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A case study of the turnaround process of two low-achieving rural Maine high schools

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Dissertation

A CASE STUDY OF THE TURNAROUND PROCESS OF TWO LOW-ACHIEVING RURAL MAINE HIGH SCHOOLS

by

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DEDICATION

This work is dedicated to my incomparable husband, Jim

and

to my loving Mom & Dad.

You are my life's inspiration!

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ABSTRACT

The K–12 American education system is inundated with school reform policies and legislation that aim to transform schools from low performing to high-performing academic institutions. Through the conceptual framework of school improvement, this case study examined the educational reform journeys of two rural Maine high schools that were officially identified by the State as failing schools in 2010 because they did not achieve Adequate Yearly Progress. A major difference between the two schools was one school applied for and accepted a federal School Improvement Grant (SIG) and the other school did not. By 2013, both of these schools attained turnaround status and are no longer designated as "persistently low-achieving."

This case study sought to understand the role of leadership, instruction, school culture, and financial resources in improving persistently low academic achievement at the high school level in rural areas. Maine state assessment data in the content areas of reading and mathematics were analyzed for statistical significance over a six-year span that included pre- and post-turnaround years.

Qualitative data were used to describe the action steps of each school and the reasons for the reform paths they chose. This mixed methods research provided a fuller description of the journeys of these two schools. The findings, reflections, conclusions and recommendations offer insight and new learning for school reform efforts in rural locations.

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LIST OF ABBREVIATIONS

AYP ..... Adequate Yearly Progress

HSA ..... High School A

HSB ..... High School B

MDOE ..... Maine Department of Education

MEA ..... Maine Education Assessment

NCLB ..... No Child Left Behind

PLA ..... Persistently Low-Achieving

SIG ..... School Improvement Grant

GLOSSARY

Adequate Yearly Progress "…the measure that is used to hold schools and school districts accountable under NCLB" (Linn, 2008). Accountability is a central feature of NCLB and requires meeting annual academic benchmarks or dealing with possible consequences.

School Improvement "…a distinct approach to educational change that aims to enhance student outcomes as well as strengthen the school's capacity for managing change" (Hopkins, 2001, p. 13).

School Improvement Grant "…authorized under section 1003(g) of Title I of the Elementary and Secondary Education Act of 1965 (ESEA); grants to state educational agencies (SEAs) that SEAs use to make competitive sub-grants to local educational agencies (LEAs) that demonstrate the greatest need for the funds and the strongest commitment to use the funds to provide adequate resources in order to substantially raise the achievement of students in their lowest-performing schools" (U.S. Department of Education, 2016).

School Reform "…activities that alter existing procedures, rules, and requirements to enable the organization to adapt the way it functions to new circumstances or requirements" (Conley, 1993, p.23).

Title I "…Title I, Part A (Title I) of the Elementary and Secondary Education Act, as amended (ESEA) provides financial assistance to local educational agencies (LEAs) and schools with high numbers or high percentages of children from low-income families to help ensure that all children meet challenging state academic standards" (U.S. Department of Education, 2016).

*Turnaround School "…*Turnaround is a dramatic and comprehensive intervention in a low-performing school that: a) produces significant gains in achievement within two years; and b) readies the school for the longer process of transformation into a high-performance organization" (Mass Insight Education, 2007).

CHAPTER 1

INTRODUCTION

As a nation, we need a strong and vibrant public education system.
As we seek to reform our schools, we must take care to do no harm.
(Ravitch, 2016, p. 255)

This declaration in *The Death and Life of the Great American School System* reaffirms the promise of public education; at the same time, it is a veiled caution that the United States has a history of failed educational reform efforts. Darling-Hammond notes, "school reform has assumed that changing the design specifications for schoolwork will change the nature of education that is delivered in the classrooms – and will do so in the ways desired by policy makers" (1993, p. 754). With sincere although often misguided intentions, policy makers and business leaders in the 21st century have continued to deluge the American education system with a constant barrage of school reform models. Each time, they were confident that a particular reform policy would improve student learning, raise student test scores, close the student achievement gap, and increase the standing of American students in international academic comparisons.

Contemporary reforms have been numerous and far-reaching: charter schools, vouchers, merit pay, value added, state accountability, federal accountability, highly qualified teachers, Response to Intervention (RTI). Some of the most significant reforms include the various reiterations of the Individuals

with Disabilities Education Act (IDEA), the 1980s standards-based education movement, and the 2002 No Child Left Behind Act (NCLB). While they have all affected American education to varying degrees, they all had major shortcomings. In fact, it often happens that when an educational reform is implemented to correct one inequity, the creation of a different inequity is an unintended consequence. These unintended consequences may be specific or general.

SCHOOL REFORM AND NCLB

NCLB was the most far-reaching school reform effort in public education in America. Ravitch (2010) noted, "NCLB changed the nature of public schooling across the nation by making standardized test scores the primary measure of school quality" (p.15). The federal government's bipartisan involvement in education morphed into a system of testing and accountability, and it became the "principal propelling policy agent behind American education" (Guthrie & Springer, 2004; Lee & Wong, 2004). Lee and Wong (2004) noted that NLCB "aimed at accomplishing high academic standards for all students and closing their achievement gaps" (p. 798). Accountability for student academic progress in education shifted from the states to the federal government. This shift was manifested over time in the adoption of state standards and state assessments that were mandated at the federal level. Rothman (2012) stated, "The No Child Left Behind Act made variations in state standards conspicuous" (p.59). The

focus on this problem intensified substantially when federal and state governments levied serious consequences on schools for failure to achieve high performing status, including loss of jobs and decreased federal grant funding. In addition to the emphasis on testing and accountability, the implementation of NCLB impacted Title I funding. Title I is a federal grant that provides supplemental support for disadvantaged students in the areas of reading and mathematics. NCLB required that a portion of the Title I funding be set-aside for School Improvement Grants (SIG). “School Improvement Grants (SIG), authorized under section 1003(g) of Title I of the Elementary and Secondary Education Act of 1965 (Title I or ESEA), are grants to State educational agencies (SEAs) that SEAs use to make competitive sub-grants to local educational agencies (LEAs) that demonstrate the greatest need for the funds and the strongest commitment to use the funds to provide adequate resources in order to raise substantially the achievement of students in their lowest-performing schools” (USDE, 2010). This new requirement of competing for a Title I SIG was a substantial departure from past educational policy practice. In sum, the accountability component and SIG competitive funding set the stage for the identification of failing schools.

STATEMENT OF THE PROBLEM

“Failing” or “low achieving” schools are still a persistent problem in the K-12 public education system in the United States, despite being in the cross hairs of

educational reform efforts for more than thirty years. In 2009, according to U.S. Education Secretary Arne Duncan, more than 5,000 schools in the United States were described as chronically low-performing. Schools were subjected to increased public scrutiny and accountability when the 2002 landmark NCLB introduced and implemented the concept of Adequate Yearly Progress (AYP) ratings. Public lists of persistently low achieving schools were generated annually in each state according to the federal criteria of NCLB. Once these schools were identified, they were charged with developing turnaround plans focused on how to successfully increase student achievement as measured by state assessment benchmarks.

Regardless of any weighty obstacles, the federal NCLB legislation required all schools, whether urban or rural, to be academically accountable for English Language Arts and Math scores based on the achievement benchmarks of state assessments over a three-year period. In 2010, the Maine Department of Education released its first list of the state's *10 Persistently Low-Achieving Schools.* That list included two elementary schools and eight high schools. Interestingly, the elementary schools were in urban areas and the high schools were in rural areas. Of the six high schools, five eventually achieved satisfactory academic progress; one high school merged with another high school that was not on the list. This study examined the distinctly different educational reform paths that two of these rural high schools traveled on their way to becoming turnaround

schools that achieved Maine's state assessment benchmarks. According to Samantha Warren, a spokesperson for the Maine Department of Education, "School improvement is a journey, and often it's the culture and the aspirations that are the first to change, and then the achievement follows. And sometimes that can take many years" (McMillan, 2014).

IMPORTANCE OF THE PROBLEM

Education is the doorway to our future, both as individuals and as members of a global society. Low-achieving schools lock that doorway for many students and limit the development of a fully functioning community; it is incumbent upon educators, researchers, and policy makers to implement sustainable change in failing schools. "Every student in this country—regardless of socioeconomic status, race, or geographic location—is held to high learning standards that will ensure students have the skills to compete in today's global, knowledge-based economy" (USDE, 2016).

However, Mehta et al. (2012) state that the majority of high school graduates are not prepared for academic success at the college level. Increasingly, colleges are faced with a growing number of students who do not demonstrate college-readiness skills. "The national rates of remediation are a significant problem. According to college enrollment statistics, many students are underprepared for college-level work. In the United States, research shows that anywhere from 40 percent to 60 percent of first-year college students require

remediation in English, math, or both" (Center for American Progress, 2016). This achievement gap among high school graduates places a strain both on the colleges in having to provide these remedial classes and on the students having to repeat classes.

ACT Trends

In 2018, 55% of high school seniors (1.9 million students) sat for the ACT, an assessment that measures college and career readiness. Sixteen states use the ACT as their high school state assessment. According to the National Center for Education Statistics, the breakdown of ACT-tested high school graduates in 2018 who were ready for college level course work in the four major content areas is noted below:

Table 1.1 Percentage of ACT-Tested 2018 High School Graduates College-Ready

CORE SUBJECTS	NATION
All Four Subjects	27%
English	60%
Math	40%
Reading	46%
Science	36%

(ACT Inc., 2018)

The ACT College Readiness Benchmarks are "scores on the ACT subject-area tests that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses (ACT, 2018)."

The percentage of high school seniors who met those benchmarks are listed below:

Table 1.2 Percentage of ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks in 2018

NUMBER OF ACT COLLEGE READINESS BENCHMARKS	PERCENTAGE OF STUDENTS
Zero	35%
One - Two	27%
Three – Four	38%

(ACT Inc., 2018)

Table 1.3 Percentage of 2018 ACT-Tested High School Graduates by ACT College Readiness Benchmarks Attainment and Subject

SUBJECT	Met Benchmark	Within Benchmark by 2 Points	Below Benchmark by 3+ Points
English	60%	10%	30%
Reading	46%	11%	43%
Mathematics	40%	8%	52%
Science	36%	14%	50%

(ACT Inc., 2018)

SAT Trends

In 2018, 36% of high school seniors (2 million students) sat for the SAT, an assessment that measures college and career readiness, very similar to the ACT since its substantial redesign in 2016. Twenty states (including Maine) and Washington D.C. currently contract with the College Board to administer the SAT to high school juniors free of charge.

According to the College Board, the 2018 SAT scores show 70% of students met the college readiness benchmarks for evidence-based reading and writing; 49% met the college readiness benchmarks in math.

International Test Trends

In comparison to the international community, students in the United States definitely have room for improvement. “The national discourse about the need to improve state standards and assessments has recently intensified in response to the variations in state standards and student achievement outcomes and the poor performance of U.S. students on international assessments compared with students in other developed countries” (Anderson et al., 2012, p. 4).

The Program for International Student Assessment (PISA) measures mathematics, science, and reading skills for students aged between fifteen (15) years, three (3) months and sixteen (16) years, two (2) months on a three-year cycle. Its first administration was in 2000, and thirty-four industrialized nations are members of the coordinating body, the Organization for Economic Cooperation and Development (OCED). The most recent available data are from the 2015 PISA administration, and they show that the average score in all three content areas for U.S. students is not significantly different during the last two test sessions in 2009 and 2012. The National Center for Education Statistics (NCES) is the data warehouse used by the federal government, and it reports that the

average U.S. math score on the 2012 PISA was lower than the average of all the other **member** countries. The results of the 2018 PISA will be released on December 3, 2019.

It should be noted that these assessments are based on random sampling, and they are intended to offer a snapshot of students' depth of knowledge and level of skills. Each assessment is administered to a subgroup of students in the United States and then the results are generalized to the student population at large (NCES, 2018). Taken together, the ACT, SAT and PISA underscore the urgency and importance of addressing the problem of low-achieving high schools.

PURPOSE OF THE STUDY

The purpose of this study was to examine and document the different turnaround paths taken by two rural high schools that were identified by the Maine Department of Education as low-achieving schools in 2010. Although they followed separate routes, both schools ultimately increased student achievement and attained the required benchmarks.

One of the high schools was a Title I school (High School A), meaning that it was already using federal grant funding to support its struggling students in math and literacy. The second high school (High School B) was eligible for Title I funding; however, its school district used all its Title I funds for their elementary schools. Both high schools were eligible to apply for a School Improvement Grant

(SIG) for a period of three years, contingent upon choosing one of four turnaround models. At the moment of decision, High School A applied for and received a $1.7 million SIG, effectively allowing the federal government to subsidize their school improvement process. The School Board of High School B voted to forego the SIG application and blaze its own trail toward school improvement without additional federal financial assistance.

This research employed a case study methodology to examine the distinct paths taken by the two schools. Yin (2014) defined the case study research method as an "empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (p. 23). This study focused on one overarching research question: *How do failing rural high schools facilitate successful turnaround change?* Additional questions that guided this study included:

1. How did the whole group (all students) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?
2. How did subgroups (gender, ethnicity, socio-economic, special education,) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?

3. What challenges were encountered in the turnaround process? How were these challenges addressed?

4. How successful were initiatives implemented as part of the transformation process?

5. How do these two rural high schools perceive their current capacity to sustain school improvement?

6. How did each school's turnaround efforts connect to Murphy's Framework of School Improvement?

RATIONALE FOR THE STUDY

Many schools struggle with the dilemma of how to improve student achievement; of course, the real challenge is how to sustain that improvement in a manageable and effective manner. While various studies have zeroed in on one aspect of achieving school improvement such as principal leadership or assessment practices, this study identified and analyzed several variables that are critical to achieving and sustaining school improvement. Additionally, school reform literature abounds with research on the resurrection of low-performing schools in urban areas, particularly at the elementary level; this study added to the less voluminous base of knowledge on transforming formally identified low-achieving schools in rural areas at the high school level.

INTRODUCTION OF THEORETICAL FRAMEWORK

The inclusion of a theoretical framework is a crucial component of the research process. According to Grant & Osanloo (2014), "The theoretical framework is the "blueprint" for the entire dissertation inquiry. It serves as the guide on which to build and support your study, and also provides the structure to define how you will philosophically, epistemologically, methodologically, and analytically approach the dissertation as a whole" (p. 13). This study was anchored in a five-part School Improvement Framework put forth by Joseph Murphy (2016), the Frank W. Mayborn Chair of Education and Associate Dean at Peabody College of Education of Vanderbilt University.

The preponderance of research on school improvement has mainly centered on two aspects: *leadership* and the *content of school* (curriculum, instruction, assessment, and data). This researcher theorizes the achievement and sustainability of a high functioning school are based on an interdependence of several variables that combine to produce quality student learning. This research drilled deeper into the other aspects of school improvement that are only addressed in a limited scope in the literature. To this end, Murphy's *School Improvement Framework* was selected as the theoretical "blueprint" because this researcher believes it includes <u>all</u> the essential pieces of school reform (p. 257):

Table 1.4 Murphy's School Improvement Framework of Components

FRAMEWORK COMPONENTS	REFERS TO:	EXAMPLES
I) Essential Equation	Overall School Improvement	Academic Press + Supportive Community
II) Building Materials	Content of School	curriculum, instruction, data, assessment, resources
III) Construction Principles	Structure & Context of School	scheduling, culture, history, finances,
IV) Supports	Organization of School	policies, practices
V) Integrative Dynamic	Leadership of School	principal, asst. principal, teacher leaders

ORGANIZATION OF THE STUDY

Chapter One includes an introduction to the study, background and statement of the problem, purpose of the study and research questions, importance of and rationale for the study, an overview of the theoretical framework, and definition of terms. Chapter Two provides an encompassing literature review of the history and challenges of school reform, school improvement efforts, and a detailed description of Murphy's School Improvement Framework to ground this case study. Chapter Three describes the research methodology, data sources, and procedures for collecting and analyzing the data. Chapter Four presents a cross case synthesis of the findings as they relate to the research questions and the theoretical framework. Chapter Five offers conclusions and implications for future analyses of school reform and research.

SUMMARY

This chapter introduced the problem of persistently low-achieving high schools and discussed the many school reform initiatives that have failed to correct this issue. The purpose of this case study was to investigate specific strategies that resulted in two successful turnaround rural high schools as measured by achieving AYP. This research also examined the processes that these schools established to sustain their level of academic improvement. *The School Improvement Framework* (Murphy, 2016) provided the theoretical foundation, structure, and support for this dissertation.

CHAPTER 2

LITERATURE REVIEW

The purpose of every school is to optimize student achievement;
it is the core beliefs that define achievement.
(Zmuda, Kuklis, Kline, 2004, p.57)

The purpose of this study was to examine the turnaround methods used by two rural Maine public high schools to achieve academic proficiency in math and literacy, thereby removing themselves from the State's failing schools list. Prior to being identified as failing, these schools missed making AYP as defined by NCLB for three consecutive years. That situation actually created an opportunity for both schools to apply for School Improvement Grant (SIG) funding to assist their turnaround efforts. One of these schools accepted this opportunity and received the SIG funding; the other school rejected the offer and chose a different path. This study identified and analyzed the effect of leadership, instruction, resources and school culture in a successful turnaround school as measured by achieving state benchmarks.

As a foundation for this study, this chapter provides a review of the literature. It includes a theoretical framework to contextualize school improvement components, a history of school reform and turnaround efforts, an overview of school reform issues in rural states and specifically in Maine, and a discussion of the challenges of implementing and sustaining school improvement.

THEORETICAL FRAMEWORK

Murphy's (2016) *Framework for School Improvement* was used to anchor this study. This framework was selected because this researcher believes it encompasses all the relevant components of school improvement. It is composed of five parts and built upon the belief that school improvement is not a "fixed concept;" rather, Murphy (2012) proposes that it "takes on different meanings at different times" (p.10). To provide a comprehensive approach to school improvement as it evolves over time, Murphy combined his framework with an earlier framework put forth by Tushman and Romanelli (1985), the *punctuated equilibrium model of organizational change*. Their theory recognized that both internal and external forces act in unison upon an organization — in this study, two high schools — to bring about periods of stability and periods of change. "Organizations progress through *convergent* periods punctuated by *reorientations* that demark and set bearings for the next convergent period" (Tushman & Romanelli, 1985, p.175).

"*Convergence* is defined as a process of incremental and interdependent change activities and decisions that work to achieve a greater consistency of internal activities with a strategic orientation, and that operate to impede radical or discontinuous change" (Tushman & Romanelli, 1985, p.180). Conversely, "reorientations involve a series of rapid and discontinuous change in the organization that fundamentally alters its character and fabric" (Tushman &

Romanelli, 1985, p. 181).

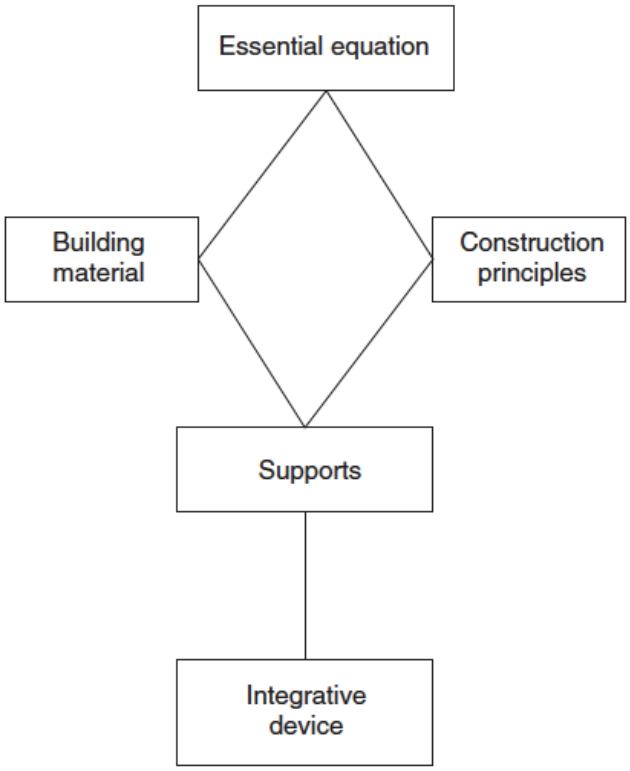
In their model, Tushman & Romanelli (1985) "suggest two basic forces for change: (1) sustained low performance and (2) major changes in competitive, technological, social, and legal conditions in the environment that render a prior strategic orientation, regardless of its success, no longer effective" (p. 180). At the core, this theory postulates it is the organization's leadership that is instrumental in navigating between the convergences and the reorientations. Similarly, Murphy's framework also supports the "empirically anchored conclusion that leadership is the integrative dynamic in fostering school improvement" (2016, p.53).

Murphy presents the first piece of his framework as an essential equation: *School Improvement = Academic Press + Supportive Community*. According to Murphy, this "equation represents the core of school improvement work in the modern era" (2016, p.48). *Academic Press* refers to actions such as "ensuring that all children are confronted with and supported in reaching ambitious goals, engaging each youngster in a rigorous educational program, and providing quality instruction that challenges students to move beyond their level of comfort" (2016, p. 17). *Community Support* includes actions to promote a professional and collaborative culture in which "teachers share a sense of direction, work on practice, hold each other accountable for student outcomes, ensure that every child is known, cared for and respected, and developing trusting relationships

among teachers, students and parents" (2016, p.17). Furthermore, Murphy states *academic press* and a *supportive community* are "(1) the two most critical components of school improvement; (2) they are most powerful in tandem; (3) they work best when they wrap around each other like strands in a rope" (2016, p. 48).

Murphy (2016) proposes that *academic press* and a *supportive community* are generated through the remaining four pieces of his framework: building materials, construction principles, supports, and integrative device. This framework is represented in the following figure:

The Architecture of School Improvement Model
Murphy, 2016
Figure 2.1



Building Materials, the second piece of the framework, are the **content** of school improvement. These materials include *quality instruction, curriculum, personalized learning environment for students, professional learning environment for educators, learning-centered leadership, learning-centered linkages to the school community,* and *monitoring of progress and performance accountability* (Murphy, 2016, p. 49).

Table 2.1 School Improvement Building Material

Quality Instruction ▪ Effective teachers ▪ Quality pedagogy
Curriculum ▪ Content coverage ▪ Time ▪ Rigor ▪ Relevance
Personalized Learning Environment for Students ▪ Safe and orderly climate ▪ Meaningful connections ▪ Opportunities to participate
Professional Learning Environment for Educators ▪ Collaborative culture of work ▪ Participation and Ownership ▪ Shared leadership
Learning-Centered Leadership ▪ Forging academic press ▪ Developing supportive culture
Learning-Centered Linkages to the School Community ▪ Connections to parents ▪ Linkages to community agencies and organizations
Monitoring of Progress and Performance Accountability ▪ Performance-based goals ▪ Systematic use of data ▪ Shared accountability

Murphy, 2016

The Building Materials component of the framework has been the focus of the most extensive research in the modern era of education (Hattie, 2009; Bryk, 2010). Murphy (2016) believes the combined content of school improvement as outlined in the above table has “the potential to create academic press and supportive culture” (p.50).

According to Lewis (2002), “In Chicago, wherever teachers had created strong professional communities with frequent teacher collaboration, reflective dialogue, and shared norms, schools were four times more likely to be improving academically than schools with weaker professional communities.” In a California study of primary and secondary school reform programs, Chrisman (2005) notes, “strong teacher leadership was apparent in each of the four successful sample schools.” Schmoker (2004) advocates, “The most productive thinking is continuous and simultaneous with action – that is, teaching – as practitioners collaboratively implement, assess, and adjust instruction as it happens” (p. 247). According to Tyack & Cuban (1995), “Teachers do not have a monopoly on educational wisdom, but their first hand perspectives on schools and their responsibility for carrying out official policies argues for their centrality in school reform efforts” (pg. 135).

O’Day (2002) further adds, “At the school level, professional accountability rests both on individual educators assuming responsibility for following standards of practice and on their professional interactions with colleagues and clients.

Mentoring, collaboration, and collective problem solving in response to student needs and some form of peer review to ensure quality of practice are all aspects of school-site professional accountability" (p. 316). Chrisman (2005) states, "Schools and districts can bring about student achievement and sustain that achievement if they are willing to examine their practices and embrace change."

In speaking to school community linkages, Sebring, Allensworth, Bryk, Easton & Luppescu (2006) noted, "Comprehensive school improvement requires sustained cooperative work among all adults in a school community – administrators, teachers, parents, and local officials. The overall quality of the basic social relationships among these various partners is key to initiating meaningful change and sustaining it over change" (p. 15).

O'Day (2002) postulates "accountability systems will foster improvement to the extent that they generate and focus attention on information relevant to teaching and learning, motivate individuals and schools to use that information and expend effort to improve practice, build the knowledge base necessary for interpreting and applying the new information to improve practice, and allocate resources for all of the above" (p. 294).

Interestingly, Elmore (2008) notes, "Research and development have focused to an unprecedented degree on improving instructional practice, especially in literature and mathematics. But the fundamental problem of how to connect what we know about good practice to what schools actually do and

replicate our successes on a large scale stubbornly persists. Variability in student performance in core content areas by school, by classroom, and by demographic group remains persistently, and unacceptably, large" (p.3).

In the third piece of Murphy's framework, **Construction Principles** "are as important as the content element in school improvement work" (2016, p. 50). *To achieve success, school improvement needs both the content and the structure to hold the content*. "The main reason for the failure of these reforms to go to scale and to endure is that we have failed to understand that *both* local school development and the quality of the surrounding infrastructure are critical for lasting success (Fullan, 2000, p. 581). These two pieces of the framework balance each other. Murphy (2016) points to the following three situations to explain the Construction Principles of the framework:

1) *Structure does not predict performance*. Structural change is a visibly significant and highly symbolic component of school reform plans (Elmore, 1995). Examples of structures that are used as part of school improvement initiatives include block scheduling, the length of classes, alternate class days, looping, advisories, multi-grade classes, and flex grouping. While the implementation of these structures may lead to an outcome such as improved academics, it is not a guarantee that a specific outcome will be achieved. Certainly, achieving improvement on a large scale requires structure; however, it must be manageable and reasonable; otherwise, it will not be productive or sustainable.

"Changes in structures are weakly related to changes in teaching practice, and therefore structural change does not necessarily lead to changes in teaching, learning and student performance" (Elmore, 1995, p. 25). Murphy (2016) is even more direct: "We see the essential paradox of school improvement construction work: structural changes almost never predict outcomes, but they are essential for initiatives to take root and develop" (p.51).

2) *Context always matters*. This principle goes to fit: how well does a specific intervention or reform initiative adapt to a different environment? For example, advisories may be an excellent vehicle for school improvement in one school, but that does not mean that it will work the same way in another school that has its own unique set of characteristics, demographics, and community.

3) *Cohesion and alignment are essential*. The success of school reform initiatives will be on more solid footing if all the pieces of the framework are supported, inter-related, and treated as a whole rather than as separate pieces of the puzzle. Bryk (2010) states, "Improving schools entails coherent, orchestrated action" (p. 25).

Supports, the fourth component, are the **organizational tools** in Murphy's *Framework for School Improvement.* They include *operating systems, policies,* and *practices.* Their narrow focus is to "mix quality materials and construction principles in productive fashion" (2016, p.53).

"Once educators, through collegial conversations, see the school as a

complex living system with purpose, they can then understand their work, both individual and collective, as contributing to the continuous improvement of the school, and staff development as an essential means to better fulfill deeply held beliefs" (p. 31, Zmuda, Kuklis, Kline, 2004). Elmore (2008) also addresses the importance of systemic thinking when noting, "Shifts in policy improve teaching and learning only if they are accompanied by systemic investments in the knowledge and skills of educators" (p.211). According to Schmoker (2004), "Our plans, our systemic reform, should focus primarily on establishing and sustaining the structure for just such norms of continuous improvement" (p. 427). Lee and Wong (2004) state, "the actual impact of state accountability policies on academic excellence and equity may turn out to be contingent upon the level of support to schools, teachers, and students" (p. 799). Since the states and federal government have created a focus on accountability, Elmore (2008) observes, "The advent of performance-based accountability systems is an important and powerful shift in the governance of American public education. It is also a highly problematical shift. It represents limited knowledge of how schools work, how they improve, and what is reasonable to expect schools to do" (p. 257).

The final and fifth piece of Murphy's *Framework for School Improvement* is the **Integrative Dynamic** (referred to in Figure 2.1 as the Integrative Device). This component is deeper than merely effective leadership; in Murphy's view, "school leaders provide the dynamism to make all the components of the

framework function" (2016, p. 53). In fact, Murphy (2016) states, "Leadership is important in general and even more critical for schools marooned in inlets of failure" (p. 99). According to Bryk (2010), "Principals, in improving schools, engage in a dynamic interplay of instructional and inclusive-facilitative leadership" (p. 25). Lambert (2003) concurs, "Although teachers are at the heart of leadership capacity, principals hold a special position in schools" (p.43). According to Fullan (2003) in *The Moral Imperative of School Leadership*, the role of the principal is crucial to systemic school change. "Principals can use authority to facilitate the leadership capacity building process – important to have a shared vision based on community values, sustain the conversation about teaching and learning, insist that student learning is at the center of the conversation" (Lambert, 2003, p.47).

In a cautionary statement, Elmore (2008) warns, "School leaders are being asked to assume responsibilities they are largely unequipped to assume, and the risks and consequences of failure are high for everyone, but especially high for children. School leaders, the argument goes, will succeed or fail depending on whether they master the practice of instructional improvement at scale in classrooms and schools" (p.42-43). Murphy (2016) adds, "If meaningful leadership is not sustainable, then neither is substantive school improvement work" (p. 1).

In the following section, multiple school reform initiatives are examined

within a historical perspective. The merits and disadvantages of each reform are noteworthy in comparison to Murphy's (2016) framework of the essential features of school improvement.

HISTORICAL CONTEXT OF SCHOOL REFORM

The definition of school reform or improvement is influenced by the political, social and economic factors in which it exists at the time. "The central theme of education reform policy since at least the early 1990s has been accountability for student performance" (pg. 2, Elmore, 2008).

The modern era of failing schools rhetoric began with the release of the 1983 report *A Nation at Risk*. This document was prepared by the National Commission on Excellence in Education, a group established in 1981 by President Reagan and Education Secretary Terrell Bell to examine the rigor and quality of American education. It communicated a sense of urgency that the American education system needed to be stronger and more robust (Marzano & Kendall, 1997). Its most compelling words demanded action: "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a nation and a people…". (National Commission on Excellence in Education, 1983). This report focused a spotlight on "poor academic performance, low expectations, and complacency" and "set off a loud alarm about the condition of elementary and secondary education" (Ravitch, 1996). It prompted a change in emphasis from input to results and

paved the way for school reform through the creation of standards (Buttram & Waters, 1997).

During the 1990s, several federal laws were enacted that focused on providing a quality public education and improving the level of academic achievement of American school children. President George H. W. Bush established the first National Education Summit in 1989, composed of all the United States governors. This group produced *America 2000*, an educational strategic plan that targeted the following six goals:

- "All children in America will start school ready to learn.
- The high school graduation rate will increase to at least 90%.
- American students will leave grades four, eight, and twelve having demonstrated competency in challenging subject matter including English, mathematics, science, history and geography; and every school in America will ensure that all students learn to use their minds well, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy.
- U.S. students will be first in the world in science and mathematics achievement.
- Every adult American will be literate and will possess the knowledge and skills necessary to compete in a global economy and exercise the rights and responsibilities of citizenship.
- Every school in America will be free of drugs and violence and will offer a disciplined environment conducive to learning (Bush, 1993, p.19)."

This document is notable for promoting an ambitious and international agenda for academic excellence and rigor for all citizens. "The underlying rationale of most recent reforms – to use schooling as an instrument of international economic

competitiveness – is not new, but its dominance in policy talk is unprecedented" (Tyack & Cuban,1995, p.136).

The *Goals 2000: Educate America Act* followed *the America 2000 plan* in 1994. This law tasked a new Commission with developing national standards to improve academic achievement. In the same year, federal legislation created the *Improving America's Schools Act* that compelled states to establish learning targets, assessments, and academic benchmarks to monitor student progress.

Consequently, each state began to formulate and adopt academic standards for the core content areas as a comprehensive school reform measure to improve student achievement. Standards became the avenue through which school improvement would occur. In 1993, Massachusetts became the "first state in the nation to institute statewide learning standards through the Education Reform Act" (Mass. DOE). The Virginia Department of Education adopted their Standards of Learning in 1995 (www.doe.virginia.gov). New York State replaced their Regents system with the New York State Learning Standards in 1996 (www.p12.nysed.gov). In 1997, Maine adopted the Maine Learning Results (http://www.maine.gov/doe) and Illinois approved the Illinois Learning Standards (http://206.166.105.35/ils). With the Public School Accountability Act of 1999, California enacted standards-based education reform (http://www.leginfo.ca.gov).

Ultimately, all of the federal education legislation of the 1990s culminated in a highly significant school reform effort, the *No Child Left Behind Act* of 2001

(NCLB). This legislation was the reauthorization of the original *Elementary and Secondary Education Act* of 1965. NCLB's lofty aim was to revolutionize and reform public education in America on a nationwide scale.

To accomplish this enormous undertaking, NCLB required states to institute an annual measurement of student achievement in grades 3-8 and for students in their third year of high school. It also created new reporting requirements including measuring the growth of individual sub groups such as special education and English Language Learners. "The effect of this law was to vastly expand the role of the federal government in education and also to expand the scope of state educational bureaucracies in administering federal funds" (Armstrong 2006, p.20). Guthrie & Springer (2004) noted that NCLB transformed the federal government's involvement in education into a system of testing and accountability and it became "the principal propelling policy agent behind American education."

Since the inception of *No Child Left Behind*, there was increasing concern regarding the *Adequate Yearly Progress* component that required all students, including students with Individual Education Plans, to reach 100% academic proficiency of their state standards by 2014-15. As that date drew nearer, there was intense debate throughout the nation's school systems and in the media about the appropriateness and feasibility of mandating an arbitrary deadline for student proficiency.

Although standards-based education makes sense in theory, there are problems in its practical application. Because each state developed its own standards and accountability tests in isolation, there is a lack of consistency as well as a wide range of rigor in academic expectations, as borne out when families re-locate between states or often times within states. Kendall (2011) noted that it became very difficult to secure instructional materials that fit each state's specific standards and curriculum. The result was that any textbook series had to be supplemented with additional instructional material to ensure that state standards were being covered. Commercial math or literacy programs often become the actual curriculum, particularly as publishers claimed they were aligned to state standards.

"The national discourse about the need to improve state standards and assessments have recently intensified in response to the variations in state standards and student achievement outcomes and the poor performance of U.S. students on international assessments compared with students in other developed countries" (Anderson et al., 2012, p.4). Rothman (2012) stated, "The *No Child Left Behind Act* made variations in state standards conspicuous" (p.59). Fullan (2009) lamented, "NCLB continues to limp along doing more harm than good with too many and too narrow tests, short time lines, little capacity building, and a punitive strategy. No state or the federal level has an explicit system reform strategy that comes even close to what we know is needed" (p. 107).

In response to these concerns, the rapid emergence of the Common Core State Standards in 2010 for Mathematics and English Language Arts (ELA) catapulted the field of education into an unparalleled period of national collaboration and educational reform. The Common Core identifies the anchors for college and career readiness, focusing on the K-12 learning progression. Calkins et al. (2012) noted the Common Core State Standards initiative represents the “most sweeping reform of the K-12 curriculum that has ever occurred in this country.”

The overwhelming acceptance of the Common Core was certainly a shift from the traditional push for state’s rights and local control of education. According to Kendall (2011), it is directly related to and builds upon the standards-based movement that has dominated the educational landscape in this country for the past two decades. Yet there are major differences between the two as outlined below:

Table 2.2 Comparisons of Common Core and Standards-Based Education

Common Core	*Standards-Based*
Requires 85% of instructional time	Definitely not enough instructional time to cover all the standards
Decreased number of standards, more rigorous and explicit	Often too many standards across several subject areas
Student learning assessed by cross-state assessments developed by a consortium of states across the U.S.	Student learning measured by isolated state assessments; criterion-based
Curriculum expectations are college and career-ready; includes international benchmark	Curriculum expectations vary by state
Education reform of standards, curriculum and assessment are systemic by nature due to cross-state participation	Education reform of standards, curriculum and assessment vary between and within states, particularly in local-control states

Kendall, 2011

The impetus for this initiative had its basis in educational research conducted by the Gates Foundation on college and career readiness. Results of this research culminated in a partnership among the Gates Foundation, Council of Chief State School Officers and the National Governors Association in Spring 2009. Their charge was to develop the Common Core State Standards. Membership in this group included representatives from forty-eight states, two territories and the District of Columbia. In addition, an advisory group was formed that included experts from national organizations such as Achieve, ACT, College Board, National Association of State Boards of Education and the State Higher Education Executive Officers (Kendall, 2011).

Originally slated for a three-year adoption period, that phase of the Common Core reform initiative was completed in only ten months. Kentucky was the first state to adopt the Common Core in February 2010, and it was also the first to assess students using Common Core Standards in Spring 2012. Maine incorporated the Common Core Standards into its own *Learning Results* in 2011. In addition to forty-six states, the District of Columbia, Puerto Rico and the Virgin Islands have formally approved adoption of the Common Core standards (Griffith, 2011). Texas, Alaska, Nebraska, and Virginia are the four states that have chosen not to participate in the Common Core initiative. While Virginia did not adopt the Common Core and affirmed support for its own Standards of Learning (SOL), it did incorporate parts of the Common Core ELA and Math into its SOL (VDE, 2011). Minnesota adopted only the Common Core ELA standards (ASCD, 2012).

An important point of subtle clarification is the Common Core was generated at the state level, not the federal level. In fact, the federal government is prohibited from imposing any curriculum on states or school districts by law (Ravitch, 2010). So, when the CCSS is referred to as a national curriculum, it is in the sense that almost every state voluntarily joined together in a commitment to adopt and implement the standards and thus provide curriculum consistency across the country; it is not a federal curriculum mandated by the federal government and this is a significant distinction. In fact, adoption of the Common

Core allows for 15% augmentation of standards by individual states (Kendall, 2011). However, it must be noted that the federal government placed considerable financial resources behind the adoption and use of the CCSS through the Race to the Top grants (Porter et al., 2011).

The aim of the Common Core Standards is to outline, in a focused and coherent manner, the essential knowledge and skills on which teachers should focus and around which assessments should be designed so that all students will graduate from high school and be successful in their life goals, whatever they may be. The use of common standards as well as common assessments would provide a means of comparing academic achievement across the states. “The standards intend to set forth forward thinking goals for student performance based in evidence about what is required for success…they must ensure that all American students are prepared for the global economic workplace” (Common Core State Standards Initiative, 2011).

In the wake of the Common Core Standards adoptions, two federally funded assessment organizations emerged to provide states with measurements of students’ achievement of these standards: the Partnership for the Assessment of Readiness for College and Career (PARCC) and the Smarter Balanced Assessment Consortium (SBAC). Collectively, forty-five states and the District of Columbia joined one of these groups to participate in a multi-state assessment system (Gewertz & Ujifusa 2014).

The Common Core State Standards Initiative became the next level in a natural evolution over the past thirty years of the standards-based education reform movement. “It’s historic that in this country, with our better-than-two-century-old tradition of local control, state leaders would agree on common standards like this,” stated Jennings, the founder of the Center on Education Policy (2012, p. 5).

However, this seemingly bipartisan support throughout the country for the Common Core began to disintegrate in 2013–14. During this time period, Republican legislators introduced bills to rescind the Common Core in eleven states – Alabama, Indiana, Kansas, Massachusetts, Michigan, Missouri, Mississippi, Ohio, Pennsylvania, South Dakota and Tennessee (Strauss, 2014). South Carolina, Indiana and Oklahoma all withdrew from using the Common Core Standards (Strauss, 2014). Florida followed suit in February 2019 (Strauss, 2019). Interestingly, many states have simply stopped using the name of Common Core and renamed the standards as their own state’s standards, including Kentucky, the first adopter, and Maine. In addition, the two testing consortiums have seen a steep decrease: in the 2018-19 school year, only sixteen states used the PARCC or Smarter Balanced assessments (Gewertz 2019).

Supovitz and McGuinn (2019) identified the following themes that not only stopped this latest national educational reform in its tracks but also reversed it:

- Although education standards as a stand-alone are not controversial, opponents of the Common Core connected it to policy issues such as federal intrusion into state policy, privacy concerns around data collection, sensitivity to over-testing, and confusion between standards and curriculum.

- The Common Core State Standards applied to all schools, not only the low-performing schools. This caused many of the higher performing schools and communities to express concern about high-stakes testing, drops in test scores, teacher accountability, and implementation challenges.

- There was a strategic failure to effectively communicate early on the positivity of common state standards and common state assessments at the beginning of its conception, development and adoption.

- When advocates did address the communication issue, the wrong audience was targeted: policymakers rather than the public.

- The political climate in 2013–14, particularly in conservative states, made support for the CCSS politically difficult, and it became an ideological issue along party lines.

Again, this is another example of school reform that has been clearly influenced by the political and social context in which it exists. Federal, state, and local educational policies are still not prioritizing alignment with addressing student needs and academic achievement. So the cycle of ineffective school reform continues.

HISTORY OF MAINE EDUCATION REFORM

As with other states, education reform in Maine began with the establishment of state standards – the Maine *Learning Results*. The first iteration was rolled out in 1997 and encompassed eight content areas. They were revised in 2007 as Chapter 132 – *Learning Results: Parameters for Essential Instruction.* The

Learning Results were updated a third time in 2011 to include the Common Core Standards for English Language Arts and Mathematics; however, they were later amended and referenced as Maine's standards rather than the Common Core standards.

The Maine Educational Assessment (MEA) was established as the statewide test in 1984. It evaluated students in the content areas of reading, writing, and mathematics in grades 3–8 and third year of high school. The MEA began as a "generic, norm-referenced measure of academic achievement" and evolved into a standards-based test that was aligned with the Maine Learning Results (Coladarci et al., 2002, p.1). In 2009, Maine joined a consortium with Vermont, New Hampshire and Rhode Island to form the New England Common Assessment Program (NECAP). This replaced the MEA in grades 3-8. "The NECAP content standards, known as Grade Level Expectations (GLEs), were adopted as part of Maine Department Of Education (MDOE) Regulation 131: The Maine Federal, State, and Local Accountability Standards. NECAP results in reading and mathematics were used to certify achievement of these standards and were used as Maine's federal accountability reporting required under the No Child Left Behind Act of 2001" (MDOE, 2016).

Similar to other states with rural populations, Maine has a very strong history of local control. So, in addition to the state-level assessment, school districts were required by Maine law to develop, adopt, and fully implement their

own *local assessment systems* (LAS) that met measures of validity and reliability for each content area as well as Alternative Education, Career & Technical Education, Special Education, and English Language Learner programs. Ultimately, the goal was to connect high school graduation to achievement of the *Learning Results* through LAS certification by 2007. Methodological and technical support were provided to school districts by the State in the form of guides, exemplars, templates, workshops, consultation, and two banks of assessments that could be used in a district's LAS (Fairman & Harris, 2005).

This was an enormous educational reform effort in Maine and it consumed years of professional development focus and time. In May 2006, the Maine Legislature enacted a moratorium that was "intended to suspend those activities associated with the Local Assessment System (LAS) and designed to certify student achievement of the Maine *Learning Results*. Assessments used for informing teaching and learning are exempt from this moratorium" (LD 1425, 2006).

During the moratorium, which was formally requested by the Maine Education Association, Michael Fullan worked as a consultant with the State to evaluate the LAS system, and noted that the biggest impact on student learning is instructional classroom practice, not assessments. He suggested that during the LAS pause in 2006-07, school districts should discuss the following questions:

- What is the impact of current practice on student learning?
- Have local practices produced positive results?
- Do the activities currently in place motivate students and teachers? (Informational Letter #148, 2006)

According to Fullan (2006), “Rather than a halt to Maine’s education reforms, the moratorium was intended as an opportunity to pause, reflect, and engage in a thoughtful investigation and consultation. The challenge is to develop a plan that will reenergize educators, expand capacity, and recommend policy changes to work toward the goal of graduating students in 2010 who meet Maine standards in Language Arts and Mathematics.”

In the end, the LAS collapsed under its own weighty framework, particularly the validity/reliability requirements, and it was discontinued as an educational reform to improve student achievement. According to Schmoker (2004), “system overload may be the biggest threat to genuine improvement” (p. 428). This background is important because it sets the stage for the release of Maine’s first list of failing schools in 2010, the topic of this study.

EDUCATION REFORM CHALLENGES IN RURAL SCHOOLS

Since this study examined the school improvement process of rural Maine schools, it is important to understand the challenges faced by rural school districts. The National Center for Education Statistics (2012) provides the most recent demographic statistics for rural schools, which are from the 2010-11 school year:

- 57% of all operating regular school districts and 33% of all public schools were located in rural areas
- 25% of all students attended rural schools
- Rural children living in poverty was highest in the South (22%); the West (20%); Midwest (15%); Northeast (12%)
- Ethnicity of children living in rural areas broke down as follows: White (71%); Black (10%); Hispanic (13%); Asian/Pacific Islander (2%); American Indian/Alaska Native (2%)

According to the National Center on Addiction and Substance Abuse, rural eighth grade students in the past decade were 59% more likely than their urban counterparts to use drugs.

How does rurality influence the challenges rural schools face and their ability to improve? According to Rosenberg, Christianson & Angus (2015), rural schools share three characteristics that distinguish them from non-rural schools and may influence their school improvement efforts: (a) distance from an urban center or metropolitan area, (b) geographic spread with low population density, and (c) small community size.

In areas with low population density, the tax base is often limited. This can result in limited services available to students such as after-school bus transportation and long daily bus rides to and from school. The isolation of rural areas also affects parental involvement in school due to the lack of public transportation. For parents who do have their own transportation, the distance to and from school can be unmanageable due to time constraints.

Rural schools are often at a disadvantage in recruiting high quality teachers/administrators and experience small application pools for available staff positions due to their remoteness and distance from larger towns and cities. Additionally, rural areas may offer fewer opportunities for spouses. Chance and Segura (2009) confirmed this issue in their research. A survey of more than 3,000 rural superintendents nationwide concluded that the top four reasons for difficulty in recruiting and retaining teachers were (a) low salaries, (b) social isolation, (c) geographic isolation, and (d) lack of adequate housing (Schwartzbeck & Prince, 2003). When new staff members are hired, they often follow a frequent pattern of staying for two to three years to gain experience and then move on to more lucrative positions in less isolated areas. This creates an additional expense of continually training new staff in the district's curriculum and software programs only to see them depart in a revolving door process. This is an enormous barrier for rural schools, as retention and recruitment of highly qualified staff are integral to academic improvement. As Hargreaves & Fullan (2012) state, "The most challenging schools just don't need teachers as good as those who work in wealthy suburbs or private academies. They need teachers who are better" (p. 79).

Chance and Segura (2009) noted two additional roadblocks:(1) high poverty rates as evidenced by the free and reduced lunch counts and (2) limited state and local financial resources for education. Often, students attending rural schools do not have equity of access to the same educational opportunities as

students in urban schools (Anderson & Chang, 2011). They may not be able to pursue resources such as collaborations with colleges/universities and cultural experiences. Due to the smaller size of rural schools, teachers often have to handle multiple roles and there can be a lack of course offerings. This can lead to a decreased student desire to prepare for and attend post-secondary education. Gibbs (2000) states, “Local social and economic conditions affect young people’s perceptions of the value of a college degree, expectations about their work life and the decisions they make about education.”

The National Center for Education Statistics reports that eighth grade students in “fringe” rural schools (five miles or less from an urban area) scored higher on the 2013 NAEP than the national average; however, the farther away rural students lived from an urban location, the lower their scores in both math and reading. Fishman (2015) stated, “Most federal and state education policies ignore rural America’s many natural advantages and force rural school districts to operate in ways similar to those in urban centers. Various types of policies, including compliance and reporting requirements, teacher certification and evaluation schemes, funding formulas and grants, and the broader category of “innovation killers” disadvantage rural schools in particular” (p. 9).

Student achievement is a critical issue in education; however, these collective factors can have a highly negative influence on student achievement in rural schools. Clearly, academic improvement in rural areas is significantly

hindered by legislation and policies that do not fit the configuration of their student population. Against this backdrop, the NCLB mandates were particularly challenging to implement in rural school districts.

CHALLENGES OF IMPLEMENTING AND SUSTAINING SCHOOL REFORMS

Particularly during the past five decades, there have been numerous school reform attempts to improve teaching and learning. Unfortunately, the majority of those attempts had limited success, and student achievement scores continued to either decline or remain stagnant (Tyack & Cuban, 1997). Increased legislative pressure and public scrutiny resulted in a long line of failed school reform efforts. Darling-Hammond states, “With the addition of a few computers, John Dewey’s 1900 version of the 20th century ideal is virtually identical to current scenarios for 21st century schools” (1993, p. 755). So, it should not be a surprise that the mission of improving schools is not a new idea. “The history of educational change is full of failed innovations. There is a simple, yet highly complex, explanation: change involves individual learning and yet external organizations typically orchestrate the change process. Without individuals reconstructing their mental models and personal practical knowledge, external reforms will remain superficially implemented” (Hannay & Earl, 2012, p. 314).

Of course, no one will disagree with the premise that *all* students need to graduate high school ready for college and/or career. According to Fullan (2013),

the moral imperative of schools "focuses on raising the bar and closing the gap in student learning and achievement for *all children regardless of background*." Calkins et al. assert, "There is no doubt that the mission is a worthy one, but if things are to be different this time – educators need to learn from our history of reform efforts and break new trails toward the horizon before us" (2012, p.180).

So, the first challenge to consider is the **repeated failure of school reforms**. While several reforms have had broad support, those efforts have still fallen short and failed to fully achieve their goals. For example, Title I of the 1965 ESEA reform does provide services to disadvantaged students in the areas of reading and math. However, its potential impact has been diminished because the majority of schools must use their Title I funds for a targeted assistance program that supplements reading and math instruction for individual students. To use Title I funds schoolwide, a school district's Title I allocation must be at least $500,000 and each school must complete an application for Title I Schoolwide status. The application is a year-long process and involves completing a Comprehensive Needs Assessment for each school. Thus, the inherent design of Title I prevents improvement for the entire education system for most school districts.

According to Jennings, "Over the past fifty years, U.S. school reform has been dominated by three major movements: promoting equity, increasing school choice, and using academic standards to leverage improvement. While all three

have changed schooling in notable ways, none has brought about the needed level of general improvement because they mostly sought to improve education from the outside rather than the inside" (2012, p. 2).

This view is supported by Ravitch (2010) who noted in her famous reversal statement:

> NCLB created a national education policy that neglected the central purpose of education: to shape good human beings, good citizens, people of good character with the knowledge and skills to make their way in their world and to join with others to sustain and improve our democracy… In retrospect, NCLB was the worst education legislation ever passed by Congress…It presumed that Congress knows how to reform schools, which it does not" (p.53).

The mythology of NCLB "plays on and reinforces the presumptions that (a) teachers are only teaching if students are learning in accordance with prescribed standards; (b) student learning is accurately reflected in scores on standardized tests that assess these standards; and (c) if students' tests scores are not meeting these standards, then teachers are, in fact, not teaching, that is to say, they are not doing their jobs (p. 215, Granger, 2008). "There is nothing inherently wrong with the idea of performance targets, nor is there anything inherently wrong with holding schools accountable for some kind of progress toward a target. A major design flaw of current accountability systems, however, is that the performance targets they set are completely arbitrary; they have no basis in theory or evidence related to what schools actually do when they are improving their performance" (Elmore,

2008, p.247). Of course, it is important to point out that NCLB did shine the spotlight on improving educational opportunities for disadvantaged children.

Fullan & Miles (1992) suggest various reasons for the lack of reform-oriented results, particularly emphasizing that solutions can become more complex than initially realized, and also pointing out that a reform is a political process as well as an educational one, often resulting in only a symbolic change. Based on his school reform research, Conley (1993) offers the following caveats prior to initiating a new reform:

- Many schools approach reform in a "piecemeal" fashion rather creating a cohesive plan. There must be a vision.
- Lack of time is always an issue. Schools should always expect and plan for an "implementation dip" when performance will decrease.
- It is essential to identify and involve stakeholders.
- Define terms so everyone has a common vocabulary.
- Reform can be overwhelming and complex, so be prepared for the time and energy that will be required to sustain it.
- Be aware that it is very easy to become so immersed in the data that change never occurs.
- The innovators can often become isolated rather than effecting change within the entire school community.

The **bureaucratic structure of schools** may be one of the most formidable challenges to be encountered when attempting to bring about system-level change in schools (Conley, 1993, p. 325). "To significantly improve education in the United States, schools need to transform themselves from the

bureaucratic Industrial Age structures in which they originated into modern learning and improvement organizations" (Mehta et al, 2012, p. 35). In that vein, it is important to note that local districts lack the authority to "resolve the discrepancies between conflicting state mandates" when policies are enacted at the state level (Darling-Hammond, 1993, p. 756).

"Policy talk about the schools has moved in cycles of gloomy assessments of education and overconfident solutions, producing incoherent guidance in actual reform practice. Hyperbole has often produced public cynicism and skepticism among teachers" (p.134, Tyack & Cuban, 1995). Smith and O'Day (1991) argue that this tug-and-pull of policy development and implementation among federal and state governments, local school districts, special interest groups, and others creates a system where it is almost impossible to sustain systemic improvement efforts. Ultimately, Long & Franklin (2004) point out "the process of implementation and the way that challenges or obstacles are addressed can determine whether policies achieve their intended outcome" (p. 310).

According to Fullan,

> Educational change fails partly because of the assumptions of planners and partly because solving substantial problems is an inherently complex business. The characteristics of the change, the makeup of the local district, the character of individual schools and teachers, and the existence and form of external relationships interact to produce conditions for change or no change. It takes a fortunate change of the right factors — a critical mass — to support and guide the process of

> relearning which respects the maintenance of individuals and groups and at the same time facilitates, stimulates and prods people to change through a process of incremental and decremental fits and starts on the way to institutionalizing (or, if appropriate, rejecting) the change in question. Single-factor theories of change are doomed to failure" (2007, p. 26).

Sustainability is the elusive component to school improvement. Once a school has attained success, sustaining that success can be very difficult. As Lambert (2007) stated, "Sustainable schools are those with high leadership capacity, defined as broad-based, skillful participation in the work of leadership" (p. 312). School leadership is recognized as a critical component to achieving sustainability, as noted in Murphy's *Framework of School Improvement* (2016). A strong internal accountability system has a clear focus on student learning, instruction, and expectations for both student and teacher performance. "Internal accountability precedes external accountability and is a pre-condition for any process of improvement" (Elmore, 2008, p.114). Zmuda et al. (2004) state, "Continuous improvement is reliant not on a fixed concept of success but on a constant striving to be better" (p.28). Fullan (2005) contends sustainability is strongly connected to changes in culture and implementing strategies that enable staff to question and adjust their evolving beliefs and values.

Elmore (2008) states, "Our capacity to initiate and sustain reform has exceeded, to a considerable degree, our capacity to solve the problems that undermine the effects of reform" (p. 3). "When historians of education look back at the late twentieth century, they will almost certainly describe it as a critical

period of changing policy perspectives on public education in the United States. What they will describe by way of practices is considerably less certain. Like it or not, standards-based reform represents a fundamental shift in the relationship between policy and institutional practice" (p. 44, Elmore, 2008). From a different perspective, Schmoker (2004) shares another approach to school improvement: "Instead of trying to 'reform' a school or system, we should be creating the conditions for teams of teachers to continuously achieve (and receive recognition for) short term wins in specific instructional areas (e.g. where assessment data indicate that students are struggling" (p. 427).

Clearly, there is no single answer to improvement of low-performing schools, and school reform legislation continues to dominate the education world. In fact, when school reforms fail to produce the desired outcomes, the questions always center around the errors in the reform rather than focusing on the errors in the system of school. "Although there are no silver bullets to turning around a school, schools that address instruction, rigor, and culture with persistence over time can dramatically increase the educational opportunities for all students" (Zolkower & Munk, 2015, p.58).

SUMMARY

This chapter presented an in-depth discussion of the *School Improvement Framework* (Murphy, 2016), the theoretical foundation for this case study. The history of major school reform initiatives was examined, including several pieces

of federal legislation: Goals 2000, America 2000, and No Child Left Behind. The focus on closing the achievement gap and mandating academic accountability resulted in a variety of state standards and a wide range of rigor on state accountability tests. Ultimately, the Common Core State Standards (CCSS) were developed, voluntarily adopted by the majority of states and then were either rejected or subsumed into the standards of individual states. The CCSS and other reform initiatives spotlighted the challenges to implementing sustained school improvement and maintaining academic success. This study strived to determine the combination of factors that are essential to successful school turnaround and sustainability of academic improvement. Chapter 3 will describe the research methodology used to collect data and provide an explanation of the study design, data sources, population samples and study limitations. Chapter 4 will describe the data obtained from the Maine High School State Assessment for High School A and High School B. Interviews, focus groups and related documents will be cross-synthesized to present commonalities and differences in each school's approach to its three-year turnaround process.

CHAPTER 3

RESEARCH METHODOLOGY

Educators are fond of saying that there is no one best way to teach or run a school. While this observation may be valid, there clearly are ineffective and inappropriate educational programs and practices.
(Duke, 2004, p. 115)

The intent of this chapter is to describe the methodology and procedures that were utilized to collect and analyze data. It includes an overview of case study methodology, an outline of the study design, a description of the population and sample, data sources and instrumentation, procedures used for data interpretation, ethical considerations, and study limitations.

In disclosure, one of the high schools involved in this study is in the school district in which this researcher works. The event being researched occurred several years before the beginning of this researcher's employment. Both the high school building administrators and the district administrators are new in their positions since the occurrence of the researched event. Because this researcher is a district level administrator, initial contact with any subject who works in this researcher's district and was recruited to participate in this study was contacted through Boston University email to emphasize the separation of roles. In addition, potential subjects and recruited subjects were reminded several times verbally and in writing that their participation was entirely voluntary, and they may withdraw from the study at any time without specifying a reason. Upon withdrawal, any collected information from that subject would be destroyed. It

should be noted that this researcher was not and is not the direct supervisor of any subjects.

STUDY DESIGN

The purpose of this case study was to determine the effective programs and practices implemented by failing rural high schools that resulted in their achievement of AYP as defined by the Maine Department of Education. This study focused on one overarching research question: How do failing rural high schools facilitate successful turnaround change? Additional questions that guided this study include:

1. How did the whole group (all students) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?
2. How did subgroups (gender, ethnicity, socio-economic, special education,) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?
3. What challenges were encountered in the turnaround process? How were these challenges addressed?
4. How successful were initiatives implemented as part of the transformation process?
5. How do these two rural high schools perceive their current capacity to sustain school improvement?

6. How did each school's turnaround efforts connect to Murphy's Framework of School Improvement?

The purpose of this dissertation was to gather and analyze data to identify and describe effective programs and practices that resulted in school improvement in two rural Maine high schools. A case study design was used to conduct a thorough examination of how these two failing rural Maine high schools achieved successful turnarounds. According to Creswell (2013), case study methodology is a research design "in which the investigator explores a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information and reports a case description and case themes" (p. 97). Yin (2014) states that "case study methodology has a distinct advantage when a 'how' or 'why' question is being asked about a contemporary set of events over which a researcher has little or no control" (p. 14). Yin (2014) refers to this type of case study as *explanatory* because its goal is to explain why a case is the way it is. "A case study is a good approach when the inquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the cases or a comparison of cases" (Creswell, 2013, p. 100).

POPULATION AND SAMPLE

In March 2010, the Maine Department of Education released its first official list of Maine's ten *Persistently Lowest-Achieving* (PLA) schools. Eight

were rural high schools and two were urban elementary schools. The list was based on federal criteria: continual low proficiency in mathematics and reading scores on the state assessment for three consecutive years (2007, 2008, 2009). The ten schools were divided into two categories based on their NCLB Title I status, a federal grant whose funds are used to academically support low-income students who have academic deficiencies in math and English Language Arts. Five of the schools were receiving Title I funds and they were labeled Tier I schools. The other five schools were labeled Tier II schools, meaning they were the lowest achieving 5% of the State's secondary schools and were eligible to receive Title I funds; however, those funds were applied to other schools within the school district. It should be noted the vast majority of school districts funnel Title I funds into their elementary schools rather than their middle or high schools.

Each school on this list was eligible to apply for part of a $12 million federal School Improvement Grant (SIG) to improve its reading and math scores to meet AYP. However, the funds came with an obligation to adopt an aggressive school reform model. There were four models from which they could choose, outlined in the United States Department of Education's *A Blueprint for Reform: The Reauthorization of the Elementary and Secondary Education Act* (2010):

- *Transformation Model*: Replace the principal, strengthen staffing, implement a research-based instructional program, provide extended learning time, and implement new governance and flexibility.

- *Turnaround Model*: Replace the principal and rehire no more than 50 percent of the school staff, implement a research-based instructional program, provide extended learning time, and implement new governance structure.

- *Restart Model*: Convert or close and reopen the school under the management of an effective charter operator, charter management organization, or education management organization.

- *School Closure Model*: Close the school and enroll students who attended it in other, higher-performing schools in the district.

Two schools did not apply for a SIG and did not select a federal school reform model. Two other schools applied for a SIG and were not funded; therefore, they did not select a federal school reform model. One school received funding and chose the School Closure Model. The remaining five schools received SIG funding for three years (2010 – 2013) and chose the Transformation Model. Within that three-year period, the nine schools that continued to function followed a variety of pathways and all were successful in their school improvement efforts, achieving academic benchmarks.

The focus of this study was a comprehensive investigation of how failing rural high schools facilitate a successful turnaround as measured by AYP. Maine's PLA list provided a purposeful sample of identified failing schools. "The logic and power of purposeful sampling lies in selecting *information-rich* cases for study in-depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term *purposeful sampling*" (Patton, 2002, pg. 230). The PLA list included six

small (under 300) and two medium-sized (301–699) rural high schools. The school size category was determined according to the Classification Committee of the Maine Principals Association in 2010. The two medium-sized rural high schools, one in northern Maine and one in southern Maine, were selected as the units of analysis (cases) for this case study. Multiple cases were purposefully selected by this researcher to illustrate two perspectives on the issue of failing rural high schools. These two high schools are referred to in this study as High School A (HSA) and High School B (HSB) to provide anonymity for the participants of the study. Patton (2002) notes, "There are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources" (p. 244).

DATA SOURCES AND COLLECTION

This case study included multiple sources of data. Yin (2014) and Patton (2002) support the use of quantitative *and* qualitative data in case study methodology to present a more complete and accurate analysis of the case(s).

Quantitative Data

The federal Elementary and Secondary Education Act, section 111(b)(3), requires all states to annually test students in mathematics and English Language Arts (ELA)/literacy in grades three through eight and in one year of high school. The State of Maine uses the SAT to fulfill the federal assessment

requirement at the high school level. It is administered to all students in their third year of high school to assess proficiency in ELA/literacy and mathematics. Maine's decision to assess with the SAT is two-fold: a) it satisfies the federal testing requirement for high school, and b) it encourages students to apply to college. The minimum state-mandated required participation rate for the SAT is 95%.

This study collected Maine's high school state assessment data in the content areas of ELA/literacy and mathematics for the two high schools selected from the PLA list. In addition, demographic variables (gender, ethnicity) and socioeconomic status was included in the data collection and analysis. The time spans examined were the three-year period that led to their designations as failing schools and the year of designation: 2006–07, 2007–08, 2008–09, 2009–10; the three-year period of their transformation process: 2010–11, 2011–12, 2012–13; and three years following their removal from the PLA list: 2013–14, 2015–16, 2016–17. The last set of test scores omits the year 2014–15 in which Maine administered the Smarter Balanced test as the state assessment; its results were not comparable with the SAT results. In addition, the administration of the Smarter Balanced assessment was very problematic and Maine returned to the SAT as the state high school assessment the following school year, 2015–16. These data are publicly available through the Maine Department of Education website and the Maine Data Warehouse website.

Qualitative Data

Three types of fieldwork strategies were used to collect the qualitative data for this case study: *interviews*, *focus groups* and *documents*.

"The purpose of qualitative interviewing is to capture how those being interviewed view their world, to learn their terminology and judgments, and to capture the complexities of their individual perceptions and experiences. The fundamental principle of qualitative interviewing is to provide a framework within which respondents can express their own understandings in their own terms" (Patton, 2002, p. 348). Interviews and focus groups are appropriate methods to gain insight into the circumstances, challenges, and successful strategies of turning around a failing school.

This researcher developed open-ended questions in an interview guide for the interviews and focus groups (Appendix A). Through the use of open-ended questions, this researcher provided the opportunity for the participants to self-reflect in a broad-minded atmosphere. "A truly open-ended question does not pre-suppose which dimension of feeling or thought will be salient for the interviewee. The truly open-ended question allows the person being interviewed to select from among that person's full repertoire of possible responses those that are most salient" (Patton, 2002, p. 354).

In order to preserve the anonymity and to protect the confidentiality of the interviewees, participants were assigned a code name (Appendix B). They are

referenced by their code names in this case study. For example, participants from High School A are designated as HSA-1, HSA-2, HSA-3.

This researcher conducted one-on-one, open-ended interviews with the two administrators who were the principals of the two failing rural high schools (HSA-1, HSB-9) during the three-year turnaround period (2010–13). A current School Board member who served on HSA's School Improvement Team (HSA-7) and a former HSB School Board member who participated in the decision to reject the SIG (HSB-14) were also individually interviewed to ascertain the community perspective on the failing school designation and the turnaround process. In addition, two key informants for HSA both agreed to participate in individual interviews (HSA-2, HSA-3). These participants were purposefully selected and were initially contacted through email, phone, or in-person communication to determine their willingness to participate in this investigation (Appendix C). In follow-up communication, meeting appointments were created. Prior to these meetings, participants received the Statement of Informed Consent (Appendix D). In addition, participants were emailed the interview guide to permit time for their reflection on the turnaround process. The interview guide allowed for a more consistent and comprehensive interview process by specifying in advance the issues that would be discussed.

Focus groups are another form of interviewing. The difference with a focus group is that "participants get to hear each other's responses and to make

additional comments beyond their own original responses as they hear what other people have to say. The object is to get high-quality data in a social context where people can consider their own views in the context of the views of others" (Patton, 2002, p. 386).

The names of the focus group participants for both schools were obtained through the individual interviews with each of the former principals; this is known as snowball sampling. In addition, the HSB former principal (HSB-9) referred this researcher to a key informant for HSB (HSB-10). These participants were initially contacted through email, phone, or in-person communication to determine their willingness to participate in this investigation (Appendix E). In follow-up communication, an interview time was arranged at their school. Prior to these meetings, participants received the Statement of Informed Consent and the interview guide.

This researcher moderated two focus groups, one at each high school. "The term *moderator* highlights a specific function of the moderator — that of moderating or guiding the discussion. The focus group is not a collection of simultaneous individual interviews but rather a group discussion where the conversation flows because of the nurturing of the moderator" (Krueger, 1994, p. 100). The HSA group was comprised of three teacher leaders who were employed both pre- and post-turnaround to obtain their perspectives on the strategies that were implemented in their schools and directly affected their

instruction. These teachers are currently employed at HSA and were purposefully selected. One of the HSA key informants (HSA-2) referred this researcher to a fourth teacher leader to interview who is no longer working at HSA. The HSB group was composed of two teacher leaders who were employed both pre- and post-turnaround to obtain their perspectives on the strategies that were implemented in their schools and directly affected their instruction. These teachers are currently employed at HSB and were referred by their former principal.

The results of this interviewing process provided background and understanding of the pre-turnaround, during turnaround, and post-turnaround environment and culture of High School A and High School B. “In depth interviewing is designed to ask participants to reconstruct their experience and to explore their meaning. The questions most used in an in-depth interview follow from what the participant has said” (Seidman, 2013, p. 94).

With the participants’ knowledge and agreement, all individual interviews and the focus groups were recorded to provide accurate data collection. Since face-to-face interviews are also observations, voice recordings enabled this researcher in providing full attention to the participant(s) of the interview/focus groups and allowed the researcher to take strategic and focused notes.

The third source of qualitative data was documents including the HSA School Improvement Plan, HSA staff meeting agendas, and HSA and HSB

School Board meeting minutes. "Documents prove valuable not only because of what can be learned directly from them but also as stimulus for paths of inquiry that can be pursued only through direct observation and interviewing" (Patton, 2002, p. 294).

DATA ANALYSIS

Quantitative Analysis

The quantitative data for this study — state assessment scores in mathematics and ELA/literacy — were mined from the Maine Department of Education, the Maine Data Warehouse and their archives. *Descriptive statistics* were used to describe and review patterns that emerged from the analysis of the test results for the three-year period (2006–07, 2007–08, 2008–09) leading up to the failing schools designation in 2009–10; the three-year period during the transformation process (2010–11, 2011–12, 2012–13); and the three-year period (2013–14, 2015–16, 2016–17) following transformation. Maine administered the Smarter Balanced assessment in 2014–15 and those data are not included because their results are not comparable. According to McClave & Sincich (2009), "descriptive statistics utilizes numerical and graphical methods to look for patterns in a data set, to summarize the informative revealed in a data set, and to present that information in a convenient form" (p.5). An Excel spreadsheet was used to compile the data for High School A and High School B, and generate comparative longitudinal graphs.

Qualitative Analysis

The general process used by researchers to analyze qualitative data is to organize the research, create themes through a coding process, and share the data in a table, graph, or other representation (Creswell, 2013). Because in-depth interviewing produces a massive amount of written material, the audio recordings were uploaded to Rev.com for transcription.

When the interview data was transcribed, this researcher became immersed in the text and formed codes. The data was analyzed through hand coding. This approach provided a concrete method for identifying evolving themes and patterns. "The process of *coding* involves aggregating the text into small categories of information, seeking evidence for the code from different databases being used in a study, and then assigning a label to the code" (Creswell, 2013, p. 184).

The codes emerged from the data and were analyzed for patterns and narrowed into themes related to the reform process for each school. "Themes in qualitative research are broad units of information that consist of several codes aggregated to form a common idea" (Creswell, 2013, p. 186). Quotes and descriptive narratives were included in the findings to support the major themes.

For the final analysis and interpretation of the themes, this researcher used "cross-case synthesis" advocated by Yin (2014) as an analytic technique in case study methodology that includes at least two cases. This approach involved

aligning the strategies and processes of each high school to Murphy's School Improvement Framework for the purpose of seeking similarities and differences between High Schools A and B.

LIMITATIONS

This case study is limited in its focus on two rural high schools in one state, Maine. The findings are specific to the culture and educational philosophy of that state. While there have been other studies on the turnaround process of failing schools, the overwhelming majority has focused on urban schools with diverse student populations. Although the results of this case study are not expected to be generalizable, the outcomes add knowledge to rural education literature and provide insight into the academic and cultural challenges that public rural high schools face in increasing student achievement.

Another limitation is the interview data could be distorted due to such issues as lack of recall, personal bias, or anxiety by the interviewee. It is also possible that the documents examined in this case study could be incomplete, not accurate or not available due to the passage of time.

An inherent limitation in case study methodology is that the interviewer is human and part of the interviewing process. It is therefore incumbent upon the interviewer to approach the process with an open mind, flexibility, and any biases set aside as well as monitoring any outward sign of agreement/disagreement with the responses of the participants. Lincoln and Guba (1985) advocate the

perspective that the “human interviewer can be a marvelously smart, adaptable, flexible instrument who can respond to situations with skill, tact, and understanding” (p. 107). Patton (2002) emphasizes, “The quality of the information obtained during an interview is largely dependent on the interviewer” (p. 341).

THREATS TO VALIDITY AND RELIABILITY

In research, plans must be prepared and implemented to address possible threats to the validity and reliability of the data. Validity and reliability go hand-in-hand. For the qualitative aspect of this study, validity is “an attempt to assess the accuracy of the findings, as best described by the researcher and the participants” (Creswell, 2013, p. 249). Creswell views validation as a “process” and a “distinct strength of qualitative research” (2013, p. 250). He recommends using “validation strategies” to document accuracy and reliability.

One validation strategy was *triangulation*. The triangulation strategy is a procedure that entails verifying supporting evidence from various sources to inform codes and themes. The interviews that were conducted with the principals, School Board members and focus groups of teachers as well as the documents previously described were the sources for triangulating the data. “When qualitative researchers locate evidence to document a code or theme in different sources of data, they are triangulating information and providing validity to their findings” (Creswell, 2013, p. 251).

The use of *key informants* at both schools was employed as another validation strategy. With this strategy, key informants are "sources of information" for events and conversations that this researcher has not directly experienced (Creswell, 2013). Creswell further states, "Key informants are people who are knowledgeable about the inquiry setting and articulate about their knowledge" (p. 321). It also provided an opportunity to address any overlooked information and to corroborate interviewees' statements.

In quantitative research, there must be instruments for measurement. For its annual mandated state high school assessment, Maine uses the SAT for its reading and math test. The SAT is the primary instrument for this study's quantitative data. The SAT is a standardized, norm-referenced test administered by the non-profit College Board and is recognized as valid and statistically reliable.

This researcher was the primary measurement instrument for this study's qualitative data. It is important to disclose that this researcher recently took a position in the district of High School A; however, pre-conceived assumptions or biases on the part of this researcher were not an issue in regard to the material that was examined as the events in this case study occurred well before employment. During the interviewing process, this researcher diligently and consciously employed a stance of *empathetic neutrality* "…an empathetic stance in interviewing seeks vicarious understanding without judgment (neutrality) by

showing openness, sensitivity, respect, awareness, and responsiveness" (Patton, 2002, p. 40). This researcher was interested in discovering successful strategies and processes to add to the literature of successful turnaround rural high schools.

SUMMARY

Chapter 3 introduced the design of the study, a description of the population and sample, the data sources and collection process, interview protocol, methods of data analysis, and discussed strategies to address threats to validity and reliability. Descriptive statistics was used to assess achievement outcomes. Naturalistic inquiry provided insightful perspectives on the two different turnaround paths.

A case study methodology was conducted to examine the turnaround process of two rural high schools in Maine who were designated as "persistently low-achieving schools." The study included both primary and secondary research data. A comparison of pre- and post-turnaround student achievement data (SAT reading and math) was performed to ascertain levels of improvement. Sub group (gender, ethnicity, SES) data was also examined. In addition, interviews were conducted with personnel of both high schools and community members to add to the fullness of study findings.

Chapter 4 is organized by the six research questions. It will focus on the results of the analysis of the quantitative and qualitative data. Background

information for both high schools will be provided along with a discussion of the challenges faced by each school and their decisions.

CHAPTER 4

FINDINGS

The prime responsibility of all educational leaders is to put in place learning that engages students intellectually, socially and emotionally.
(Hargreaves & Fink, 2004, p. 9)

The intent of this chapter is to discuss the research findings as related to the primary focus of this case study: How do failing rural high schools facilitate turnaround change? Six questions provided the boundaries that guided the findings presented in this chapter. The first two questions are answered through descriptive statistics. The remaining four questions are best addressed through qualitative methodology because the primary task was to document the implementation and level of success of the transformation processes selected by the two rural Maine high schools. This chapter first provides background demographics for the two high schools that were studied and then presents the findings in relation to the research questions.

BACKGROUND DEMOGRAPHICS OF HIGH SCHOOL A

High School A (HSA) is part of a school district in southern Maine. While it currently is comprised of three neighboring towns, the district was composed of four neighboring towns in 2010. A review of the communities' demographics revealed a population of approximately 13,000, evenly split between male and female. The overwhelming majority of residents are white at approximately 96% of the total. According to the National Center of Education Statistics, these towns

are designated as *rural distant* which is a census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster. The four-town district covered approximately 184 square miles. When it was named as a persistently low-achieving (PLA) school in 2010, HSA served a student population of 651 students. It had two full time administrators, just over fifty staff and a thirteen-member School Board.

In the years prior to landing on the failing schools list, HSA had not demonstrated any appreciable academic progress in reading and math by whole group or subgroups as measured by Maine's high school state assessment, the SAT. The subgroups that consistently scored lowest were the economically disadvantaged and students with identified disability. This non-Title I school accepted the School Improvement Grant funding.

BACKGROUND DEMOGRAPHICS OF HIGH SCHOOL B

High School B (HSB) is part of a school district in northern Maine comprised of four neighboring towns. A review of the communities' demographics revealed a population of approximately 8100 with males outnumbering females by 5%. While the overwhelming majority of residents are white at approximately 91% of the total, there is a significant Native American presence at approximately 6%. According to the National Center of Education Statistics, these towns are designated as *rural fringe* which is a census-defined rural territory that is less

than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster. This district covers approximately 147 square miles. When it was named as a PLA school in 2010, HSB served a student population of 378 students. It had two full time administrators, just over forty staff and a twelve-member School Board.

In the years prior to landing on the failing schools list, HSB had not demonstrated any appreciable academic progress in reading and math by whole group or subgroups as measured by Maine's high school state assessment, the SAT. The subgroups that consistently scored lowest were the economically disadvantaged and the Native American.

In the January 5, 2009 School Board minutes, the principal of HSB reported that HSB "was granted [NEASC] accreditation for the next ten years with warnings in two areas. The two areas of concern were "curriculum and community resources for learning." Further, the December 7, 2009 School Board minutes note, "We are on Continuous Improvement Status (CIPS) for HSB for economically disadvantaged. Because of the CIPS status at HSB, we had to develop and implement a literacy plan." This is the situation that led to the use of Title I funds at HSB for literacy support, making it one of only twelve Maine high schools that accessed the Title I federal grant. In the first year of the turnaround process, HSB made enough academic progress to be removed from CIPS status. However, the use of Title I funding coupled with limited academic

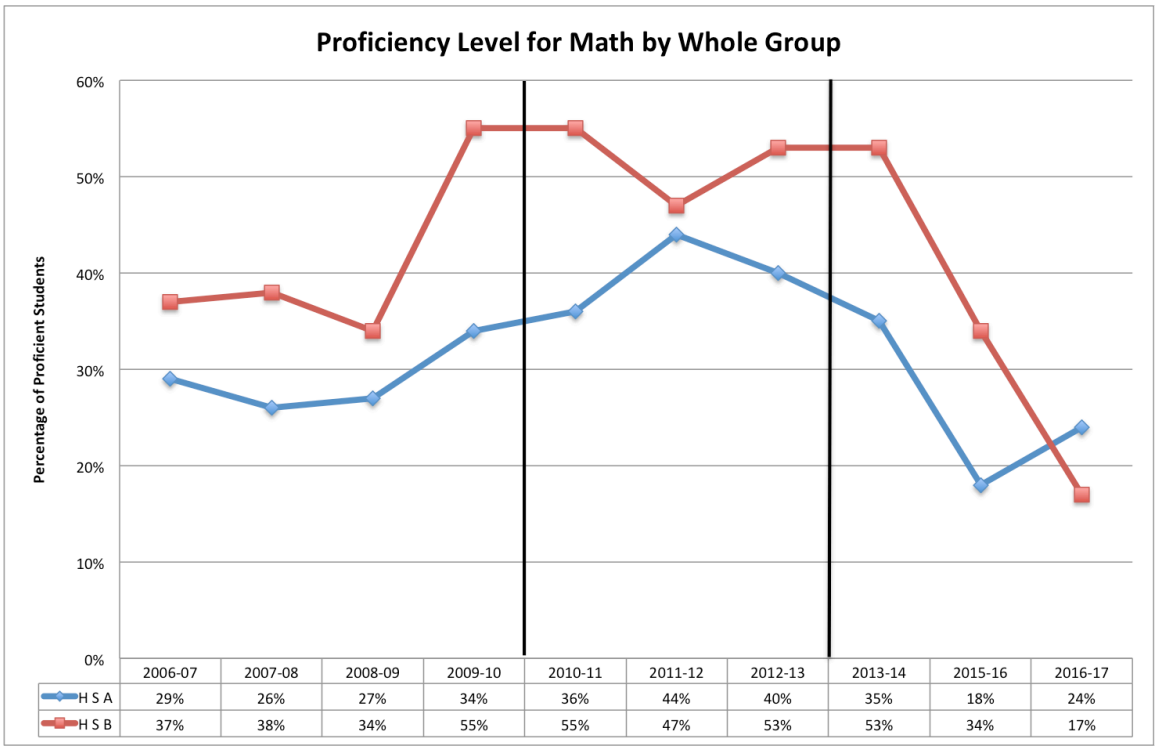
progress placed HSB squarely on the failing schools list in March 2010. This Title I school did not apply for the School Improvement Grant.

QUESTION 1

How did the whole group (all students) compare between pre-turnaround and post-turnaround status in math and literacy state assessment test results?

Proficiency level data was compiled for both high schools and are presented in Graphs 4.1 and 4.2. The data are divided into three time frames: pre-turnaround (2006 – 2010); during turnaround (2010 – 2013); and post-turnaround (2013 – 2017).

Graph 4.1

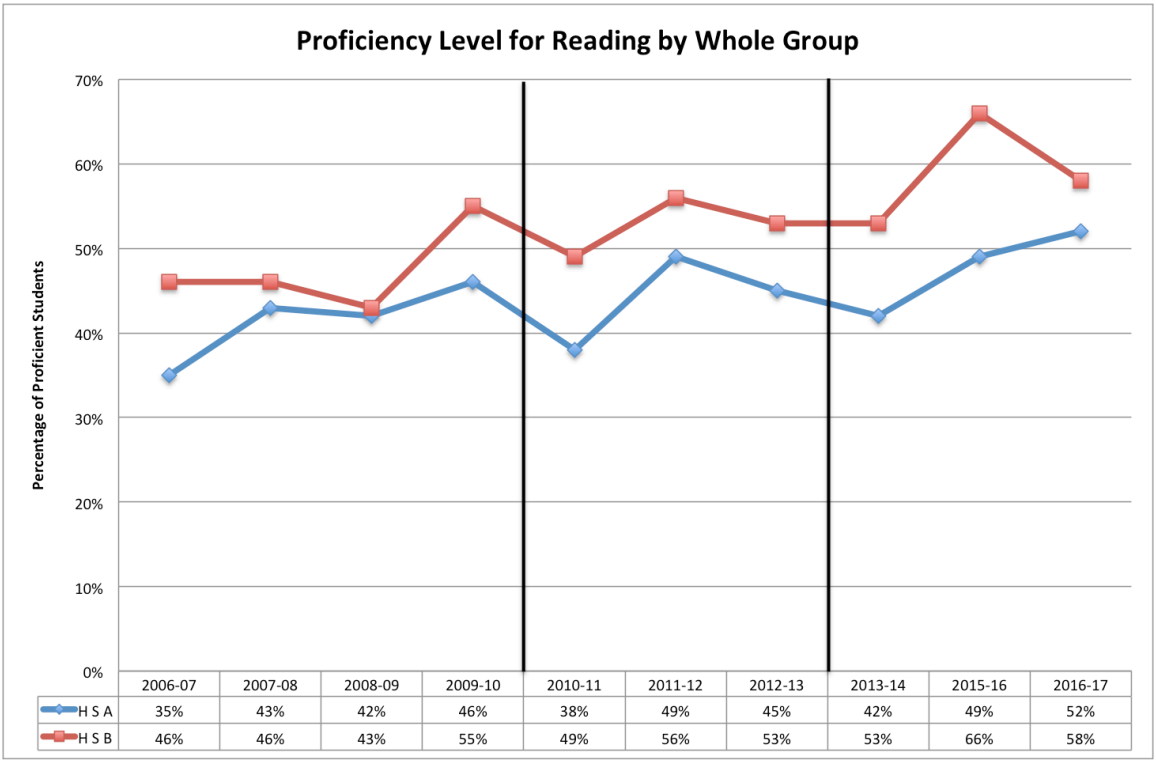


	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
H S A	29%	26%	27%	34%	36%	44%	40%	35%	18%	24%
H S B	37%	38%	34%	55%	55%	47%	53%	53%	34%	17%

*2014–15: Smarter Balanced state assessment is not comparable

In the pre-turnaround years of 2006–09, HSA and HSB were similarly flat in their annual growth. In 2009–10, just prior to being placed on the failing schools list, HSA made slight growth and HSB made dramatic growth. During the turnaround years (2010–13), HSA continued to make modest gains while HSB remained relatively stable with a small dip in performance. In the post-turnaround years, both schools began a downward trend.

Graph 4.2



	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
HSA	35%	43%	42%	46%	38%	49%	45%	42%	49%	52%
HSB	46%	46%	43%	55%	49%	56%	53%	53%	66%	58%

*2014–15: Smarter Balanced state assessment is not comparable.

In reading proficiency, HSA and HSB mirrored each other in their trend patterns of highs and lows in alternate years. By the end of the decade

represented on the graph, HSA increased seventeen (17) percentage points and HSB increased twelve (12) percentage points.

At the time the list was published in March 2010, each school had failed to achieve Adequate Yearly Progress (AYP) in both content areas by whole group and by the subgroups. According to the No Child Left Behind Act of 2001, AYP is the measure by which schools are held accountable for student performance. This measure changed annually and is specified in the following table in relation to high schools:

Table 4.1

AYP TARGETS FOR HIGH SCHOOLS

YEAR	READING % MEETS	MATH % MEETS
2010–11	78%	66%
2011–12	86%	77%
2012–13	93%	89%
2013–14	100%	100%

If the whole group of students or any sub-group of students did not meet AYP, then the entire school was designated as not meeting AYP. As the AYP goal increased, the number of schools that did not meet the target increased. HSA and HSB never met the AYP target even though they were improving and this was true of high schools across the state; no school achieved the 100% target set for 2013-14.

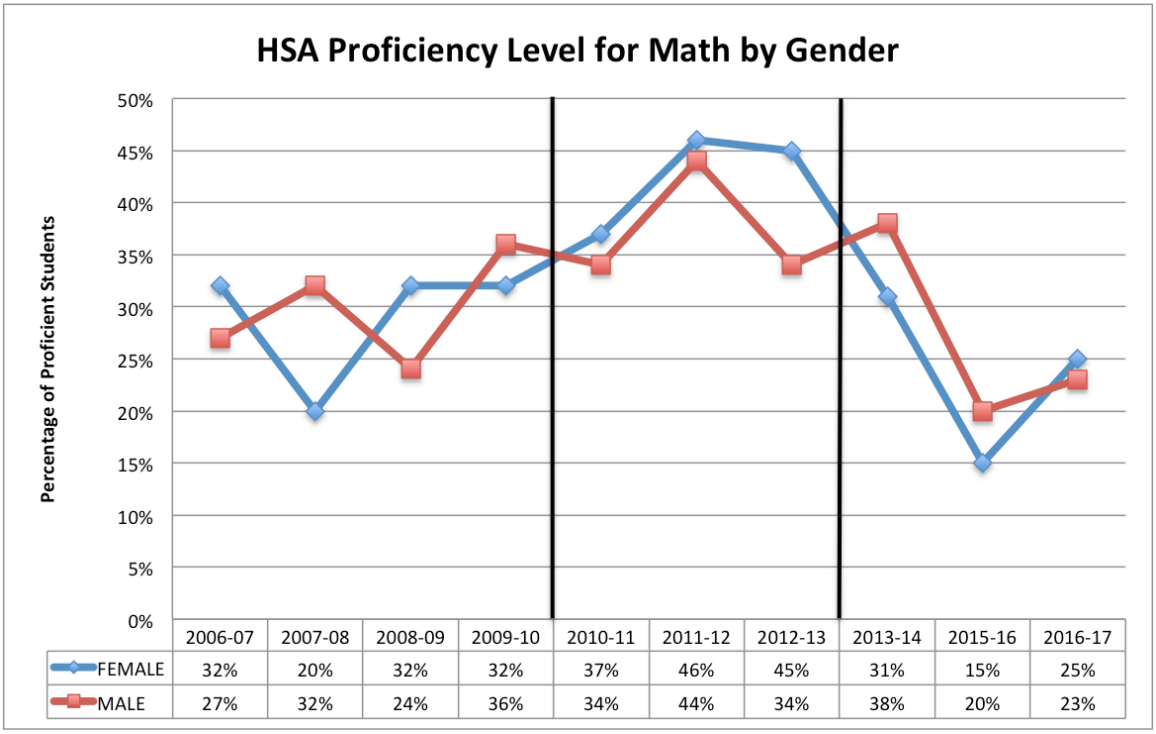
However, across the three-year turnaround period, HSA had an overall achievement increase of eight (8) percentage points in reading and four (4) percentage points in math. Similarly, during the same time frame, HSB had an overall achievement increase of four (4) percentage points in reading and an overall achievement decrease of two (2) percentage points in math. In addition, HSB's academic achievement in reading and math met or exceeded the State's proficiency levels by whole group and the sub groups of economically disadvantaged and students with disabilities.

QUESTION 2

How did subgroups (gender, economically disadvantaged, identified disability, ethnicity) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?

Proficiency level data for these subgroups was compiled for both high schools and are presented in Graphs 4.3 – 4.10. On the graphs, the data are divided into three time frames: pre-turnaround (2006 – 2010); during turnaround (2010 – 2013); and post-turnaround (2013 – 2017).

Graph 4.3

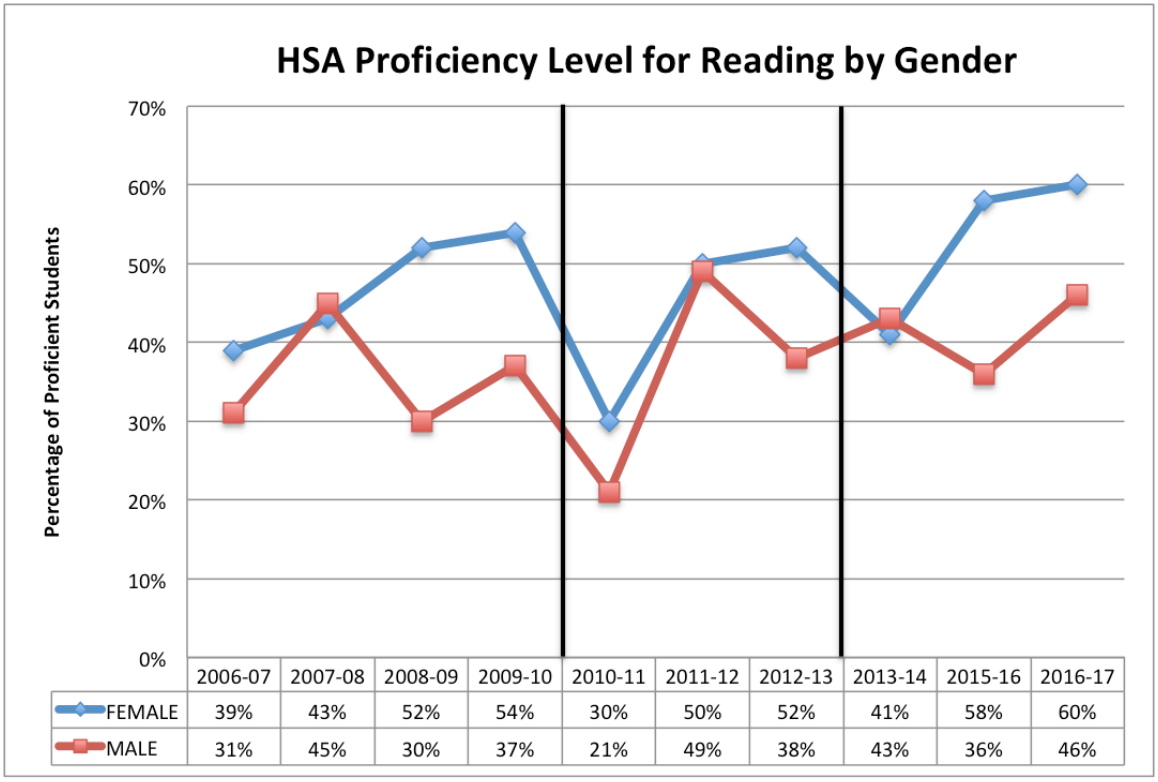


	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
FEMALE	32%	20%	32%	32%	37%	46%	45%	31%	15%	25%
MALE	27%	32%	24%	36%	34%	44%	34%	38%	20%	23%

*2014–15: Smarter Balanced state assessment is not comparable.

Contrary to the sentiment that was heard in the interviews, HSA females were not underachieving in math as compared to males; in fact, male and female scores alternated between high and low in the pre-turnaround period. During the turnaround, the females consistently outperformed the males. Proficiency levels were actually rising until the middle of the School Improvement Grant (SIG) years after which time they plummeted.

Graph 4.4

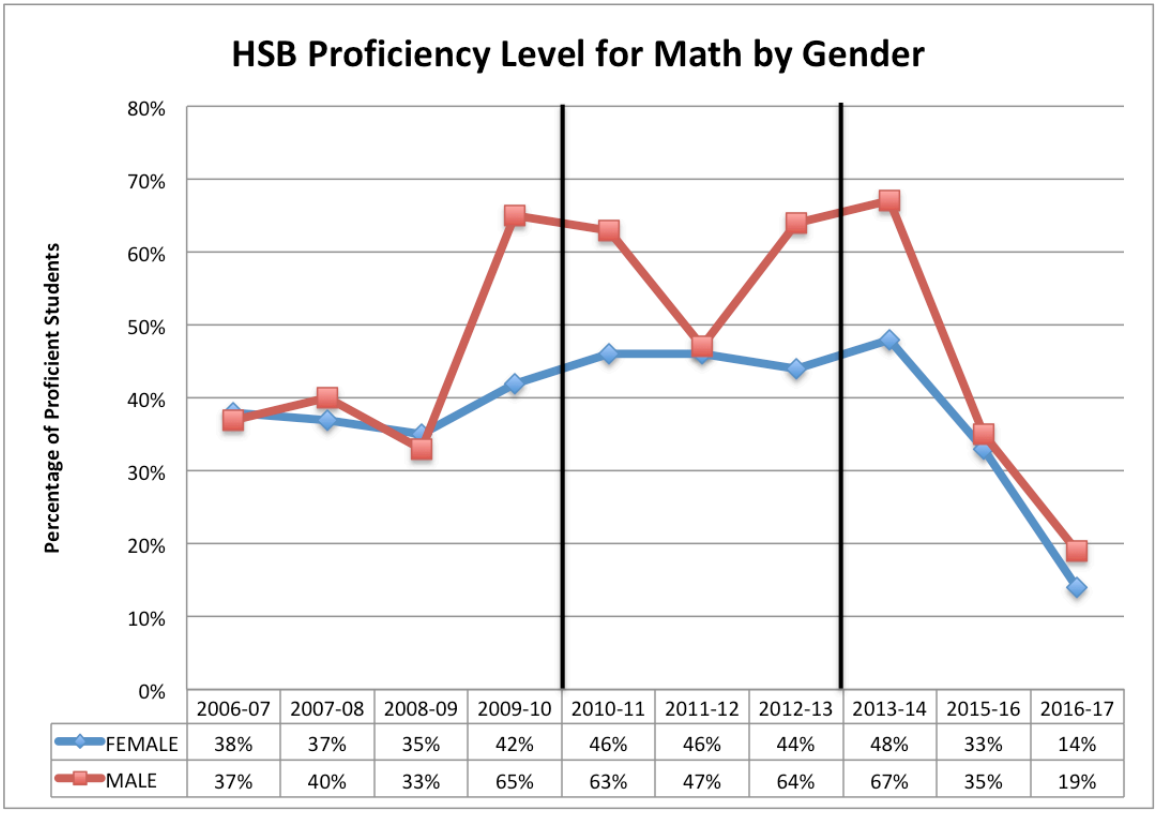


	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
FEMALE	39%	43%	52%	54%	30%	50%	52%	41%	58%	60%
MALE	31%	45%	30%	37%	21%	49%	38%	43%	36%	46%

*2014–15: Smarter Balanced state assessment is not comparable.

These data support the concern voiced in administrator and School Board interviews that males were underachieving in reading and less proficient than females, showing an erratic up-and-down pattern every other year. The female graph shows a cycle of two-three years of growth and then a dip. By the end of the decade represented on the graph, female academic achievement increased by twenty-one (21) percentage points and male academic achievement increased by fifteen (15) percentage points.

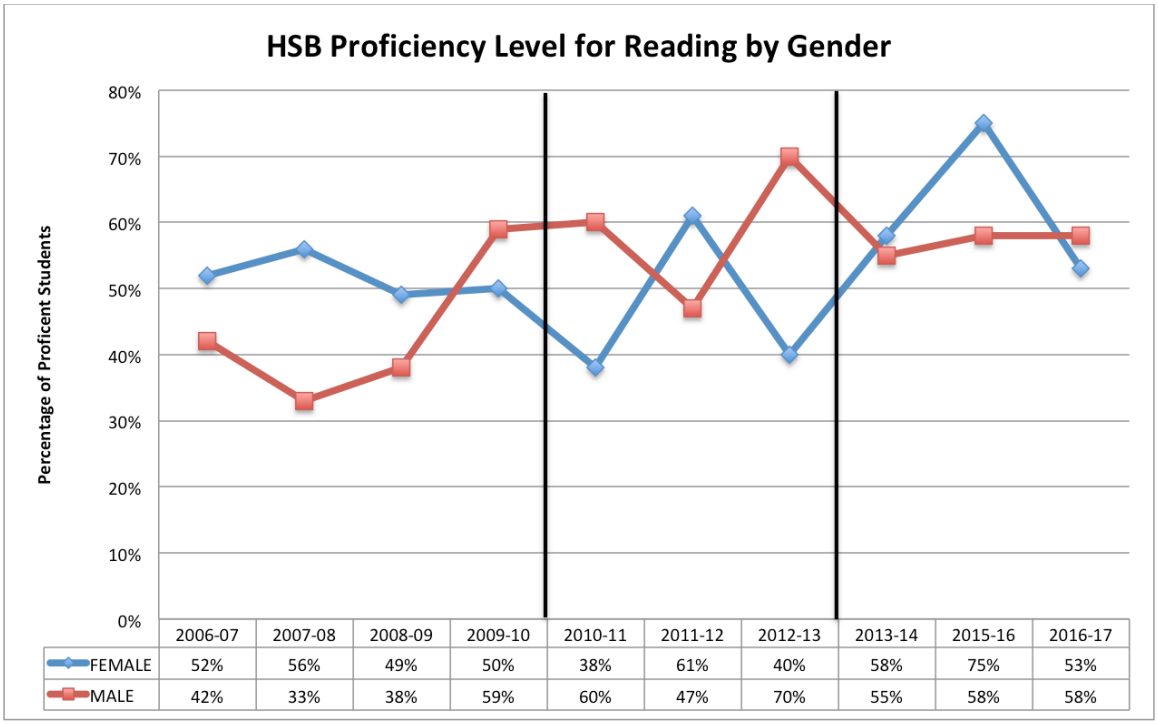
Graph 4.5



*2014–15: Smarter Balanced state assessment is not comparable.

At HSB, males and females were essentially at the same level of proficiency from 2006–2009. The year before placement on the list, both groups improved; notably, males improved dramatically. During the turnaround years, females flat lined and males declined dramatically mid-turnaround before improving near the end of the turnaround period. Then both males and females decreased significantly after the transformation period. In general, the males outperformed the females at HSB on the state assessment.

Graph 4.6

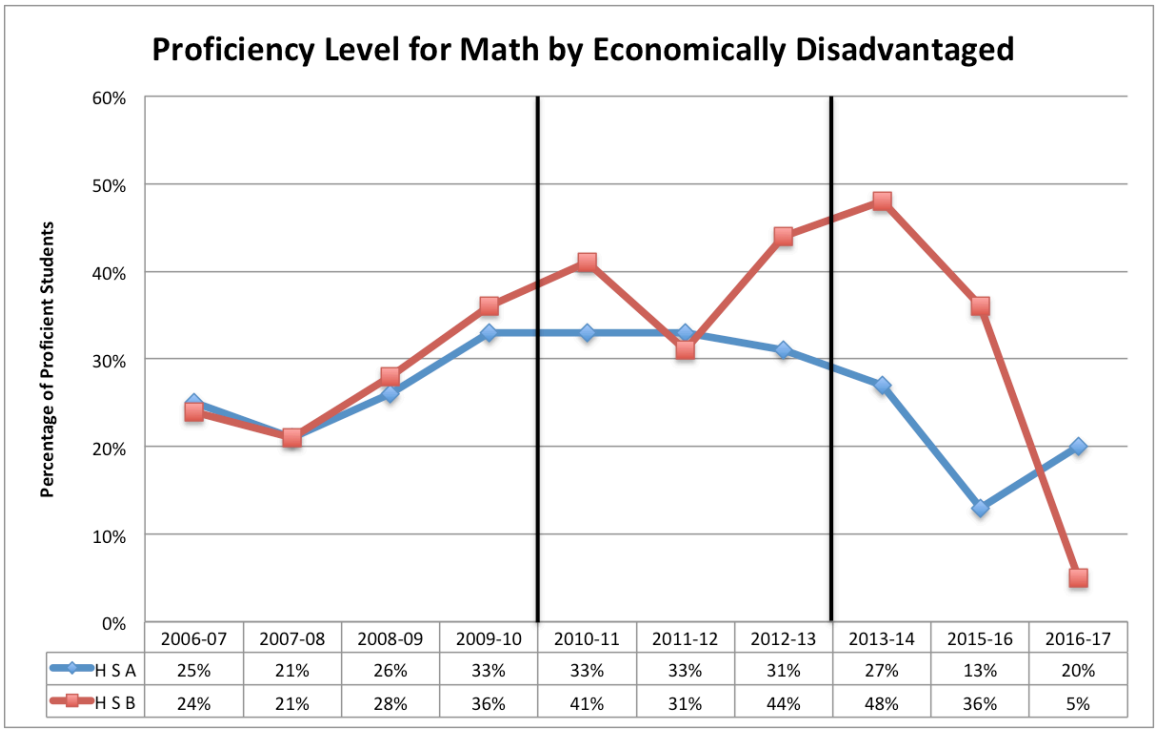


	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
FEMALE	52%	56%	49%	50%	38%	61%	40%	58%	75%	53%
MALE	42%	33%	38%	59%	60%	47%	70%	55%	58%	58%

*2014–15: Smarter Balanced state assessment is not comparable.

The trajectory of the HSB males in reading was very similar to the pattern of the HSA males in math. On this graph, males and females had alternating proficiency levels. Female performance in 2006–07 equaled the female performance a decade later in 2016–17. During the same decade, male performance rose sixteen (16) percentage points.

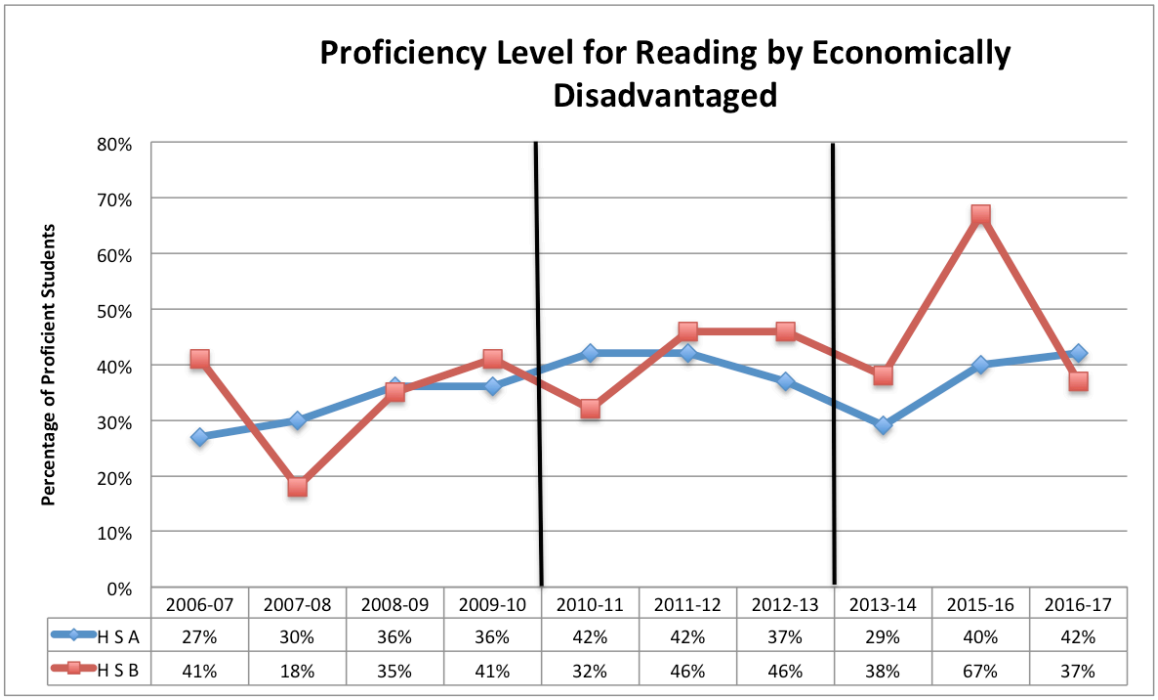
Graph 4.7



*2014–15: Smarter Balanced state assessment is not comparable.

Pre-turnaround (2006–09), both schools were on an upward trend. During the turnaround years, HSA essentially maintained and HSB was erratic, alternating between higher and lower proficiency levels. Post-turnaround, both schools experienced substantial drops in proficiency.

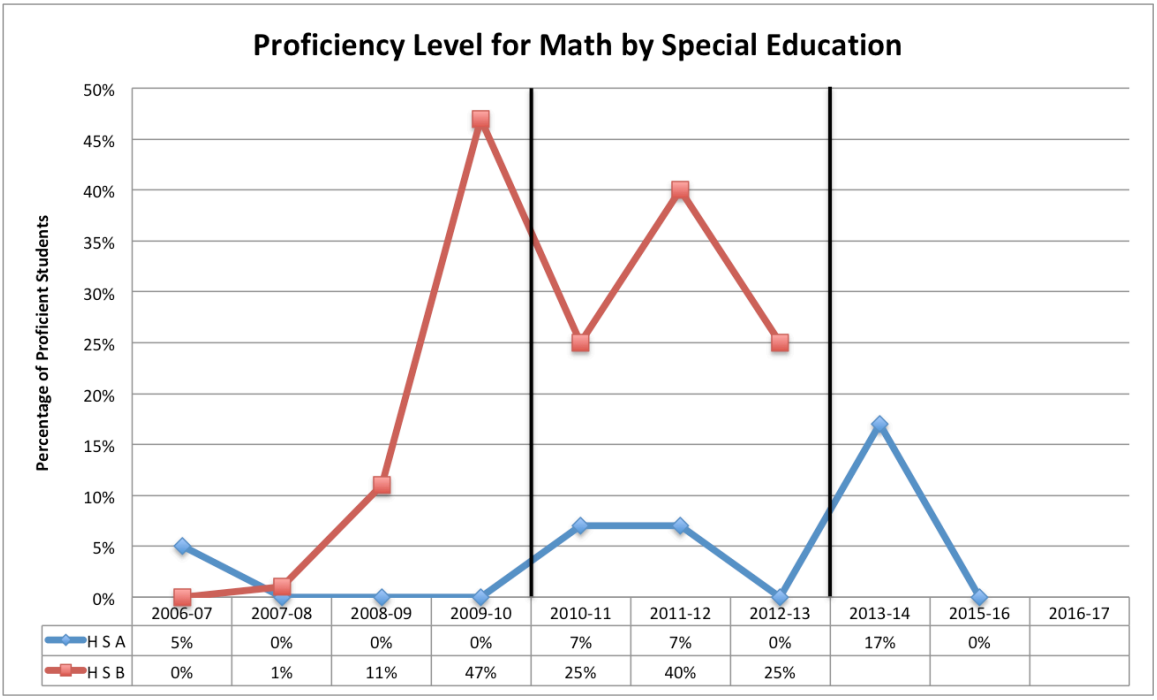
Graph 4.8



*2014–15: Smarter Balanced state assessment is not comparable.

HSA saw steady and gradual improvement in the years prior to and during the SIG. Near the end of the turnaround, it started to trend down slightly before increasing post-turnaround. HSB was erratically up and down during all three time frames. By the end of the decade, HSA had increased fifteen (15) percentage points and HSB had decreased by three (3) percentage points.

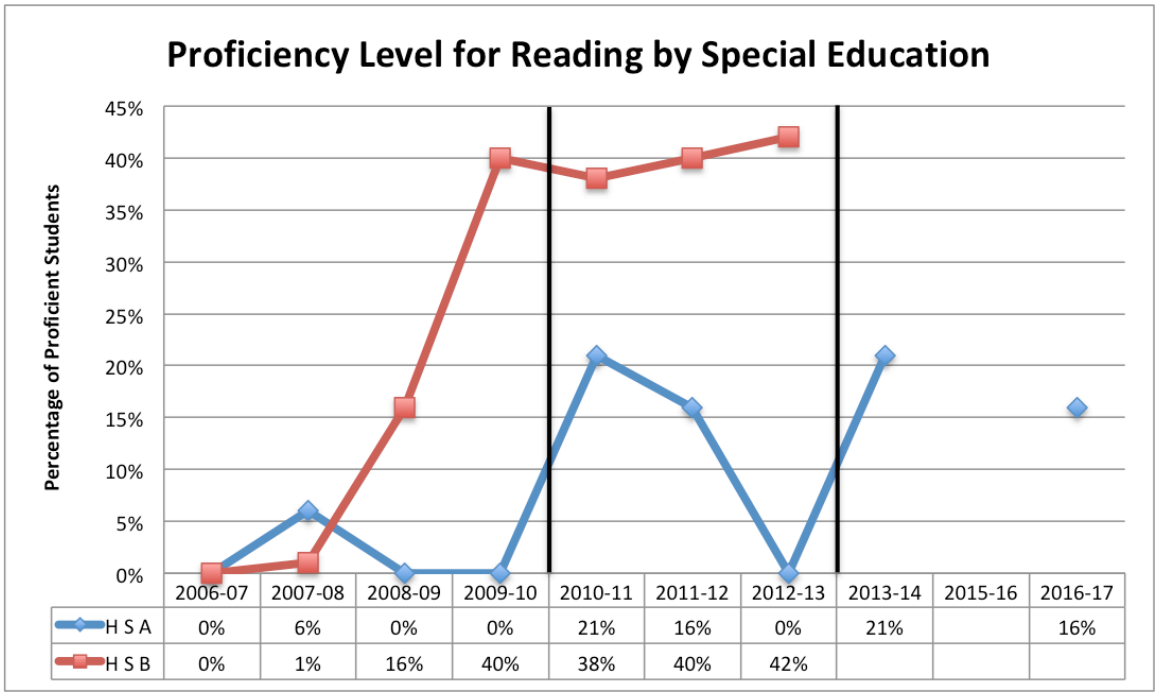
Graph 4.9



*2014–15: Smarter Balanced state assessment is not comparable.
**Blank boxes indicate the subgroup number was less than 10 so the data was suppressed to protect student privacy.

Prior to the turnaround, HSA was making zero progress. In the first turnaround year, it improved slightly and then leveled off. By the end of the turnaround period, HSA again returned to zero progress. For HSB, there was a dramatic increase pre-turnaround, but then scores were erratically lower and higher during the turnaround.

Graph 4.10



	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2016-17
H S A	0%	6%	0%	0%	21%	16%	0%	21%		16%
H S B	0%	1%	16%	40%	38%	40%	42%			

*2014–15: Smarter Balanced state assessment is not comparable.
**Blank boxes indicate the subgroup number was less than 10 so the data was suppressed to protect student privacy.

Similar to math, HSA showed no improvement prior to the turnaround. Then there was marked improvement during the first SIG year before declining again. HSB showed significant improvement in the pre-turnaround years, similar to the pattern seen in math, before leveling off during the turnaround period.

Ethnicity was the final subgroup that was studied as part of this research. However, Maine as a state, particularly in the rural areas, has an extremely high percentage of a White population. Truly, Maine has little diversity except in a few population centers in southern Maine where immigrants live. Thus, even though there is a significant Native American population in the locale of HSB, there are

not sufficient students of that ethnicity to form an appropriate statistical subgroup. So, the data is suppressed to protect student privacy and there is not enough information to analyze the proficiency levels of ethnicity as a subgroup.

The descriptive statistics present only one dimension of the stories of these high schools. To fully understand the "why" and "how," other data sources were examined. These sources included interviews, focus groups, school action plans, School Board minutes and Committee reports.

SUMMARY OF QUANTITATIVE FINDINGS

Two notable findings were gleaned from the examination of the SAT data. A comparison of all students in both high schools during the turnaround period revealed that HSA increased eight (8) percentage points in math and four (4) percentage points in reading. HSB increased four (4) percentage points in math and decreased (2) percentage points in reading. The second comparison focused on math scores by gender during the turnaround period. Interestingly, HSA females outperformed the males, and HSB males outperformed females.

QUESTION 3

What challenges were encountered in the turnaround process? How were these challenges addressed?

This case study employed both deductive coding related to Murphy's *Framework for School Improvement* and inductive coding in which themes emerged from the interviews and documents. This approach resulted in the

identification of the following challenges: apply or not apply; low teacher/student morale; mindset; and leadership.

First Challenge: Whether or Not to Apply for the SIG

The first challenge shared by both high schools and their communities was deciding whether or not to apply for the SIG. This funding was available to both HSA and HSB to raise math and reading scores to meet Adequate Yearly Progress. Schools that chose to pursue the SIG were required to implement one of the four very aggressive turnaround models outlined in Chapter 3. Of the four models, three were not feasible in Maine. The *Restart Model* required closing the school and reopening as a charter school; in 2010, Maine did not allow charter schools. The *School Closure Model* required closing the school and moving students to another high school in the district; in Maine, school districts only have one high school except for the city of Portland. The *Turnaround Model* required replacing the principal and rehiring no more than 50% of the high school staff; the requirement to rescreen all existing staff and rehire no more than half conflicted with both Maine state statutes and school district collective bargaining contracts. The time required documenting "just cause" under current law and policy would have been prohibitive. In addition, it is well established in the literature that recruiting and retaining high quality teachers and administrators in rural areas is a major challenge (Chance & Segura, 2009; Schwartzbeck & Prince, 2003; Hargreaves & Fullan, 2012).

Thus, the only remaining choice for a Maine high school was the *Transformation Model* that mandated replacing the principal. In addition, the timeline for the SIG Application process was very tight. Schools were notified of their "persistently low-achieving" status on approximately March 5, 2010 and the list of PLA schools was publicly released on March 9, 2010. A Letter of Intent was due by April 2, 2010 and the deadline for application submission was May 15, 2010.

HSA's Decision

During the two-month time period of March - May, 2010, the School Board for HSA held public informational meetings. The first meeting was on March 15, 2010 to review the Maine Department of Education announcement and its implications for HSA. During that meeting, the thoughts of the HSA faculty were presented by a teacher representative (HSA-8) on behalf of the high school staff in *A Call to Action*. In that letter, the teachers proposed that they "work with the Board and the community in developing a comprehensive, rigorous and data-driven plan for improving student outcomes." Their plan focused on the four areas in the Transformational Model: 1) improved teacher effectiveness; 2) comprehensive instructional reform; 3) community/school relationships; 4) operational flexibility and sustained support. They also clearly stated, "We do not wish to apply for federal funds in this undertaking" due to the "significant strings attached." Simply put, the staff of HSA believed they could accomplish the same

objectives outlined in the Transformational Model by themselves without federal support. By the end of this meeting, the School Board decided to do its own investigation. They formed the High School Status Committee that was comprised of two community representatives, two parents, two high school students, three teachers, four School Board members, the Superintendent and the Assistant Superintendent for a total of fifteen members. Additionally, a facilitator and two consultants on school reform were hired to guide the work of the Committee. This Committee followed an aggressive schedule, meeting three hours weekly for five weeks. An abundance of information was gathered through parent, student, teacher and community focus groups; parent, teacher, student and community surveys; classroom walkthroughs by trained observers using *iObservation*; and data analysis of student grades as well as standardized tests. The Committee's final report was sent to the School Board on April 19, 2010, and it contained a synthesis of their findings and corresponding recommendations for action.

After the Committee's report was released, the HSA Faculty sent a document to the School Board entitled *Faculty Response to the Report of the High School Status Committee.* In their account, the high school faculty wrote, "There were concerns by some members of the High School Status Committee and those who were observing the process about the data used to drive the final report. However, even more of an issue, was the apparent confirmation bias (i.e.,

the tendency humans have to preferentially seek evidence to confirm preconceived notions and to interpret ambiguous evidence in favor of their own ideas). The high school faculty further stated in their report, "There was data left out of the [Committee's] report which may serve as evidence that the HSA faculty and administration are capable of carrying out the reforms necessary to make our high school better for all students." The *Faculty Response* presented graphs and narratives to address their concerns about "misleading data" and "inaccurate conclusions" in the Committee Report.

Prior to the special School Board meeting on April 26, 2010 to decide whether to pursue the federal SIG, the Superintendent wrote an April 21st memo to the School Board to provide additional background information on the opt-in/opt-out decision. In it, he wrote,

> There are many wonderful teachers at the high school and much that is good there. However, being satisfied with the status quo should not be our goal. We should acknowledge the good, but sharply identify how to get better, perhaps much better. We must, like most high schools should do, begin to transform ourselves into an effective school for the 21st century. My recommendation to the Board is to be bold. As tough as it has been to take an honest look at ourselves, we should not doubt our will or our capacity to do better for our students.

At the beginning of the April 26th Board meeting, the retirement of the current principal of HSA was announced. In his retirement letter, he stated his "decision was made regardless of the decision of the Board tonight." It should be noted that principal was a native of this community and currently lives there; his

grandchildren attend school in the district.

The Board minutes reflect the findings and recommendations of the High School Status Committee were shared. In the Public Comment section of the meeting, one of the high school guidance counselors presented information to clarify student data the high school faculty believed was represented inaccurately in the findings of the High School Status Committee. Residents were split, expressing support both for and against applying for the federal SIG. When Public Comment was closed, the School Board debated the issue, focusing on their vision for the high school and the most appropriate path to achieve that vision. In the end, the HSA School Board voted 9-3 in favor of opting in to the Transformation Model and the federal SIG.

HSB's Decision

Shortly after the public release of the ten "persistently low achieving" schools in Maine, the School Board of HSB held a special Board meeting on March 15, 2010. A big question was whether or not the District was going to release the high school principal. One of the teacher leaders (HSB-12) reported, "We, as a staff, rallied behind our principal. We knew we had a good principal. The town did as well. But it was still scary." According to the minutes of that meeting,

> The Superintendent presented a power point presentation about the proposed federal grant funding for low performing schools. The major points of presentation given included rationale for the grant, deadlines for application and how the

> state determines districts, including ours, are low performing. The Superintendent also reviewed the four reform models suggested by the Federal Government for use by participating schools. The Superintendent reported that the Restart and School Closure models are not possible in our situation. The model deemed most plausible is the Transformation Model.

In addition, the Assistant Superintendent presented SAT and AYP data. The minutes stated:

> She also reviewed HSB's comparative data for the three year performance period the state used as the basis for determining low performance. She reported the data used for the state's determination regarding the District's low performance is questionable and that the District wants to verify the accuracy of the data and has requested the information to do so in accordance with the Freedom of Information Act.

A second School Board meeting was held on March 22, 2010. The minutes of that meeting note, "Numerous parents, students and staff provided comments and questions" about the implications of applying for a SIG. Speaking on behalf of the high school staff, a music teacher at the school said the staff reacted with "disbelief, shock, and anger" upon hearing news of the ranking. The School Board minutes captured the music teacher's statement:

> The school was told a month ago that it was on track to making Adequate Yearly Progress, as defined under No Child Left Behind. The next month, we are told we're a failing school. The label has hurt the staff, students and community. He urged the school board to say, 'No, thank you' to the state and let them know we won't accept the label of a failing school.

The minutes further indicate, "The Superintendent recommended that the School

Board reject the improvement grant from the state." At the end of the evening, the School Board voted unanimously "to go on record to reject the school improvement grant from the state." A former School Board member (HSB-14) stated that while she thought it would have been worthwhile to accept the School Improvement Grant, all of the other School Board members felt differently. "They felt the reform model was just too restrictive. They didn't want to go through the hoops and they were not willing to face the community if they had to fire the principal" (HSB-14). Interestingly, it was this former School Board member who made the initial motion that evening to forego the SIG. It should be noted that the principal had grown up in the community, attended school there, and had continued to live there with his own family.

On the following day, the Bangor Daily News reported, "Heeding the advice of more than 120 taxpayers unhappy with their school being named one of the lowest achieving in the state, the District Board of Directors has voted not to accept federal improvement dollars that come with the label." The newspaper also noted,

> Officials including teachers, administrators and community members, have spoken out against the ranking, saying the school has been unfairly targeted. They pointed out that in this past year HSB scored 65th of 127 high schools in the state as measured by the Scholastic Aptitude Tests used by Maine as the high school assessment. They also pointed out that many schools that did worse than HSB students did on the SATs were not labeled "persistently lowest achieving" schools. Officials also said that 70 to 80 percent of HSB graduates go on to pursue a postsecondary education.

> During Monday night's public hearing, the majority of the speakers urged the school to turn down the grant money and they railed against the designation that HSB was a 'failing school' (Bangor Daily News, March 23, 2010).

Second Challenge: Low Teacher and Student Morale

Both HSA and HSB faced the challenge of low teacher morale as they worked toward transformation. For these teachers, it was very difficult to move forward when they did not believe or accept their schools were "failing."

HSA's Morale

While HSA's School Board believed the SIG "could be a new beginning" and a new principal could bring "fresh energy," the teachers were still mourning the loss of their principal. Even though it was noted in School Board Minutes that the teachers were now "on board" with taking the federal funds, the teacher leaders agreed in their focus group discussion that morale was very low. "I think there was a lot of distrust between the teachers and the community. I think the community had a lot of distrust around the school, in particular. There was a fair amount of anger there as well, so that made it very hard, very challenging" (HSA-4). Another teacher leader added, "They felt unsupported. They felt they had a solution, but I don't think people sensed they really needed to change. People were very sad, frustrated, angry and very unsure of the future. Not a lot happened to address that directly, to try and find a common ground to work from at the beginning" (HSA-5).

HSB's Morale

HSB teachers were concerned the possibilities still existed that teachers and administrators could be replaced. There was the constant feeling that the other shoe was about to drop. As one teacher leader explained, "When the people from the State came and spoke about how to improve on the SAT, you were taking all that stuff deadly serious" (HSB-13). Although their School Board did not take the route of the SIG and replacing their principal, HSB teachers were still described as feeling "defeated," "devastated" and "blindsided." For many, it was a "dark period" for the school and the community. A current administrator/key informant (HSB-10) commented he was "stunned" to learn HSB was on the list. "I thought there may have been a mistake. The test was not an accurate reflection of where students really were academically, especially when you looked at the body of evidence across more than just that one assessment, that one year" (HSB-10).

For the teachers in these two schools, these strong emotions were never truly addressed. Both sets of teacher leaders commented that even when their schools were no longer on the list, there was not a sense of relief or celebration; the cloud over their school has never really blown away.

In addition, it was pointed out that both schools experienced low student morale, and it was never formally addressed. A HSA teacher leader observed, "Having us on this list really affected the kids' morale. They're being told they're

the stupidest kids in Maine. That really hurts them when they go to a sporting event and the other team is making fun of them for being on the list" (HSA-4). For HSB, "Since being on the list, we still today have to convince our own students that we are not at the bottom" (HSB-13).

Third Challenge: Mindset Shift

This third challenge was the most difficult as it required an internal change in all teachers of both high schools. According to two key informants, a third challenge for HSA and HSB was trying to shift mindsets and embedded beliefs about education (HSA-3; HSB-13). As mentioned previously, neither school ever accepted its placement on the failing schools list, albeit for different reasons. Therefore, they did not believe there were any solid, foundational reasons to change.

HSA's Mindset Shift

Upon his arrival, the new HSA principal learned that 65% of the staff graduated from HSA and 100% of the teachers had not taught anywhere else. So, he held office hours in the summer and invited all teachers to meet with him. About 40% accepted that offer. "To a T, I heard that the district was way off base. It was the kids; it's the families. The kids are lazy, apathetic. There's nothing wrong with what we're doing" (HSA-1).

HSB's Mindset Shift

For HSB, a teacher leader shared the staff had many discussions about

being labeled a persistently low-achieving school. “We had a lot of discussions about how we didn't want to change everything because we truly didn't feel like we deserved to be on that list. It wasn't that, well, we're not happy about being on the list, so we're just going to whatever, drag our feet, or resist. It really was, we don't feel like we belong on that list” (HSB-13). A current administrator/key informant added, “All right, what is it that we're doing wrong? The deeper we looked into it, I don't feel like we're doing a lot wrong. Can we do some more things right? Can we be better? Always. I think the more we looked at it and we did reflect, we said, "I don't see how we're a low achieving school. We're not a failing school” (HSB-10).

So, the overall focus for both schools changed from the challenge of shifting mindsets to a technical approach: how do we improve SAT scores and make Adequate Yearly Progress so we can exit the list?

To that end, both HSA and HSB added mandatory SAT prep classes that focused on test-taking skills. Consultants from the state worked with the teachers to train them on analyzing the math and reading test results and separating students into three categories: those who were meeting or exceeding the standard; those who could make it with support; and those who would not meet it because there was not enough time for the growth. A HSB teacher leader expressed, “You're focused very much on those kids that are not there, but are likely to make it with the proper support. You were always aware of who those

students were, and trying to give them whatever support you could because you're fighting for your life" (HSB-13). In addition, teachers guided students through one practice problem per day in their math and English classes from the first day of school until the test day. The schools also focused more on PSAT scores.

Since at this time the SAT was administered on a Saturday, both schools provided transportation to and from students' homes, and parents received reminder letters and phone calls about the test date. Students were enticed with a full, hot breakfast, raffle prizes, a comp day from school and early senior privileges for participating in the Saturday SATs and demonstrating an honest effort to do their best.

HSB went even further in their student preparations for the SATs: the staff created their own two-hour mock SAT tests that students took a month before the actual assessment. The former principal (HSB-9) and SAT teachers then met individually with each student to review the results, analyze the reasons a student answered the questions the way he or she did, and discuss test taking strategies, looking at ways the real test could be approached differently. The HSB former principal stated, "I think they [the conversations] were very beneficial. Did they hit home and have a big impact with every kid? No. But the conversations weren't just about the results of their mini-assessment. They were conversations about perseverance. They were conversations about pride. They

were conversations about achievement for themselves, for the school, for the community" (HSB-9).

Fourth Challenge: Leadership

Leadership, the Integrative Dynamic in Murphy's *School Improvement Framework* (2016), was an area in which HSA and HSB diverged.

HSA's Leadership

For HSA, the required change in high school leadership was a challenge that proved to have ripple effects during the three years of the School Improvement Grant (SIG). While the new principal was appropriately welcomed to HSA, underlying negative emotions remained among staff members that were never addressed and remain to this day. A teacher leader shared in the focus group, "Removing the principal was the biggest point of contention in the community. The principal was from the community and still lives here" (HSA-6). In fact, during the first year of the transformation process, the senior class invited the former principal to be their guest speaker at graduation.

Another teacher leader in the focus group elaborated,

> The new principal followed a beloved principal who had been here for seventeen years. His secretary, who had been at the school longer than he, resigned in protest. The perception was that the Superintendent was responsible for getting rid of our beloved principal. He was also responsible, to add insult to injury, for bringing a middle school principal into our school to change us. There were some serious feelings of anger and lack of trust, lack of respect" (HSA-4).

A HSA key informant added, "There was definitely a level of resentment directed

toward the new principal, whose administrative experience was transforming a low performing middle school level, although he had been a high school teacher for ten years" (HSA-3).

In addition to the new principal at HSA, a second leadership change impacted the turnaround plan. The Superintendent, who had headed up the Committee that had written the SIG Plan, resigned at the end of the first year of the grant. Until that point, the Superintendent had been overseeing the new principal's implementation of the SIG Plan. When he left, the Assistant Superintendent became the Superintendent for the reminder of the turnaround process and beyond. For the most part, she remained on the periphery of the SIG Plan unless her assistance was requested. Thus, the new HSA Principal proceeded to implement the SIG Plan without the checks and balances that were previously in place.

HSB's Leadership

For HSB, a document analysis of the 2010 – 2013 School Board Agendas and Minutes revealed that District leadership changed several times during the three-year turnaround period. The superintendent, at the time HSB was placed on the list in March 2010, resigned in August 2010. During the next school year, 2010-11, there were two interim superintendents; this was the first year of the transformation period. In 2011-12, a permanent superintendent was secured who stayed for four years through June 2015. However, this change in district

leadership did not affect the three-year turnaround plan of HSB because their original Superintendent had not been instrumental in support or leadership nor were any of the three subsequent Superintendents.

Both HSB teacher leaders agreed that their principal, whom the School Board had retained, provided the leadership that was so necessary during the transformation process. He was a “good organizer, a curriculum guy who could make the trains run on schedule and understands how things work” (HSB-13). In addition, HSB also had the support and leadership of their Assistant Superintendent/Curriculum Coordinator. “She had vision, an understanding of systems, a belief in what students are capable of doing and a certain courageousness to go where other people would not, a driving force behind a lot of this movement toward really upping the rigor of academics” (HSB-12). In speaking to the importance of leadership, one of the teacher leaders stated, “I can't imagine us being where we are today without that leadership in place at the time that we had to make all of this change” (HSB-13). The HSB teacher leaders (HSB-12, HSB13) did note during their focus group that the position of the Assistant Superintendent/Curriculum Coordinator, who had been very involved during the first year of the transformation period, was eliminated during the second year of the transformation period so the district level support was non-existent from that point.

As indicated by the experiences described in HSA and HSB, school and

district leadership are critical for successful school improvement. It is the dynamic that integrates the other three components of Building Materials, Construction Principles and Supports into a completely functioning Framework.

Fifth Challenge for HSA Only

Finally, it should be noted that a very distracting challenge faced by HSA that was not actually a part of their transformation plan was a school construction project. During the first year and a half of their turnaround process, there was major reconstruction taking place in a significant part of the school. A key informant shared,

> So I literally remember walking down the hallway one day and opening the door into a room that I went into every day. I opened the door and I was looking outside. There was plastic hanging all over the place. Our rooms changed three times in one year. There was dust all over the place. There were construction crews there on a daily basis. It was a massive project that was going on at the same time (HSA-3).

QUESTION 4

How successful were initiatives implemented as part of the transformation process?

In response to being rated as failing schools, both HSA and HSB implemented initiatives in their buildings to reverse their rankings. These initiatives were organized around the themes of curriculum, teacher evaluation, school culture, school structure and resources.

Theme: Curriculum

HSA's Curriculum

To implement its school improvement plan that contained sixty-one objectives across nine categories, HSA had to understand the scope of the Transformation Model. It is important to remember that the Transformation Model of School Improvement was designed at the national level by the United States Department of Education, and it was a "one-size fits all" type of model. A key informant (HSA-2) commented that while the SIG Plan included many areas of focus and recommended actions, they never seemed to be connected into a manageable framework. "A bone of contention amongst teachers who are still here is that when this transformation occurred, everything was thrown out. Teachers were not asked what was working in the past, what was not working in the past, what is it that was here that is salvageable and may be used in a transformational model (HSA-2). A teacher leader during the focus group stated,

> The transformational model was adopted as a ground-up-rebuild with nothing saved or salvaged. As an example, a lot of what the teachers were doing, and a lot of what the school was doing, was moving toward a proficiency-based system. They were taking the foundational steps, or building that foundation for that type of a system. It was completely thrown out. I'm not sure anybody even knew it was there, anybody who came from the outside even knew it was there. That still lingers today (HSA-5).

Part of the vision of the SIG Plan was for HSA to transform itself into a 21st century school. To achieve that, a "school within a school" model was eventually adopted. During the first transformation year, this model manifested as Educational Learning Opportunities (ELO). ELOs were explained to this researcher as "passion teaching." At the end of the first year, all students participated for three days in offerings based on students' and teachers' interests, and then everyone showcased. Its purpose "was for building relationships and bringing in the community" (HSA-5).

The ELOs continued into the second year, and were developed into an *Academy* model for the third year. It was described as an "approach toward different instructional practices, a new approach in learning" (HSA-5). One of the teacher leaders stated during the focus group,

> Part of the reason for the academy was to bring outside resources and experts into the building to get the community involved. Students would be grouped by interest rather than by grade level and that would change the culture and bring in a sense of community within the school. We thought it would help with student engagement, bullying, increase the feeling of safety. 21st century skills were the framework in which the academies were developed – the academies were based on different strands in Maine's Learning Results, for example, a Science STEM, visual arts, global studies. The idea is that all students would receive the same curriculum except through a different lens (HSA-4).

This model showed great promise and the majority of teachers bought into this learning approach. The academy offerings were created with teacher and student

input. The plan was for students to enroll in a team-taught academy each semester and then exhibit their new learning at the end of the semester. The academies became part of the curriculum and students earned credit for them. They still exist today, although the format and content have changed substantially over the years.

In addition to the academies, a humanities program was implemented that combined social studies and English in a double block class team-taught by an English teacher and a social studies teacher. Students may still take this class today as an alternative to separate English and social studies classes.

The sequence of math courses was also scrutinized, though not changed. A teacher leader in the focus group remembered, “One of the other things that was discussed that really didn't happen was trying to speed up the course path for math, get more kids exposed to those math problems that were on the SAT. That still hasn't happened yet in the district, making sure every kid has Algebra I in eighth grade, so by the time they take the SAT, they've all seen Algebra II” (HSA-6). It is interesting to note that the Math Department did not and does not believe in using any particular text or program. Each of the math teachers pulls their instructional materials from several different sources.

One of the objectives of HSA’s School Improvement Plan was to increase the graduation rate. Therefore, credit recovery classes were added to the curriculum.

> That was one of the big foci of the project, was to get kids back in the classroom to learn those things they didn't learn. But it wasn't done by way of differentiation. It was all credit recovery. One example of that was we extended summer school through an online credit recovery program and so our graduation numbers went up. So I think that was one of the things that I always felt like was part of the game that we were playing, but that certainly didn't say anything about whether the quality of the learning improved (HSA-5).

The School Improvement Plan also included adding an Advisory Program; Literacy Labs for struggling students; SAT prep classes; a Freshman 101 course for study skills; service learning and community service components as part of the core, required curriculum; the introduction of Personalized Learning Plans for each student; and the development of a Senior Year Project. None of these reforms were implemented in the transformation years.

HSB's Curriculum

HSB's School Improvement Plan included two curriculum initiatives. The first one, instituting a SAT prep class, has already been documented. The class was mandatory during the first year of the turnaround process and then became an elective class for the final two years. It does not exist today.

The other initiative was two-fold, targeting math and English. HSB had begun examining their curriculum offerings and the courses that students were taking a few years prior to being on the list in 2010. The high school wanted students entering ninth grade to take College Prep (CP) Algebra 1 and CP English 9. This would ensure that students were on track to take Algebra II for

the SAT. When the high school discovered how many capable students were taking the least rigorous classes, it started looking at the middle school curriculum and worked with the middle school teachers to provide interventions earlier to help students become on track for CP entering high school. By the 2008–09 school year, the teacher leaders in the focus group estimated that 75% of students were going into CP Algebra and English classes. According to the math teacher leader, “Years ago, one-half to two-thirds of students would opt to take the general math classes. If students were struggling in CP math, they could go to Guidance and have their math class changed. With the advent of the failing school label, all student math placements went through the math department so over the years the number of students taking general math decreased significantly. More students have moved up a level of rigor” (HSB-13). The math department also discontinued lower level courses such as business math and instituted a math-learning lab so students could receive extra help during the school day. In addition, math teachers stopped spending several weeks at the beginning of year reviewing, which takes up precious time. They knew the concepts were taught in middle school and believed that students would be refreshed with those skills as they progressed through their high school math class. Further, the math teachers analyzed the 8th grade data and chose a cohort of 8-10 students who were on the cusp of being able to meet proficiency in CP math. They met with them and their parents, and placed these students in a daily

math class in ninth grade rather than the every- other-day block schedule. The goal was for them to go into CP geometry as sophomores. About three-fourths through the year, the students would be caught up in Algebra I and then they were taught some basic geometry knowledge. At that point, the students were scheduled to sit in on geometry classes and see that they could do it. This was a successful approach for the majority of the cohort.

Interestingly, just like at HSA, the HSB Math Department did not use a "canned program like Pearson or MacDougall." Instead, the teachers pulled instructional material from several sources. The Math Department also consulted with the College Board representative who lived in Maine to review their curriculum to determine the elements of the SAT that needed to be in the math curriculum. Along with their curriculum review, they made their own tests and aligned them with SAT math requirements.

The English Department implemented the same process with their curriculum. The English teacher leader narrated,

> Years ago, many of the freshman coming up from eighth grade would automatically go into those general English classes. There might be three sections of those general classes, and we would have kids choosing those classes because they were easier, even if they didn't belong in there and they could do more work. We had kids in there with really high grades. With the failing school issue, students from the middle school were screened so more went into the CP classes. A general class is still offered, but the class size is smaller and there are less sections. More honors and AP classes were added. Literacy labs were added to support

> struggling students and are still in existence today (HSB-12).

Both HSB teacher leaders (HSB-12, HSB-13) agreed that the two major changes were placement of students in more rigorous classes and adding math/literacy labs for additional academic support, though they were clear that the placement of students in more appropriate classes began prior to 2010 failing schools list. “We’ve elevated a level of rigor, and I think that’s made a big difference” (HSB-12). So, while the instruction and curriculum did not change due to the transformation model, a higher number of students were placed in the higher-level classes.

Theme: Teacher Evaluation

HSA’s Teacher Evaluation

According to the School Board Minutes of **HSA,** the former principal had led a Teacher Evaluation Committee for the three years prior to placement on the failing schools list. The purpose of the Committee was to recommend a teacher evaluation system to the School Board for district-wide adoption.

The new principal of HSA, someone who was not from the community, entered his new position viewing the adoption of the Transformation Model as a “golden opportunity for the school to re-invent itself.” The new principal was struck by the lack of accountability. “There was no teacher evaluation system in place and that did not happen until after the SIG was in place” (HSA-1). During his first year, accountability began with i-walkthroughs in classrooms, which were

5–10 minutes in length; teachers felt that administration was “micromanaging” them.

One of the goals outlined in the HSA School Improvement Plan was the implementation of a teacher evaluation system. While this was accomplished during the turnaround process, the learning curve was steep for both teachers and administrators. It was noted during interviews that the former retired principal was visible in the high school; however, an evaluative component was not part of the school process. The new principal implemented an evaluation system during his tenure but was not a visible presence in the school, spending much of the school day in his office.

HSB’s Teacher Evaluation

The former principal of HSB believed instruction and teacher evaluation had been a focus for several years prior to placement on the list, and the teachers knew he was always looking for student engagement (HSB-9). So, from his perspective, there was not much change in this area. “We felt like we'd been looking at that for quite a few years and we had a pretty good idea what good teaching looked like. We had to look at what we were teaching and what we were applying to the kids and how we were assessing kids” (HSB-9). He also noted that in rural Maine there are not a lot of teacher applicants, an experience noted in a previous literature discussion.

By all accounts, the HSB principal was visible, not just a manager of the

school. “He was a very, very active principal. He was never in his office. He was always out doing things” (HSB-13). The former principal himself confirmed, “Oh, up and down the hall, in and out. Yeah, I was very visible, a big presence in the school. I knew every one of my teachers like the back of my hand. I’m a big Kim Marshall fan in regards to walkthroughs, frequent visits, being able to provide multiple opportunities to give feedback, both constructive and positive over time” (HSB-9). The HSB former principal also stated he addressed discrepancies through conversation and support, providing strategies for teachers to try in the classroom and offering feedback on their implementation (HSB-9).

Theme: School Culture

HSA’s School Culture

According to the teacher leaders of HSA, placement on the failing schools list had a very negative impact on the culture of the school. A key informant shared,

> There were attempts made, but nothing of significance. I would say that the one thing that needed to happen more than anything else was a recognition the teachers felt like they were thrown under the bus. They felt they were ill-treated, mistrusted, and publicly humiliated and that was never directly addressed. To be able to try and initiate cultural change, you first have to address the most unpleasant situations that are there and they weren't (HSA-3).

One teacher leader in the focus group stated, “The ones [teachers] that are still here, they have lost a little trust in the school, trust in the system, trust in each other. There isn't that warmness that we used to have” (HSA-4). Another

key informant observed, “To change a culture really requires a really well developed and highly integrated approach. That was not put into the model. I think the hope was that it would change the culture over time indirectly, but there was no direct application of a new approach to addressing the issues of culture” (HSA-2).

HSB’s School Culture

The HSB current administrator/key informant (HSB-10) believes that the school culture did shift somewhat, but not for the better.

> There was a really increased awareness of students wandering the hallways instead of being in class. There was a focused concentration on academic content, and staff relationships with students may have deteriorated. Those real-life discussions, those teachable moments, the time periods where students might want to be able to ask questions and expand on something that you hit upon in class, those moments kind of went away because we were so concerned about ‘Well, we've got to get to this.’ We've got to, you know, it was all about the test. This went from being an extremely welcoming place to it was still welcoming, but it was more business-like for a few years. Thankfully, we've moved away from that’ (HSB-10).

For both HSA and HSB, the lack of regular attendance at school was, and is, a glaring indicator of school culture on the part of both students and families. Parents often feel they have no control over their children’s attendance at school and they look to the school to handle this issue. The administration at both schools tried to address it through phone calls, letters and home visits. Sometimes the principals actually went to homes to bring students to school

because neither district had (or has) a resource officer. This is a continuing issue for both high schools and their districts.

The themes of curriculum, teacher evaluation and school culture that arose from the interviews and focus groups shaped the Building Materials component of Murphy's Framework. These areas, along with the assessment data presented in Questions 1 & 2, provided the content of school improvement that HSA and HSB focused on during their period of transformation. Through the specific pieces each school chose to incorporate into their Building Materials component, a separate picture of both schools began to emerge.

Theme: School Structure

HSA's School Structure

As part of HSA's School Improvement Plan, the teacher leaders were tasked with researching the effectiveness of the block schedule and implementing initial strategies for 9th and 10th grade teams. The outcome was that HSA tried three different schedules in the three years of their grant. It was confusing for students and staff. Ultimately, the school settled on a four-block daily schedule. The blocks are 75 minutes and students follow an A-day, B-day schedule in which their classes meet every other day for the whole year. Part of the impetus to use the block schedule is that HSA is attached to the regional vocational center, and it aids in collaboration between the two schools.

The 9th grade teaming initiative began at the end of the three-year

turnaround process when the new principal was able to secure a grant for a model program titled *Building Assets, Reducing Risks*. That team continues to evolve and still functions today. There were some efforts to create a 10th grade team, however, that initiative did not take root.

HSB's School Structure

HSB experienced some minor changes in practices and daily procedures. This high school looked at the schedule every year, but it was difficult to make significant changes because there were so many moving parts. HSB was, and is, attached to the district's middle school, and being a small rural district, both schools shared staff. Furthermore, the high school had to be in sync with their regional technical center.

During the course of the turnaround process, HSB changed back to 50-minute classes from block scheduling with longer class periods. One of the teacher leaders in the focus group noted,

> He [the principal] now had to kind of manage the structure of the school and so it became less personal. He was more checking to make sure that you weren't having a lot of student traffic to and from your rooms. Making sure you were being rigorous, and that you were submitting the writing samples you were expected to. It became more of that, unfortunately, which is kind of sad because it took away from what I felt were his real natural strengths (HSB-13).

The theme of School Structure addressed by HSA and HSB in their School Improvement Plans speak to the Construction Principles component of Murphy's Framework. The context of this component helps school improvement

initiatives to establish roots and develop over time.

Theme: Resources

HSA's Resources

As the recipient of a $1,623,200 School Improvement Grant over three years, HSA had the financial ability to deepen its level of resources. This funding allowed the school to provide opportunities and explore educational materials that they would not otherwise have been able to afford. The grant was expended in three major categories: personnel, software and professional development.

To create a direct connection between the teachers and the necessary work, HSA's plan included creating a team of four half-time teacher leaders from the curriculum areas of math, science, social studies and English. The high school teachers were invited to apply for these roles. For the three years of the SIG, the teachers who were selected taught half time in their classrooms and worked half time outside of their classrooms to advance the turnaround process. Four half-time teachers were hired to teach the other half of their positions.

According to the June 21, 2010 School Board minutes, the Superintendent shared,

> These positions [teacher leaders] are being recommended as an important part of the high school improvement plan. The teachers will teach half time and work as a teacher leader for half time. The teacher leaders will teach every other day and will be a teacher leader on the alternate day. All teacher leaders will work the same schedule so they will have an opportunity to work together. These positions will be paid out of the SIG for three years. The teachers will learn a lot about effective instruction and pass on their learning to

the other teachers.

The Board approved these positions 11-1.

Unfortunately, during the first year, their schedules did not mesh. Two people were teacher leaders on blue days and the other two were teacher leaders on gold days. Their schedules were aligned for the second and third year so all of them were teacher leaders on blue days. Even with the irregular schedules in the first year, all the teacher leaders were excited and enthusiastic about their leadership roles and the transformational possibilities for the high school. They began their work by reviewing the results of the High School Status Report that had been compiled when HSA was first identified as a failing school. One drawback was that they did not have a facilitator or guide for their work. Without consistent guidance, the teacher leaders (HSA-4, HSA-5, HSA-6) explained during the focus group they independently identified the following responsibilities for themselves:

- Research better instructional practices.
- Be an instructional coach for their departments.
- Transform their failing school status by researching similar schools that were high achieving and then designing a plan to be approved by the School Board.
- Act as a research group or think tank.
- Ensure teacher voice during the three years moving forward.

A major project of the teacher leaders was the development of the Educational Learning Opportunities during the first year. The ELOs evolved into

the Academy Model during the second year. The teacher leaders worked diligently on this project and persuaded their colleagues to embrace this different approach to student learning. By the end of the second year (2011–12), this group firmly believed they had a working model in place that had passed muster with all stakeholders and was ready for implementation in the fall of 2012. When they came back on the first teacher workshop day, they discovered that the Academy Model had been greatly changed over the summer. “It was introduced [by the principal] at a faculty meeting on the first day of school and it was entirely the opposite of what we had laid out. Then we lost our influence with the staff” (HSA-4). The teacher leaders were never able to nail down exactly why the changes had been made, though it was clear that scheduling was one of the roadblocks. Still, they were at a loss to fully explain the changes to their colleagues, resulting in a chaotic final year in the turnaround process. “We were excited to do it all, all of us the first year. The second year at the beginning we were all excited. We were looking to move this forward, to move the teachers forward. The third year was horrendous for us” (HSA-4). The issues with the implementation of the Academy Model prompted the teacher leaders to identify an unintended consequence of removing the former principal so the school would be eligible for the SIG application. “When he left, not only did we not have a scheduling czar, no one seemed to have any idea who should be doing the scheduling. Ever since, scheduling has been an issue” (HSA-5). For the teacher

leaders, this was the most visible example of their perceived disconnect between the new principal and the staff. “He made what felt like fairly arbitrary and not very collaborative decisions” (HSA-6).

The teacher leaders reported in the focus group they felt the focus of their work kept changing throughout the transformation process. “The leadership kept changing the focus every year; it was a moving target. So the first year the focus was on student engagement, but then the second year it changed to community involvement” (HSA-6). In addition, they stated they were diverted from their primary responsibilities by constantly being asked to do a lot of event planning for community outreach. For example, in the first year of the grant, there was a community barbecue with approximately 500 people. Afterwards, the principal talked for about an hour in the auditorium. In the second year, about a hundred people came to the community barbecue. Other community events included informational nights, and during the first two years, about 50-75 people attended these sessions. That level of turnout is considered good at the high school level in a rural area. “We wanted to keep them abreast of the changes that were occurring in terms of development of the academy model and how we wanted to move more toward student-centered learning, making students more active in their learning and engaged in their learning, increasing communication, things of that nature (HSA-4). One of the teacher leaders in the focus group noted, “At the beginning, we should have done more community engagement but we did not

know how to do that. We did informational nights and asked for feedback, but we did not create a two-way dialogue" (HSA-5).

The other personnel change at HSA was the hiring of a Student Advocate. This position was included in the School Improvement Plan to ensure that students would have a voice, and someone would hear it and respond. As a key informant, he shared:

> Basically, the main idea was to work with students and parents and teachers to identify ways around roadblocks that may be getting in the way of student success. The job description was fairly vague. I felt as though I had a lot of leeway in creating something I saw was a need. Part of my job also was to be a teacher leader, part of the teacher leader team. That initially was to be a smaller portion of the position, but over time it very quickly grew to being half of what I did" (HSA-3).

The Student Advocate position evolved to work closely with administration and guidance. "In 2012 [the second year of the transformation period] I was actually given the mandate of developing Response to Intervention (RTI) for the high school. I continue to do the Student Advocate role as well. I work with a lot of students one-on-one for either academic support or supports for social and emotional issues they experience" (HSA-3).

Originally, this role was only planned for the three years of the SIG. However, at the end of the grant, the School Board determined that it was a valuable asset for the high school and maintained it in the budget as a

permanent position (HSA-7). It is still in existence today with the same person in the position.

HSA experienced an influx of software resources as a result of the SIG. The data analysis software *Tableau* was purchased along with additional storage capacity in Infinite Campus. The NWEA, an adaptive computer-based assessment, was extended to the high school. A three-year subscription to the *iWalkthrough* system was incorporated into the turnaround process. Many software programs were tried like Study Island, Odysseyware, CK12 and Plato to assist with instructional differentiation, academic interventions and credit recovery. A key informant (HSA-2) noted,

> At that time we were put on the list, a lot of vendors came out of the woodwork. They knew there was money available, and they had the solution to our problems. So all of the sudden, like sharks, all of the vendors swooped in and said they could fix our school. What ended up happening was we really jumped around from intervention to intervention, from product to product, just trying to find something that might fit with our community. I think that was a problem, trying to make things work, with us throwing money at the problem to try to fix it when it probably wasn't going to help (HSA-2).

Some of these software resources did prove beneficial and are still in use today: *Tableau* and *Plato*.

The majority of the grant was used to provide extensive, ongoing professional development. First, during the three years of transformation, every teacher in the school attended a national conference with the principal. During

the first year and a half, HSA contracted with the Great Schools Partnership to provide professional development for the whole staff. The Great Schools were trying to teach structural habits such as setting norms for group meetings and using protocols, a process that takes time. They also trained the teachers in the *iObservation* system for the purpose of collecting information. Teams of teachers observed their colleagues during the first year. One of the teacher leaders in the focus group recalled, “What we found was that 90% of everything happening in the classroom was direct instruction, standing in the front of the classroom, teaching kids from the chalkboard. The idea was to change that, make the classes more student centered. I don't think it happened” (HSA-5). Another teacher leader in the focus group concurred, “Well, the data was there. We saw it. We said we need more student-centered activities. Then there was even training on how to do that, but then I think teachers just slipped back into what was comfortable and taught what they usually taught” (HSA-4). The third teacher leader in the focus group added, “There was some professional development in terms of how to increase engagement of students, how to move more toward student-centered learning, how to release the reins on some of the education and I do think some of that stuck. I do think that there has been a movement in that direction with a number of teachers in the school (HSA-6).

Halfway through the second year of the transformation period, the HSA principal (HSA-1) rescinded the contract with Great Schools. Hence, Great

Schools was not at HSA long enough to effect any real change. As previously mentioned, the Superintendent who had written the School Improvement Plan left at the end of the first year. The Assistant Superintendent moved into the Superintendent position, but did not have the same vision and was perhaps too close to the teachers (HSA-2). That resulted in the direction change of professional development at the high school and a departure from the original plan. Two University of Southern Maine professors acted as consultants for HSA after Great Schools' departure and there was a lot of discussion around "lofty ideas and philosophy." A key informant noted, "Teachers knew all the buzzwords but they did not implement changes in their classrooms. There was a real kind of negative attitude about changing how things were done in the classroom" (HSA-2).

With the advent of the two consultants, participation in professional development was voluntary. A teacher leader in the focus group stated, "When you're in a transformational model and we need to change what we're doing, when it came to teaching teachers new ways of doing things, it was all on a voluntary basis" (HSA-4).

One of those consultants was hired as a School Improvement Coordinator specifically to work with the Math Department, though again, participation was voluntary. Another teacher leader stated during the focus group that a major goal of the high school was "to improve test scores and to increase our graduation

rates. The consultants' goals really were to come in and affect change in the classroom" (HSA-5).

In particular, the teacher leaders participated in numerous professional development opportunities and attended multiple major out-of-state conferences. They were all trained in the *iObservation* system, and were able to visit several other high performing high schools both in Maine and in other states. "I thought the professional development was really effective for us. We got lots of opportunity to collect data. We got lots of opportunity to research, a lot of opportunity to work together as colleagues, but there was a disconnect between us and taking it back to the classroom, and I don't think the professional development was effective for the school as a whole" (HSB-5).

HSB's Resources

In comparison, the resources to assist HSB in its turnaround process came from within. HSB did not pursue the grant because it realized any changes that occurred due to the grant would have to be picked up locally at the end of the grant. So, changes were instituted that did not increase district expenditures.

In terms of personnel, no new staff was added to the high school. The school did not have, and still does not have, support personnel such as instructional coaches or interventionists or learning strategists. The math and literacy learning labs added to the curriculum were, and still are, staffed by current teachers through adjustments to their schedules and duties.

A similar strategy was used to staff the SAT prep classes that were implemented as part of the curricula changes. Teachers from various content areas were assigned one of the prep classes, and their schedules were freed up to do it by making other classes larger. A key informant stated, “I became a SAT prep teacher. A couple of my US History courses that I was teaching at the time were consolidated. I had bigger numbers. I went from class sizes of 15 to 18 to maybe 20 to 26, 27” (HSB-10). In the SAT classes, students were taught test-taking strategies, time management and test format. The class met every other day for a forty-minute period for one semester. In addition, social studies and science teachers incorporated reading comprehension strategies in their instruction.

Their status as a failing school did spur targeted professional development. “I think it was quite an organic process because we're a small enough district to approach it that way” (HSB-12). For example, during the second year of the turnaround process, HSB instituted Professional Learning Communities (PLCs). Every Tuesday there was a shortened schedule so the teachers could collaborate for an hour. The math teacher leader shared this example:

> One of the things going back to that dark period when we were on that list of the ten lowest achieving schools, was we're a small enough school so at the time we had primarily three math teachers. I worked very closely with another teacher, especially on Algebra II and pre-calculus stuff. We made sure they were the same tests;

> they were the same methods. Right down to how we taught, it was all the same. I think that made a big difference (HSB-13).

The PLCs existed for the next several years, but are no longer part of the professional development protocol at HSB.

The State assigned a person to work with HSB on math and another person to work with them on reading. Teachers started to analyze data on a consistent basis and shared it with their students. Professional development on writing was provided, even though it wasn't one of the test components that put them on the list. Every class had to include a writing component on assessments. Teachers practiced calibrating scores. "We created a lot of rubrics and talked about their quality of writing, not just the content" (HSB-12).

Murphy's *Framework* (2016) incorporates the theme of resources into its *Supports* component. As shared through the interviews, each school chose different resources to support the implementation of its transformational model to achieve school improvement. With the addition of the Supports component to the Building Materials and Construction Principles components of the Framework, a fuller picture came into view of the turnaround process for each school.

QUESTION 5

How do these two rural high schools perceive their current capacity to sustain school improvement?

HSA and HSB believe they are sustaining the improvement they achieved during the turnaround process. Although their state assessment scores have

dropped in recent years, the teachers and administrators assert their state standings are not an accurate, complete summation of student growth and achievement.

HSA's Current Capacity

At the end of the three-year turnaround process in 2013, Stephen Bowen, the Maine Commissioner of Education at that time, deemed HSA a "model school." The principal stated,

> We were finishing up the third year and Anne Lepage [the Governor's wife] came down [from Augusta, the state capital] and she stood right next to me in the gym. Between students and staff and invited guests, there must have been close to 750, 800 people in the gym. Channels 6, 8, 13, Portland Press Herald... Everybody was there as she went on to speak to us about the wonderful changes that had been made in our district, specifically at the high school, and how this school has gone from being one of the ten lowest performing schools to one of the most improved schools. And to people who say it can't be done, I say come to HSA (HSA-1).

Two years post-turnaround, the principal resigned from his five-year tenure to accept a principalship closer to his home. When he left in July 2015, the principal (HSA-1) published a letter to the school community listing the following academic achievements and school improvements of HSA:

- Raised the graduation rate and decreased the dropout rate
- Adopted the 21st century learning framework as a major cornerstone for our required school transformation between 2010-2014 which promotes critical thinking; problem solving; tech integration; effective communication; creativity; and collaboration.

- A visit from the Commissioner of Education (Steve Bowen) in the spring of 2013 who acknowledged that although HSA was identified as a “low performing school” back in 2010, it was clear to him and the Department of Education that HSA had done a 180 degree turnaround and should be recognized as a “performing school and an example for other high schools to follow.”
- Successfully completed a $14 million renovation project of the high school facility [while HSA was in the turnaround process].

- Expanded the alternative education program to service grades 11 and 12.

- Created the position of Student Advocate that has evolved into the Academic Supports Coordinator. This position oversees the work being done through RTI, 504, and BARR (Building Assets, Reducing Risks).

- Created/implemented the Academy structure (with 14 options for students to pick from) designed to support the 21st century learning framework while providing students the opportunity to explore their passions and interests while developing those critical 21st century skills to be college and/or career ready.

- Created Freshmen and Sophomore Teams that allow for stronger communication between the school and home. These teams also allow for common planning and stronger collaboration between the various content areas as well as a stronger level of support/intervention between the teams, students, parents, Guidance, and the Administration.

- Reduced the number of office referrals, suspensions and expulsions.

- Strengthened the relationship/partnership between HSA and its regional vocational center

- Increased off-campus student learning opportunities through public and private colleges as well as online options.

- Created the Extended Academic School Year Program for credit recovery using PLATO and *Edgenuity* as the platforms for our summer school program.

- Created/implemented the Humanities program (English & Social Studies combined) for grades 9-12 with a total of five Humanities teams. There will also be an Algebra II/Physics co-teaching team beginning next school year!

- Established the NEASC Committees to begin the NEASC review/process for an October 2016 NEASC visit (HSA-1)

HSB's Current Capacity

After three years of being on the list, the interviewees shared that HSB did a review of their whole metamorphosis. In particular, they had to re-evaluate how school was working for the lower functioning students.

> What are we going to do to try to mitigate some of the fallout from trying to make everybody be college ready? Attendance and grades decreasing, failure rates increasing - there was some bad that came along with our good as well. So then we put an alternative education program in place. We looked at innovative scheduling and things for kids who were struggling, tried to provide hooks to get them in the door. We can't let them choose the easy route, but we also have to allow them to be human beings (HSB-12).

The math teacher leader summed up the discussion about the impact of being on the list for the lower functioning students: "Schools, in my opinion, along with this upping the ante which we've all had to do, really need to shape our thinking around student interests and apprenticeships and dual enrollment, programs that are going to prepare kids for the future, and we have to get out of the mindset that every kid's going to go to college" (HSB-13).

In continuing discussions, HSB interviewees offered several post-turnaround reflections. A current administrator/key informant stated, “I think it was a wake-up call. Even though it may not have been warranted if we truly compare our school to other schools in the area, I still think in the long run, as hard as it was, I think it moved us to a much greater focus on being a high achieving school academically, and I'm all for that” (HSB-10). The English teacher leader said, “I think we responded, and it helped us in the end because it got us to where we are today. We collaborate now extensively within the high school and with the middle school math and ELA teachers. We have a really strong faculty here, and we are very much interested in maintaining a high achieving school. I think most of our faculty would fit into that point of view” (HSB-12). The math teacher leader added, “We've always been a really strong school sports-wise for years and years, a long history of that, but now we’re also making sure that we are a really strong school academically. Now I think that's our atmosphere. We see ourselves as a strong school academically. We value being a strong school academically” (HSB-13). He also wanted to make the following point: “Two years ago [2017], HSB increased the math requirement from three years to four years. While this was not a direct result of the failing school event, it does indicate that HSB has continued to increase math-learning opportunities for students.”

Finally, it is clear that an unintended consequence of being on the list that has carried over to current practice for HSB is the attention on data. With the Maine Department of Education's help, the teachers learned how to analyze and use data and they still examine data today. The HSB teacher leaders shared that data analysis was very intense for them. "We still look at data, it just doesn't 'consume us' as it did when we were a persistently low performing school. We know now that we simply can't ignore it" (HSB-13).

QUESTION 6

How did each school's turnaround efforts connect to Murphy's Framework of School Improvement?

Murphy's *Framework* (2016) was used as the theoretical blueprint for this research. The overall theory postulates that School Improvement is a combination of Community Support and Academic Support. The latter includes all aspects of school: content, structure, context, materials, organization and leadership. It guided the conversations during the interviews and focus groups, and the analysis of school documents. In this chapter, the components of the *Framework* were used to highlight the various parts of school that contribute to school improvement and to ascertain the depth of their effectiveness and solidity through a discussion of the quantitative and qualitative findings.

SUMMARY

This chapter detailed the results of the qualitative and quantitative data that were uncovered during the case study of two rural Maine high schools that

were required to undergo a three-year transformation process due to a lack of academic growth as measured by the SAT, which is used as the Maine High School Assessment for reading and math. The state assessment scores for these two schools, retrieved from the Maine Department of Education, demonstrated enough academic achievement over the three-year period (2010 – 2013) that they shed the label of a "persistently low-achieving school."

The qualitative data, amassed from interviews, focus groups, school district documents and news articles, provided a fuller understanding of the reforms implemented by each school to address its lack of academic growth. These changes included course additions to the curriculum, data-informed decision-making and re-evaluation of the school structure. Leadership dynamics and community building at both the school and district level were also discussed in terms of moving each school forward. In addition, reflections on continuing academic achievement were included. Throughout this chapter, Murphy's *School Improvement Framework* (2016) highlighted all the interrelated components that are necessary for achieving and sustaining a well performing school.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

In the world of school improvement, a handful of things done well is always better than a big bag of interventions.
(Murphy, 2013, p. 70)

This chapter provides an overview of this case study including the problem, purpose of the study, theoretical framework and research methodology. The next section discusses the key conclusions and considers the transformative process of the two rural high schools through the lens of the theoretical foundation, Murphy's *Framework for School Improvement* (2016). The final section offers recommendations for future school reform efforts and research.

OVERVIEW OF CASE STUDY

In public schools and school systems across the United States, persistently low achieving schools are a continuing issue, even in the face of decades of school reform initiatives. This case study was undertaken to explore the obstacles preventing the sustainability of school improvement in these low achieving schools. As reflected in recurrent research (Tyack & Cuban, 1995; Hannay & Earl 2012; Bryk et al., 2010, 2016; Fullan, 2006, 2009, 2016), a multitude of schools are at a critical crossroads due to legislative mandates and public scrutiny as they try to navigate their way in this era of accountability. This is especially important for rural schools that often are at a disadvantage due to socio-economic pressure and geographic isolation (Chance & Segura, 2009;

Rosenberg et al., 2015). Specifically, this study investigated the turnaround process of two rural Maine high schools that were publicly identified on a list of the State's ten lowest achieving schools in 2010.

To structure this study, Murphy's (2016) *Framework for School Improvement* was used as a theoretical foundation. This framework asserts that sustainable school improvement is achieved through an Essential Equation: Academic Press + Community Support = School Improvement. It includes the following components: Building Materials (the content of learning), Construction Principles (the structures of school), Supports (the organization of school), and Integrative Device (management and deep leadership of school). When these components are fully realized and intertwined, the Essential Equation is fulfilled.

This dissertation employed a case study methodology to gather data. The main research question of this study is posited as: How do failing rural high schools facilitate successful turnaround change? Additional questions guided this research:

1. How did the whole group (all students) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?
2. How did subgroups (gender, ethnicity, socio-economic, special education,) compare between pre-turnaround and post-turnaround status in mathematics and literacy state assessment test results?

3. What challenges were encountered in the turnaround process? How were these challenges addressed?

4. How successful were initiatives implemented as part of the transformation process?

5. How do these two rural high schools perceive their current capacity to sustain school improvement?

6. How did each school's turnaround efforts connect to Murphy's *Framework of School Improvement*?

Both quantitative and qualitative data are used to answer these questions and present a more complete and accurate analysis of these cases (Patton, 2002; Yin, 2014). The quantitative data were culled from Maine High School Assessment reports and addressed the first two questions over three distinct time frames: pre-turnaround, during turnaround, and post-turnaround. Descriptive statistics described and analyzed the quantitative findings. The qualitative data was amassed from individual interviews, focus groups and school-related documents. Coding was used to analyze patterns and group them into themes. Cross-case synthesis was used to analyze the themes across the two schools for similarities and differences.

SUMMARY OF CONCLUSIONS

Strong, supportive leadership at both the building and district levels are necessary to effect and sustain school improvement.

The teacher leaders at both HSA and HSB talked extensively during their focus groups about the leadership in their buildings during the transformation years.

Overall at HSA, there was a consensus among the five teacher leaders that a lack of leadership was the critical factor as to why nothing, in their view, was sustained. "For this type of work, the school needed a change agent of which neither the former or current (principal) were" (HSA-4). One of the teacher leaders also shared, "We have never had firm support here. I think that was our biggest problem" (HSA-5). It is important to note there was much disagreement between the teacher leaders and the principal on the priorities of HSA's School Improvement Plan. The principal believed he had a vision and the teacher leaders did not see it.

In contrast, the teacher leaders at HSB credited their principal and Assistant Superintendent with guiding the school's transformation work over the long haul. The high school leadership team, which included all the department heads and guidance, made a majority of the decisions collaboratively with the principal (HSB-12).

While all the components of Murphy's *Framework* combine together to achieve school improvement, *leadership*, or the *integrative device* as Murphy

(2016) calls it, is the force that moves the process forward and binds the separate pieces into a cohesive and functioning educational system. A high leadership capacity is critical for sustainable schools (Lambert, 2007). The importance of the school and district administration in successful and sustained school improvement cannot be overstated, as shown by the experiences documented in this study. School improvement leaders must be change agents who use their authority to facilitate and guide growth mindsets in their teachers (Bryk, 2010; Fullan, 2003, 2005, 2016; Elmore, 2008; Hattie, 2015).

The Adequate Yearly Progress accountability initiative of the No Child Left Behind Act severely damaged the school culture of the very schools it was enacted to support, thus negatively impacting the school improvement mission.

The publication on March 9, 2010 of the first ever list of "Maine's 10 Lowest-Achieving Schools Identified" in the *Portland Press Herald* definitely captured the attention of just about everyone in the state. Unfortunately, it was not the type of attention these ten schools desired or needed. From the beginning, the general public did not understand the distinction that inclusion on the state's list was defined by narrow federal criteria. As to be expected, the reactions from the stakeholders of both schools were very strong and neither school accepted their placement on the list, albeit for different reasons. The very public nature of being categorized as a low-achieving school in 2010 resulted in an unintended psychological consequence: traumatic stress that is still affecting

students, teachers, administrators and the communities of both high schools ten years later.

During the data collection process, this researcher was struck by the unexpected and strong negative emotions displayed by the interviewees in both schools. Despite the fact that HSA and HSB improved their academic standing and moved off "the list," the manner in which the school reform process was rolled out by the federal and state governments clearly induced a traumatic experience that vividly remains with the staffs and communities at the ten-year mark. This is noteworthy because it adversely affected the work that had to be undertaken right from the beginning and it was never confronted.

> You need to immediately address the damage that has been done to the culture. There's no way you get identified as a low performing school or a failing school and go through it unscathed. That's a public humiliation. At any level, that's a public humiliation that needs to be addressed right away so that everyone recognizes that we're all in this together, and we're going to move forward and this is the beginning of a new day. We have to do that and then stay the course. It never happened (HSA-3).

This was an unintended consequence of the federal government's intention to impose external, transparent accountability on schools. It speaks directly to school culture, which is embedded in the *Building Materials* component of Murphy's *Framework* (2016). As referenced in the literature review in Chapter 2, this section of the *Framework* has been widely and deeply examined (Armstrong, 2006; Bryk et al., 2016; Reeves, 2009; Duke, 2006, 2008). However,

the research has not ventured into the area of a traumatized school culture created by the very public top down imposition of accountability for student growth.

In addition to instructional practices and elements of curriculum, school culture provides the safety and orderly climate on which students depend (Bruckner & Mausbach, 2015). Rooney (2005) refers to school culture as the "invisible essential." A healthy school culture provides the best context in which all the other *Building Materials* occur; when that culture is damaged, as with the two rural high schools in this case study, one can understand the increased difficulty of maintaining deep educational reforms.

The use of the SAT as Maine's High School Assessment remains a controversial decision that has a major impact on all high school students and staff.

The No Child Left Behind Act required states to adopt an accountability measure of student and state achievement of benchmarks in English Language Arts and Mathematics for grades 3-8 and for third year students in high school. In 2006, Maine adopted the SAT as its state accountability measure for high school. Since then, the State has partnered with the College Board to ensure the SAT is aligned to Maine's state standards. Over time, the format and timeframe for administration have evolved to the point where it is now administered to students in their local high schools with their teachers and administrators acting

as proctors on the same school day in May across the state (MDOE website, 2019). The premise behind mandating the SAT as the Maine State High School Assessment is two-fold: it satisfies the federal requirement of a high school accountability measure and it provides all third year Maine high school students with a free college entrance exam for which the scores are viable for five years. "Requiring students to take the test would communicate the message that any student can go to college and encourage more students to seek a postsecondary education" (Gendron, 2005 as cited in Jacobson, 2005, p. 28). Simply put, Maine's SAT requirement was implemented in the hopes of raising student aspirations for their future.

The controversy surrounding this requirement centers on the appropriateness of using a test that is specifically designed for admission to college as a mandatory state assessment for all students, even those who are planning to join the work force upon graduation from high school. On many levels, this policy flies against the State mantra of graduating students "college and career ready." In rural areas, a significant percentage of graduating seniors choose career over college (Gibbs, 2000). Opponents of this trend contend that national tests such as the SAT do not fully align with states' academic standards, thus placing the test takers at a disadvantage (Gerwetz, 2018).

The findings from both HSA and HSB clearly identified the frustration of both schools with the use of the SAT as a high stakes assessment that resulted

in their placement on the failing schools list. “The test was not an accurate reflection of where students really were academically, especially when you looked at the body of evidence across more than just that one assessment, that one year” (HSB-13). “The SAT is one data point that colleges can use to measure a student. Yet, our state has chosen to use it as our assessment for all 11th-grade students. I continue to be frustrated by it. I think the students do as well” (HSA-5).

The SAT prep classes instituted by these two high schools were focused primarily on test-taking strategies as opposed to content learning. Further, these classes were discontinued in both schools after sufficient academic progress was achieved to warrant the transformation process a “success.” This clearly represented only a transient change in the *Building Materials* component of Murphy’s *Framework*.

The policymakers of the federal and state governments measure student learning through student growth on external accountability measures such as Maine’s annual SAT results as the Maine High School Assessment (MHSA). However, according to Fullan (2016), “accountability is not limited to mere gains in test scores but is demonstrated by deeper and more meaningful learning for all students” (p. 231).

Targeted, ongoing professional development is essential to achieving and sustaining school improvement.

HSA's faculty embraced the professional development opportunities that were afforded them by participation in the school improvement grant. The problem was the foci of the professional development changed from year to year; thus, it was not sustained long enough for any particular initiative to take root. In addition, for the majority of the grant, the professional development offerings were voluntary and participation was variable through the SIG cycle. For school improvement to occur, it is "essential that all involved in the work be active agents in its improvement" (Bryk et al., 2016, 34).

At HSB, targeted ongoing professional development did occur, mostly focusing on data analysis. This definitely helped teachers to isolate the content topics on which their students struggled on the SAT, and guided them in providing interventions and extra help sessions. The teacher leaders whom this researcher interviewed were part of the faculty in 2010, and as current teacher leaders, they attested to the fact that data analysis is now part of their school's culture. However, part of the motivation for doing so is the ever-present fear of ending up on another "failing schools list."

According to Reeves (2009), "Leaders set the direction of the professional development agenda" (p. 63). Effective leaders must establish the expectations for improvement through internal accountability and then provide time for staff to collaborate to meet those expectations. As reflected in the research, leadership

is responsible for guiding the targeted professional development that occurs in the school (Lambert, 2003; Blankenstein, 2004; Zmuda et. al, 2004; Elmore, 2008; Crowther, 2011; Murphy & Myers, 2008; Bryk et. al, 2010; Fullan, 2016).

Professional development is the nexus between the powerful visionary leader and the staff. “School leaders will succeed or fail depending on whether they master the practice of instructional improvement at scale in classrooms and schools” (Elmore, 2008, p. 43). The message to staff for sustained capacity is sent through professional development. What tools can a district use to send that message? Professional development that fosters teacher growth is a continuum of learning experiences that include conferences, surveys, book studies, coaching, Professional Learning Communities (PLCs) and self-reflection. In today’s world, many teachers are also extending their professional growth by following educational gurus such as Michael Fullan and Robert Marzano on Twitter to engage in discussions about best practices that work everywhere.

The intent of the federal government’s Transformation Model as a means to achieve and sustain school improvement is extremely difficult to fully implement in rural Maine.

The Transformation Model compelled all school districts – whether urban or rural – to implement the same requirements. For rural schools, the most problematic were recruiting and retaining high quality staff and fully engaging the community in the turnaround process (Azano & Stewart, 2015; Chance & Segura, 2009; Schwartzbeck & Prince, 2003). The remoteness of rural schools

permeates all aspects of school improvement from maintaining a staff of fully effective teachers to adequate financial resources.

Despite good intentions and a number of surface changes, the primary focus of the turnaround process for both rural high schools examined in this case study morphed over the three years from deep systemic transformation to removal from the failing schools list. While various pieces of the schools were adjusted — structures, procedures, curriculum, professional development — instructional strategies either did not change or only changed for the amount of time it took to exit the list. This situation was the result of the unattainable expectations placed on these schools by the federal government's one-size-fits-all model.

It should be noted that more flexibility was incorporated into the implementation requirements of the School Improvement Grants (SIG) based on concerns that arose from rural schools that participated in this first SIG round. Beginning in the 2015–16 school year, rural schools that were awarded SIGs were able to redesign their Transformation models to better suit their needs and challenges (Scott et. al, 2016). This acknowledgement and subsequent adjustment by the U.S. Department of Education vindicates the struggles that rural schools experienced during the initial iteration of the Transformation Model in 2010.

IMPLICATIONS FOR FUTURE REFORM EFFORTS

Murphy's *Framework for School Improvement* has proved to be a solid theoretical foundation for guiding school reform efforts. This case study supports the premise that Building Materials (the content of school) and Construction Principles (the structure of school that holds the content) balance each other. The Supports provide the organization around the Building Materials and the Construction Principles. The force of the Integrative Device (also referred to as the leadership dynamic of the school) guides the other three components. The landmark study of Bryk et al. (2010) upholds leadership as the "integrative dynamic" in Murphy's *Framework*. Essentially, school improvement cannot be sustained if these components operate independently; capacity is sustained only when all the components are aligned in a cohesive linkage.

For future reform efforts, this researcher would explicitly add another piece to Murphy's *School Improvement Framework*: the integrative dynamic of school leadership is made stronger by the inclusion of district leadership. Based upon the research in this case study, effective district leadership is very important in sustaining academic achievement. That next level of leadership provides the broadened support and resources to promote and maintain school improvement capacity in each school of the district.

At the district level, there are several key positions that can provide support for students, teachers and administrators seeking school improvement.

The special education director is one of the district leaders whose assistance is invaluable. As part of a shared leadership approach with the school administrators, the special education director can analyze the achievement data of identified students, review their Instructional Education Plans and coordinate additional instructional adjustments to address the students' academic needs. Another important district-level position is the curriculum director. With assistance from this person, teachers can analyze their curricula in depth for gaps, repetitions and common academic vocabulary. Based on this analysis, the curriculum director can spearhead the process for curriculum revision, assessment alignment and best instructional practices to achieve and maintain academic consistency at the high school and throughout the district. With technology permeating all aspects of school, who better to help sustain technology integration in supporting academic achievement than the technology director? The inclusion of district leadership in the integrative dynamic can reinforce coherence and consistency in curriculum and assessment in all grade levels through vertical alignment, thereby increasing the effectiveness of classroom instruction at the high school.

While Murphy (2016) refers to principals as the *integrative dynamic* in his school improvement framework, it should be noted that outstanding principals who provide the vision for school improvement evolve into that role over time. How does that happen? The hiring, coaching and supervision of principals is the

very important job of the superintendent of the school district. According to Saphier (2011), systemic reform efforts over the years have been ignoring the "pivotal players in improving our schools – Superintendents" (p.1). As the head of district leadership, the superintendent has a significant role in attaining school improvement and sustaining capacity. An effective superintendent is an instructional leader and systems thinker who sets the district expectations and is clear that persistently low-achieving schools are not inevitable. The superintendent provides an established link to engage the community and garner their support. This position can act as a buffer for school administrators with various stakeholders. As the person responsible for the annual budget, the superintendent can allocate resources to support school improvement goals and champion those resources with the School Board. Most importantly, the superintendent's vision for the district connects all the schools, thus strengthening the foundation for student learning and achievement. For all these positive outcomes, the *integrative dynamic* must include district leadership.

The data from this case study suggests that in future reform efforts school improvement plans need to be limited in scope, understood by all stakeholders, and followed with fidelity. The plan should identify only a few areas of targeted focus and be specific in creating a checks and balance system to ensure the action steps are actually occurring in the designated time frame. In the analysis section of this case study, it was noted the school improvement plan of HSA

contained sixty-one (61) action steps. Clearly, this was not sustainable. With HSB, no one could remember or produce an actual school improvement plan. These represent two aspects of ineffective planning: one is merely tactical; not strategic; the other plan lacks explicitness. To achieve its goal(s), a school improvement plan must be manageable and reasonable with a strong oversight design. According to Murphy & Myers (2008), a successful school improvement plan must intertwine cohesion, alignment and linkage among its components.

As established in the literature, leadership is the primary component that enables school improvement (Bryk et al., 2010). According to Elmore (2008), "Public schools and school systems are simply not led in ways that enable them to respond to the increasing demands they face under standards-based reform" (p. 42). However, beyond achieving school improvement, focus must be directed to sustained capacity. This is a long process that continues beyond the initial implementation of a school improvement cycle. Distributed leadership, which involves the principal and teacher leaders, is intrinsic to school improvement success and building capacity (Crowther, 2011, p. 13). Organizational coherence of a school's infrastructure and educational philosophy must combine with the leadership to achieve sustainability. Overall, sustainability requires a deep commitment to academic achievement, consistency in administrative leadership, and an open mindset among the distributed leadership. It should be noted that sustained school success is always vulnerable, thus the need for continuous

effective school and district leadership is imperative.

It is clear through this case study that the preparation of educational leaders should be considered differently in future school reform efforts. This speaks to preparing educational leaders to be more than building managers; it speaks to preparing system thinkers who are focused and able to prioritize. This class of leader emanates values and vision. Moreover, the blanket requirement of the Transformation Model to replace the principal may not be the most appropriate action step for rural schools. Leaders for turnaround schools must be purposefully selected for the task, not placed in the position due to accountability measures required by an arbitrary educational model.

RECOMMENDATIONS FOR FUTURE RESEARCH

While this case study was limited in scope and design to two rural high schools, it provides sufficient evidence to support the value of pursuing additional research on the sustainability of school improvement in rural school settings. Although the data from this case study cannot be generalized to all rural high schools, it depicts the challenges rural schools share in increasing and maintaining student achievement. It also illustrates the reality that when one inequity is addressed (resources to improve low-achieving schools), another inequity occurs as an unintended consequence (the trauma of public identification as a low-achieving school).

Given the continuing controversy in Maine over using the SAT as the high

school assessment to meet the federal accountability requirement, Maine and the other states who require the SAT or the ACT would benefit from mixed methods research that examines the level and sustained capacity of school improvement in these states compared with states that use high school assessments specifically developed to measure the benchmark standards of their own states.

While there has been a substantial amount of research on school improvement at the elementary level, more research is needed to fully examine the process and sustainment of school improvement at the secondary level. Larger scale studies in this area would strengthen the outcomes indicated in this researcher's case study.

With the establishment in existing research of leadership as the *integrative device* that is helping to move the school improvement process forward, it is recommended that future research investigate the content of effective educational leadership programs. Low achieving schools need a particular type of leader – a strategic thinker with vision who can clearly communicate goals, monitor the effectiveness level of instructional practices and provide guidance for less-than-competent teachers. Yet university leadership programs often place more emphasis on the management side of leadership with program requirements of School Law, Special Education Law and School Finance. While many universities offer degrees in Educational Leadership, are graduates truly prepared to be instructional change leaders as well as building managers?

One of the barriers for many rural areas in accepting School Improvement Grants is the realization the funding is only available for a three-year period. Future research could examine the sustainability factor in these rural communities after the grant funding ends. Does acceptance of the SIG actually build a foundation for sustainable academic success or only lead to short-term improvement? Do schools maintain their grant-funded activities or do they eliminate the activities at the end of the grant? What is their reasoning?

In rural states like Maine, local control is a deeply embedded way of life and intrinsic to the culture. With the advent of the modern era of federal accountability, there is a tension between the bottom-up decision-making process of district School Boards and the top-down reform models imposed by the U.S. Department of Education. Future research may explore the advantages and disadvantages of each model in relation to the sustained capacity for school improvement.

CONCLUDING THOUGHTS

The findings of this study suggest that state and U.S. Departments of Education should consider alternative school improvement models that encourage innovation and promote positivity. While educators understand the reasoning for accountability, it must be done in a more humane manner. The Adequate Yearly Progress (AYP) initiative did not achieve its intended goals of closing the gap between high and low-achieving schools and eliminating schools

in need of improvement. It did, however, psychologically burden educators with feelings of hopelessness, resignation and negativity that were often unwittingly passed on to their students. Far from lessening the divide among the various sub-groups such as English Language Learners and disadvantaged students, AYP reinforced stereotypical thinking and demotivated both students and teachers to improve their academic standing. Although unintended, its demoralizing effects still linger among veteran educators. This can be particularly devastating for rural communities, which are often geographically isolated, because their schools are central to their identities.

This current era of academic performance accountability is in transition, passing the reform efforts of school improvement on to the next generation of teachers and leaders. These up-and-coming teachers are entering our schools with new energy, fresh ideas for improvement and growth mindsets. Leadership is also evolving from a managerial perspective to an integrative instructional approach. This convergence bodes well for a positive, collaborative dynamic that will sustain capacity and prioritize the educational needs of students – just the way education should be.

APPENDIX A
OPEN-ENDED INTERVIEW GUIDE

The following questions will serve as an open-ended guide for the individual interviews and the focus groups. Follow-up questions may be asked depending upon participants' responses.

Introduction:

Hi! I am Pat Hayden, a doctoral student at Boston University.

(Thank you for allowing me to *interview you* for my research study.)

(Thank you for agreeing to participate in this *focus group*. A focus group is a group discussion in which the participants are able to hear each other's responses to questions posed by the facilitator and to make additional comments within the context of others' shared perspectives.)

Before we begin, I would like to state participation in this research project is totally voluntary and I am very appreciative of your time. Do you have any questions about the Statement of Informed Consent?

I will be recording our discussion so my study will reflect your responses accurately. I will also be handwriting some notes as we are talking. Your names and any other identifying information will NOT be recorded.

Before Recording:

Let's start with (*you* or *each of you*) sharing your name, your position, and the number of years you have worked at your high school.

Begin Recording:

1) What do you believe led to your high school being placed on the 2010 State list of persistently low-achieving schools?

2) What was your individual reaction to that placement? From your perspective, what was the reaction of the (*students, teachers, building administration, district administration, School Board, community*)?

3) Do you believe the placement was an accurate reflection of your school's academic status? Why or why not?

4) What challenges did your school face in transitioning from being “persistently low achieving” to making Adequate Yearly Progress?

5) What changes did your school implement as part of the turnaround process in areas such as:

- Curriculum
- Instruction
- Assessment
- Classroom Materials
- Professional Development
- Financial Resources
- Use of technology

6) What changes were implemented in the structure of your school, such as in scheduling or school culture?

7) What changes were implemented to better support your school, such as different practices, policies, procedures, personnel?

8) Would you please describe other strategies that were implemented that I have not asked about?

9) Of all the changes that were implemented, which ones were successful? Why?

10) *Focus Group*: In what ways did your building administrators lead the school through the turnaround process?

11) What was the role of the district leadership in the turnaround process?

12) *Individual Interviews:* How did teachers participate in the turnaround process?

13) What were your own priorities during the turnaround process?

14) How will high academic achievement be sustained in your school?

15) Reflecting back, is there anything that you think should have been done differently? In your view, was the turnaround process necessary to improve academic achievement in your school?

16) Is there any other person you can suggest for me to interview?

APPENDIX B
CODED LIST OF INTERVIEWEES

HIGH SCHOOL A

INTERVIEWEE	POSITION
HSA-1	Former Principal
HSA-2	Former Teacher/Current Technology Director/ Key Informant
HSA-3	Former & Still Current Student Advocate/ Key Informant
HSA-4 HSA-5 HSA-6	Group of Teacher Leaders During Transformation & Still Current – Art, Social Studies, Math
HSA-7	Chair of HSB Status Committee During Transformation & Current School Board Chair
HSA-8	Former Teacher Leader During Transformation – English

HIGH SCHOOL B

INTERVIEWEE	POSITION
HSB-9	Former Principal
HSB-10	Former Teacher/Current Assistant Principal/ Key Informant
HSB-11	Retired Curriculum Coordinator
HSB-12 HSB-13	Teacher Leaders During Transformation & Still Current – English, Math
HSB-14	Former School Board Member

APPENDIX C
RECRUITMENT EMAIL/PERSONAL CONVERSATION SCRIPT FOR INDIVIDUAL INTERVIEWS

Hi! My name is Pat Hayden, a doctoral student at Boston University. I am contacting you to ask if I may interview you for my dissertation research. My project is a case study of two rural Maine high schools and the different ways each school transitioned from a low-achieving school in 2010 to attaining adequate yearly progress in 2013. I am specifically interested in interviewing you because you were the _____ _____
(*position: for example, Principal*) at the time the school was identified as low achieving in 2010 and for at least one year post-turnaround.

The interview will be approximately 1–1 ½ hours and will be arranged at a time that is convenient for you at your school. The data collected in this study will be used for my doctoral dissertation. After the study is completed, participants will be emailed a $25 Amazon e-gift card.

The *Statement of Informed Consent* details the study expectations if you choose to participate. I would appreciate the opportunity to answer any questions you may have, and I look forward to your response.

Thank you for your time.

Appreciatively,

Pat Hayden
Doctoral Candidate
Educational Leadership & Policy Studies
Boston University
pth@bu.edu

APPENDIX D
STATEMENT OF INFORMED CONSENT

Title of Dissertation: A Case Study of the Turnaround Process of Two Low-Achieving Rural Maine High Schools

Principal Investigator: Patricia Hayden
Doctoral Candidate
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Introduction:

Thank you for agreeing to participate in an interview or focus group for this dissertation research study. Your participation will take approximately one and a half hours. The information provided by you and other participants will be included in the research for this dissertation and presented for review to a Committee overseeing this project. It may also be used in other research papers and publications. Please be assured that your individual privacy will be safeguarded.

Purpose of the Research:

This research project will examine and document the different turnaround paths taken by two rural Maine high schools (Lake Region and Houlton) that were officially identified by the State as low-achieving schools in 2010 and then attained status as higher achieving schools by 2013. This case study seeks to understand the role of leadership, instruction, curriculum, data, school culture, and financial resources in improving persistently low academic achievement at the high school level in rural areas.

Procedures:

The methods that will be used to collect data for this case study include one-on-one open-ended interviews, focus groups, document analysis, and analysis of

previously collected, anonymous assessment data. Participants will receive this *Statement of Informed Consent* and an interview guide prior to the meetings. With the participants' knowledge and agreement, all individual interviews and the focus groups will be audio taped to provide accurate data collection. Handwritten notes will also be taken in case there is a problem with the recording.

Risks

There is minimal risk in participating in this study; any risk is not greater than would normally occur when discussing educational reform with colleagues. If any unforeseeable risks emerge that could affect your health, welfare, or decision to participate in this research study, you will be notified in a timely manner.

Benefits

There will not be any direct benefits to participants in this case study. Except for your time, there are no known costs to your participation.

Any benefits of this research will generally be in the future as rural high schools grapple with ways to approach school reform and increased academic achievement.

Confidentiality of Information

The identity of individuals, the school, and the school district will be kept confidential and safeguarded. In this study, the two high schools will be referred to as High School A and High School B to provide anonymity for the participants in this research. Coded numbers will be assigned to each participant. The only person who will have knowledge of the subjects' identities will be the principal investigator. Data from the interviews and focus groups will be stored on a laptop with password protection and in a locked file cabinet. This information will be maintained for the required seven years. Please be aware that, in addition to myself, the Institutional Review Board of Boston University and the review committee for this case study may also view participant data records. While your responses may be included in future presentations and publications, there will not be any identifying personal information.

Contact Information

Please contact me if you have any questions or concerns about the research I am conducting. My contact information and the contact information for my faculty supervisor are listed on the first page of this Statement. Additional information

about your rights as a participant in this research study may be obtained by contacting the Institutional Review Board for Boston University, Charles River Campus at 617-358-6115 or irb@bu.edu.

Participation

Your participation in this research study is completely voluntary. You are free to discontinue your participation at any time reason. There is no penalty for withdrawing. If you participate in this research, you may choose not to answer a particular question(s) for any reason. If you do choose to withdraw during the study, any collected information from you will be destroyed.

Compensation

After you complete the study, the principal investigator will email you a $25 Amazon e-gift card.

Agreement to Participate

I would appreciate the opportunity to answer any questions you may have. If you agree to participate in this research project, please contact me via email, phone, or in-person communication. Your signature for consent is NOT required for this study. I look forward to hearing from you.

APPENDIX E
RECRUITMENT EMAIL/PERSONAL CONVERSATION SCRIPT FOR FOCUS GROUPS

Hi! My name is Pat Hayden, a doctoral student at Boston University. _____ (*Name of Referrer*) suggested that I contact you to ask if I may interview you for my dissertation research. My project is a case study of two rural Maine high schools and the different ways each school transitioned from a low-achieving school in 2010 to attaining adequate yearly progress in 2013. I am specifically interested in interviewing you because you were associated with (*High School A* or *High School B*) at the time the school was identified as low achieving in 2010 and for at least a year post-turnaround.

Your participation would be as a member of a focus group with your colleagues. The focus group interview will be approximately 1–1 ½ hours and will be arranged at a time that is convenient for you at your school. The data collected in this study will be used for my doctoral dissertation. After the completion of the study, participants will be emailed a $25 Amazon e-gift card.

Attached is a *Statement of Informed Consent* that details the study expectations if you choose to participate. I would appreciate the opportunity to answer any questions you may have, and I look forward to your response.

Thank you for your time.

Appreciatively,

Pat Hayden
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