Strategies and Processes that Promote Sustainability of Campus Laboratory Schools in the Twenty-First Century.

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Strategies and Processes that Promote Sustainability of Campus Laboratory Schools

in the Twenty-First Century

A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor of Education

by

April Blakely

December 2009

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Keywords: laboratory school, campus school,
change theory, professional development school, shared leadership, school sustainability
ABSTRACT

Strategies and Processes that Promote Sustainability of Campus Laboratory Schools
in the Twenty-First Century

by

April Blakely

The purpose of this study was to identify and analyze patterns of institutional strategies and processes that promote the sustainability of laboratory schools housed and managed by institutions of higher education. First, a comprehensive analysis of the development, growth, decline, and current status of the laboratory school movement was conducted by means of a review of relevant literature. Next, an interview with the Director of the International Association of Laboratory and University Affiliated Schools (NALS) was conducted to gather information regarding the changing role of laboratory schools in the modern educational landscape of America. Subsequently, a survey of laboratory school directors was conducted to assess the current status of laboratory schools, examine the changing function of laboratory schools, and consider the effects of these changes. Open-ended interviews were conducted with laboratory school administrators whose schools had successfully transformed their mission to better serve the 21st century needs of their parent institutions and communities. Concurrently, document analysis was performed in order to triangulate findings with interview and survey data.
The data showed that laboratory schools were originally designed for the purposes of testing educational theories, developing innovative practices, and training teachers. Modern laboratory schools serve those same functions. They are clinical teaching facilities, demonstration facilities, research and development schools, and curriculum development centers. Their current and future challenges are: (1) to find innovative roles or niches that serve the diverse and sometimes divergent needs of their parent institutions and (2) ensure that staff have adequate resources (e.g., training, partnerships, and time) to fulfill those roles. Findings from this study describe schools that have failed and succeeded in undertaking complex change processes to promote sustainability.
DEDICATION

I dedicate this study to my family. I am grateful to my brothers and sisters, who, without reservation, have always supported me in my work and mentored me in life. In particular, I would like to thank my sister, Ruth, for the amazing job she has done proofreading dozens of papers and presentations over the last few years. I would also like to thank my mom, who taught by example that one can accomplish many dreams with hard work, and, my father, who taught me to value reading for both enjoyment and knowledge. A childhood filled with trips to the library sparked a lifestyle of information-seeking.
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CHAPTER 1

INTRODUCTION

Do not go where the path may lead;
go instead where there is no path and leave a trail...

Ralph Waldo Emerson (n.d.)

Although scholars debate the exact origin of laboratory schools, most agree that the laboratory school movement had a dominant influence on the tapestry of public education. Initially called training schools, model schools, or demonstration schools, these campus schools began to be referred to as laboratory schools with the advent of the scientific movement in education, a movement in which procedures were determined by scientific methods of experimentation. Extended from an early concept of training schools in which established teaching methods were demonstrated, modern laboratory schools claim much wider missions. “Founded primarily as a facility for training teachers, laboratory schools expanded beyond early, narrow functions of observation, participation and modeling to broader concepts including observation and demonstration, research and experimentation, student teaching and dissemination of instructional and teaching procedures” (Goudie, 1988, p. 9).

By 1873, seventy-three percent of publicly funded normal schools had a campus laboratory school. That statistic varied little during the subsequent 2 decades (Williams, 1942). However, during the early 20th century, the number of campus controlled laboratory schools increased steadily. The solid position that laboratory schools had achieved in the mid 1920s is evidenced by the American Association of Teachers Colleges (AATC) adoption of Standard VII.
Each teacher’s college shall maintain a training school under its own control as a part of its organization for the purposes of observation, demonstration and supervised teaching on the part of students. The use of an urban or rural school system, under sufficient control and supervision of the college to permit carrying out the educational policy of the college to a sufficient degree for the conduct of effective student teaching, will satisfy the requirement. (AATC, 1926, n.p.)

During the 1930s, 1940s, and 1950s, the number of laboratory schools gradually declined as teacher education programs increasingly used local public schools as clinical teaching sites. By 1970, a study identified only 196 laboratory schools affiliated with colleges and universities. Of this number, 65 schools were reported to be reduced in scope from their original inception or in the process of closing (Howd & Brown, 1970). At the dawn of the 21st century, it was estimated that fewer than 100 laboratory schools remained in operation on university campuses nationwide (McConnaha, 1999). No single reason explained the decline, but numerous factors were widely cited including: (1) legislative concern about campus schools and the specialized populations they serve; (2) confusion over the mission for laboratory schools; (3) lack of collaborative projects among laboratory school faculty and university faculty; (4) the expansion of teachers colleges into broader liberal arts institutions; (5) increased demands for the number of student teaching assignments; and (6) lack of leadership.

While the number of laboratory schools may have declined, the professional literature continued to emphasize their importance in the landscape of public education. Goodlad (1984) noted the significant contribution made by laboratory schools but acknowledged that there was “little prospect of reincarnating the laboratory school of the past” (p. 52). He advocated instead
the creation of professional development schools administered by local school authorities charged with the responsibility of developing exemplary practices in collaboration with higher education institutions.

Statement of the Problem

Modern American laboratory schools were conceived during the early 20th century movement fostered by John Dewey, and they have traditionally been centers for teacher training, research, and experimentation. However, colleges of education increasingly use public schools to fulfill many of the roles that laboratory schools traditionally filled. Due to increasing financial constraints affecting the parent institutions and local school systems, laboratory schools face an ever-expanding dilemma: find a way to adapt their mission to serve the needs of parent universities and communities or close their doors.

The purpose of this study was to identify and analyze patterns of institutional strategies and processes that promote the sustainability of laboratory schools housed and managed by institutions of higher education. There are numerous change models in existence. Although those models explain change processes in general, the precise processes of school change that were implemented and the reasons that those change processes were effective has been documented to a much lesser extent, particularly for the laboratory school environment. No comprehensive study of laboratory school organizational structure or change was conducted for over 25 years. This researcher attempted to describe the methods used by laboratory schools to achieve sustainable organizational change, with particular emphasis on what was changed and the processes and strategies used.


Research Questions

1. What actions are taken by university and laboratory school leaders to promote laboratory school sustainability?

2. What external conditions, from the perspective of laboratory school administrators, contribute to successful change processes that promote laboratory school sustainability?

3. What internal conditions, from the perspective of laboratory school administrators, contribute to successful change processes that promote laboratory school sustainability?

4. What external obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?

5. What internal obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?

Significance of this study

Few researchers addressed the reasons for the decline of laboratory school programs or suggested possible solutions that would support their ongoing existence. This study may provide a clearer picture of the functions laboratory schools need to assume to remain viable members of their communities. The literature claimed for decades that, “the campus school exists to serve institutional purposes and, where such purposes are not clearly implemented, the school loses much, if not all, reasons for being” (McGeoch, 1971, p. 26).
White (1965) asserted

[Laboratory schools’] future is precarious, if they do not make changes to meet the changing needs of the times. College-controlled laboratory schools can serve a unique and useful function if they will adjust their programs, their staffs, their pupil populations, and their relationships to other segments of the educational enterprise and meet the needs and demands of today (p. 71).

The current study provides information that can be used by individuals who are involved in the administration of laboratory schools nationwide. For this audience, this study will be useful in several ways. It describes and documents the strategies and processes used in laboratory schools that have achieved organizational change resulting in school sustainability. Further, it may assist administrators and laboratory school faculty faced with possible school closure to develop change processes that maximize organizational goals.

Definitions of Terms

The following definitions of terms are provided based on their use within the context of this study:

1. Clinical teaching experience includes observation and participation in the activities of a class that entails less responsibility than the practice teaching experience that takes place later in a preservice teacher’s program of study.

2. Laboratory schools, sometimes called training schools or campus schools, are affiliated with an institution of higher education. These schools are committed to leadership in the improvement of education through development of innovative ideas in research, curriculum development, clinical experiences, and inservice training in an experimental...
school environment. They include early childhood schools, elementary schools, middle schools, and high schools, as well as various other grade configurations (i.e., K-6, K-8, P-12, and 9-12).

3. *Normal schools* were schools created to train high school graduates to become teachers. Their purpose was to establish teaching standards or *norms*, hence the name. Typically, they were 2-year programs.

4. *Observation* refers to occasional visits to a school classroom to watch a lesson or teaching practice.

5. *Professional Development Schools (PDSs)* are institutions created through partnerships among universities, schools, and other organizations to improve teacher preparation, professional development, and student success as well as to promote inquiry through collaborative partnerships (NCATE, 1998).

6. *Preservice teachers* are teacher candidates enrolled in a college or university teacher educational preparation program (NCATE, 1998).

7. *Professional learning communities (PLCs)* are a collegial group of administrators and school staff united in their commitment to student learning. They share a vision, work and learn collaboratively, and participate in shared decision-making.

8. *Sustainability* is the ability of a laboratory school to maintain its existence as a campus school affiliated with a college or university while supporting a mission and vision projected over multiple decades.
Limitations and Delimitations

The availability and accuracy of the published electronic list of laboratory schools and school directors from the International Association of Laboratory and University Affiliated Schools (NALS) was assumed to be accurate. It was obtained from the Board of NALS and updated in the spring of 2009 in a collaborative effort by board members and the researcher for this study. This study was delimited to 53 identified laboratory schools, 48 of which were member schools of NALS. Therefore, the results of this study may not be generalized to other P-12 schools or institutions of higher education. Generalization of the findings may be limited to P-12 campus laboratory schools. Factors and variables other than those identified within the research questions were not studied. This study was delimited to the use of quantitative and qualitative data provided through the use of an online survey, qualitative open-ended interviews, and document analysis. The instrument was designed and pilot tested by the researcher. All qualitative data were checked by NALS members. All data were peer reviewed.

Researcher’s Background and Role

As the Revisioning Coordinator and an instructor at the K-12 laboratory school for East Tennessee State University (ETSU), the researcher had a vested interest in the sustainability of the campus laboratory school. Therefore, it was the researcher’s responsibility to ensure this study was objective and that personal biases and desires were not reflected in the outcome. Further, the researcher’s position allowed for unrestricted access to information regarding the 4-year change process undertaken by the laboratory school at ETSU from 2005 to 2009.
Assumption

It was assumed that all surveys remained confidential and that none was altered in such a way as to skew the findings of this study. This study was undertaken with the assumption that the instrument used was reliable. This assumption was based on considerable evidence of content validity, and, thus, it is assumed that these data can be used to draw accurate conclusions. It was assumed that the director or lead administrator of each laboratory school to be studied was the appropriate contact person for survey and interview purposes. It was also assumed that useful conclusions regarding laboratory school sustainability could be drawn from studying laboratory schools and their administrators’ perceptions.

Overview of this study

This study is organized into five chapters. Chapter 1 provides an introduction, background of this study, statement of the problem, research questions, study significance, pertinent definitions, limitations and delimitations, researcher’s background and role, assumptions, and an overview of this study. Chapter 2 presents a review of the literature organized into the following sections: emergence of laboratory schools, decline of laboratory schools, professional development schools, divergent stakeholder values, external and internal support structures, dissemination of research, challenges facing laboratory schools, organizational change theory, professional learning communities, supportive and shared leadership, and a summary. Chapter 3 details the research methodology. Information is provided on research design, research questions, population, data collection, and analysis. Chapter 4 offers the findings or results of this study. In Chapter 5, the findings are summarized.
and interpreted, and, from this analysis, conclusions are extrapolated. In addition, recommendations for further research are suggested.
CHAPTER 2
REVIEW OF RELATED LITERATURE

This chapter provides a review of the literature relevant to the laboratory school movement. The review is organized into 11 themes: (1) emergence of laboratory schools, (2) decline of laboratory schools, (3) professional development schools, (4) divergent stakeholder values, (5) external and internal support structures, (6) dissemination of research, (7) challenges facing laboratory schools, (7) organizational change theory, (8) professional learning communities, (9) supportive and shared leadership, and (10) a summary.

Emergence of Laboratory Schools

To engage in discourse about the history of education in America without mentioning the essential role of laboratory schools in that evolution would be like a quilter neglecting to mention the use of thread in the creation of an heirloom quilt. Laboratory schools have been part of the university environment in Europe and America for at least 200 years. Laboratory schools were designed as facilities affiliated with an institution of higher learning in which the primary mission was to train teachers and create pedagogy. Most modern laboratory schools began as campus schools for normal schools or teachers colleges (Nielsen, 1986). Conceptually, it was a simple design: educate children on a college campus while affording preservice teachers a chance to apply methodologies learned during their programs of study.

These campus schools also enabled university faculty to experiment with new ideas and methodologies and conduct research necessary to validate those ideas or methods. As a side benefit, Cassidy and Sanders (2002) noted that “campus laboratory schools often provided university faculty with a convenient place to educate their own children” (p. 3). Children from
the local community were also invited to attend, but the student population rarely mirrored the socioeconomic and ethnic makeup of its surrounding population. Transportation was seldom provided. Due to these factors, laboratory schools frequently served atypical populations.

Although the creation of one of the earliest teacher training programs has been attributed to St. John Baptist de la Salle in France in 1685, the wave of educational reform did not sweep across Europe and America until the 18th century. One of the earliest pioneers in that movement was Johann Henrich Pestalozzi. In 1774, Pestalozzi established a school for disadvantaged children on a farm in Switzerland. In addition to regular school lessons, boys learned to farm and girls learned to cook and sew. They also learned to spin and weave wool as a way to support the school financially. Pestalozzi’s school emphasized learning through experience in a supportive, cheerful atmosphere. Although that school was ultimately closed due to lack of funds, Pestalozzi’s second school operated successfully for over 20 years.

Educators in England and the United States began to follow Pestalozzi’s pioneering practices by “breaking away from formal, strongly verbal methods of the past, which emphasized quiet, passive absorption of book-imprisoned learning” (DePencier, 1967, ¶ 4).

Friedrich Froebel, a German contemporary of Pestalozzi, lauded learning through activity. Froebel posited that play was an important factor in a child’s education. He organized a kindergarten, or children’s garden, where children learned through activity and play. Froebel’s ideas were eagerly espoused in England, France, and, especially, the United States, where many kindergartens were established. From the work of Pestalozzi and Froebel, teacher training programs spread rapidly throughout Europe in the 18th century.
In the United States, Franciscan friars established schools for the Indian Pueblos of New Mexico in the early 1600s. Student teaching was a feature of these schools in that it was common to train promising students as teachers. As early as 1810, Saint Elizabeth Ann Seton’s teacher-training school at Emmitsburg, Maryland required practice teaching and included many characteristics of modern laboratory schools. By the 1830s, teacher training became common in the academies, the equivalent of modern secondary schools. America’s first private normal school, a 2-year post-high school training institute for elementary school teachers, was opened by Samuel Hall in 1823. The first state-supported normal school was created by the Commonwealth of Massachusetts in 1839.

Under the guidance of Henry Barnard and Horace Mann, the number of normal schools in the United States increased rapidly during the second half of the 19th century. Mann, called the father of American public education, was undoubtedly influenced by Froebel and Pestalozzi. “One of his strongest protests was against what he termed the harsh pedagogy of the classroom” (DePencier, 1967, ¶ 6).

The training schools focused solely on professional training for elementary school teachers. Normal schools attempted to provide prospective teachers with a laboratory for learning, using model classrooms as a place to practice new skills. Preparation for secondary school teaching, which required additional academic content, remained the jurisdiction of various universities and colleges.

The early importance of campus schools is evidenced by the passage of the Normal School Act of 1857 in Pennsylvania.
Before designation as an official state normal school, each had to provide a ten-acre campus, housing for three hundred students, an auditorium capable of seating a thousand persons, rooms for libraries, a minimum of six faculty members, and a model school of one hundred students. (Fritz, 1985, cited in Burk & Miller, 1991, p. 2)

The model training schools were considered essential.

“Regular public schools were typically staffed by young teachers with limited academic and professional training. In the model school, the professor of pedagogy gave direction, shape, and supervision to the teacher-training process” (Burk & Miller, 1991, p. 3).

By the turn of the 20th century, many normal schools expanded into 4-year degree programs despite disparagement by many universities and colleges. Their expansion was largely credited to graduates of the third normal school in Bridgewater, Massachusetts, which opened on September 9, 1840. These graduates founded schools and colleges across the United States, including Northwestern University, which was founded by Frank Spears, an 1893 graduate of Bridgewater. Nicholas Tillinghast, the first Bridgewater headmaster, stated:

The number, and I could almost say, the kind of studies, is of small importance provided we attempt to lead the pupil to habits of exactness, and put him so he can have self-reliance. This is what I think the normal schools should aim at. (as cited in Harper, 1970, p. 29)

From the mid 19th century until 1950, laboratory schools thrived. In 1874, the United States Commissioner of Education reported that 47 of America’s 67 state normal schools maintained laboratory or training schools in connection with their teacher education programs (Bonar, 1992). A similar report for 1894 indicated that of 160 public normal schools, 137 had
laboratory schools (Bonar, 1992). Of the then 238 private normal schools, 175 maintained laboratory schools.

Representative of laboratory school expansion, the Horace Mann School opened at Teachers College, New York, in 1887. It quickly gained a reputation as a school in which master teachers could “experiment with the curriculum and methods of teaching as professors of science experiment in the laboratory” (Hughes, 1959, p. 22). One of the most notable events in the evolution of laboratory schools was the founding of the University of Chicago laboratory school by John Dewey, which opened to students in 1896. Dewey’s intent was to challenge conventional traditionalist attitudes about education. In 1896, Dewey wrote of the laboratory school:

It bears the same relation to the work of pedagogy that a laboratory bears to biology, physics, or dentistry. Like any such laboratory, it has two main purposes (1) to exhibit, test, verify and criticize theoretical statements and principles and (2) to add to the sum of facts and principles in its special line of work. (cited in Goodlad, 1980b, p. 58)

In contrast to the popular use of laboratory schools as clinical practice facilities, Dewey asserted that research was the primary mission of laboratory schools. He did not support their use as training vehicles for prospective teachers. Dewey’s school differed significantly from other laboratory schools of the 19th century due to its emphasis on testing theory and knowledge of teaching and learning (Bonar, 1992). He envisioned the laboratory school as a place where discoveries about education would occur by putting theory into practice in an experimental setting. Affiliation with an institution of higher education, in this case the
University of Chicago, was essential for the freedom of inquiry it could provide. Tanner (1997) stated, “Discovery cannot be carried forward in an atmosphere shackled by tradition” (p. 21).

Dewey’s experiments at the Dewey School became the core of his writings throughout his career. Tanner (1997) concluded that, despite the influence of Dewey’s ideas, his practices remained largely disregarded a century later. Certainly, few laboratory schools were able to follow Dewey’s experimental path. In 1899, Teachers College in New York added a second laboratory school, the Speyer School, where many curricular experiments occurred.

J. L. Meriam, professor at the University of Missouri, and Ernest Horn, professor at the University of Iowa, established two additional experimental schools between 1904 and 1915 (Hendrick, 1980). This core of experimental schools emphasized an evolving curriculum that was to be arrived at scientifically. However, this was not typical, and, teacher training continued to be the primary purpose of most laboratory schools. Although other schools tried to embrace an experimental attitude, experimentation seemed to clash with the original purpose of most laboratory schools.

Influenced by Dewey, Mann, and others, laboratory schools gradually placed greater value on systematic research, joint faculty appointments with the university, and careful attention to preservice teacher education. By 1920, campus laboratory schools existed at virtually every major teacher training institution in America (Cassidy & Sanders, 2002). By the 1930s, the greatly increased demand for student teaching opportunities largely curtailed experimentation as a function of most laboratory schools. In the 1950s, laboratory schools found themselves trapped in operational and philosophical dilemmas (Nielsen, 1986).
According to Hendrick (1980), the failure to experiment had fatal consequences for many campus schools.

*Decline of Laboratory Schools*

As practice enables the quilter to become adept at sewing together a patchwork of fabric, so did laboratory schools enable prospective teachers to become skillful in a broad array of instructional and classroom practices. Both quilter and laboratory school might have been happy sewing their fabric monotonously forever, but culture evolved. After World War II, the number of laboratory schools in the United States declined precipitously, and few new elementary and secondary laboratory schools opened.

A 1964 national survey by Kelley recorded 212 laboratory schools. However, by 1973, that number had declined to 166 schools. Between 1960 and 1980, one half of the nation's laboratory schools either closed or were reduced in scope, falling from 212 in the mid 1960s to little more than 100 in 1992 (Bonar, 1992). By the 21st century, the National Association of Laboratory Schools, currently the International Association of Laboratory and University Affiliated Schools, (NALS) estimated that only 100 laboratory schools remained in the United States (Cassidy & Sanders, 2002).

Ironically, some of the same factors that initially contributed to the success of the laboratory school movement also contributed to its decline. However, the reasons for the decline were many (Dishner & Boothby, 1986; Goodlad, 1980a; Hendrick, 1980). Critics maintained some of the methods, materials, and philosophies that were so successful in laboratory schools could not thrive outside the elitist atmosphere of a campus school. Often, the students were the children of university faculty, and they lived in homes that actively
promoted learning and the role of the school. Many nonfaculty children came from affluent homes in which families could provide all the accoutrements of learning. In other words, most laboratory schools served a specialized population, one atypical of the population in general (Hayo, 1993; MacNaughton & Johns, 1993). Thus, even faculty in schools of education began to complain that laboratory schools could not provide preservice teachers with clinical experiences that mirrored experiences they would later encounter as teachers. Clinical practice, once the primary purpose of laboratory schools, could no longer be used to justify their continued existence.

**Professional Development Schools**

Goodlad (1980b) identified four additional categories of problems that centered on functions, values, resources, and support. Goodlad found that laboratory schools divided their functions into five major roles: (1) education of the children enrolled, (2) development of new and innovative practices, (3) research and inquiry, (4) preservice education, and (5) inservice education. He concluded that two of those functions, inservice and preservice education, would be best left to the local schools that surrounded universities. He would later advocate the idea that these surrounding schools, or Professional Development Schools (PDSs), should form new partnerships with the university in their community (Goodlad & Holmes Group, 1990). Most of the field-based teacher preparation, particularly the junior year experience and student teaching, would take place in those schools. The concept of PDSs became one of the cornerstones of the reforms of teacher education proposed in the late 1980s and early 1990s (Goodlad & Holmes Group). The National Association for Accreditation of Teacher Education (NAATE) (2001) defined PDSs as
“innovative institutions formed through partnerships between professional education programs and P-12 schools. Their mission is professional preparation of candidates, faculty development, inquiry directed at the improvement of practice, and enhanced student achievement.” (NAATE, p. 1)

Some argued that laboratory schools could also become PDSs (Smith, 1991).

**Divergent Stakeholder Values**

The second major problem identified by Goodlad (1980b) was one of differing values. Many of the stakeholders in laboratory schools had widely differing ideals. The laboratory school teachers, or clinical faculty, wanted to demonstrate teaching expertise, preferably with methods and materials with which they were comfortable. The inservice teachers visiting the school wanted to develop and practice techniques or lessons they could use in their own classrooms. The preservice teacher sought credentials leading to employment. University professors wanted an acceptable environment in which to conduct research, and the laboratory school director and college dean wanted to achieve all of those goals concurrently.

Goodlad stated that, during his tenure as laboratory school director at the University of California, Los Angeles, he relegated the preservice and inservice education responsibilities to surrounding schools. He also noted that the conflict between the university professors and the laboratory school teachers could be a major concern because each group failed to recognize the strengths of the other. The university professor had knowledge of research and specialized content, whereas the laboratory school teacher had expertise in working with groups of children.
External and Internal Support Structures

The third and fourth concerns identified by Goodlad (1980) were the problem of resources and the problem of external and internal support. The problem of adequate resources had plagued laboratory schools since their inception. The majority of campus laboratory schools were small, having no more than one or two classrooms per grade level. However, when all schools were required to offer the specialized services of larger schools (e.g., special education, speech therapy, music, physical education, gifted education, and nutrition), laboratory schools found it difficult to match their local counterparts (McConnaha, 1999). Many universities began to question their financial commitment to laboratory schools, particularly in light of the growth of PDSs.

Goodlad (1980) concluded that, unless the professional faculty was actively involved in doing research with the children and clinical faculty in the laboratory school setting, and unless laboratory schools maintained a questioning atmosphere, the schools were doomed to fail. The schools, the professional faculty, and the clinical faculty must always be receptive to change, experimentation, and research.

Dissemination of Research

Another problem for laboratory schools, only briefly alluded to by Goodlad (1980), was their failure to disseminate information about the research and program development being conducted within their walls. In an interview, John Haefner, former President of the National Council of Social Studies, commented about the closing of the University of Iowa laboratory school, a school noted for its innovative curriculum and teaching methods. Haefner reported that the Iowa campus school had failed in its dissemination mission (Hepburn, 1995). “Why was
it closed? We simply did not publish enough about the high school. We defeated ourselves by not making greater efforts to get the results out to other educators” (p. 454).

**Challenges Facing Laboratory Schools**

Quilters developed new templates, designed modern fabrics, and used colors to blend intricate and more complex patterns. They met with other quilters, shared ideas, and created circles of learning that rippled outward within their community. New technologies enhanced their skills and transformed regional craftsmanship into artistic work for the masses. In contrast, most laboratory schools held firmly to their belief that teacher training was central to their existence. They stalwartly clung to traditional pedagogy while simultaneously attempting to expand programs in their schools for the benefit of students.

McConnaha (1999) stated that by the 1970s, the proportion of American students from nontraditional households had begun to increase. Society was beginning to question why many American students were educationally unsuccessful. In response, public schools developed gifted programming, vocational training, special education, and a plethora of high school electives. Schools began offering social services programs that ranged from family life topics to drug prevention. Schools even began to teach students to drive. When poor nutrition was found to hinder learning, school lunch programs were developed. When researchers found that some students lagged academically because of emotional problems, universities began training counselors and psychologists to work in schools.

McConnaha (1999) added that laboratory schools accepted all these new roles without question under the premise that a school charged with training prospective teachers should reflect all of the conditions that teachers would face in nonlaboratory school settings. In the
attempt to reflect each of the new programs designed to solve society’s ills, laboratory schools became so similar to other schools that they ceased to serve any special functions in public education. Consequently, with ever increasing financial pressures faced by major higher education institutions, laboratory schools’ biggest asset often became the acreage they occupied. (McConnaha, 1999, ¶ 2). As a result, many laboratory schools closed.

Organizational Change Theory

The Longman Dictionary of Contemporary English Online (2009) defined change as “the process or result of something or someone becoming different.” Duke (2003) included both process and content in his definition and differentiated among the terms change, change process, and effect of change. Change was a difference, a departure from the status quo; change process was the process by which an individual, group, or organization attempts to achieve change, and effect of change was the impact or consequences of achieved change (p. 15). Change involved complexity, because it occurred rapidly, was often unpredictable, and was always nonlinear.

Dawson (2003) stated, “At its simplest, organizational change can be defined as new ways of organizing and working” (p. 11). Dawson identified internal and external catalysts that led to organizational change: (a) government laws and regulations, (b) global economy, (c) political or social events, (d) advances in technology, (e) organizational growth, (f) business cycle fluctuations, (g) movement from a manufacturing economy to a service economy, (h) human resources, and (i) administrative structures. By the 1970s, numerous studies and reports focused on various components of the change process (Havelock, 1971). Havelock studied approximately 4,000 models of change, each of which was purported to demonstrate the best
aspects of change theory in existence at the time of each study. Observations and statements concerning change were grouped around three different orientations (Havelock & Havelock, 1973). The first and second perspectives of change were described as follows:

Change as a felt need helps diagnose the problem, search for appropriate innovation, use and adapt the innovations, and finally, evaluate its effectiveness. This model’s emphasis was on the user. The second model of change was change as a research-development-and-diffusion process (p. 12).

In this model, users’ needs were of little importance. The third model that Havelock and Havelock studied was “change as a process of social interaction” (p. 18). In contrast to Havelock and Havelock’s model, the concerns-based adoption model (CBAM) demonstrated that “change is a process, not an event and that understanding the point of view of the participants in the change process is critical” (Hall & Hord, 1987, pp. 8-10). Based on the CBAM, the viewpoint of the user was shifted into a more important position.

Hall and Hord (1987, 2001) reported that change was a highly personal event that required developmental growth and was accomplished by individuals willing to accept and act on the proposed change. The Fullan (1982) model of change indicated that change was composed of four processes: “initiation, implementation, continuation, and outcome” (p. 4). Fullan contended that one of the most fundamental problems in contemporary education was that teachers, administrators, and other stakeholders did not have a clear idea of what educational change was for, what it was, and how it proceeded. Fullan stated, “What we need is a more coherent picture that people who are involved in or affected by educational change
can use to make sense of what they and others are doing” (p. 4). In *Leading in a Culture of Change* (2001), Fullan added,

> Understanding the change process is less about innovation and more about innovativeness. It is less about strategy and more about strategizing. And it is rocket science, not least because we are inundated with complex, unclear, and often contradictory advice. (p. 31)

Burk and Miller (1991) noted that, because laboratory school’s staff and their parent institution’s administration inherently supported the correctness of their methodologies, they neglected to reevaluate their mission when addressing modern educational challenges. Goodlad (cited in Burk & Miller, 1991) showed early insight into the importance of change processes in relation to the sustainability of 21st century laboratory schools. He commented that

> Once a laboratory school staff comes to know what is “best,” more than a gentle persuasion is required to set it once more on the path of inquiry. The irony is that, from one perspective (and certainly from the viewpoint of staff satisfaction), demonstration of these tried and true practices is good. But perseverance in them, at the expense of trying what has not yet been tested, is not what laboratory schools are for. (Burk & Miller, 1991, p. 15)

Sergiovanni (1992) and Fullan (2003a) both focused on change as a moral imperative. They added that school leaders must be vigilant in considering the success of all schools and not narrow their vision to the success of one school. With regard to public schools, it seemed impossible to sustain improvement unless the whole system was moving forward. With regard
to laboratory schools, which were often a lone school without a district to support its function or mission, linkage to the parent institution was vital to the change process.

Fullan (2005, 2007) later reexamined educational change in light of the growing body of knowledge about the process of change. He found that for change actually to occur certain factors must be met. He noted the importance of three tenets that are at the core of sustained educational change: relationship, meaning, and motivation. To compound the process further, change required time, effort, and persistent support. Fullan indicated that the experience of the individual was a critical factor. In his research, he found that one must experience some part of the proposed change before fully understanding the dynamics. By experiencing the change and by achieving success, an individual could come to believe in the change. Fullan found that belief was the foundation of all action. For successful initiatives involving change, individuals required an appropriate amount of time to build conviction in the change. Therefore, in order for valid change to occur in schools, educators must

1. Believe the proposed change could occur.
2. Believe the proposed change made sense.
3. Feel they had a meaningful role in the change.
4. Experience some success with the change.

Additionally, the organizational structure and culture can have an impact on the system through which the change process takes place (Hannay, Smeltzer-Erb, & Ross, 2001). At that time, systemic change was not well understood even by experts, and school leaders had little training to prepare them for the challenge (Sergiovanni, 2000). Most schools developed cultures that allowed for some incremental change while blocking transformational change.
Comprehensive reform efforts were almost always resisted (Hannay et al., 2001). Trompenaars and Wooliams (2003) claimed that, because the culture of an organization dictates the ways in which issues are perceived and responded to, the idea of changing an organization’s culture must be viewed as a contradiction in terms and, therefore, cannot be accomplished.

Hannay et al. (2001) examined the change capacity of school organizations from the view of chaos theory and as a living organization by collecting longitudinal quantitative and qualitative data over a 5-year period. By doing so, they hoped to gain a better understanding of the impact of organizational change on whole school reform. Their findings suggested that school leadership teams worked differently based on contextual conditions that fostered change capacity and reculturing. Fullan (2002) offered new insight into the dynamics of change through core competencies identified through moral purpose. The four competencies were: (a) understanding the process of change, (b) cultivating relationships, (c) sharing knowledge, and (d) making coherence. While internal and external efforts provoked school reform, only the combined efforts of teachers, administrators, and other stakeholders allowed organizational change to become a sustaining experience through shared learning.

**Professional Learning Communities**

New theories and concepts of education are not discovered by accident. They are shared, adopted, and implemented by staff and administrators who accept them as valid and useful for their particular setting. Change, therefore, becomes an exercise in relationships and communication. The challenge for school leaders is to provide direction that stimulates improvement and communicate that direction in a manner that elicits the support of those responsible for implementing the new practice. Change challenges the foundational structure
of an organization, causing it to lose stability. Marshall (2006) described this instability as generative. She asserted that

Although, to system members it feels like the ground is shifting, this point of greatest instability also holds the greatest potential for transformation. Now even the smallest disturbances can disproportionately influence the dynamics and direction of the system. It is at this point that the system can embrace a new self or identity and is then truly able to creatively reorganize itself into new forms. (p. 33)

Fullan (2005, 2007) recommended professional learning communities (PLCs) as a vehicle for providing effective support for educators as they implement change. PLCs link teachers in a school with their administrators to continually seek and share learning as a mechanism to stimulate change. The goal of their collaborative learning community is to enhance effectiveness as professionals for the benefit of students.

PLCs emerged after research in the late 1980s that suggested teachers’ workplace factors influenced teaching effectiveness. Rosenholtz (1989) found that teachers who felt supported in their personal learning and teaching pedagogy were more dedicated and effective. As a result, teacher networking, collaboration, and teacher involvement in decision-making expanded. When school administrators shared authority and leadership responsibilities, the high level of empowerment increased feelings of ownership, commitment, and satisfaction among teachers (Elmore, 2000; Wald & Castleberry, 2000).

Barth (2001) stated that few schools operated democratically, but, when teachers assumed leadership roles beyond the classroom, schools could become more democratic than dictatorial, and everyone benefited. The more democratic a school culture, the more students
believed in the practice, and they were better able to sustain a democratic form of governance. Teachers who viewed their schools as professional learning communities reported fewer feelings of isolation, were more likely to see themselves as “professionally renewed”, and viewed their work as more satisfying (Hord, 1997, p. 27). Furthermore, models and practices of leadership that facilitate the leadership capacities of others could be developed within the appropriate organizational structure and culture (Elmore, 2000). By empowering teachers with shared authority in school governance and instructional management, superintendents and principals could build the capacity for teachers to develop their knowledge and skills and work as a team with their peers to solve instructional problems (Fullan, 2001; Kruse, 2001).

Furthering this growing body of research, Darling-Hammond (1996) cited shared decision making as a factor in curricular reform and noted a transformation of teaching roles in schools where structured time for collaborative planning, peer observation, and shared feedback were present.

Hord (1997) found five attributes common to PLCs: (1) supportive and shared leadership, (2) collective creativity, (3) shared values and vision, (4) supportive conditions, and (5) shared personal practice.

While making a compelling case for collaborative practices as a means of supporting school improvement, Fullan (2006) nevertheless reported that collaboration was often fraught with pitfalls. “The basic purpose, in my view, is to change the culture of school systems, not to produce a series of atomistic schools- however collaborative they might be internally” (p. 7). If transforming school culture was not central to change processes, Fullan claimed that superficiality, emphasis on program innovation rather than cultural innovation, and a hyper-
focus on change at individual schools could “easily marginalize the value of PLCs as part of the movement to transform school system cultures” (p. 7).

The literature, summarized by Hord (1997) provided a clear description of the composition and actions of successful professional PLCs. The requirements necessary for successful professional learning communities continually circled back to the five core attributes mentioned previously. The first requirement is the collegial and facilitative participation of the school administrator, and that administrator must be willing to share leadership and power with his or her staff in such a manner as to directly promote collaborative decision-making. Secondly, the staff must share a steadfast commitment to student learning that guides creation of a joint vision based on a consistently expressed and referenced pedagogy. Third, collaborative learning must lead to application that addresses students’ needs. Fourth, peer observation must be followed by feedback and support that stimulates community improvement. Fifth, physical conditions and human capacities that support the organizational arrangement must be present. When these attributes were present in the organizational arrangement, the PLC was seen as a powerful staff-development approach and a potent strategy for school change.

Supportive and Shared Leadership

Supportive and shared leadership emerged when school administrators participated democratically with stakeholders in sharing power, authority, and decision-making (Hord, 1997). However, the willingness to embrace small learning community schools and consider teacher leadership as a model for school renewal continued to be overlooked (Bowman, 2004; Reis & Pena, 2001; Strike, 2004; Vander Ark, 2002).
Cotton (1996), Klonsky (2002), and Meier (2000) all suggested that small schools were more communal and allowed teachers to make collaborative decisions free of the bureaucratic complexity of large, traditional high schools. New school reform efforts to reduce larger schools into smaller ones and to increase a more collaborative style of leadership among teachers and administrators were essential for reculturing education (Helterbran, 2004). Schools could sustain improvement through capacity building and preparing teachers to lead innovation and development (Harris, 2002; Harris & Chapman, 2004).

Fullan (2003b) stated that schools should select leaders in terms of their capacity to create the conditions under which other leaders might flourish. As Collins found in his study, good-to-great leaders “channel ambition into the company, not the self; [and set] up successor[s] for even greater success in the next generation” (Fullan, 2001, p. 36). Bennis and Thomas (2002) explored the dominant processes through which leaders emerged. Their research findings determined that true leaders of any age shared several critical qualities, such as adaptive capacity and the ability to engage others in shared meaning. For teachers as leaders, the core of adaptive capacity was the ability to grasp context (Bennis & Thomas, 2002).

Sustaining school improvement requires the leadership capability of all stakeholders. Improvement in learning was more likely achievable when leadership was instructionally focused and positioned in the classroom (Gronn, 2000). Helterbran (2004) stated that, like collaborative structures and processes, participative decision-making should be considered an integral part of redesigning schools to heighten teacher professionalism.

As a result of the continued demand to improve the structure of education, schools were repeatedly called upon try out new methods of teacher leadership (Beachum & Dentith,
Reluctance to change could massively undermine the efforts of a school district or a laboratory school as well as the support of the administration, and this, in turn, could result in teacher turnover and staff conflict (Wasley et al., 2000). For example, the No Child Left Behind Act is a blend of standards-based accountability, educational choice, and old-fashioned bureaucratic mandates, not all of which work together harmoniously (Dufour, 2004).

In contrast to the traditional style of management, modern approaches to management attempt to balance individual freedom with the needs of the organization (Weymes, 2004). Effective leaders know that the ability to lead and manage organizational change is critical to the survival of an organization (Calabrese, 2002). There needed to be a major shift in the emphasis and disposition of leadership (Calabrese), and it was imperative that cultural changes and social changes occur as well (Wilson, 2000). Prior to the emphasis on the shift in the disposition of leadership, Fullan (2002) stated that large, comprehensive high schools operated under a bureaucratic chain of command in which power resided at the top in a few formal leadership positions. This traditional model of top-down leadership, while efficient on the surface, could work to the detriment of teachers’ professionalism and threaten school-wide morale (Fullan, 2002).

By contrast, a culture of shared decision-making pervaded many successful laboratory schools. Leaders who nurtured a culture of shared decision-making and shared leadership involved all interested parties in building the forward momentum of the school, thus providing an excellent ground for sustained change (Meier, 2000).
Ayers, Klonsky, and Lyon (2000) indicated that research supported a connection between professional development and teacher leadership and activism. For example, many small schools, laboratory schools among them, focused on an area of social justice as their purpose or reason for existing (Barth, 2001). Barth stated that small school activism and teacher leadership also came into play when new, small schools began taking part in conversations with large schools and participating in comprehensive restructuring initiatives such as the development of professional learning communities. In many such initiatives, teachers moved into project director or principal positions and, consequently, were called on to employ new skill sets (Fullan, 2001; Silva, Gimbert, & Nolan, 2000).

Educational leaders were encouraged to build more collaborative and democratic arrangements with teachers and others to achieve success (Fullan, 2001; Leo & Cowan, 2000). According to Kruse (2001), “Organizational factors that influence development of both learning and community include the development of leadership within and among faculty, ongoing focus on data-driven decision-making, and the creation of venues for dense interpersonal dialogue” (p. 2). Barth (2001) described relationships with schools as frequently “independent and isolated, or adversarial and competitive” (p. 157), which were descriptors often used to define laboratory schools and their relationship to their parent institutions. Barth advocated the development of healthy teacher-principal relationships as a key component of organizational effectiveness. With regard to laboratory schools, this ideal can be expanded on to include teacher-director-parent institutional relationships.

In a meta-analysis of research completed since 1970, Waters, Marzano, and McNulty (2003) identified leadership traits that promoted change for increased student learning.
Twenty-one basic traits were identified and examined from the viewpoint of the educational leader and sorted into focus areas for further analysis. The area of focus found to have the largest measured effects on change was culture. The operational definition of culture in this meta-analysis included five leadership aspects: (1) the promotion of cooperation among staff, (2) the promotion of a sense of well-being among staff, (3) the promotion of cohesion among staff, (4) the development of a shared understanding of purpose, and (5) the development of a shared vision of what the school could be like. The results of this study supported a strong human factor in change.

Sergiovanni (2006) drew similar conclusions about the role of leadership in schools. “Schools are moral communities that are more akin to families and they require a different approach to leadership” (p. 1). To strive for improvement in the quality of the way people live together is a moral purpose of the highest order. Sergiovanni wrote,

I believe that it is possible to rally enough small groups of thoughtful and committed citizens throughout the continent to create the kind of schools we want if we are willing to change the way we think about leadership and if we are willing to change the way we think about politics in schools. (p. 1)

Sergiovanni suggested that in order to change schools communities must begin by creating new theories, “theories that better fit the context of schools and fit better what schools are trying to accomplish” (p. 1). In *Leadership for the Schoolhouse*, Sergiovanni (1996) listed several characteristics as a theory for the schoolhouse:

1. Be idea-based.
2. Emphasize real connections.
3. Evoke sacred images of the processes that go on in school.
5. Acknowledge that humans are motivated in part by self-interest, but have the capacity and the desire to respond for internal rather than external reasons.
6. Provide for decisions about school organization, curriculum, and classroom life that reflect constructivist teaching and learning principles.
7. Strive to transform the school in such a way that it becomes a center of inquiry (p. 25).

Unhindered by the constraints that inhibit public schools, school boards, and bureaucratic administrators, laboratory schools were free to rearrange the curriculum, reassign personnel, restructure the delivery system, and reallocate resources... as an extension of the college, it can dare to undertake programs that public schools cannot attempt (Burk & Miller, 1991, p. 19).

But as Sergiovanni (2006) asserted, “Change is not enough. Change must lead to improvement” (p. 348). Bringing about sustained improvement is not easy or fast. Hargreaves and Fink suggested that sustainability in educational change spanned five interconnected traits.

1. Improvement that sustains learning, not merely change that alters schooling
2. Improvement that endures over time
3. Improvement that can be supported by available or achievable resources
4. Improvement that does not impact negatively on the surrounding environment of other schools and systems
5. Improvement that promotes ecological diversity and capacity throughout the educational and community environment. (p. 349)

School leadership is central to the change process. Fullan (2001) suggested five components of quality leadership: moral purpose, understanding of the change process, strong relationships, knowledge building, and coherence making. Leadership is as important to laboratory schools as it is to any organization that attempts to work creatively with complex human problems. Bayne et al. (2001) summarized the leadership capacities necessary in laboratory schools: thorough knowledge, both theoretical and practical, of education; skill in bringing diverse individuals and specializations into working teams; ability to communicate well with the school’s constituents; and the capacity to engage in strategic planning collaboratively with a parent institution.

Summary

A conservative estimate indicates that as of 2009 fewer than 100 laboratory schools remain in operation in the U.S. They exist both as large schools and as small schools, and they include early childhood centers, elementary schools, middle schools, and high schools. Some of the laboratory schools are private, but most are public. Some incorporate a single ethnic group, but many are reflective of the diversity found within their geographic region. Most of the laboratory schools work with comprehensive student populations, some work only with special needs students, and others only with the college-bound (McConnaha, 1999).

The history of these institutions provides lessons from which the leaders of 21st century laboratory schools can learn. They have struggled to balance innovation with tradition, research with practice, and clinical education with P-12 teaching (Hausfather, 2000). Their downfall
reinforces the necessity of strong connections among school, college, and community. The fact that many campus schools continue to serve as strong centers of learning and research reinforces the vital role that they play in public education. Laboratory schools failed to prosper when they no longer were seen as research laboratories for innovative practices or practical arms of college teacher education programs. Other specialized schools, including many professional development schools and charter schools, rose beside them, committed to similar goals yet haunted by familiar challenges. As Fullan (2001) stated, “Failing to act when the environment around you is radically changing leads to extinction...making quick decisions under conditions of mind-racing mania can be equally fatal” (p. v).

Laboratory schools continue to face pressures from multiple arenas: the need to produce change, differing perspectives on innovative practice, institutional impediments, counterproductive reward structures, and inadequate resources. Their history should inform the development of other specialized schools while assisting those laboratory schools that remain in reinventing their vision to suit 21st century institutional needs. Laboratory schools must continue to develop as a place to test new ideas and methods, thereby challenging conceptions of the levels of achievement that can be attained (Miller and National Association of Laboratory Schools, 1997a; Tanner, 1997). In this way, campus schools will remain on the leading edge of comprehensive, sustainable school reform. As Fullan (2003b) noted, “It is moral purpose of the highest order” (p. 5).

If teacher education in the United States is to fulfill the promise of providing competent, caring, and qualified teachers for all students, other schools must learn from the successes and failures of laboratory schools (National Commission on Teaching and America’s Future, 1996).
McConnaha (1999), in a paper presented to the National Association of Laboratory Schools, asserted that “to assure our [laboratory schools’] leadership position during the next ten years we must do two things: (1) we must look to the unique characteristics which we have to offer, and (2) we must sell ourselves to the broader education community” (¶ 4).
CHAPTER 3
RESEARCH METHODOLOGY

The purpose of this study was to identify and analyze patterns of institutional strategies and processes that promote the sustainability of laboratory schools housed and managed by institutions of higher education. This chapter discusses the research questions that guided this study, the participant selection process for the questionnaire and interviews, the document review process, data collection procedures, and the data analysis techniques for both the quantitative and qualitative data.

Research Design

This study combines multiple methods of research. Empirical research is characterized by knowledge or theory derived from the research through observations or experiments. Robson (2002) stated that empirical research “involves a systematic investigation of an experience which should be both skeptical and ethical” (p. 11). Creswell (2007) identified the separate processes that made up empirical research as: (1) identification of a research problem, (2) review of the existing literature, (3) specification of a purpose, (4) collection of data, (5) analysis and interpretation of data, and (6) reporting on and evaluating data.

Commonly, a research problem is formulated in a general way, followed by an identification of purposes that dictates how subsequent data collection and analysis will proceed. In some instances, the researcher wishes to test a theory; in other cases, the researcher has observed a phenomenon to develop into a theory. These approaches are referred to as normative and nonnormative or sometimes deductive and inductive. The
approaches are generally matched to two research styles, quantitative research and qualitative research. The general process in quantitative research is to test a theory by relating independent variables to dependent variables in a controlled setting. Surveys and experiments are commonly used for quantitative studies. Qualitative research seeks to understand or describe phenomena that have already been identified but are not well understood. The tools used for qualitative research include observations and interviews and the methodological tool is interpretation. In qualitative research, theories are often grounded in data, and ethnographic and narrative methods are used to assist in the interpretation of phenomena.

Surveys describe attitudes, opinions, behaviors, or characteristics of a group. They are generally administered in one of two ways, either at a moment in time over a cross section of the population or over a length of time with the same population. The latter method is often used to monitor changes of opinion or to identify trends. In cross-sectional research the intention is often to describe current practice or to evaluate a program or activity in which the participants are involved. The questionnaire and the interview are the primary instruments of survey research. Krueger (1994) stated that in a questionnaire the participant records the data and in an interview the researcher records the data. Interviews can be carried out both individually or in a group setting.

This study was descriptive. Descriptive research allows the researcher to describe the characteristics of a particular population, including “attitudes, opinions, preferences, demographics, practices, and procedures” (Gay & Airasian, 2000, p. 275). The purpose of descriptive research is to describe “the facts and characteristics of a given population or area of interest, factually, and accurately” (Isaac & Michael, 1997, p. 50). Descriptive research involves
the collection of data to answer questions related to the subject or topic of this study. In
descriptive research the end product is a complete, literal description of the incident or entity
being investigated (Patton, 2002).

There are two types of descriptive research. Quantitative descriptive research requires
the collection of data, usually through questionnaires, to provide a clear description of a
phenomenon or process (Patton, 2002). Quantitative research “takes apart a phenomenon to
examine component parts which become the variables of this study. Qualitative research can
reveal how all the parts work together to form a whole” (Merriam, 1998, p. 17). Qualitative
research focuses on the description, interpretation, and understanding of a phenomenon or a
process to provide insight into why things are the way they are. Qualitative researchers
typically are interested in understanding the meaning that was constructed by the individuals
involved in a process. A mixed-methodology descriptive research design was selected for this
investigation because this study focuses on the description and understanding of the processes
used to create transformational school change that promotes sustainability of laboratory
schools.

Data for this study were collected in three phases using both quantitative and
qualitative techniques. In the first phase, an open-ended interview was conducted. In phase
two, a questionnaire was electronically submitted to campus laboratory school directors. In
phase three, open-ended follow-up interviews were conducted with selected laboratory school
directors and documents related to those schools were reviewed. Qualitative research
describes events in as much rich detail and complexity as possible, determine how those events
emerged, and identify ways in which individuals comprehend that development. The intent of
the qualitative research component of this study was to learn from laboratory school administrators to hear from those administrators what they had accomplished, what they hope to accomplish to promote school sustainability, which obstacles hindered school change, and which strategies aided school change.

During the initial data collection phase, an interview was conducted with the executive director for the International Association of Laboratory and University Affiliated Schools (NALS). In phase two, a survey was distributed to 53 laboratory school directors. Twenty-five participants returned the survey. From the 25 respondents, three school administrators were purposefully selected for open-ended interviews. The selection process is discussed later in this chapter. These laboratory school directors were interviewed to explore the survey findings further.

The choice of collecting and analyzing both qualitative data and quantitative data was made deliberately in order to gather information not only about the mission of laboratory schools around the country and the ways in which they did so but also to gain insight into directors’ unique experiences and thoughts about this study topic. Thus, the qualitative data from the phase one interview guided the development of the survey instrument and the phase three interviews and document analysis provided depth to the questionnaire data.

Research Questions

The following research questions were formulated to guide the investigation.

1. What actions were taken by university and laboratory school leaders to promote laboratory school sustainability?
2. What external conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?

3. What internal conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?

4. What external obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?

5. What internal obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?

Population

The target population for this study consisted of directors and lead administrators of campus laboratory schools in the United States. The target population was selected after a careful review of the research questions and a review of literature associated with this study. Next, a survey population was identified. The survey population was delimited to current directors of laboratory schools with membership in the International Association of Laboratory and University Affiliated Schools (NALS). Forty-eight directors were identified. The principal investigator added laboratory school directors identified through an Internet search for schools not affiliated with NALS. Fourteen potential university affiliated laboratory schools were found at universities across the country. Nine schools were subsequently removed from the sample.
because their schools did not fit the definition of a university affiliated laboratory school, their school had closed, or their school had yet to open. This provided a sample of 53 directors. No solid data exists about the current population of campus laboratory schools. However, as indicated in Chapter 2, the number of schools was estimated to be fewer than 100, although the number may be as low as 60-70 schools with some grade configuration of kindergarten through 12th grade. Specialized preschools and early childhood centers frequently are not characterized by their parent institutions as laboratory schools. Thus, the exact number remains elusive.

This researcher used nonrandom, convenience sampling to address the unique difficulties associated with identifying and contacting the laboratory school population. By using the member directory of NALS, subjects were selected based on accessibility and expedience, while also ensuring that all identifiable laboratory school directors were included in the survey sample. An attempt was made to include every identifiable campus laboratory school in the United States for this study.

Data Collection

With the intent to ensure that all requirements were met, approval to initiate this study was obtained from the Institutional Review Board at East Tennessee State University prior to data collection. Written permission to conduct this study using the member directory of the Association was obtained from the executive director of NALS.
Interviews

Interviewing is one of the most common forms of data collection in qualitative studies in education. Interviews are helpful in gathering information that cannot be observed directly. Interviewing is particularly appropriate when the research is interested in past events that are impossible to replicate (Merriam, 1998). Therefore, interviewing was an appropriate technique for this study.

Data collection began in the spring of 2009 with an interview of the executive director of NALS. A member list of schools, names of each school’s director, and contact information was obtained from the NALS board of directors and a statement of study support (see Appendix A) was included with the questionnaire email. Requests for individual interviews with selected laboratory school administrators were solicited by email after the questionnaire data were analyzed. Schools indicating evidence of significant change or refinement in mission and vision in questionnaire data were purposefully selected. Later, an interview with a College of Education Dean and a former laboratory school director were added to represent closed laboratory schools. Additionally, schools representing a cross-section of the United States were selected to maintain study validity.

Survey

Fink (2003a) emphasized the importance of having specific objectives for a survey. Objectives for this survey were aligned specifically to this study research questions (see Table 1).
Table 1

*Data Sources Matched to Research Questions*

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Data collection methods</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1:</strong> What actions were taken by university and laboratory school leaders to promote laboratory school sustainability?</td>
<td>Survey: X, Interviews: X, Document Review: X</td>
</tr>
<tr>
<td><strong>Q2:</strong> What external conditions, from the perspective of laboratory school administrators, contribute to successful change processes that promote laboratory school sustainability?</td>
<td></td>
</tr>
<tr>
<td><strong>Q3:</strong> What internal conditions, from the perspective of laboratory school administrators, contribute to successful change processes that promote laboratory school sustainability?</td>
<td></td>
</tr>
<tr>
<td><strong>Q4:</strong> What external obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?</td>
<td></td>
</tr>
<tr>
<td><strong>Q5:</strong> What internal obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?</td>
<td></td>
</tr>
</tbody>
</table>
A careful review of related literature did not reveal a survey instrument that specifically matched the purpose of this study. Kelley (1964) completed a comprehensive national survey of laboratory schools that was updated by the Laboratory Schools Administrators’ Association in 1969. While a small body of current literature existed on laboratory schools, no other comprehensive national surveys were found. Therefore, the researcher developed a unique questionnaire to meet the goals of this research study (see Appendix B for the survey instrument).

Document Review

Merriam (1998) states, “Using documentary material as data is not much different from using interview or observations” (p. 120). Data collection is guided by inquiry, guesses, intuition, and other findings. This study used documents independent of the research study; therefore, they were “nonreactive and grounded in the context under study” (p. 133). Document analysis was used to triangulate and point out discrepancies in data being collected by survey and interviews, suggest interview questions for study participants, and identify analytical categories. The researcher used published on-line news articles, laboratory school and university website information, journal publications produced by laboratory school faculty, and archival records provided by NALS and member schools. Documents from secondary sources were avoided whenever possible, and skeptical data were fact checked with an official from the laboratory school or parent institution. Primarily, document review were used to mine data regarding laboratory school closures, significant function changes, and successful change process (see Appendix F for Document Review Guide).
Validity

In developing the survey instrument, validity was addressed in various ways. First, content validity of the survey questions was determined. Fink defined content validity as “the extent to which a measure thoroughly and appropriately assesses the skills or characteristics it is intended to measure” (Fink, 2003a, p. 51). Fink recommended consulting the research literature and experts. To ensure content validity of the survey instrument, the research literature was reviewed to define the concepts of laboratory school growth and decline as detailed in the review of related literature found in Chapter 2 of this study. Face validity was employed as an initial check to assess whether or not the questions addressed the aspects of this study they were intended to address (Fink, 2003a). To add depth to the literature review, former laboratory school directors were consulted for a pilot survey. The administration of the pilot survey is discussed in detail later in this chapter.

As an additional check of validity, the survey instrument underwent a cognitive pretest with a statistician and two school administrators to ensure that the issues the survey questions were developed to explore aligned as anticipated with the respondents’ interpretations of those questions. Fink (2003a) explained that cognitive pretests occur when a survey draft is presented to potential respondents for review and those respondents offer feedback on the questions and overall survey approach. The former director selected for this cognitive pretest participated in thinking aloud while reading each survey question. Notes were taken as the director participated and, at the end of the survey, questions were asked to clarify the responses. Adjustments to the questions were made and additional questions were added.
After the early checks for validity and subsequent revisions, the survey instrument was ready for pilot testing. The pilot test (Fink, 2003a; Litwin, 2003) of the survey was conducted with a group of educators. Participants were contacted via email and agreed to participate in the pilot of the survey. Participants were notified of the via an email message containing a hyperlink to a web-hosted survey site (Survey Monkey), along with an electronic feedback form (see Appendix C for the feedback form). The pilot provided an opportunity to gauge the amount of time the survey would take to complete, check for word and question bias, identify questions that needed editing, identify gaps or repetitions in questioning, check that survey directions were unambiguous, and identify potential problems that might arise with any aspect of the survey instrument or its administration, including the use of Survey Monkey. Participants in the pilot survey returned their completed electronic feedback forms via email. Suggestions for revisions were compiled and reviewed. Appropriate changes were made and an error in the skip question sequence identified by pilot respondents was corrected. Pilot survey responses were cleared from the electronic database of Survey Monkey before this study survey commenced in order to prevent pilot data from skewing results.

Once the revisions to the survey instrument were made, the instrument was returned to the former director who had initially participated in the cognitive pretest for a final review. No additional changes were indicated.

Survey Administration

An initial questionnaire was sent via email to 53 laboratory school directors. The email included a cover letter with an electronic hyperlink to the online survey. Kelman (1977) pointed out that studies employing questionnaires, in general, did not arouse deep privacy concerns
among respondents as long as the decision to participate in this study was made with informed consent. This research study was designed in accordance with East Tennessee State University Institutional Review Board policies with regard to human subjects, a portion of which pertain to the issue of informed consent. Specific to this research study, prior to viewing the first portion of the survey instrument, potential respondents in this study were presented with a forward containing a narrative describing the purposes of the research and contact information for the researcher and institution. Participants selected to participate by clicked the submit button to continue.

One week and 1 month after the initial email, second and third emails were sent to nonrespondents. The purpose of the second and third emails was to prompt participants to complete the survey. This contact generated five additional responses, bringing the final survey response to 25 (47.2%).

Literature on survey research clearly noted that response rates for email surveys can range dramatically, depending on the audience and their relationship, or lack of relationship, with the survey administrator; the complexity of the survey instrument; and other factors, such as timing, the attractiveness of the survey, complexity of the questions, and number of questions (Fink, 2003a). Fink asserted that response rates could not be standardized due to the number of factors that influenced response rates. Because it was not uncommon to have an initial response rate as low as 20% to an unsolicited survey, survey methodologists recommend building in specific strategies to increase response rates (Fink, 2003a). Guidelines recommended in survey literature were abided by in the present study and included the
following: (1) surveys were kept confidential, (2) a follow-up email was sent, (3) an electronic return process was used, and (4) eligibility criteria were clear and realistic (Fink, 2003a; 2003b).

**Interview Procedures**

After surveys were collected and analyzed, phase three of the research study began. Telephone interviews were conducted with each of three laboratory school directors. At the end of the phase two survey, respondents were queried regarding their willingness to answer follow-up questions. Respondents who selected “yes” (18 of 25 respondents) had an opportunity to insert contact information for follow-up. Potential participants were then contacted by email and informed consent (see Appendix D) was obtained by email prior to each interview.

A guide was created to act as an initial starting point for each conversation (see Appendix E for the interview guide). However, the interviews were open-ended, thereby allowing flexibility based on participants’ responses. As previously mentioned, participants were purposefully selected based on quantitative analysis of survey results and to ensure diversity of geographic location. The second criterion was an intentional choice to ensure that no one state or region dominated the results. Actual names of the states were omitted from this document to ensure individuals could not be identified. Because the location and information shared about individual laboratory schools could unwittingly be used to identify a director, identifying information was omitted and codes were used to ensure that anonymity was protected to the extent possible given the small population for this study.

A mutually convenient time was established between each participant and the researcher for a phone interview. The participant received an IRB informed consent document
in advance of the interview by email. Participants could withdraw consent at any point during this study. Participants gave verbal consent to the interview by phone after a review of the IRB document. Participants also agreed to digital recording of the interview. In cases for which consent for digital recording was not granted, scripted notes were compiled by the researcher during the interview, transcribed, and member checked.

Member checking was done during the interview process and at the conclusion of this study to increase the credibility and validity of the qualitative analysis. During the interview, the researcher restated and summarized information and then questioned the participant to determine accuracy. At the conclusion of this study, all findings were shared with participants. This allowed each participant to analyze the findings and comment on them.

**Quantitative Data Analysis**

As an initial step in the data analysis, descriptive statistics (e.g., mean and standard deviation) and percentile rankings were developed to provide a profile of the sample being studied. Data used in the statistical analyses for this study came from survey data. The Statistical Program for the Social Sciences (SPSS) was used to analyze the data. The measurement scales used in this analysis included nominal, ordinal, and interval scales. To aid the quantitative analysis, a research log was kept. According to Litwin (2003), a log should include “documentation of the research decisions that are made during the coding or review of surveys” (p. 55). This codebook allowed tracking of decisions that were made throughout the analysis of the survey data.

Descriptive statistics were used to “indicate general tendencies in the data [e.g., mean], the spread of scores [e.g., standard deviation], and a comparison of how one score relates to all
others [e.g., percentile rank]” (Creswell, 2005, p. 181). Frequency distributions were calculated for demographic data and reported by number and percent.

**Qualitative Data Analysis**

Both open-ended survey questions and interviews were analyzed using qualitative methods. The data from the qualitative analysis of the interviews were used to explain the survey results in greater depth (Creswell, 2005). The qualitative data were analyzed repeatedly throughout the research process. Phenomenological analysis was used to “ferret out the essence or basic structure of a phenomenon” (Merriam, 1998, p. 158).

Qualitative analysis was used to explore the detailed responses of the survey respondents from open-ended responses (see Appendix B for survey). Use of qualitative analysis adds “depth, meaning, and detail to statistical findings” (Fink, 2003a, p. 64). Responses from all open-ended questions were recorded on a spreadsheet and then analyzed. The responses for each question were placed into organizational and substantive categories that captured the ideas represented by participants’ responses (Maxwell, 2005). The responses were analyzed within each category to mine emerging subthemes.

The interviews were used to explain the findings from the survey data and to explore the experiences of laboratory school directors in greater depth, thus creating a picture of change process at laboratory schools. All interviews were digitally recorded with the permission of each participant. The digital recordings were then reviewed repeatedly by the researcher as notes were compiled and information was organized into categories and subcategories of data.

After identifying the initial and subsequent themes, connecting strategies were used to analyze the data across participants to identify common themes (Maxwell, 2005). The data
Themes were developed as commonalities surfaced. A constant comparative analysis was used for data analysis. Constant comparative analysis involved taking one piece of data and comparing it with all others that might be similar or different in order to develop assumptions about the possible relationships among various pieces of data. This process continued with the comparison of each new interview until all were compared (Strauss & Corbin, 1997). An analysis of the themes for each interview was used to generate a list of findings. The findings were then cross-referenced with the original research questions and compared to the literature to determine the level to which they were supported by the literature. Finally, the findings were analyzed with the intent of developing a model for transformational change processes at laboratory schools that is effective in promoting sustainability.

Summary

Chapter 3 presented the methodology and procedures that were used in this study. The descriptive quantitative research method and the qualitative research method were explained as were the reason for their use in this study. The population and sample selection methodology were described. The methods of data collection and data analysis were detailed. Results of the analysis of research data are presented in Chapter 4.
CHAPTER 4
DATA ANALYSIS

As stated in Chapter 1, this study examined the process for creating transformational change at laboratory schools that promotes sustainability on the campuses of higher education institutions. This chapter presents the results generated through both quantitative survey data and qualitative data from survey questions, interviews, and document review.

*Research Questions*

The following five research questions guided the reporting of the findings.

1. What actions were taken by university and laboratory school leaders to promote laboratory school sustainability?

2. What external conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?

3. What internal conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?

4. What external obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?
5. What internal obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?

Methodology

This chapter presents an overview of the participant responses to survey questions along with supporting tables and figures. Frequency percentages, means, and standard deviations, where appropriate, are reported. The survey sample demographics are described. Frequencies and percentages described categorical data, and means and standard deviations were employed for ordinal data. Cross-tabulations investigated the relationships between survey participants for categorical variables. Data results are subdivided into categories related to the schools as a whole, the school directors, and the faculty. Additional sections outline cross-tabulated data about the generally recognized functions of laboratory schools. The Statistical Package for Social Sciences (SPSS), Microsoft Excel 2007, and Microsoft Word 2007 were used to code and analyze the data. Qualitative data from participant interviews were coded manually by the researcher. This chapter concludes with a summary of this study results.

The initial step in analyzing the data involved a review of the descriptive statistics for each variable. Survey Monkey, which was the website used to host the survey, generated frequency charts for each questionnaire item. That data were downloaded to Microsoft Excel 2007 and reviewed to confirm that all information had been transferred without error. Then coded survey responses were imported into SPSS to create frequency charts.

Tables 2-4 display the frequencies of responses to demographic questions about school characteristics and individual characteristics of the respondents. The data analysis consisted of
descriptive statistics because the specialized nature of this purposeful sample combined with a small sample size (N=25) did not permit more detailed statistical analysis. Additionally, the research questions for this study were largely qualitative. As stated in Chapter 3, the phase one interview guided the development of the phase two questionnaire, which, in turn, was used to identify laboratory school directors appropriate for phase three open-ended interviews. In the course of data collection, it was necessary to mine data from several laboratory school websites, their archival records, their parent institutions’ websites, as well as published articles, books, and book chapters written about their facilities. Thus, the methodology of this study was guided by both deductive and inductive modes of analysis to derive findings that contained demographic data and expansive descriptive data. The survey questions used for this study were developed in 2009 and based, in part, on a prior survey of laboratory school directors conducted in the late 1960s. The interview questions were open-ended and designed to delve into the depths of each director’s perspective about change processes in their laboratory schools.

Survey Results

Survey questions asked respondents to provide information related to school, director, and teacher demographics. Additionally, directors were asked to respond to questions requiring rank order, or ordinal, data and open-ended responses. Twenty-five (47.2%) of the 53 directors included in the sample completed the survey. This provided data from a range of geographic areas, school sizes, and grade configurations from a cross section of the United States. Boundaries for geographic areas were defined in the survey by electronic coding.
**School Demographics**

Among the participants, seven (28.0%) were from the Northeast region (New England and Middle Atlantic states); three (12.0%) were from the Midwest region (East North Central and West North Central states); ten (40.0%) were from the South region (South Atlantic, East South Central, and West South Central states); and five (20.0%) were from the West region (Mountain and Pacific states). Region categories were matched to the United States Bureau of the Census categories. Table 2 shows a breakdown of respondents by region and state.

**Table 2**

<table>
<thead>
<tr>
<th>Region and State</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast Region</td>
<td>7</td>
<td>28.0</td>
</tr>
<tr>
<td>Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Midwest Region</td>
<td>3</td>
<td>12.0</td>
</tr>
<tr>
<td>Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Region</td>
<td>10</td>
<td>40.0</td>
</tr>
<tr>
<td>Alabama, Delaware, District of Columbia, Florida, Georgia, Kentucky, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Region</td>
<td>5</td>
<td>20.0</td>
</tr>
<tr>
<td>Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Nine (36%) respondents represented very small schools (<250 students); eight (32%) represented small schools (250-500 students); four (16%) represented average schools (501-750 students); and four (16%) represented large schools (>750 students).

Twenty-two (88%) respondents indicated that their schools admitted students by application. Table 3 provides a frequency table for school admission criteria. Most respondents indicated that multiple factors were considered when admitting students to their school. These included but were not limited to academic ability, ethnicity, gender, sibling preferences, area of residency, and laboratory and parent institution faculty offspring preferences. Seven directors of public laboratory schools indicated in open-ended responses that their schools actively attempted to represent the local demographic make-up of their community. Respondents were allowed to select multiple choices for this response.
Table 3

<table>
<thead>
<tr>
<th>Criteria</th>
<th>$F$ ($N=25$)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>22</td>
<td>88</td>
</tr>
<tr>
<td>Lottery</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>Academic Ability</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Gender</td>
<td>11</td>
<td>44</td>
</tr>
<tr>
<td>Sibling preference</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>Laboratory school faculty offspring preference</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Parent institution faculty offspring preference</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Area of residency</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>

Four (16%) of the directors surveyed indicated that their schools were exclusively early childhood learning centers or schools. Four (16%) facilities were designated as elementary schools. Three (12%) schools were designated as middle schools; and one (4%) was designated as a high school. The majority, 13 (52%) of 25, were identified as a combination of grade configurations including but not limited to K-12, 7-12, K-8, and PK-6. Demographic characteristics are presented in Table 4.
Table 4

*Frequency Distributions for School Demographic Characteristics Cross Tabulated by Public and Private Schools*

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>f (%)</th>
<th>Public (%)</th>
<th>Private (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>School region</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>7 (28)</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Midwest</td>
<td>3 (12)</td>
<td>3</td>
<td>-</td>
</tr>
<tr>
<td>South</td>
<td>10 (40)</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>West</td>
<td>5 (20)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25 (100)</td>
<td>14 (56)</td>
<td>11 (44)</td>
</tr>
<tr>
<td><strong>Age of Lab School</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1900</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>1900-1925</td>
<td>5</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>1926-1950</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>1951-1975</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1976-2000</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>&gt;2000</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25 (100)</td>
<td>14 (56)</td>
<td>11 (44)</td>
</tr>
<tr>
<td><strong>School size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Small (&lt; 250 students)</td>
<td>9 (36)</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Average (250-500 students)</td>
<td>8 (32)</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Large (501-750 students)</td>
<td>4 (16)</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>Extra Large (&gt;750 students)</td>
<td>4 (16)</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>25 (100)</td>
<td>14 (56)</td>
<td>11 (44)</td>
</tr>
<tr>
<td><strong>Grade level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>4 (16)</td>
<td>-</td>
<td>4</td>
</tr>
<tr>
<td>Elementary</td>
<td>4 (16)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Middle</td>
<td>3 (12)</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>High School</td>
<td>1 (4)</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Combination</td>
<td>13 (52)</td>
<td>10</td>
<td>3</td>
</tr>
</tbody>
</table>

69
Table 4 (continued)

<table>
<thead>
<tr>
<th>Total</th>
<th>College Department</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>25 (100)</td>
<td>19 (76)</td>
</tr>
<tr>
<td>14 (56)</td>
<td>13</td>
</tr>
<tr>
<td>11 (44)</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Percentages are listed in parentheses.

School Director Demographics

Gender, age, and race were not considered in this survey. Of the respondents, nine (36%) had 5 or fewer years of experience as the laboratory school's lead administrator; eight (32%) had 6-10 years of experience; six (24%) had 11-20 years of experience; and one (4%) had 21-30 years of experience as the laboratory school lead administrator. One (4%) director did not report years of experience.

Of 25 respondents, fourteen (56%) directors reported having a terminal degree, one (4%) reported having an Educational Specialist’s degree, seven (28%) directors reported having a master’s degree, two (8%) directors reported having another, unspecified type of degree, and one (4%) director did not designate education. Demographic characteristics of respondents are presented in Table 5.
Table 5

Frequencies and Percentages for Director Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>5-10 years</td>
<td>8</td>
<td>32</td>
</tr>
<tr>
<td>11-20 years</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>21-30 years</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>Educational degree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master’s</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Educ. Spec.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Doctorate</td>
<td>14</td>
<td>56</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>Department Chair Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>15</td>
<td>60</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>25</td>
<td>100</td>
</tr>
</tbody>
</table>

Descriptive data analysis including frequency, mean, and standard deviation, were used to analyze three ordinal data survey questions. These survey questions asked respondents to rank the involvement of laboratory school faculty in shared leadership activities within the laboratory school, within their college, and within their university at large. Table 6 presents frequencies for faculty leadership activities.
Table 6

*Frequencies for Faculty Leadership Activities by Level of Committee Participation (N = 23)*

<table>
<thead>
<tr>
<th>Level of Committee Participation</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Freq.</th>
<th>Very</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>laboratory school</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>9</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4.2)</td>
<td>(16.7)</td>
<td>(12.5)</td>
<td>(37.5)</td>
<td>(25.0)</td>
<td></td>
</tr>
<tr>
<td>college</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(16.7)</td>
<td>(20.8)</td>
<td>(37.5)</td>
<td>(8.3)</td>
<td>(8.3)</td>
<td>(4.2)</td>
</tr>
<tr>
<td>university at large</td>
<td>6</td>
<td>7</td>
<td>7</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(25.0)</td>
<td>(29.2)</td>
<td>(29.2)</td>
<td>(8.3)</td>
<td></td>
<td>(4.2)</td>
</tr>
</tbody>
</table>

Note: Percentages are presented in parenthesis.

Respondents from eighteen (75%) of the surveyed schools reported that while instructing P-12 students, teachers were also instructors of post-secondary courses.

Respondents from sixteen (66.7%) of the surveyed schools noted their teachers served on college level and university committees. Figures 1-3 present frequency distributions in pie graphs for each question related to shared (or participatory) leadership.
Figure 1. Survey Question #16: To What Extent Does Laboratory School Faculty Participate in Shared (or Participatory) Leadership Activities within the Laboratory School?

Figure 2. Survey Question #17: To What Extent Does Laboratory School Faculty Participate in Shared (or Participatory) Leadership Activities within the School of Education or Another College?
Figure 3. Survey Question #18: To What Extent Does Laboratory School Faculty Participate in Shared (or Participatory) Leadership Activities within the University at Large?

New Facility Plans

Six (28.6%) respondents indicated that their school and parent institution planned to build a new facility, while fifteen (71.4%) respondents indicated their school and parent institution had no plan to build a new facility. Of the respondents indicating that plans for a new facility were underway, all revealed that the future facility would be owned by their parent institution. All but one indicated that the facility would be located on the main university campus. The exception noted that the new facility would be off campus on property owned or leased by the university.

Grade Level Changes

Thirteen (68.4%) respondents indicated their schools had neither added nor dropped grades since their school’s inception. Five (26.3%) respondents indicated grades had been
dropped and one (5.3%) respondent indicated grades had been added. No pattern of grade level changes was significant. Eighteen (90%) respondents replied that there were no plans to add or drop grades from their school. Two (10%) respondents replied that they would add grades in the near future. Open-ended responses provided additional information of interest to this study. In one school, it was anticipated that 1st through 3rd grade would be added. In the second school, there were plans to add grades 7 and 8. However, economic downturns postponed those plans. One additional school was initially included in this study sample but removed after email communication from the Dean of their College of Education noted that plans to build a laboratory school were indefinitely postponed due to budget shortfalls.

Laboratory School Functions

Directors were asked to rank in order of importance emphasis on generally recognized functions of laboratory schools. Table 7 presents frequency distributions and means cross-tabulated by emphasis and rank. Seventeen (85%) respondents indicated that their laboratory school’s highest ranked function was the education of P-12 students enrolled at their facilities; twelve (63.2%) respondents ranked clinical teaching experience second highest by function. Research and experimentation ranked lowest.
Table 7

School Emphasis Ranked by Function (N=21)

<table>
<thead>
<tr>
<th>Emphasis</th>
<th>Ranking</th>
<th>M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Education of P-12 students</td>
<td>18</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(85.7)</td>
<td></td>
</tr>
<tr>
<td>Curriculum development</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(9.5)</td>
<td>(14.3)</td>
</tr>
<tr>
<td>Research</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>(4.8)</td>
<td>(9.5)</td>
</tr>
<tr>
<td>Experimentation</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>(4.8)</td>
<td>(19.0)</td>
</tr>
<tr>
<td>Clinical teaching experiences</td>
<td>-</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>(60.0)</td>
<td>(5.0)</td>
</tr>
<tr>
<td>Staff development</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(15.0)</td>
<td>(5.0)</td>
</tr>
</tbody>
</table>

Note: Percentages are in parenthesis. Bold indicates ranked frequency order.

In 1987 and 1988, schools holding membership in the National Association of Laboratory Schools (NALS) at any time during the previous 3 years were surveyed. Sixty-two schools submitted survey data ranking eight defined functions of laboratory schools. Table 8 presents a comparison of the 1987-1988 survey ranking with the rankings for a similar survey question for this study. With the exception of P-12 student education, which the 2009 survey respondents ranked first, clinical teaching experience remained the primary function of laboratory schools since the mid-1980s. The 1987 survey noted a rise in curriculum development from a previous survey by Duea (cited in Buck et al., 1991). Buck et al. asserted that the rise in ranking of curriculum development taken in context with research ranking signified that laboratory
schools had shifted their focus substantially to fit the mission of their parent institutions. They predicted that curriculum development and research would continue to increase in importance. This study indicates that their prediction may have come to fruition. Table 8 presents rankings from Duea (cited in Kelly, 1984) from a composite of studies conducted by Kelley (1964), White (1964), Lathrop and Beal (1969), and Howd and Browne (1970). Research as a function of laboratory schools increased from 5th to 2nd in rank during the 20-year interval between surveys. Curriculum development and experimentation also increased in rank.
Table 8.

*Ranks for Laboratory School Functions from Multiple Studies*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Education of P-12 students</td>
<td>-</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Clinical teaching experiences</td>
<td>3</td>
<td>-</td>
<td>2^a</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Observation and Demonstration</td>
<td>1</td>
<td>2^a</td>
<td>-</td>
<td>1</td>
<td>3/2</td>
<td>-</td>
</tr>
<tr>
<td>Curriculum development</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Research and Experimentation</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3^a</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Student Teaching</td>
<td>2</td>
<td>3</td>
<td>-</td>
<td>5</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>Staff Development</td>
<td>5</td>
<td>-</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: ^aComposite ranking involving the combining of similar categories.

Table 9 presents frequency data from a survey question for this study that asked directors to select functions for which they anticipated an increase in the future. Nine (47.4%) respondents indicated that research would continue to increase in their schools.
Table 9

Frequencies of Director Anticipated Increase in Laboratory School Functions (N=19)

<table>
<thead>
<tr>
<th>Function</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education of P-12 students</td>
<td>3  (15.8)</td>
</tr>
<tr>
<td>Curriculum Development</td>
<td>4  (21.1)</td>
</tr>
<tr>
<td>Research</td>
<td>8  (47.4)</td>
</tr>
<tr>
<td>Experimentation</td>
<td>4  (21.1)</td>
</tr>
<tr>
<td>Clinical Teaching Experiences</td>
<td>2  (10.5)</td>
</tr>
<tr>
<td>Staff Development</td>
<td>4  (21.1)</td>
</tr>
<tr>
<td>None</td>
<td>4  (21.1)</td>
</tr>
<tr>
<td>Other</td>
<td>2  (10.5)</td>
</tr>
<tr>
<td>Did not respond</td>
<td>6</td>
</tr>
</tbody>
</table>

Note: Respondents could select more than one response. Response percentages are listed in parenthesis.

Clinical Teaching Experience

Directors reported that their schools hosted from zero hours to over 5,000 hours of visits by clinical students (excluding student teaching) each year. Eighteen (85.7%) of 21 respondents indicated that the number of students completing some clinical teaching experiences at their laboratory school remained about the same during the last few years.

Research

Estimates regarding faculty participation in action research projects varied dramatically. However, it was evident from respondent estimates and document reviews that many faculty and administrators published research including but not limited to articles, books, book
chapters, textbooks, and teacher resource materials. Twelve (57.1%) of 21 respondents indicated that the level of participation in research by their faculty and administration had not changed in the last few years. Seventeen (81%) of 21 respondents expressed the opinion that their school should be doing more experimentation and research than it was currently.

Sixteen respondents provided open-ended responses about factors that limited experimentation and research at their schools. This information was coded to establish patterns of responses and identify common themes. Lack of time, especially when weighed against competing priorities like P-12 student education and clinical training, emerged as a dominate theme. Additionally, support structures to nurture experimentation and research were cited as hindering conditions. These conditions included staff limitations in research expertise and a lack of available professional development opportunities that could support this focus. Directors mentioned there was a need for staff dedicated to research rather than staff that focused mainly on P-12 student education or clinical training. Lastly, several directors mentioned that there was a lack of parental institutional commitment for using their laboratory school as a research facility.

Large numbers of faculty and administrators at laboratory schools were reported as active presenters to regional or national audiences. Staff development with other schools as an activity of laboratory school faculty and administration was cited less frequently. Eleven (52.4%) of 21 respondents noted this activity occurred sometimes and six (28.6%) of 21 respondents indicated this activity occurred rarely. Only a combined total of four (19.1%) respondents remarked that this activity occurs frequently, very frequently, or always.
Public Positioning

Respondents had mixed opinions about whether their school occupied a position of leadership in the field of education. In general, they did not believe local and state government representatives were advocates for their laboratory schools. Nine (42.9%) of 21 respondents selected no, seven (33.3%) selected unsure, and five (23.8%) selected yes in response to this question. Opinion shifted dramatically when the same question was posed in reference to their parent institution’s administration (dean, provost, and president). Eighteen (85.7%) selected yes, one (4.8%) selected unsure, and two (9.5%) selected no in response to this question.

Director Perceptions of School Sustainability

Respondents were asked if their laboratory school had ever been threatened with closure. Ten (47.6%) of 21 responded yes, nine (42.9%) responded no, and two (9.5%) responded unsure or elected to skip the question. Nine directors provided open-ended responses to describe the circumstances under which their schools faced closure. All nine unanimously indicated that a perceived financial burden to the parent institution or to taxpayers created tensions that were only averted by intervention from one of several entities: state legislature, laboratory school parents and alumni, or parent institution administrators. Three directors indicated that the issue of closure was eliminated by switching to tuition-based enrollment.

Cross-tabulations were created to compare school demographic data for schools that avoided closure. Those data are presented in Table 10.
Table 10

Cross-tabulation for Threat of Closure and School Demographic Data

<table>
<thead>
<tr>
<th>Faced Closure</th>
<th>Yes</th>
<th>No</th>
<th>Unsure</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public School</td>
<td>9</td>
<td>3</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Private School</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Northeast</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Midwest</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>South</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>West</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;250</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>250-750</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>751-1000</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>&gt;1000</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Plans for new facility</td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>No</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>16</td>
</tr>
</tbody>
</table>

Respondents were also asked to submit their opinion regarding factors that most influenced the successful sustainability of their laboratory school. Twenty respondents provided narrative responses that are discussed later in Chapter 4.

A follow-up question queried respondents on whether their school had significantly altered its mission or focus. Six (28.6%) of 21 respondents replied yes and fifteen (77.4%) replied no. Respondents replying yes were asked a follow-up question to inquire whether that change in mission or focus created more or less stability with regard to school sustainability. Ten (90.9%) selected that no change resulted. One (9.1%) replied the change created less stability. No respondents reported that those changes had created more stability.
Interview and Document Review Results

Just as quilters begin their work by organizing their fabric to blend colors, match patterns, and design a structure for their artistic tapestry, the qualitative researcher also organizes, blends, and matches to develop a rich tapestry of descriptive data. This section describes the results of qualitative findings pertinent to this study’s guiding research questions.

The researcher sought to identify and analyze patterns of institutional strategies and processes that promote the sustainability of laboratory schools housed and managed by institutions of higher education. Through the process of documenting the perceptions of laboratory school administrators, a picture of laboratory school function began to emerge.

With regard to the circumstances in which laboratory schools had faced potential closure, Director A stated,

15-20 years ago the university considered moving the lab school off campus to another location. It would have remained open but in a different location. Due to strong push back from the lab school community…the school remained on the university campus. The school operates as a joint public school and university operation.

Director B added information to support that the laboratory school community can be a powerful stabilizer in preventing school closure.

The University was tightening its finances and the lab school wasn’t deemed a necessary part of the University. It was targeted for closure. A group of parents started fundraising activities to keep the school open.

With regard to obstacles hindering change processes at laboratory schools, Director C provided information to suggest reasons that research has not been fully integrated into the functions of laboratory schools despite literature for over 30 years indicating its vital role in school redesign.
The climate of change has not been internalized by faculty. We lack dedicated resources, including trained researchers, to extend our work beyond that of teacher education.

Director B provided additional support.

Supports, systems, and incentives are in place but the focus of teacher training limits teachers’ willingness to take on the extra work. They [laboratory school faculty] work with practicum students, student teachers, teach elementary students, and have a life at home with precious little time for research.

Director A stated,

Money, expertise, time, and support from our college faculty. Faculty from our college only occasionally visit the lab school.

Participants were asked about what actions were taken by university and laboratory school leaders to promote laboratory school sustainability.

Director B stated,

I don’t know that we’re specifically engaged in specific activities...there’s no indication that our school is in danger; therefore, we’re just going to keep focused on providing the best education possible for our [grade level] students.

Director A gave a different response.

We’re working hard to make sure faculty is aided in conducting research and publishing. NALS has been helpful by providing stimulus for my teachers to conduct action research and publish results in the journal.

When asked if College of Education faculty participate in the research, Director A added,

Sometimes they do, but generally my teachers start the project. The college faculty has their own research interests and mostly prefers to work with other public schools. They’re helpful when lab school teachers approach them, but they rarely suggest collaborative projects on their own.

School Profiles

The researcher compiled qualitative data about a cross-section of laboratory schools from around the nation. As a result, a profile of some of America’s oldest and most prominent
campus laboratory schools was compiled. Some profiles demonstrated evidence of successful transformational change that ensured their school’s sustainability into the 21st century. Another example provided evidence that both internal and external obstacles could not be overcome to prevent school closure. The primary function and status of these profile schools are outlined in Table 11 and a descriptive profile for each school follows. The laboratory schools selected have no connection to this study’s interview participants. Information on these schools was compiled separately by document review, and member checking was performed by representatives from each school.

Table 11

<table>
<thead>
<tr>
<th>School</th>
<th>Primary Function</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martha Burnell Campus School</td>
<td>Teacher Education</td>
<td>Closed (2008)</td>
</tr>
<tr>
<td>Bridgewater State College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The University Laboratory School</td>
<td>Research, Development, &amp; Dissemination</td>
<td>Open</td>
</tr>
<tr>
<td>University of Hawaii</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCLA Lab School</td>
<td>Research, Development, &amp; Dissemination</td>
<td>Open</td>
</tr>
<tr>
<td>University of California – Los Angeles</td>
<td></td>
<td>Opening 2nd campus</td>
</tr>
<tr>
<td>P. K. Yonge Development Research School</td>
<td>Research, Development, &amp; Dissemination</td>
<td>Open</td>
</tr>
<tr>
<td>University of Florida</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University School</td>
<td>Teacher Education; Evidence of an increase in Research and Development</td>
<td>Open</td>
</tr>
<tr>
<td>East Tennessee State University</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Martha Burnell Campus School, Bridgewater State College

On April 19, 1838, the governor of Massachusetts authorized a law establishing three normal schools to be located at Lexington, Westfield, and Bridgewater, respectively. These three schools set a precedent for the development of public normal schools in America. Bridgewater State College (BSC), established in 1840, was founded by Horace Mann as a public normal school to train teachers. The Martha Burnell Laboratory School, housed on the campus, was established in 1861 to advance teacher education at BSC. In the 1970s, the school was rebuilt to become the Burnell Campus Elementary School. Bridgewater State College maintained administrative and financial control of the school until 1999 when a partnership agreement with the Bridgewater public schools began a period of shared governance. In 2008, Burnell was a 400 student, P-6 elementary school. As it had since its establishment over 147 years earlier, Burnell served primarily as a model school and clinical teaching facility. D’Erasmo, Forrester, and Krause (1991) reported that

Teachers maintain model classrooms where they do demonstration teaching. Instructional models for maximum learning are developed by individual teachers and approved by the faculty. Teacher-made materials support instruction in all subject areas. The program of instruction uses the latest methodology and incorporates the newest materials published in subject areas. (p. 116)

This remained the norm until 2008 when elementary students were moved to other schools in the town of Bridgewater in order for Burnell to be closed. Bridgewater State College reappropriated the school building for other uses, including remodeling the facility to house College of Education faculty offices and classrooms. In 2009 Bridgewater State College, which is
regarded as the "home of teacher education in America," (BSC website, 2009, n.p.) had the largest enrollment of teacher education students in the Commonwealth of Massachusetts. However, those preservice teachers were not trained in a laboratory school. The record of Martha Burnell Laboratory School was relegated to the archives of NALS and sparse references on BSC’s website.

**The University Laboratory School, University of Hawaii**

In the early 1960s, the University of Hawaii maintained three laboratory schools (preschool, primary, elementary, and secondary). These schools served the predominantly traditional function of laboratory schools as practice teaching facilities, a function that was at that time becoming largely absorbed by public schools. As reported by King (1991), public schools had also begun fulfilling the needs of experimental researchers because laboratory school did not reflect the socioeconomic and ethnic diversity of its community, a necessary aspect of experimental research for universities at the time. The College of Education, encouraged by its Dean, committed to a shift from clinical education to research. In 1964, the school solicited views from prominent educational researchers about the possible roles of laboratory schools in educational research. This study recommended the consolidation of the three laboratory schools and that the University of Hawaii “Change the role and functions of the Laboratory Schools from that of demonstration and teacher training for prospective teachers to one of research and innovations [particularly of the developmental type] to improve schools and teachers in service.” (Stiles, cited in King, 1991, p. 72).

The national educational agenda of the mid-1960s set the tone for the recommendation. Educational reform was part of President Lyndon Johnson’s *Great Society*
program. Cooperative research programs had become part of the experience of university programs in education. Further, major development programs in science, mathematics, and social sciences were surging. The idea of universities cooperating with schools for educational improvement was encouraged (King, 1991).

By 1969, with joint funding from the Elementary and Secondary Education Act (Title III – Educational Innovation), the Hawaii Department of Education, the University of Hawaii, and the Curriculum Research & Development Group (CRDG), which included the laboratory school, emerged. King reported that within 3 years, over 80% of the original teaching staff left for other positions in the college of education or public schools. Replacement staff became largely those interested in research and development.

The new role of the laboratory school did not require as many students. Thus, school enrollment was reduced from 1,200 to 365. Current enrollment hovers near 435 because new research projects required expansion of some grades. New enrollment restrictions ensured that students mirrored the state’s population to maintain credibility for experimental research. While new allegiances were formed with faculty in the arts and sciences, relationships with faculty in the college of education eroded. As King (1991) reported,

We learned to continually reinterpret our mission and to reprogram ourselves in response to our supporting university, to our other constituencies, and to political forces that can help or hinder us. We learned early why a laboratory school cannot do many functions well at the same time. Hence we do little clinical training. (p. 76)

In 2009, the school continued to respond aggressively to its parent institution’s mission.
The University Laboratory School, also known as The Education Laboratory, is a public charter school that operates in partnership with the University of Hawaii CRDG under an agreement with its local school board. The school continues to serve as an experimental site for researching and developing innovations in teaching, learning, and assessment in grades K-12. The school is active within the NALS association, and faculty from the school participates in national conferences as both presenters and observers and contributes to scholarly projects within the association.

_UCLA Lab School, University of California at Los Angeles_

The UCLA Lab School, formally the Corinne A. Seeds University Elementary School (UES), is the laboratory school for the Graduate School of Education and Information Services (GSE&IS) at the University of California at Los Angeles (UCLA). Seeds UES, established in 1882, was a training school for the Los Angeles State Normal School. It quickly became a nationally recognized institution. When the normal school became the southern campus of the University of California in 1919, the laboratory school became part of the university. Seeds moved to the campus of UCLA in 1947. The school was named for Corinne A. Seeds, a student of Dewey who held the position of laboratory school principal from 1925–1957. The school is noted for its educational research. A prominent spokesperson in education, John Goodlad, was appointed director in 1960. Goodlad would later be appointed Dean of the UCLA Graduate School of Education. A leader in the nongraded school movement, Goodlad encouraged the implementation of team teaching and multiage grouping. His writings, based on work at the laboratory school, stimulated similar practices around the nation. Madeline Hunter was principal from 1962 to 1982. During her tenure, Hunter developed a teacher decision-making
approach to instruction. She published books for teachers on how to maximize student motivation, retention, and transfer of learning. Her work also served as the basis for a clinical supervision model widely used by administrators across the nation.

The school has contributed to the research and development of programs on bullying, aided understanding of childhood anxiety and its impact on student performance, informed methodology for science and mathematics education, and researched issues related to improving education for diverse student populations. As a result of its partnership with the GSE&IS, curricula in the areas of critical thinking and early literacy were developed, as was a system for establishing and maintaining a safe school environment, and methods for integrating technology into the curriculum were developed and nationally recognized.

At Seeds, Tracy (2005) found a vibrant school active in school reform and student learning. Flexibility was credited for the school’s long record of success in serving UCLA as a center for preservice training and educational research. Tracy noted that the normal school tradition was reflected in the school’s website assertion that Seeds provides training opportunities for UCLA undergraduates, graduate students, and post-doctoral fellows. At the same time, Seeds openly identified itself as, the laboratory school of the GSE&IS, at UCLA, noting that, “UCLA faculty and graduate student researchers collaborate with [Seeds] teachers and administrators to study teaching and learning in different subject matter, integrating technology productively into the educational process, school organization, and issues related to children’s social and moral development in a diverse society” (¶ 4). Tracy asserted the strengths for this multifaceted approach as “not least of which is the opportunity to try innovative pedagogies in a controlled setting with demonstrable metrics to determine their efficacy.
beyond Seeds” (Tracy, ¶ 5). Tracy was referring to the dissemination of research to the schools of California and beyond.

In 2009, Corinne A. Seeds University Elementary School was renamed the UCLA Lab School in a push to widen its programming by opening a second campus in Los Angeles. The original school retained its facility on the north campus of UCLA and became the Seeds Campus of the UCLA Lab School. The laboratory school and GSE&IS announced plans in 2008 to open at least one additional campus in a low-income neighborhood in inner-city Los Angeles so that families in those communities could benefit from the research, resources, and educational expertise that has marked the UCLA Lab School with prominence in the field of education for over 120 years. Lee (2009) reported that UCLA Chancellor Gene Block said of the UCLA Lab School, “[It] is central to the goal of UCLA’s mission to export the knowledge created on campus out of Westwood to benefit other schools and communities throughout the state” (¶ 11).

Chancellor Block noted that UCLA’s faculty and students collaborated campus-wide with the laboratory school in many ways. Researchers from neuroscience, anthropology, linguistics, engineering, and other parts of campus had all worked with students and teachers at the school.

The lessons learned here about education and child development are transferred throughout Los Angeles and California, so that public school teachers have the educational tools they need, tested and refined at the UCLA Lab School, to improve their teaching methods and curricula. (Lee, 2009, ¶ 12)

The school’s mission appears central to the mission of UCLA, and, for the near future, their sustainability is assured.
P. K. Yonge Development Research School, University of Florida

P. K. Yonge Development Research School is one of several laboratory schools in the state of Florida. It was also the first laboratory school created in Florida. P. K. Yonge was established in 1934 as a center for educational innovation for K-12 students. Since 1970, the school’s primary function has been the development, evaluation, and dissemination of exemplary educational programs linking research with practice. The school mission includes major research goals that enhance instruction. The school’s student population is representative of the demographics of Florida. The school, by state law, has the ability to modify its admission policy to maintain compliance with University of Florida and state guidelines or meet requirements for specialized research studies. P. K. Yonge conducts and publishes research reported to the Florida Department of Education and school districts throughout Florida. The major function of the school is research, development, and dissemination. By maintaining an active role in university, district, and state educational reform, the school continually reaffirms its importance in education. P. K. Yonge is one of several laboratory schools throughout Florida that merged to form a separate school district. This strategy, unique to laboratory schools, ensured financial stability for each school and established laboratory school control over their budgets. By doing so, Florida laboratory schools leveraged their financial independence to build new facilities, hire additional staff, increase enrollment, and place research at the forefront of their educational function.
University School, East Tennessee State University

University School has been a part of East Tennessee State University (ETSU) since it opened as a 2-year normal school in 1911. The program and scope of University School has expanded significantly since those early days when the school was a department of the college and held classes in a section of the administration building. Originally, the school provided for the first seven grades under the direction of four teachers. By 1914, the 8th grade had been added, and a few years later the terminal year was changed to the 10th grade. The first facility move occurred in 1915 when classes were transferred to a building known as the Model School. In 1929, this building was replaced by the present facility, Alexander Hall, and the name was changed to Training School. After a program of advanced planning, grade 11 was established in 1947; and grade 12 curricula was prepared in 1948. In the spring of 1949 the first class was graduated from the Training School. The name Training School was eventually changed to the present name of University School by the Tennessee General Assembly on the recommendation of the State Board of Education.

The number of University School faculty has grown from 4 teachers in 1911 to 39 today. The student enrollment is approximately 520. In 1995, the school became the only year-round, K-12 laboratory school in the nation. The shift to a year-round schedule generated a 5-year longitudinal study about the effectiveness of year-round education. The year-round calendar remains in place today and was reported to be popular among faculty, students, and parents.

Until 2005, the school clung steadfastly to its primary function as a clinical training facility for preservice teachers, despite its parent institution’s well established partnerships
with area public school agencies for that function. That partnership included a large, grant-funded project to form a Professional Development Elementary School with a local school system. In 2005, through mandate by ETSU President, Dr. Paul E. Stanton, Jr., and personally lead by College of Education Dean, Dr. Hal Knight, the campus laboratory school embarked on a 4-year renewal process, called Revisioning, to realign the focus of the K-12 school to better match the mission of the university and the East Tennessee region. The intention of the change process is to improve science and mathematics education and serve as a research corridor.

The school officially adopted the designation Signature Mathematics and Science School in 2006. While University School continued to have strong ties to its clinical education roots, it began to explore expanded research, development, and dissemination functions.

University School’s status as a laboratory school immersed in change process demonstrates that laboratory school change is complex, not quickly accomplished, and rife with internal and external obstacles to overcome. Document review indicated that frequently the laboratory school’s faculty were the most resistant to change and were often conflicted about the school’s new designation as a signature school. Several left the school when conflicting ideas could not be resolved. At the same time, other faculty began to expand their collaborations with university faculty and participate in increased research activities. The school hosted a national symposium on action research in 2007. By 2009, laboratory school faculty had increased dissemination through refereed journal articles, international newsletter articles, video production, and book chapters. The school had outlined ambitious goals for the next several years that were supported by its parent institution. These goals are: (1) embedding mathematics and science into a seamless K-12 curriculum, (2) strengthening students’ abilities
to succeed in math and science, (3) creating a model for K-12 curricular alignment, (4) piloting international school partnership programs, and (5) maximizing the use of technology applications for educational use (Brinson, 2009). University School provides a fascinating snapshot of a school immersed in laboratory school change processes.

Conclusion

This chapter presented the results and analysis of data from respondents to the Survey of Campus Laboratory School in the 21st Century. Twenty-five directors participated in the survey in May, June, July, and August of 2009. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to analyze the data statistically. Using each research question as a lens through which to analyze findings, data were organized according to the major constructs of the survey: demographics, teacher involvement in shared leadership, relationship to the parent institution, functions of laboratory schools, and view of laboratory school by community leaders. Qualitative coding procedures whereby verbatim responses were categorized into thematic categories were used to analyze open-ended information provided by study participants, interview participants, and document review. A snapshot of several laboratory schools was presented. The researcher found several areas deserving further discussion and possible extended research. Chapter 5 discusses major findings, conclusions, and recommendations.
CHAPTER 5

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

This chapter interprets the findings and discusses the implications for this study. The purpose of this study was to ascertain ways that laboratory schools achieve transformational organizational change to promote sustainability and prevent closure. The intention was for the feedback and descriptive information to be used to inform laboratory school leaders and university administration in their efforts to sustain laboratory schools affiliated with university campuses as a vital part of the 21st century tapestry of American education. Conclusions were drawn based on study findings. Implications for laboratory school leaders were drawn from the data, and evidence of how to advance knowledge regarding the functions and change processes of laboratory schools is provided. Relevant limitations of this study are described, and the chapter concludes with recommendations for laboratory school leaders and future research.

Summary of Purpose

Table 1 (p. 54) is the outline that shaped the inquiry of this study. The survey was designed by the researcher to learn about factors related to laboratory school sustainability in five main areas: (1) demographic characteristics, (2) director role and experience, (3) teacher role and experience, (4) laboratory school integration with college and university, and (5) role of the laboratory school by function and design. See Appendix B for the survey. The survey was followed by participant interviews to expand the depth of descriptive data and develop themes from which study findings and conclusions could be derived. Concurrently, document review expanded developing themes, refined interview questions, and developed profiles of several
laboratory schools. The triangulation of survey, interview, and document review data allowed the researcher to draw conclusions from the results of data analysis.

**Research Questions**

Based on data analysis, the researcher examined the major research question: What issues affect the way laboratory schools achieve transformational organizational change to promote sustainability and prevent closure? From this major research goal, five guiding questions emerged:

1. What actions were taken by university and laboratory school leaders to promote laboratory school sustainability?
2. What external conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?
3. What internal conditions, from the perspective of laboratory school administrators, contribute to success in change processes that promote laboratory school sustainability?
4. What external obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?
5. What internal obstacles, from the perspective of laboratory school administrators, must be overcome or neutralized in vision and redesign to promote laboratory school sustainability?
**Findings**

Participant responses to survey questions and interviews represented a snapshot of director perceptions about this study topic. It was the hope of the researcher that these results would be used by laboratory school leaders concerned with the shrinking number of campus laboratory schools at institutions of higher education.

The major findings were described in a conceptual framework, titled *A Balanced Function Framework*, developed to represent a core of 21st century functions for campus laboratory schools identified in this study: (1) clinical teaching; (2) research, development, and dissemination; and (3) professional service. These functions were aligned with a similar framework common in higher education that outlines faculty activity (i.e., teaching, research, and service).

The modern functions of laboratory schools do not occur as discrete activities. The lines are frequently blurred. Take, for example, the laboratory school faculty who designs an exceptional program of instruction for laboratory school students, uses this in their daily practice, models it with clinical students, and later disseminates it at professional conferences or in a professional journal. Hence, the conceptual framework is represented in a Venn diagram to allow both distinct and merged functions.

Findings support the need for many laboratory schools to revise and restructure a balanced function framework with defined roles limited to those that can make a unique contribution to the total educational program of their parent institution. These roles must be adequately supported with resources from parent institutions.
Laboratory schools through their status as model schools assume responsibility for providing high caliber educational programming to their P-12 student populations. This is an outcome of functions not a function itself. Therefore, it is not considered in the conceptual framework.

Figure 4 presents a diagram of the conceptual framework. The three major functions are then described with indicators of success represented for each. Laboratory schools do not achieve these balanced functions in isolation; therefore, the role of laboratory school leadership was reported next. Finally, there was evidence to suggest that laboratory schools must persistently reflect upon their position as members of higher education institutions. A false sense of security and a refusal to view the larger institutional perspective was indicated by former school directors to be fatal mistakes. Recommendations were presented to avert these internal obstacles.

Figure 4. A Balanced Function Framework
Teaching

Training teachers was not exclusively the original purpose of campus laboratory school, but today it remains a dominant feature of most laboratory schools in the United States. Buck et al. (1991) observed that campus laboratory schools, once affiliated with normal schools, provided observational sites for preservice teachers to watch, learn, and master the necessary skills for teaching young children. Current teacher training methods have their origin in the use of laboratory schools by normal schools and teachers colleges for precisely this type of development with new teachers. With limited exceptions, modern laboratory schools still serve teacher training programs as clinical sites for demonstration, observation, and practice teaching. Dishner and Boothby (1986) indicated that, in spite of the reduced number of campus laboratory schools, the importance of providing initial experiences for preservice teachers continued to be stressed in professional journals. It was important for clinical students to see master teachers in action. It was in the laboratory school setting that clinical students gained the most experience in developing instructional methodologies, professional study, experience with planning the learning framework, and use of assessments. Additionally, laboratory schools were found to be best equipped for the sometimes specialized developmental needs of preservice teachers with respect to additional observation, modeling, and retraining (Buck et al.).

This study found that clinical instruction remained a dominant function of most campus laboratory schools. It was surpassed in function only by P-12 student education. This finding echoes that of several other studies (Lathrop & Beal, 1969; White, 1964). Furthermore, there were no findings found to support the theory that parent universities wish to eliminate that
function from their laboratory schools. There were, however, findings that suggest parent universities expect their campus laboratory schools to serve broader functions in addition to preservice teacher education. Laboratory schools must serve a clearly defined and valued function in relation to the purposes and programs of the parent institution.

Most laboratory schools are housed by institutions that include teacher education programs. However, in many cases colleges of education have accepted passively the limited support available through their laboratory school and sought alternate routes for supplying clinical experience needs. No single laboratory school can currently support the total clinical experience requirements of its affiliate teacher education program. For laboratory schools that cling solely to this largely traditional function, their survival may be largely due only to old loyalties, tradition, and habit. McGeoch’s (1971) report still holds truths for modern laboratory schools, “The campus school may occupy a position like that of the valued heirloom. It is loved, carefully protected, and rarely used!” (p. 25). This study indicated that there are vital and specialized purposes within the clinical teaching function that laboratory schools served.

One area in which laboratory schools could offer unique clinical experiences is through educational technologies. The 21st century classroom requires a multitude of highly complex digital skills to orchestrate computer-assisted instruction, digital media, distance networking, and Internet-aided curricular design. Another area in which laboratory schools could provide valuable clinical leadership is though modeling dynamic social curriculums. Environmental awareness and green school programs show promise at two laboratory schools: Pine Jog Environmental Education Center, at Florida Atlantic University, and University School, at East Tennessee State University.
Research, Development, and Dissemination

Although performing many valuable roles and functions, laboratory schools have room to grow in many ways such as communication and involvement. Kelly (1984) reported that the functions of laboratory school programs were in order preservice training and preparation, curriculum development, inservice education, and research. Kelly (1984) and Burk et al. (1991) predicted that future roles would place more emphasis on research-oriented programs. The findings from this study indicated that laboratory schools were placing increased emphasis on research, development, and dissemination of that work. Sometimes this had occurred in sync with a de-emphasis on clinical teaching. Yet, findings indicate that increased involvement in research, development, and dissemination during the last 2 decades are not impressive.

Laboratory schools are becoming better equipped to conduct research, but obstacles remain. School administrators cite lack of time, lack of specialized skills, and lack of support from their parent institutions as barriers to conducting research. Faculty has limited practical proficiency for extending research beyond classroom-based, action research. Moreover, colleges and universities have dedicated inadequate attention to the laboratory schools. Most research done in laboratory schools is conducted through external investigators. Additionally, laboratory schools have failed to create collaborative partnerships with other disciplines for conducting research projects at their facilities.

The laboratory school at the University of Hawaii exemplifies the shift in function that many laboratory schools underwent in the early 1970s. Many similar schools were ill-equipped to engage in research as a primary functions and as a result floundered. The laboratory school at the University of Hawaii lost much of its teaching faculty in its transition and essentially
severed its relationship with the College of Education for many years. Today, while its laboratory school function is primarily research and development, it has reestablished bridges with the College of Education and now trains preservice teachers once again. Its change process might be described as abrupt; however, its ability to shift rapidly to match the focus of its parent institution’s mission was one that other schools should emulate.

There are many directions educational research should take in laboratory schools (e.g., descriptive, theoretical, case, and longitudinal studies; experimentation and evaluation; and curriculum development). Distinctive roles must suit the specific mission of the laboratory school and its parent institution.

Dissemination of research findings is critical as a strategy to promote school sustainability. Conducting research in laboratory schools and publishing research findings in professional journals could provide heightened public awareness of the functions and roles of laboratory schools and in turn provide increased insular security for the schools. While research was never the only focus of most laboratory schools, it is crucial in its contribution to testing new theories and sharing new solutions with regard to public education.

Professional Service

Foshay (1991) noted that in campus laboratory schools educators could find and correct mistakes while the problems were minor so that educators could avoid major mistakes later. Foshay emphasized that a function of the campus laboratory schools was to try out new ideas and methods through educational experiments. Foshay urged that campus laboratory school personnel to be leaders in the field so that their schools could be at the forefront of educational policy. Laboratory schools and their parent institutions must harness the talent and expertise of
their faculty to work on school issues at a regional, state, and national level. Laboratory school faculty enjoys opportunities not available to many public school teachers. They have the academic freedom to experiment with best practices; they have ready access to a large array of intellectual, technological, and professional resources; and they have university staffs and facilities to support research, development, and dissemination. They generally can gain advanced degrees and engage in expansive professional development with relative ease.

These features make laboratory school faculty ideally suited to participate in leadership activities both within their universities and the larger educational community. However, this study shows that faculty involvement declined steadily beyond the laboratory school environment. Whether it is by serving on regional and state committees, actively participating in educational organizations, or speaking before local service organizations, it is urgent that laboratory schools increase the responsibility they take for this vital function. Through serving the larger needs of education, they serve the sustainability of their own schools by being visible spokespersons for the work of laboratory schools and the expertise housed within each school.

Role of Leadership

The survey responses, interviews, and record review indicated that the role of leadership was a significant aid or obstacle in successful transformational change processes at laboratory schools. The administrative leadership of laboratory schools and the parent institutions has a tremendous impact on the success of visioning processes in campus laboratory schools. A university president has the power to create a cultural context for change by educating the larger community (e.g. faculty of the university, political leaders, and community stakeholders) about the future of education and the opportunities that come with
change. In the case of the University School at East Tennessee State University, the University President was able to effectively set the tone for a new way of viewing the laboratory school. He also established the mandate to re-vision the school to better fit the needs of the university. University administration must also provide protection from the external forces that have the potential to derail change processes. If the leadership of the parent institution has a strong sense of the vision that is created, they will be able to defend that vision when it is questioned or attacked. They will also be able to help manage the havoc that often emerges when something new is attempted.

The laboratory school director must focus on making the vision a reality through each decision made. As initiatives arise, the administrative leadership of the laboratory school needs to continually reflect on each initiative’s alignment to school function. If it fits, their role becomes that of support provider for the implementation of the new initiative. If it does not fit, their role is to reject the idea in defense of the established school functions.

Laboratory school administrators also must be confident in their ability to share leadership with their staff. Typically, laboratory school staff has strong educational backgrounds and veteran status as classroom teachers. Shared or participatory leadership is not only expected but also desired. The laboratory school director must have the disposition to cultivate leaders among staff. This study found that schools with strong evidence of effective school change depended heavily upon the partnership between administrators and staff for that success. Schools were found to have many strategies to facilitate shared leadership include Professional Learning Communities. Interview respondents connect leadership provided by
school level administrators, deans, and university presidents as vital to their laboratory school sustainability.

Axelrod (2001) described a new era of leadership that requires courage, risk taking, and perseverance. “The reward for these efforts is an organization that is flexible, energetic, innovative, connected, and responsive enough to meet the demands of a constantly changing business environment.” (p. 26). This study supports those traits in laboratory school leadership.

In the case of the University School at East Tennessee State University, the College of Education’s Dean and the University’s President helped create a structured process for re-visioning the laboratory school’s mission and functions. Both leaders then supported that process for an extended number of years even when the change process occasionally floundered.

This example leads to another significant conclusion that can be drawn from this study. The building that houses the laboratory school is secondary to the innovation within the school. Throughout the re-visioning process at the University School, those involved in the project focused on the vision and not just the actual facility they hoped to design and build. Although the University School is housed in an outdated facility, as are many other laboratory schools, it had only a small impact on the functions of the school. Additionally, when a looming budgetary crisis in higher education emerged on the national stage, the University School was able to weather this storm because of its stable base of high quality educational programming and positioning within the university structure. The delay in building a new facility did not hinder the functions of the school substantially. If fact, the financial burden averted by the delay may have helped the school avoid the sharp focus of university leaders interested in cutting
programs. The constant advocacy of the President and Dean became vital for the school. It can be concluded that when you engage people with a compelling vision and empower them to bring the vision to life, they will be able to turn obstacles into unique opportunities for change and innovation.

The successes of the University School at ETSU and other similar laboratory schools are all unique because of the obstacles they have been able to overcome in bringing a sustainable vision of laboratory schools to fruition, but it is not surprising that strong leadership has been a common factor that served to protect these schools.

*Preparing for an Unknown Future*

There is a strong warning that should be heeded from the experiences of campus laboratory schools that have closed. As Patricia Diebold, Executive Director of the International Association of Laboratory and University Affiliated Schools (NALS) and former school director of the closed laboratory school at Edinboro University of Pennsylvania, reported in a personal interview (May 5, 2009), there is little to no warning when a university decides to close a laboratory school. In the case of Edinboro University’s laboratory school, no request for additional time to find alternative funding solutions was acceptable. Similar advice, always reported with the clarity of hindsight, was evidenced in the archival data collected about laboratory school closures. Data indicated that when parent institutions decided to close a laboratory school, there was little administrative communication sought with the leadership of the school, nor was there an opportunity to propose less drastic measures. Whether it was due to financial constraints, lack of campus facilities, or disinterest by university faculty and
administration, when a decision to close a laboratory school was reached by university administration, that decision was almost always irreversible.

The results presented in the research suggest that laboratory schools must not duck their heads, close their doors, and hope that the status quo is enough. They must be progressive leaders in the mission of their parent institutions, aggressively knocking at the door of all disciplines to seek collaborative engagements, leadership roles, and most importantly equality of voice. It is only when laboratory school programs actively seek equal footing within their communities that they leverage power at their institutions. When faced with daunting financial burdens, it is this power to serve as viable programs that averts crisis.

Limitations of Data to Consider

This section describes the major limitations of this study that is recommended reviewers take into account. There were several limitations that could jeopardize the internal or external validity of this study as well as other limitations that could be addressed to increase survey response rates. In addition to those presented in Chapter 1, the researcher recommends that further research address the following issues.

1. The demographics of this study were limited to directors and lead administrators who had access to technology, as the survey was only sent electronically, via the Internet. Bowker, Dillman, and Tortora (1999) were concerned about the principles of what they called “respondent-friendly” Internet survey designs. They described “respondent-friendly” designs to mean, “The construction of Web questionnaires in a manner that increased the likelihood that sampled individuals will respond to the survey request, and
that they will do so accurately, by answering each question in a manner intended by the surveyor” (p. 9).

2. The limited opportunity to reply with open-ended responses to some questions may have posed issues for some respondents who wanted to elaborate. It was reported in two emails that this contributed to at least some of the blank responses received to one question.

3. Identification of directors using the International Association of Laboratory and University Affiliated Schools (NALS) directory with added directors provided through Internet search did not yield a verifiable list of campus laboratory schools. Therefore, it is recommended that future studies query universities directly about laboratory schools affiliated with their institutions.

4. The researcher and this study committee were concerned with the length of the survey instrument. Shortening the survey may assist with accuracy of responses as well as number of respondents. However, important demographic data could be lost. It is important that future studies refrain from tampering with the language of actual survey questions in order to maintain the validity and reliability of the instrument.

Conclusions

The results of this study have important implications for laboratory school leaders and higher education administrators. The results of this study suggest that many laboratory schools are survivors of the steady decline in number of schools persisting since World War II. Schools that could not prioritize functions and implement changes in mission frequently did not survive. Often, these failed schools were hindered by weak internal and external support systems. This
included inadequate or unstable funding, failed university faculty involvement in the laboratory school, and weak administrative advocacy. Additionally, laboratory school faculty was often conflicted by their multifaceted role as P-12 teachers and university faculty. They grew comfortable in their role as clinical training facilities and floundered when asked to tackle the more complex role of research specialist and public advocate. Findings suggest that laboratory schools that choose to focus solely on teacher education are nearly extinct. Their survival was tied more directly to standing within their community than it was to an alignment of mission with their parent institutions.

Additionally, most campus laboratory school faculty has been selected for their clinical expertise rather than for their skills as researchers. Faculty recruitment of those with the ability and the desire to participate in research, development, and dissemination activities should be encouraged. Where training and support are lacking, it must be provided. Ample resources are available at parent institutions, yet they are rarely used. Lack of time and training were the reasons most frequently cited by study participants as obstacles to research. Faculty members from the college or university have not used the laboratory school as a site for research studies to any substantial extent at many schools, nor have they worked cooperatively to set up laboratory school initiated projects.

Schools that thrive embrace multiple functions with increased attention placed on research, curricular design, and dissemination. Many of these schools still place a high value on clinical training, which serves the specialized needs of college teacher education programs, but they have also expanded their work to include more research, development, and dissemination. Even participants who report active engagement in those functions indicated that more is
necesary. With specialized enrollment criteria and the increasing acceptance of qualitative research design, some laboratory schools are now seasoned research facilities. Prophetically, Hunter (1970) stated:

Without laboratory schools...there remain two major unsolved problems in education. One is the ever-widening gap between knowledge generated by educational research and practice in the classroom. The other problem is the critical need for an experimental laboratory to refine or field test theory in an environment uncontaminated by the very necessary restrictions imposed on public schools. An installation created for and dedicated to the resolution of these two problems constitutes the *raison d’être* of the laboratory school of the future. (p. 14-15)

Hunter asserted that *laboratory schools of the future* should emphasize the following functions: (1) research and experimentation, (2) bridging theory with practice, (3) dissemination through media, (4) clinical leadership, and (5) improvement of relations with education and other university departments.

The findings of this study support these same functions and are described in the conceptual framework *A Balanced Function Framework* that defines three critical functions of modern laboratory schools: (1) clinical teaching; (2) research, development, and dissemination; and (3) professional service. Ironically, it is the flexibility to balance each of these functions in relationship to the mission of each laboratory school and parent institution that provides both the greatest hope and largest obstacle to laboratory school sustainability. Diebold, Executive Director of NALS, recently encouraged laboratory schools to, “Bust out of the bubble,” and exercise their position to, “become the hub of the university wheel.” She
added, “I can see [a future] where the laboratory schools drive the mission of the school [university]” (personal interview, May 5, 2009).

**Recommendations**

This section provides recommendations for future research designed to seek information that could be used to add to the body of literature on laboratory school sustainability. The following recommendations were based on findings from this study. In some cases, the recommendations were similar to other studies and literature pertinent to laboratory school sustainability.

1. Future research should investigate university presidents’ and college deans’ perceptions regarding the functions of laboratory schools on their campuses.

2. Future research should examine a standard of consistency for identifying campus laboratory schools and tracking sustainability factors in a longitudinal study. A consistent and routine way to contact and invite director participation is recommended.

3. A study should be conducted to explore specialized leadership skills necessary for laboratory school administration to assist in the complex functions of laboratory schools. A comparison study of leadership characteristics of laboratory school administrators as compared to nonlaboratory school administrators could be useful. A similar study could also be conducted to compare laboratory school teachers and public school teachers.
4. Future research should examine what internal and external obstacles have hindered the growth of research, curriculum development, and dissemination as functions of laboratory schools.

5. A final recommendation is to study the emergence of new laboratory schools to analyze what factors aided their development.

In summary, the researcher for this study believes that although the survey instrument was not a perfect match to all aspects of this study or the research questions, the data produced by it are and will remain a valuable and continuing source of information about significant aspects of laboratory school sustainability in the 21st century. Hopefully, more surveys will become an important practice for framing studies in the future. Furthermore, interviews and document analysis generated added qualitative findings and generated several suggestions for further research.
REFERENCES


Waters, T., Marzano, R. J., & McNulty, B. (2003). *Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement*. Aurora, CO: McREL.


APPENDICES

APPENDIX A: SURVEY COVER LETTER

May 20, 2009

Dear Director/Principal:

Attached please find a Survey of "Campus Laboratory Schools in the 21st Century" by April Blaylock, Instructor and Revising Coordinator at the University School, East Tennessee State University constructed for her doctoral project. I am pleased to ask you for your participation. The Board of Directors of NALS has acknowledged that this survey is comprehensive and has been constructed with important and thoughtful questions that will serve the Association, its members and the research project well. We have not asked for this type of survey to be conducted in some time and we are anxious to see the results. Again, we thank you for the time and effort you put into completing this survey. Our best to you.

Sincerely,

Patricia E. Diebold
NALS, Executive Director

Patricia E. Diebold

Dedicated to Service, Research, and Educational Excellence
## Survey of Campus Laboratory Schools in the 21st Century

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<td>[ ] Application</td>
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<tr>
<td>[ ] Lottery</td>
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<td>[ ] Academic Ability</td>
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<tr>
<td>[ ] Ethnicity</td>
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<td>[ ] Gender</td>
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<td>[ ] Sibling preference</td>
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<tr>
<td>[ ] Laboratory school faculty offspring</td>
</tr>
<tr>
<td>[ ] Parent institution faculty offspring</td>
</tr>
<tr>
<td>[ ] Area of residency</td>
</tr>
<tr>
<td>Other (please specify)</td>
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<td>[ ]</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>3. What grades are currently taught in your laboratory school (e.g., PK, K-6, K-8, 9-12)?</strong></th>
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</tbody>
</table>
4. In what year was your laboratory school's parent institution established?

5. In what year was your laboratory school established?

6. My laboratory school's parent institution was chartered as a
   - Normal School
   - Teacher's College
   - Liberal Arts College
   - Multi-purpose College
   - University
   - Unknown
   Other (please specify)

7. How many laboratory schools does your parent institution maintain? (include your own school in this count)
   - 1
   - 2
   - 3
   - 4
   - 5 or more

8. My laboratory school would best be classified as
   - Public
   - Private
   - Parochial
   Other (please specify)
9. How long have you been the lead administrator of your laboratory school?

10. What is your highest professional degree?
   - Bachelor's degree
   - Master's degree
   - Educational Specialist
   - Doctorate
   - Other

11. Is the laboratory school director a chair within the school of education or another college?
   - Yes
   - No

12. Is the laboratory school classified as a department within the school of education or another college?
   - Yes
   - No
13. How difficult is it for your laboratory school to recruit and retain teaching faculty?
- Never
- Rarely
- Sometimes
- Frequently
- Very Frequently
- Always
- Don’t know

14. Does any laboratory school faculty teach post-secondary courses in the school of education or other colleges?
- Yes
- No

If yes, how many courses in total each year?

15. Does laboratory school faculty serve on college and/or university committees?
- Yes
- No
16. To what extent does laboratory school faculty participate in shared, or participatory, leadership activities within the laboratory school?

- Never
- Rarely
- Sometimes
- Frequently
- Very Frequently
- Always
- Don’t know

17. To what extent does laboratory school faculty participate in shared, or participatory, leadership activities within the school of education or another college?

- Never
- Rarely
- Sometimes
- Frequently
- Very Frequently
- Always
- Don’t know

18. To what extent does laboratory school faculty participate in shared, or participatory, leadership activities within the university at large?

- Never
- Rarely
- Sometimes
- Frequently
- Very Frequently
- Always
- Don’t know
19. Does faculty from your parent institution's school of education or another college teach PK-12 classes at the laboratory school?

☐ Yes
☐ No

Additional comment:

20. Does faculty from your parent institution's school of education or another college hold post-secondary classes on-site at the laboratory school?

☐ Yes
☐ No

Additional comment:
21. What percentage of financial support for your laboratory school is provided by each of the following areas? (total should equal 100%)

| % from Parent institution | % from Public PK-12 funding | % from Tuition | % from Fundraising | % from Other |

22. Does your school have plans to build a new facility?

- [ ] Yes
- [ ] No
23. Where will your new facility be located?

- On campus, property owned by parent institution
- Off campus, property owned by parent institution
- Off campus, property owned by area school district
- Off campus, property privately owned

Other (please specify)
24. Have any grade levels been added or dropped at your school? (select all that apply)
   - Grade levels were dropped
   - No change
   - Grade levels were added

25. Please describe those changes.

26. Does your school anticipate adding or dropping grade levels?
   - We plan to drop one or more grades.
   - No changes are planned.
   - We plan to add one or more grades.

27. Briefly describe these proposed changes.
28. Rank in order of importance the emphasis in your school for the following generally recognized functions of laboratory schools, where (1) is “most important” and (5) is “least important.”

<table>
<thead>
<tr>
<th>Function</th>
<th>1</th>
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<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education of PK-12 students</td>
<td></td>
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<tr>
<td>Curriculum development</td>
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<td>Research</td>
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<td>Clinical teaching experiences</td>
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<tr>
<td>Staff development</td>
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</tbody>
</table>
Survey of Campus Laboratory Schools in the 21st Century

29. Do you anticipate an increase in emphasis for any of the functions listed? (select all that apply)
   - Education of PK-12 students
   - Curriculum Development
   - Research
   - Experimentation
   - Clinical Teaching Experiences
   - Staff Development
   - None

   Other (please specify):

30. Do you anticipate a decrease in emphasis for any of the functions listed? (select all that apply)
   - Education of PK-12 students
   - Curriculum Development
   - Research
   - Experimentation
   - Clinical Teaching Experiences
   - Staff Development
   - No decrease in emphasis anticipated

   Other (please specify)
31. During the last year, approximately how many university/college students have completed at least some of their clinical teaching experiences in your laboratory school?

32. Has the number of students completing clinical teaching experiences in your laboratory school changed?
- Increased
- Remained about the same
- Decreased

33. Approximately what percentage of laboratory school faculty participated in action research projects? (If none, answer 0.)

34. Approximately what percentage of laboratory school faculty and administrators has published (i.e., article, book, book chapter, textbook, and/or teacher resource book)? (If none, answer 0.)

35. Approximately what percentage of laboratory school faculty or administrators has presented before a regional or national audience? (If none, answer 0.)

36. Has the amount of research conducted at the laboratory school changed?
- Decreased
- No change
- Increased
- Don’t know
37. How frequently do laboratory school faculty and/or administrators conduct staff development for other schools?
   - Never
   - Rarely
   - Sometimes
   - Frequently
   - Very Frequently
   - Always
   - Don’t know

38. Do you believe laboratory schools in your state occupy a position of leadership in the field of education?
   - No
   - Unsure
   - Yes

39. In general, do you believe that local and state government representatives are advocates for your laboratory school?
   - No
   - Unsure
   - Yes

40. In general, do you believe that your parent institution’s administration (president, provost, and dean) are advocates for your laboratory school?
   - No
   - Unsure
   - Yes
41. Do you believe that your school should be doing more experimentation and research than it is currently?
   - No
   - Unsure
   - Yes

42. What obstacles hinder research and experimentation in your school?

43. Has your laboratory school ever been threatened with closure?
   - No
   - Unsure
   - Yes

44. Describe the circumstances in which your school faced closure?
45. In your opinion, what factors most influence the successful sustainability of your laboratory school?

46. Has your school ever significantly altered its mission or focus?
   - No
   - Unsure
   - Yes

47. Has this change in mission and/or focus created more or less stability in regards to school sustainability?
   - Less stability
   - No change
   - More stability
   - Don't know

48. Briefly describe the process your school used to alter its mission and/or focus.

49. Would you be willing to participate in a phone interview about your school?
   - Yes
   - No

   If yes, please provide your name:
Thank you for participating in the pilot of this survey about laboratory schools. There are two items that you are being asked to complete—a survey and this feedback form. Your feedback is greatly appreciated and will be critical in helping refine the survey.

2. Are there any questions that you feel need to be deleted from the survey? If so, please list the question(s) and briefly explain the reason(s) why you feel the question(s) should be removed from the survey.

3. Are there any questions that were not asked on the survey that you feel should be asked? If so, please list the question(s) below and briefly explain why you feel that the question(s) should be added to the survey.

4. If you have additional comments about the survey, please share them here.
This Informed Consent will explain about being a participant in a research study. It is important that you read this material carefully and then decide if you wish to be a volunteer.

PURPOSE: This study is dissertation research required to complete my doctorate degree. The purpose of this study is to identify and analyze patterns of institutional strategies and processes that promote the sustainability of laboratory schools housed and managed by institutions of higher education.

DURATION: It will take 15-20 minutes of your time to complete the interview.

PROCEDURES: I will ask you questions regarding laboratory school organization and mission. The interview will be recorded, and I will also take notes during the course of the interview.

ALTERNATIVE PROCEDURES/TREATMENTS: There are no alternative procedures except to choose not to participate.

POSSIBLE RISKS/DISCOMFORTS: There are no foreseeable risks associated with this study.

POSSIBLE BENEFITS: The results of this study may provide useful information that you can use to help your laboratory school and parent institution.

VOLUNTARY PARTICIPATION: Participation in this research experiment is voluntary. You may refuse to participate. You can quit at any time. If you quit or refuse to participate, the benefits to which you are otherwise entitled will not be affected. You may quit by calling me, April Blakely, at 423-439-4271, or by email, at blakely@etsu.edu, or by mail at ETSU, University School, PO Box 70632, Johnson City, TN 37614. You will be told immediately if any of the results of this study should reasonably be expected to make you change your mind about staying in this study.

CONTACT FOR QUESTIONS: If you have any questions, problems, or research-related medical problems at any time, you may call me, April Blakely at 423-439-4271, or Dr. Eric Glover, Committee Chair at 423-439-7615. I may also be contacted by email at blakely@etsu.edu, or by mail at ETSU, University School, PO Box 70632, Johnson City, TN 37614. Dr. Eric Glover may be contacted by email at glovere@etsu.edu, or by mail at ETSU, Educ. Leadership & Policy Analysis, PO Box 70550, Johnson City, TN 37614. You may call an Institutional Review Board coordinator at 423-439-6055 or by mail at ETSU, Office for the Protection of Human Research Subjects, PO
Box 70565, Johnson City, TN 37614, for any questions you may have about your rights as a research subject.

CONFIDENTIALITY: Every attempt will be made to see that study results are kept confidential. A copy of the records from this study will be stored in the principal investigator’s office in a locked file cabinet for at least 5 years after the end of this research. The results of this study may be published and/or presented at meetings without naming me as a subject. Although my rights and privacy will be maintained, the Secretary of the Department of Health and Human Services, the East Tennessee State University Institutional Review Board, and research related personnel from the ETSU Department of Educational Leadership and Policy Analysis have access to this study records. My records will be kept completely confidential according to current legal requirements. They will not be revealed unless required by law, or as noted above.
APPENDIX E: INTERVIEW QUESTIONS

1. Describe activities of the laboratory school to promote school sustainability?

2. Describe activities by your college/university to promote laboratory school sustainability?

3. Describe the major functions of your school?

4. What allowed your school to shift its focus from _________ to _________?

5. What were the biggest obstacles in that redesign?

6. What additional information would you want other schools to know that might assist them?
**APPENDIX F: DOCUMENT REVIEW GUIDE**

<table>
<thead>
<tr>
<th>Document Title:</th>
<th>Date of Review:</th>
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</thead>
<tbody>
<tr>
<td>Type of Publication:</td>
<td>Publication Date:</td>
</tr>
<tr>
<td>Notes:</td>
<td>Comments:</td>
</tr>
</tbody>
</table>
VITA

APRIL BLAKELY

Education:
B.S. Health Administration/Business Management, East Tennessee State University, Johnson City, TN, 1988

M.A.T. Elementary Education, East Tennessee State University, Johnson City, TN, 1992

Ed. D Educational Administration, East Tennessee State University, Johnson City, TN, 2009

Professional Experience:
Teacher, A. L. Corbett Middle School; Aiken, South Carolina, 1992-1997
Instructor, University School, East Tennessee State University; Johnson City, Tennessee, 1997-2009

Publications:

Honors and Awards:
Outstanding Student Service Award, College of Health, East Tennessee State University
Outstanding Science Teacher, South Carolina Middle School Association
Who’s Who Among America’s Teachers
Cambridge Who’s Who Among Executive & Professional Women in Education
Clemmer College of Education Collaboration Award, East Tennessee State University
Teacher of the Year, University School, East Tennessee State University