis should be ready by March, 1996. If you would like a copy of this analysis, please check the appropriate space at the end of the survey.

Once the survey is completed, please mail it in the stamped, self-addressed envelope provided, by XXX. If you have any questions concerning the survey, please call John Freeman at 504-XXX-XXXX or 504-XXX-XXXX.

Thank you in advance for your valuable contribution to this project.

Sincerely,

John Freeman
APPENDIX D: SURVEY LETTER FROM THE BUREAU OF SCHOOL ACCOUNTABILITY

June 2, 1995

Dear

The Louisiana Department of Education (LDE) has a great interest in school effectiveness and school improvement research, and is particularly interested in research currently underway at LSU. Researchers from the LSU College of Education are studying change processes in elementary schools whose grade 4 MT (California Achievement Test) and/or grade 3 CRT (LEAP) test scores have improved over the past three years. Data analysis indicates that your school is in that category, therefore the researchers seek your participation in the survey portion of their study.

I heartily encourage you to help advance their research by completing the enclosed School Improvement Survey. The survey gathers basic demographic information on your school, and gives you an opportunity, as principal, to share your vision of what school improvement is all about. The questionnaire should take less than twenty minutes to complete. Also, let me assure you that all information collected will be held in strict confidence, and in no way will your school or parish be identified in any publication.

The LDE is very interested in the findings of this study. All results will be shared with the Office of Research and Development to add to our own extensive research in the area of school effectiveness and improvement. The researchers have also indicated a willingness to share with you the summary findings from the project.

Directions for completing the survey are enclosed and any questions can be directed to the principal investigator, John Freeman, L.S.U. College of Education, at 504-388-2182.

Thank you in advance for your participation.

Sincerely,

Sam Pernici, Director
Bureau of School Accountability

c: Raymond Arveson
Charles W. Smith
Mary Ann Fowler
District Superintendent

"An Equal Opportunity Employer"
APPENDIX E: PRINCIPAL'S SURVEY LETTER, SECOND MAILOUT

Dear FIELD(Salutation),

Several weeks ago, an introductory letter and survey form was sent to your school, requesting your participation in a study investigating school improvement processes in the state of Louisiana. Included in that mailing was a letter from the Bureau of School Accountability, encouraging schools to participate in this study.

In reviewing the returned surveys it became evident that we had not received a survey from your school. I realize that the months of June and July are not ideal for seeking survey information from principals. Many principals take much deserved vacations during those months and in general, schedules are not as structured. Of course, there is also the possibility that you did not receive the first mailing. Allowing for these factors, I would again like to request your participation in this very important study.

The usual focus of educational research is a search for answers to what is wrong with schools. However, this study seeks to find out what is "right" with schools. When schools are recognized for positive results, it is important to look at those schools and examine how those positive results came about. I hope you will share your insights with us.

I have enclosed the contents from the first mailing, including the survey and a self-addressed stamped envelope. Please take a few moments to read the first letter detailing the scope of the study. Also, please read the letter from Mr. Sam Pernici, Director of the Bureau of School Accountability, which explains why the Department of Education is interested in this study. If you are then convinced that the study is worthwhile, please complete the survey, place it in the return envelope and drop it in the mail by XXXXXX.

Thank you in advance for your participation.

Sincerely,

John A. Freeman
APPENDIX F: PERMISSION LETTER TO GAIN ENTRY TO SCHOOLS

December 15, 1995

Ms. XXXX
Director, Testing and Research
XXX Parish School Board
P. O. Box 000
XXX, Louisiana 00000

Dear Ms. XXXX,

As a doctoral student at Louisiana State University, I am writing to seek permission to visit XXX Elementary School. The purpose of the visit will be to collect qualitative data for my dissertation. These data will form the second phase of a study that seeks to investigate the internally generated processes of school improvement. The initial phase of the study employed multiple regression models to analyze aggregated school-level achievement data by factoring out certain contextual variables that the school cannot control. The results were designed to arrive at a measure of school improvement for the three-year period from 1991-1994. XXX Elementary demonstrated consistent improvement in their school effectiveness indicators over the designated period.

Of great concern to school officials such as yourself, is protecting the confidentiality of their schools. As a former principal and teacher I understand this idea very well. Therefore, let me attest that under no circumstances will the school, the faculty, or the students be identifiable to anyone other than myself and my dissertation advisor. Also, I will not be collecting student level data during these visits, so there should not be a problem with parental consent. The only contact that I will have with the students is in the role of a nonparticipant observer, and even then my focus will not be on the students.

The visits will involve spending two days in each school. Through the techniques of observations and interviews, I will attempt to reconstruct the events of the past three years that may have played a role in the improvement of the school. I will be as unobtrusive as possible and all interviews with the principal and the teachers will be scheduled at their convenience without interrupting the normal flow of the school day.
I have enclosed a copy of my dissertation abstract, as well as, copies of the instruments that I will be using during the visit. The survey and the mapping of change instrument will be given to the teachers as a way of verifying the responses of principals from a similar survey administered last Spring. Also, it will allow a comparison of responses to change perceptions across the eight schools involved in the case studies. The Stallings Time-on-Task Instrument and the Virgilio Teacher Behavior Inventory Instrument will be used to take a snap-shot of the curriculum and teaching methods employed in the school. The interview protocols are designed to develop a natural history of the school over the last three years. Approximately half of the faculty will be interviewed as well as the principal.

It is my hope, if you grant this permission, that I would be able to schedule these visits in the month of January, but not later than mid-February. I can be reached at the following address and phone number with your decision:

John A. Freeman  
P. O. Box 2206  
St. Francisville, LA 70775  
Home # (504) 635-5997  
Work # (504) 342-4998

If you need a reference to verify that my research is legitimate, feel free to contact:

Dr. Charles Teddlie  
Professor of Educational Research  
Louisiana State University  
College of Education  
111 Peabody Hall  
Baton Rouge, LA 70803  
(504)388-6840

Thank you for your attention to this matter.

Sincerely,

John A. Freeman
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<th>Activity</th>
<th>Time 1</th>
<th>Time 2</th>
<th>Time 3</th>
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<td>Reading Silently</td>
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<td>Practice Drill</td>
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<td>Written Assignments</td>
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<td>Taking Test/Quiz</td>
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<td>Non-math or non-reading</td>
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<td>Student Uninvolved</td>
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<td>Being Disciplined</td>
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<td>Classroom Management</td>
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APPENDIX H: VIRGILIO TEACHER BEHAVIOR INVENTORY

VIRGILIO TEACHER BEHAVIOR INVENTORY
(VIRGILIO, 1987)

The Virgilio Teacher Behavior Inventory was designed as an observational tool to measure specific teacher behaviors consistently described in teacher effectiveness research. The observation should be conducted in a regular classroom setting and last for an entire class period (50 - 60 minutes). The observer should rate each behavior according the following rating scale.

1 - Poor
2 - Below Average
3 - Average
4 - Good/Above Average
5 - Excellent
6 - Not applicable/unable to observe

1. DEMONSTRATES ROUTINE CLASSROOM MANAGEMENT TECHNIQUES
   1. The teacher clearly states rules and consequences. 1 2 3 4 5 6
   2. The teacher uses time during class transitions effectively. 1 2 3 4 5 6
   3. The teacher uses student assistants to save time. (distributing materials, classroom chores...). 1 2 3 4 5 6
   4. The distributes/collects materials/papers in an orderly fashion. 1 2 3 4 5 6

2. MAINTAINS APPROPRIATE CLASSROOM BEHAVIOR
   5. The teacher uses behavior incentive systems to manage student behavior. (uses charts, tokens, ...to keep students on task) 1 2 3 4 5 6
   6. The teacher promptly handles inappropriate behavior. 1 2 3 4 5 6
   7. The teacher continuously monitors the entire classroom. 1 2 3 4 5 6

3. FOCUSES AND MAINTAINS STUDENT ATTENTION ON LESSON
   8. The teacher uses a motivating technique to focus on the lesson. 1 2 3 4 5 6
   9. The teacher clearly states objective of the lesson. 1 2 3 4 5 6
   10. The teacher presents new skill/materiel accurately. 1 2 3 4 5 6
   11. The teacher presents detailed directions and explanations. 1 2 3 4 5 6
   12. The teacher emphasizes key points of the lesson. 1 2 3 4 5 6

322
4. **Provides Students with Review and Practice**

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<td>13.</td>
<td>The teacher provides seatwork that is relevant to the lesson.</td>
<td>1</td>
<td>2</td>
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<td>14.</td>
<td>The teacher guides individual practice.</td>
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<td>15.</td>
<td>The teacher checks for understanding.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>16.</td>
<td>The teacher summarizes the lesson.</td>
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<td>17.</td>
<td>The teacher reteaches if student error rate is high.</td>
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5. **Demonstrates Skill in Questioning**

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<td>18.</td>
<td>The teacher uses a high frequency of questions.</td>
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<td>2</td>
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<td>19.</td>
<td>The teacher asks questions in an appropriate sequence.</td>
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<td>2</td>
<td>3</td>
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<tr>
<td>20.</td>
<td>The teacher responds appropriately to students’ questions/comments.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>21.</td>
<td>The teacher probes further when responses are incorrect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>22.</td>
<td>The teacher uses appropriate wait time between questions and responses.</td>
<td>1</td>
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6. **Establishes Strategies of Evaluating Student Needs/Progress**

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<tr>
<td>23.</td>
<td>The teacher identifies learners who need more assistance/reteaching.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>24.</td>
<td>The teacher assigns homework and provides feedback.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>25.</td>
<td>The teacher provides a variety of activities to meet individual needs.</td>
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<td>2</td>
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7. **Demonstrates a Variety of Teaching Methods**

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<td>26.</td>
<td>The teacher uses flexible grouping where appropriate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>27.</td>
<td>The teacher uses a variety of explanations that differ in complexity.</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>28.</td>
<td>The teacher uses a variety of teaching methods. (peer tutoring, individual/small group instruction)</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<td>29.</td>
<td>The teacher uses manipulative materials/instructional aids/resources effectively. (computers, manipulatives, fieldtrips, ...)</td>
<td>1</td>
<td>2</td>
<td>3</td>
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8. ESTABLISHES A POSITIVE CLASSROOM-LEARNING CLIMATE

30. The teacher communicates high expectations for students. 1 2 3 4 5 6
31. The teacher exhibits personal enthusiasm. 1 2 3 4 5 6
32. The teacher uses positive reinforcement techniques. 1 2 3 4 5 6
   (nods, praises, avoids criticism or negative remarks...)

9. FOSTERS POSITIVE SELF-CONCEPTS IN LEARNERS

33. The teacher encourages student interaction and communication. 1 2 3 4 5 6
34. The teacher conveys genuine concern for students. 1 2 3 4 5 6
   (empathetic, understanding, warm, friendly)
35. The teacher knows and uses student's names. 1 2 3 4 5 6

10. CREATES POSITIVE CLASSROOM ENVIRONMENT

36. The teacher displays students' work in the classroom. 1 2 3 4 5 6
   (ample amount, attractively displayed, current)
37. The teacher prepares an inviting and cheerful classroom. 1 2 3 4 5 6
38. The teacher prepares bulletin boards that are attractive, motivating and current. 1 2 3 4 5 6

ENDNOTES
VITA

John Freeman was born in Canton, Mississippi, on July 10, 1954. He was reared in St. Francisville, Louisiana, graduating from St. Francisville High School in 1972. After receiving a bachelor of arts degree in history, and a bachelor of science degree in secondary social studies education from Louisiana State University, he was employed as a social studies teacher and coach for seven years at Port Allen High School, Catholic High School, and West Feliciana High School. After receiving a master of education degree in educational administration in 1982, Mr. Freeman served as Administrator-Principal for Oak Forest Academy, in Amite, Louisiana, for six years. For a one-year period, Mr. Freeman was employed as a Program Manager for the Louisiana Department of Education, Bureau of Professional Accountability.

While pursuing doctoral studies in educational administration, Mr. Freeman served two years as a graduate research assistant at LSU. During this period, he served as the managing editor for Readings on Equal Education, Volumes 13 and 14. In Volume 13, Mr. Freeman co-authored a chapter on the impact of the Brown decision on higher education.

During this same period, Mr. Freeman authored or co-authored over 20 technical and evaluation reports, as well as presenting papers at the annual
meetings of the American Educational Research Association, the Southwest Educational Research Association, and the Association of Louisiana Evaluators. At the latter meeting, Mr. Freeman was awarded the outstanding student paper in 1995 and in 1996. At the 1995 annual meeting of AERA, Mr. Freeman received a UCEA Graduate Seminar Award based on the quality of his dissertation research.

Mr. Freeman will begin his career in higher education in Fall 1997, as an assistant professor of educational leadership at the University of Alabama, Tuscaloosa.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: John Albert Freeman

Major Field: Educational Administration and Supervision

Title of Dissertation: A Methodological Examination of Naturally Occurring Improvement in Louisiana Schools

Approved:

[Signatures]

Major Professor and Chairman
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

December 9, 1996

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