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A Case Study of Systemic Change from Failure to Success in Select Pennsylvania Schools

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A CASE STUDY OF SYSTEMIC CHANGE FROM FAILURE
TO SUCCESS IN SELECT PENNSYLVANIA SCHOOLS

A Dissertation

Submitted to the School of Graduate Studies and Research

in Partial Fulfillment of the

Requirements for the Degree

Doctor of Education

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August 2016

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It was the intent of this qualitative multiple-case study to pinpoint the reasons for school success in the contemporary age of school accountability measured through the advancement of student achievement test scores. After reviewing the literature related to systemic change, successful organizations, and effective leadership a conceptual framework that was developed by Senge (2012) emerged. This framework defines the following five elements necessary for successful systemic change: (1) shared vision, (2) systems thinking, (3) team learning, (4) mental models, and (5) personal mastery (Senge, 2012). This conceptual framework was used to analyze the responses and examples given by the research subjects during two individual interview sessions with the building principal and two focus group interviews with teachers.

The study supports that the systemic change that ultimately led to increased test scores at two of the three schools were was successful due to the presence of shared vision, systems thinking, team learning, mental models, and personal mastery. The participants relied on these components of successful systemic change to accomplish their ultimate goal of school improvement demonstrated by increasing test scores. Building principals and teachers who emerged as leaders at the classroom level displayed an awareness for the importance of the five core components of systemic success. The building principals from both high performing schools were credited by teachers for the creation of a shared vision, and guiding teachers from the level of systems problem solving through the personal mastery of instructional effectiveness.

The participants relied on the core components of systemic change to build school community and nurture leadership throughout numerous levels of the organization.

Recommendations for future studies include examining the influence of systemic change elements on school performance indicators like graduation rates and attendance. Can the elements of systemic change reduce disciplinary incidents in a school setting? Are systemic change elements valued differently based upon the position or experience level of the administrator or teacher? Does systemic change theory influence policy and hiring practices? Are schools better at developing resiliency and versatility throughout the organization as a result of the five systemic change elements?

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CHAPTER 1

INTRODUCTION

“Change will not occur until the need to change is greater than the resistance to change”
(William Daggett, 2007 Model Schools Conference).

There is a perception that the public school systems are failing to prepare students for the future. In addition, schools have continually increased standards of accountability and achievement. The perception that our school age students no longer lead the world can be traced back to the early 1980s. It was at this time the U.S. government report, “A Nation at Risk,” reported that the U.S. population was “too poorly educated to compete in the global marketplace.” The perception that our public schools were in a state of crisis remained for many and can be still evidenced by those who fail to make the Adequate Yearly Progress (AYP) benchmarks as required by Pennsylvania. The conclusion was and continues to be that public school system must remain on a path to improvement in order to prepare students for a global marketplace.

The *No Child Left Behind (NCLB) Act of 2001* requires that by the year 2014, 100% of all children will be able to read, write, and compute on a grade level that will enable them to pass their state assessment of skills examination. In the Commonwealth of Pennsylvania, schools must administer the Pennsylvania System of School Assessment (PSSA). This test is used to measure the reading and mathematical skills of students as part of the NCLB regulation. The NCLB states, “The purpose of NCLB is to close the achievement gap with accountability, flexibility, and choice so that *no child is left behind*” (NCLB, 2002). This law takes aim at improving student performance and closing the achievement gap for disadvantaged students. Although this legislation has endured its share of criticism and controversy, it does elicit these

systemic attributes: a strong accountability system, the hiring of highly qualified teachers, high quality academic programs and instruction, parental involvement, and supplemental services for students and schools that fail to make progress. Schools that fail to make AYP are now faced with the prospect of being taken over by the Pennsylvania Department of Education. Therefore school systems are being forced to look inward at policies and practices, curriculum, and instruction like never before. This practice of systemic reflection may be an indication of system-wide change, proven to be integral in the successful turn around of corporate organizations.

The discipline of systems thinking provides a unique way of looking at problems and goals—not as isolated events but as components of larger structures. The school itself is a system: composed of the habits and attitudes of the people who work there, the policies and procedures imposed by the state and the community, and such implacable forces as available money and student population. “Systemic change” and “systemic improvement” are concepts familiar to private industry, and written about extensively by Peter Senge. In describing a framework of systems that “learn,” Senge describes “learning organizations” where people continually expand their capacity to create the results they desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn. Learning organizations, according to Senge are ones that represent the framework for *systemic change*. Senge details five disciplines that exist in learning organizations: Personal Mastery; Mental Models; Shared Vision; Team Learning; and, Systems Thinking. Eventually, Senge (2012) took these five disciplines and described how they can be used to build learning organizations in educational facilities. It was his belief that this successful business model could be applied to schools.

Building this type of capacity results in what Peter Senge calls a “learning community.” Senge’s theory is that a true learning community cannot exist without a shared vision. The vision can act as a systemic compass pointing toward an organizational goal that can have lasting relevance throughout the system. School achievement will require adaptability and preparedness for changing demands. Schools must become learning organizations or they will fail to survive (Fullan, 2001).

Statement of the Problem

Performance standards for corporate organizations have traditionally differed from those applied to the public school system. In business, “survival of the fittest” remains a general rule of thumb. This “*do or die*” performance standard is still fairly new territory for the public school system. Dating back to the original tenets of NCLB, school systems have become more and more scrutinized and compared against one another, as well as across the globe. Prior to NCLB, school systems were entrenched in outdated measures of student learning. Today our schools face increasing and ever changing demands for accountability, growing socioeconomic disparity, a non-traditional family structure, and budgetary constraints. These pervasive issues, if not crises, along with many unnamed ones, create a landscape that evokes the need for change now and perhaps a greater need to be adaptable in the future.

This pendulum of change began back on January 8, 2002, when President George W. Bush signed the federal *No Child Left Behind Act of 2001*. The four pillars of this legislation include: stronger accountability for results, more freedom for states and communities, proven educational methods, and more choices for parents (U.S. Department of Education, 2004a). Under NCLB, all students will obtain proficiency or better in reading and mathematics by 2013-2014. Schools were re-evaluating the answers to questions like: What is it that we expect

children to know and be able to do? And, *When* do we expect them to know and/or be able to do it? Finally, *How* do we know when they know and/or are able to do it? Prior to NCLB, questions like these were asked at the classroom level. That has changed.

Public schools entered an unprecedented era of accountability. To demonstrate achievement or risk being taken over by its respective state government would be the eventual price for failing to change and/or adapt to the new benchmarks for school success. Through a multiple case study method, this research examined how three select Pennsylvania public schools accomplished an accountability turn around. What were the components in their transformation from not attaining school achievement, as initially determined by AYP to now, the demonstration of growth through the School Performance Profile, to being successful? This study examined the process and the context of an accountability turn around in three schools using elements of systems thinking as an analytical framework.

Purpose of the Study

How have schools across the Commonwealth of Pennsylvania transformed themselves from failing to succeeding? There is limited research examining the link between elements of systemic change, as defined by Peter Senge's framework (Senge, 2012), and the success of a school system that achieved an accountability turn around.

The purpose of this qualitative multiple-case study was to examine the systemic change of three rural Pennsylvania public schools that failed to meet AYP. In order to create a comparison, two out of the three schools must experience the success of an accountability turn around, while compared with a third that failed. Applying Senge's "five" disciplines of: Personal Mastery, Shared Vision, Team Learning, Mental Models, and Systems Thinking, the researcher examined the questions of how and why two schools succeeded, or in the case of the

third school, failed to succeed in the pursuit of an accountability turn around. This study incorporated the perceptions of teachers and administrators working in the school during the period of the accountability turn around. As is the nature with many qualitative studies, personal observations by the researcher served as additional data. It is through the study of the systemic change process in each of the select schools, the researcher hoped to discover the most critical elements that can be linked to a school's success that other schools may someday emulate for the purpose of growth and improvement.

Conceptual Framework

Senge's (2012) framework for organizational change and improvement provide the conceptual framework for this multiple case study analysis. This framework can be generalized, in part by its explanation of how the sources for change lie in one's most basic ways of thinking. If one's basic ways of thinking do not change, any new "input" will end up producing the same fundamentally unproductive types of actions. *Profound change* is a term used by Senge, to describe systemic change that combines inner shifts in people's values, aspirations, and behaviors with outer shifts in processes, strategies, practices, and systems. Senge states, "In profound change there is learning. The organization does not just do something new; it builds its capacity for doing things in a new way—it builds its capacity for ongoing change" (Senge, 2012, p.15). This capacity for change does not just "happen" though. A key element in initiating the process of systemic change is the agent for change. The process of changing and presumably improving organizational performance is preceded by the groundwork referred to by Senge as "building capacity."

Senge's framework for organizational change and improvement is further detailed into five "learning disciplines." Through the method of multiple case study analysis, these five

disciplines serve as filters from which the qualitative data were analyzed. Senge's five disciplines are further detailed as part of the Chapter 2.

Research Questions

This comparative case study examined the process of systemic change in three rural Pennsylvania public schools that have failed to attain AYP. Two out of the three, successfully completed an accountability turn around. The intent of this study was to answer the following four research questions:

1. What elements of systemic change theory were *present* prior to and throughout the school improvement process?
2. What elements of systemic change using Senge's Framework are *responsible* for school improvement achieved?
3. How has the perception of school leadership evolved throughout the school improvement effort?
4. How has the school's success affected the perception of the school as a learning community?

Research Design

This study explored the perceptions of teachers and administrators who worked in select Pennsylvania schools that failed to meet AYP targets. Participants in this qualitative multiple case study, were selected based upon their first hand experience during the school's failure. Two of the three cases, have successfully experienced an accountability turn around, while the third failed. A qualitative multiple case study approach was selected because it best matched the purpose of the study, which was to examine the role played by systemic change in three Pennsylvania public schools that were failing as defined by the tenets of NCLB. A multiple

phase semi-structured interview approach was used to gather data from the building principal and the focus group of teachers from each school. The interview technique was semi-structured in order to permit follow-up questions that were specific to the participants' experience. In addition, the purpose of the study was to understand *what* happened in each school as it attempted to emerge from failing to succeeding, as well as *why* and *how* it happened. Yin (2009) identifies case study as the ideal approach for descriptive or explanatory questions that are intended to provide firsthand understanding of people and events.

Significance of the Study

Identifying strategies that prepared the school for systemic change and improvement was critical. Learning the relevant aspects the schools' accountability turn around, as seen through the perspective of those who were active participants, is evermore so valuable if educators have an interest in learning from the success or failure of others. Senge (2012) states that "*systems thinking*" is needed today more than ever due to the complexity of the world. This research compiled qualitative data that reflected the overall planning and process of systemic change as it related to school improvement. Systems thinking requires one to see interrelationships rather than linear cause and effect chains. The practices and perceptions of teachers and administrators that were direct participants in their school's turn around will provide other schools with a valuable perspective of the most effective concepts for change and improvement as they relate to our public schools.

Limitations of the Study

Multiple case studies are limited in the scope by which they can be generalized beyond the research project. Patterns and themes can be identified and used to provide a perspective that can contribute to the understanding and effectiveness of a school improvement effort. However,

generalizations regarding school communities outside of the study and their history of achievement should be made with caution. Limitations due to the small sample size of this study should be considered before applying the results to all school settings. This study focused on three Western Pennsylvania schools; two that successfully completed an accountability turn-around, and a third that did not complete an accountability turn-around. Limitations in regard to the composition of professional staff, class size, and school demographics could also be found.

Definition of Terms

The following operational definitions were established for the purpose of this study.

Achievement: A student or student body's performance on statewide assessments (PSSA).

Adequate Yearly Progress: An overall performance score earned annually by public schools across the Commonwealth of Pennsylvania.

Assessment: Instrument used to measure learning.

Building Capacity: A conceptual approach to growth and development that focuses on understanding the obstacles that inhibit organizations from realizing their goals while enhancing the abilities that will allow them to achieve measurable results.

Leadership: A process by which a person influences others to accomplish an objective and directs the organization in a way that makes it more cohesive and coherent.

No Child Left Behind Act: A reauthorization and amendment of the Elementary and Secondary Education Act of 1965. It expands the government's role in the operation of public schools and was initiated in 2001.

Professional Learning Community: An ongoing process used to establish a school-wide culture that develops teacher leadership explicitly focused on building and sustaining school improvement efforts.

Standardized Test: A test designed to provide a systemic sample of individual performance, administered according to prescribed directions, scored in conformance with definite rules, and interpreted in reference to certain normative information.

Stockdale Paradox: An organization's ability to accept the brutal facts of reality, while maintaining an unwavering faith in the desired outcome, and a commitment to prevail despite the brutal facts.

Suburban School: A school district is rural or urban based on population density. Population density is calculated by dividing the total population of a specific area by the total number of square land miles of that area. According to the 2010 Census, when the number of persons per square mile within the county or school district is 284 or more, they are considered urban (The Center for Rural Pennsylvania, 2010). School districts that have less than 284 persons or more per square mile are considered rural (The Center for Rural Pennsylvania, 2010). At the school district level, 265 of Pennsylvania's 500 public school districts are considered urban (The Center for Rural Pennsylvania, 2010).

Summary

Chapter 1 established the background of the problem and the need for this study. The conceptual framework included the five pillars for systemic change, as defined by Peter Senge (Senge, 2012). The four research questions were presented along with a description of the research design, and the description regarding the significance of this study. Chapter 2 provides a review of the literature in relation to the theory outlined in Chapter 1.

CHAPTER 2

REVIEW OF THE LITERATURE

“When people say that they work at a good school, what do they mean?” (Glickman, 1993)

Introduction

The purpose of this qualitative multiple-case study analysis was to pinpoint the reasons for a school’s success. The researcher examined the elements of organizational change, as perceived by school leadership within two schools that transformed themselves from failing to succeeding, compared with one school that failed in the form of an accountability turn around in the modern era of NCLB. Throughout Chapter 2, the researcher provides an in-depth review of existing research and literature on the theory of systemic change. It is from this conceptual foundation that the ideals of personal mastery, shared vision, mental models, team learning, and systems thinking have on influencing a school’s success. Following the introduction, the review of literature is broken into five parts. Beginning with the history behind the NCLB, followed by what determines school achievement as measured by the attainment of AYP, or SPP the researcher describes factors that accounted for the initial label of failure for the schools examined in this study. The pillars of systemic change are detailed, as they pertain to the success of a public school. In order to understand what has precipitated what is widely regarded as the largest institutional shift in the history of public education, one must have a perspective as to the history of NCLB, and the influence this legislation has on public education.

History of No Child Left Behind

In August of 1981, the National Commission on Excellence in Education was chartered to “review and synthesize the data and scholarly literature on the quality of learning and teaching across the nation’s schools, colleges, and universities, both public and private, with special concern for the educational experience of teen-age youth” (U.S. Department of Education, 1983a). Their report, *A Nation at Risk*, was issued in April of 1983 and stated,

Part of what is at risk is the promise first made on this continent: All, regardless of race or class or economic status, are entitled to a fair chance and to the tools for developing their individual powers of mind and spirit to the utmost. This promise means that all children by virtue of their own efforts, competently guided, can hope to attain the mature and informed judgment needed to secure gainful employment, and to manage their own lives, thereby serving not only their own interests but also the progress of society itself. (U.S. Department of Education, 1983b)

The report included several specific indicators of risk, such as:

- 13 percent of all 17-year-olds in the United States can be considered functionally illiterate. Functional illiteracy among minority youth may have run as high as 40 percent.
- Achievement tests scores consistently declined in verbal, mathematics, physics, and English subjects as measured by the College Board’s Scholastic Aptitude Tests (SAT).

- Nearly 40 percent of 17-year-olds cannot draw inferences from written material; only one-fifth can write a persuasive essay; and only one-third can solve a mathematics problem requiring several steps.
- Remedial mathematics courses in public 4-year colleges increased by 72 percent and now constitute one-quarter of all mathematics courses taught in those institutions (U.S. Department of Education, 1983c).

The report's findings and recommendations covered four important aspects of the educational process: (1) content, (2) expectations, (3) time, and (4) teaching.

- Content (i.e., curriculum) had become diluted and was without a central purpose. Students were found to have migrated from vocational and college preparatory programs to "general track" courses in large numbers. It was recommended that high school graduation requirements be strengthened to require a minimum foundation curriculum of English, mathematics, science, social science, and computer science.
- The report defined expectations in terms of the level of knowledge, abilities, and skills graduates should possess. Such expectations are expressed to students in several different ways, such as grades, graduation requirements, examinations, and difficulty of subject matter. Many deficiencies in expectations were noted by the report and included declining amounts of homework, fewer required mathematics and science courses, increased enrollment in less demanding electives, and lack of challenge to students due to "written down" textbooks. It was recommended that schools adopt more rigorous and measurable standards, and higher expectations, for academic performance using challenging materials in an environment that supports learning and authentic accomplishment.

- Findings regarding time showed that American students spent much less time on schoolwork, used time in the classroom and on homework ineffectively, and were not encouraged by schools to develop study skills required to use time well or the willingness to spend more time on schoolwork. It was recommended that significantly more time be devoted to learning the minimum foundation curriculum through a more effective use of the existing school day, a longer school day, or a lengthened school year.
- The Commission's report found that the field of teaching was not attracting enough academically able students and that teacher preparation programs needed substantial improvement. A serious shortage of teachers in key fields was anticipated, especially mathematics and science subjects. Several recommendations were made to improve the preparation of teachers and/or to make teaching a more rewarding and respected profession.

The recommendations set forth in *A Nation at Risk* promised lasting reform through demanding the “best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college or industry” (U.S. Department of Education, 1983e, 1983x).

A Nation at Risk was also the beginning of an evolution in achievement testing and standards-based education reform. The movement toward standards-based education became a national one with the passage of the *Improving America's Schools Act* of 1994 (IASA). IASA reauthorized the *Elementary and Secondary Education Act* of 1965 (ESEA), first enacted as part of President Lyndon Johnson's War on Poverty, and designed to focus federal funding on poor schools with low achieving students. The de facto segregation of students into “regular”

classrooms and “special services” classrooms had to end (Jorgenson & Hoffman, 2003). In essence, the IASA changes required all states to have:

- Content and performance standards;
- Assessments aligned with those standards in one grade of each of three spans: three-five, six-nine, and 10-12; and
- An accountability system to identify schools that were not helping all students perform as expected on those assessments.

The guiding themes of the 1994 ESEA:

- High standards for all children.
- A focus on teaching and learning.
- Partnerships among families, communities, and schools.
- Flexibility coupled with responsibility for student performance.
- Resources targeted to areas of greatest needs. (U.S. Department of Education, 1996)

The 1994 ESEA was intended to work in concert with *Goals 2000: Educate America Act*, which supports state and local efforts to set challenging content and performance standards and to carry out school reforms that will raise the achievement levels of all students (Jorgenson & Hoffman, 2003). The next several years saw discussions among states regarding definitions of content standards, methodologies for setting performance standards, and the political and fairness issues surrounding the institution of both content and performance standards.

On January 8, 2002, President George W. Bush signed into law the single most influential piece of federal legislation in the history of public education: NCLB. This legislation reauthorized ESEA in dramatic ways. It punctuated the power of assessment in the lives of students, teachers, parents, and others with deep investments in the American public education

system. NCLB brought considerable clarity to the value, use, and importance of achievement testing of students in kindergarten through high school. With NCLB, a new era began where accountability, local control, parental involvement, and funding what works became the cornerstones of the nation's education system. It became imperative (the law actually) that if our children were not learning, schools would find out why. If schools were not performing, options and help would be made available. According to (then) Secretary of Education, Rod Paige, the stated focus of NCLB "is to see every child in America – regardless of ethnicity, income, or background – achieve high standards" (U.S. Department of Education, 2003b).

The history of reform preceding NCLB culminated in an opportunity for the country to put real muscle behind what had already been put into place. Funding is now tied directly to accountability expectations. Schools must ensure that all children learn the essential skills and knowledge defined by the state using grade-level standards and benchmarks. All means *all*, and data reporting required under NCLB must describe the learning journey of each student and the effectiveness of every school program (Jorgenson & Hoffman, 2003).

As NCLB began to take operational shape, it demanded that states build assessment systems that track the achievement of all students against a common set of high instructional standards. When compared to the 1994 reauthorization of ESEA by IASA, the distinguishing feature of NCLB is the recognition that education reform cannot be driven solely through new funding formulas and regulatory requirements. It must be driven by direct public accountability for individual student learning.

The new regulations are being developed in an environment that recognizes that schools and districts work best when they are allowed to exercise more flexibility and control over teaching methods, while being held accountable for results. States are required to conduct

assessments of all students from grades three through eight, annually in reading and mathematics. These tests must be based on rigorous state standards. The results of these assessments are made public so that anyone can track the performance of any school in the nation. Improvement among disadvantaged children must be demonstrated under the AYP provisions of NCLB. Schools unable to demonstrate AYP are provided with assistance and may be subject to corrective action. All states are required to submit plans that describe their achievement standards, aligned assessments, reporting procedures, and accountability systems. In exchange for greater accountability, the NCLB regulations provide states with far-reaching flexibility and control over how they use federal funds. Scientifically based instructional programs are supported and funds are available so teachers can gain and strengthen skills in effective instructional strategies (U.S. Department of Education, 2003b). Schools are encouraged to use federal funds for teacher retention, professional development, and technology training that best suit their needs without having to obtain separate federal approval. States are also given greater flexibility and control over their programs for English language learners.

In the United States, it is a widely held belief that a quality education “opens doors” for children and helps lead to a successful future. NCLB is the engine driving a new era of accountability and data-driven decision-making on behalf of every child’s educational journey. Children who are being left behind must be identified and states will have the responsibility to provide the resources to teach every child how to read, to apply mathematics, to study, to learn – to succeed.

Academic Content Standards

The Pennsylvania Accountability System is designed to keep track of key indicators of school success and to support all students reaching proficient or above in reading and math by the year 2014.

The Pennsylvania Accountability System:

- Applies to all schools and students.
- Is based on Pennsylvania's standards and content expectations.
- Sets a goal to have 100% of students proficient or above by 2014.
- Uses a valid, reliable assessment system.
- Provides for rewards, assistance, and consequences. (Pennsylvania Department of Education, 2012. www.education.state.pa.us)

Schools are evaluated on a minimum target level of improvement called AYP. School achievement is measured using the PSSA: the annually administered Pennsylvania System of School Assessment, which is a criterion-referenced test used to assess a student's mastery of the state's academic standards. Participation in the PSSA, as well as attendance and graduation rate contributes to a school's AYP. The accountability system includes a series of rewards and consequences based on school and district performance.

Pennsylvania currently uses the PSSA to test student performance in four areas (reading, math, writing, and science) to measure the attainment of the academic standards. The standards that have been adopted by Pennsylvania cover 12 main areas: Arts and Humanities, Career Education and Work, Civics and Government, Economics, Environment and Ecology, Family

and Consumer Sciences, Geography, Health, Safety and Physical Education, History, Mathematics, Reading, Writing, Speaking and Listening, Science and Technology.

Performance against the standards is measured using the one of the four descriptors found in Figure 1.

Advanced	The Advanced Level reflects superior academic performance. Advanced work indicates an in-depth understanding and exemplary display of the skills included in the Pennsylvania Academic Content Standards.
Proficient	The Proficient Level reflects satisfactory academic performance. Proficient work indicates a solid understanding and adequate display of the skills included in the Pennsylvania Academic Content Standards. <i>*Students must perform at this level or above to be considered as having reached the Commonwealth's performance expectations.</i>
Basic	The Basic Level reflects marginal academic performance. Basic work indicates a partial understanding and limited display of the skills included in the Pennsylvania Academic Content Standards. The work is approaching satisfactory work performance, but has not yet been reached. There is a need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient Level.
Below Basic	The Below Basic Level reflects inadequate academic performance. Below Basic work indicates little understanding and minimal display of the skills included in the Pennsylvania Academic Content Standards. There is a major need for additional instructional opportunities and/or increased student academic commitment to achieve the Proficient Level.

Figure 1. Pennsylvania's general performance level descriptors (Pennsylvania Department of Education, 2007, www.pde.state.pa.us/k12).

Adequate Yearly Progress

The Commonwealth of Pennsylvania has developed a system to measure whether districts or schools are on track to meet the state's performance expectations. This system identifies schools that are failing as well as those meeting expectations. Each year, school and

district performance is analyzed and a determination is made by the state as to whether AYP is being made. Listed below are the three main criteria used to determine AYP status:

1. PSSA test results; Adequate Yearly Progress is judged based either on a subgroup's, school's, or LEA's current test score, or its two-year average, whichever is higher.
2. Participation rates on the PSSA (schools must show at least a 95% student participation rate). Schools must test at least 95% of the various individual student groups, including students with disabilities and those with limited English Proficiency.
3. One additional performance measure depending on grade span:
 - a. Elementary/middle schools must have 90% average student attendance or show an attendance rate improvement over the prior year.
 - b. High schools must have an 80% graduation rate or show improvement in the graduation rate from the prior year. To graduate, students must demonstrate proficiency in reading, writing and math. To measure such proficiency, a school entity may use either: (1) proficient or better performance on the PSSA administered in grade 11 or 12; or (2) proficient or better performance on a local assessment aligned with the academic standards and the PSSA. Local assessments may be a single exam or a combination of assessment strategies, but proficiency is expected to be comparable with proficiency on the PSSA.
 - c. Districts must meet, or show growth in, both the attendance and graduation rate targets across all schools in their jurisdictions.

The three criteria previously listed apply not only to the school or district as a whole, but also to the performance of subgroups, including racial/ethnic categories, low-income students, students with disabilities, and English Language Learners (Pennsylvania Department of Education, www.pde.state.pa.us, 2007).

Table 1

*Adequate Yearly Program Requirements for Student Performance on Reading and Math
Pennsylvania System of School Assessment*

Year	2008-2010	2011	2012	2013	2014
Percent Proficient Reading	63	72	81	91	100
Percent Proficient Math	56	67	78	89	100

Information from Table 1 has been adapted from the Pennsylvania Department of Education website (Pennsylvania Department of Education, 2012, www.pde.state.pa.us/k12). As Table 1 shows, all students must reach the proficient level or above in reading and math by 2014.

Pennsylvania has also established a series of consequences for failing to reach the AYP goals shown in Figure 2 (www.pde.state.pa.us/k12). These consequences apply to both schools and districts. In the first year of not meeting AYP, a school or district is placed in “warning” status. Warning means that the school fell short of the AYP targets but has another year to achieve them. These schools are not subject to consequences. Instead, they are required to examine, and where necessary modify, their improvement strategies so that they will meet their targets the following year. If a school does not meet its AYP for two consecutive years, it is

designated as needing improvement and is placed in one of the categories described in Table 3 (www.pde.state.pa.us/k12). A school or district can exit School Improvement or Corrective Action status by meeting AYP targets for two consecutive years.

School Improvement I – Adequate Yearly Program Failure for Two Consecutive Years

If a school does not meet its Adequate Yearly Program for two years in a row, students will be eligible for school choice, school officials will develop an improvement plan to turn around the school, and the school will receive technical assistance to help it get back on the right track. The school choice provision means that the school/district is required to offer parents the option of sending their child to another public school (including charter schools) within the school district. If no other school within the district is available, a district must, to the extent practical, enter into a cooperative agreement with another district that will allow students to transfer.

School Improvement II – Adequate Yearly Program Failure for Three Consecutive Years

If a school or district does not meet its Adequate Yearly Program for three years in a row, it must continue to offer public school choice and plan improvements. Additionally, the school or district will need to offer supplemental education services such as tutoring, after-school, or summer school support. The district will be responsible for paying for these additional services.

Figure 2. Consequences for failing to make Adequate Yearly Program Requirements.

Corrective Action I – Adequate Yearly Program Failure for Four Consecutive Years

A school or district is categorized in Corrective Action I when it does not meet its Adequate Yearly Program for four consecutive years. At this level, schools are eligible for various levels of technical assistance and are subject to escalating consequences (e.g., changes in curriculum, leadership, professional development).

Corrective Action II – Adequate Yearly Program Failure for Five Consecutive Years

If a school or district does not meet its Adequate Yearly Program for five years in a row, it is subject to governance changes such as reconstitution, chartering, and privatization. In the meantime, improvement plans, school choice, and supplemental education services are still required.

Figure 3. Corrective actions to make Adequate Yearly Program Requirements.

School Performance Profile

The School Performance Profile is an annual score given to each school. Often referred to as the SPP, the score is based largely on the results of the Pennsylvania System of School Assessment (PSSA), the state required and end-of-course Keystone Exams, and the amount of growth students showed in one year as measured by the Pennsylvania Value Added Assessment System. Other factors considered include graduation rates, attendance, participation in Advanced Placement courses, PSAT, and advanced scores on state and industry standards-based competency assessments.

Framework for Systemic Change

The interdependence of effective collaboration, goal setting, and data collection are some of the essential elements of organizational change (Senge, 2012). Teamwork, goal setting, and the selective and judicious use of data are key components that favor results and organizational

improvement (Schmoker, 1999). Success in any organization depends on the interdependency between collaboration and goals. Though teamwork is fundamental in this scheme, it is “the means, not the end” (Katzenbach & Smith, 1993). Similarly, Huberman says that collegiality is not a “legitimate end in itself unless it can shown to affect . . . the nature or degree of pupil development” (Fullan, 1991). According to Schmoker, schools would perform better if teachers worked in focused, supportive teams. Collegiality among teachers, as measured by the frequency of communication, mutual support, help, etc., was a strong indicator of implementation success. Virtually every research study on the topic has found this to be the case (Fullan, 1991).

An organization must be willing to learn in order to grow to a desired level of achievement and systemic efficacy (Senge, 2012). In order to learn, organizational leaders have to be willing to lead, but to follow as well. They must be able to question difficult issues in a safe manner, and to risk failure so that they may build capabilities for future successes (Senge, 2012). A school system that trains its students to obey authority and follow the rules unquestioningly will have poorly prepared their students for the evolving world with which they live. Senge goes on to identify five key learning disciplines that can help school systems evolve and change to meet the demands of public education and the challenges set forth by the federal NCLB.

Personal Mastery: Personal Mastery is the practice of articulating a coherent image of your personal vision – the results you most want to create (in your life) – alongside a realistic assessment of the current reality. This produces the kind of innate tension that, when cultivated, can expand your capacity to make better choices and to achieve more of the results that you have chosen. (Senge, 2012)

Shared Vision: This collective discipline establishes a focus on mutual purpose. People with a common purpose (e.g., teachers, administrators, and school staff) can learn to nourish a sense of commitment in a group or organization by developing shared images of the future they seek to create and the principles and guiding practices by which they hope to get there. (Senge, 2012)

Mental Models: This discipline of reflection and inquiry skills is focused around developing awareness of attitudes and perceptions—one's own attitudes and perceptions as well as those of others. Working with mental models can also help you more clearly and honestly define current reality. One of the critical acts for a school that is learning and looking to make profound change is to develop the capability to talk safely and productively about dangerous and discomfoting subjects. (Senge, 2012)

Team Learning: This is a discipline of group interaction. Through such techniques as dialogue and skillful discussion, small groups of people transform their collective thinking, learning to mobilize their energies and actions to achieve common goals and drawing forth an intelligence and ability greater than the sum of individual member's talents. Team learning can be fostered inside classrooms, between parents and teachers, among members of the community, and in the "pilot groups" that pursue successful school change. (Senge, 2012)

Systems Thinking: With this discipline, people learn to better understand interdependency and change and thereby are able to deal more effectively with the forces that shape the consequences of their actions. Systems thinking is based on a growing body of theory about the behavior of feedback and complexity – the innate tendencies of a system that lead to growth or stability over time. Systems thinking is a powerful

practice for finding the leverage needed to get the most constructive change. (Senge, 2012)

The five disciplines identified as part of the literature review are considered ongoing bodies of study and practice that help learning organizations adapt to the dilemmas and challenges faced by public schools today. They help schools reach and sustain a state of efficacy as a system. The term “mastery” descends from the Sanskrit root *mah*, meaning “greater.” Through the centuries, in Latin and Old English, the meaning of “master” as “domination over something else,” has endured. But a variation of the word evolved in medieval French: *maitre*, or “master,” meaning someone who was exceptionally proficient and skilled—a master at a craft. The first of Senge’s Five Disciplines is *personal mastery*. Senge states that oftentimes when educators learn about these, they are drawn to personal mastery (Senge, 2012). Potential for achievement in personal mastery is seen in the classroom, the whole school, and in the community as well. Learning itself does not occur in any enduring fashion unless it is sparked by the learner’s own interest and curiosity—which subsequently means that the learners need to see where they want to go and be able to assess where they presently are. The presence of PSSA testing and the various local assessments that accompany these, the latter part (assessment) is more readily available to leadership than ever before. Personal mastery is a set of practices that support people—children and adults—in keeping their dreams whole while cultivating an awareness of the current reality around them. This dual awareness—what you want and what you have—often creates a state of tension that, by its nature, seeks resolution. The most desired resolution of this tension is for your reality to move closer to your goals (Senge, 2012).

The promotion and practice of personal mastery is an individual matter. It is typically conducted through individual reflection and as with all of the disciplines, it represents a lifelong

process. Schools have a key role to play in this discipline, by setting a context where people have time to reflect on their vision, by establishing an organizational commitment to the truth wherever possible, and by avoiding taking a position (explicit or implicit) about what other people should want or how they should view the world.

Unfortunately, teacher isolation—the opposite of teamwork—is one of the most obvious realities of a teacher’s life according to Schmoker. Such isolationism does not promote organizational growth and improvement. Quite the contrary, it produces professional insecurity. Many teachers, comfortable in their isolation, may find the transition to teamwork a little daunting. Individualism combines with what Schmoker refers to as “presentism” (Schmoker 1999). Presentism is defined as the myriad of daily events and duties that keeps us from reflecting and discussing collaboratively the long-term strategic goals and objectives. Isolation can stagnate the professional development and growth of the individuals at the tactical level of change and organizational improvement. Teachers working in isolation cannot create an empirically grounded common language. Individualism supports presentism by inhibiting work with others in a search for common solutions. Isolated environments cut the lifeline of useful information, meaningful dialogue and thus assumes that practitioners have nothing meaningful to learn from one another nor can they discuss and problem solve.

Leadership

In 2004-2005 the plan to develop school leadership at all levels within a system was born. Called the Pennsylvania Inspired Leadership Initiative (PIL), this group of representatives from professional organizations, advisory boards, universities, and practicing school administrators set out to cultivate a set of relevant present-day leadership standards. The PIL evolved from the

original ISSLC standards, however a key difference can be found in that PIL is designed to inspire and develop leadership at all levels within a school system/organization.

The Core Standards: Both the Grow and Support components for the PIL initiative are designed to address the following three statewide “core” leadership standards:

- The leader has the knowledge and skills to think and plan strategically, creating an organizational vision around personalized student success.
- The leader is grounded in standards-based systems theory and design and is able to transfer that knowledge to his/her job as the architect of standards-based reform in the school.
- The leader knows how to access and use appropriate data to inform decision-making at all levels of the system.

There is so much written about leadership: the habits of successful leaders, the personality attributes of leaders, and case studies of inspired leadership. For the purpose of this study, the researcher focused on two major forms of leadership as part of its theoretical framework: instructional leadership and transformational leadership.

A popular theme in educational leadership over the last two decades has been instructional leadership. Instructional leadership refers to educational leaders who have their major focus on creating a learning climate free of disruptions, a system of clear teaching objectives, and high teacher expectations for teachers and students (Hattie, 2009). In a review of contemporary literature on leadership, Leithwood, Jantzi, and Steinbach (1999) noted that instructional leadership is one of the most frequently mentioned educational leadership concepts in North America (Marzano, McNulty, & Waters, 2005). Yet, despite its popularity, the concept is not well defined.

The description of instructional leadership that has attained the highest level of visibility identifies four dimensions, or roles, of an instructional leader: resource provider, instructional

resource, communicator, and visible presence (Smith & Andrews, 1989). As a resource provider, the school/instructional leader ensures that budgetary, materials, and facilities' needs are being met for all stakeholders. The instructional leader oversees activities and programs and provides active support by modeling desired behaviors, participating in in-service training, and consistently giving priority to instructional concerns. As a communicator, the principal has clear goals for the school and articulates those goals to faculty and staff. As a visible presence, the principal engages in frequent classroom observations and is highly accessible to faculty and staff. However, these alone do not fully describe from different viewpoints the qualities of an effective instructional leader. Blasé and Blasé identify slightly different characteristics as evidence of attributes that can be described as the instructional leader. In their Reflection-Growth (RG) model, they list the following characteristics: encouraging and facilitating collaborative efforts among teachers, establishing coaching relationships among teachers, using instructional research to make decisions, and using the principles of adult learning when dealing with teachers (Blasé & Blasé, 1999). Still others identify a number of attributes that separate instructional leaders by their direct assistance to teachers in their day-to-day activities, development of collaborative groups among staff, design and procurement of effective staff development activities, curriculum development, and use of action research (Glickman, 1995). They go on to say that the three general functions of the instructional leader, the first and the second being traced back to critical elements for systemic change are: defining the school's mission, promoting a positive school climate, and managing curriculum and instruction. According to Leithwood et al. (1999), transformational leadership is an extension of instructional leadership because it "aspires, more generally, to increase members' efforts on behalf of the entire system and organization . . ."

(Marzano et al., 2005).

Transformational leadership refers to educational leaders who engage with their teaching staff in ways that inspire them to new levels of energy, commitment, and moral purpose such that they work collaboratively to overcome challenges and reach ambitious goals (Hattie, 2009).

Assumptions grounded in transformational leadership are:

They are *agents for change*; they are willing to lead change initiatives with uncertain outcomes.

Transformational leaders are *courageous*; they consciously challenge the status quo.

People will follow a person who *inspires* them.

A person with *vision and passion* can achieve great things.

Transformational leaders are *value-driven*; systemically considering new and better ways of doing things.

They *believe in people*.

The way to get things done is by injecting *enthusiasm* and *energy*.

Working for a transformational leader can be a wonderful and uplifting experience. They put passion and energy into everything. They care about you, believe in you, and want you to succeed (changingminds.org, 2009). Transformational leadership starts with the development of a vision, a view of the future that will excite and convert potential followers. This vision may be developed by the leader, by the senior team, or may emerge from a broad series of discussions. The important factor is that the leader buys into it hook, line, and sinker (McCrimmon, 2008).

The next step, which in fact never stops, is to constantly sell the vision. This takes energy and commitment, as few people will immediately buy into a radical vision, and some will join the show much more slowly than others. One of the primary goals, according to Leithwood

et al. (1999), is that the transformational leader helps the staff develop and maintain a collaborative professional culture. Selling the vision means facilitating numerous platforms for teachers to work and plan collaboratively. Analyzing school achievement data, planning by grade-level or by department, and problem-solving as a team can develop a collective responsibility for achieving school goals.

The transformational leader thus takes every opportunity and will use whatever works to convince others to climb on board the bandwagon. In order to create followers, the transformational leader has to be very careful in creating trust, and their personal integrity is a critical part of the package that they are selling. In effect, they are selling themselves as well as the vision. Therefore it is implicit in transformational leadership behavior, the ability to work with others, to foster relationships, and to collaborate. According to Clark (2008), contemporary theories about leadership have shifted from a focus on the individual “leader” toward the collective act of “leadership.” Consequently, the transformational leader has been described as being an “agent for change” in a collective sense.

It is not uncommon for a school or any other complex organization to keep certain practices in place and unchallenged for years and even decades simply because of their historical status. By contrast, the responsibility of a *change agent* refers to the leader’s disposition to challenge the status quo. Many of the characteristics of this responsibility fit well within the discussion about transformational leadership (Marzano et al., 2005). Underpinning the responsibility of acting as a change agent is leadership’s willingness to temporarily upset the school’s equilibrium. Fullan (2001) explains that an effective leader has the ability “to disturb them [staff] in a manner that approximates the desired outcome.” He goes on to say that change agents do not “live more peacefully, but . . . they can handle more uncertainty—and conflict—

and are better at working through complex issues in ways that energize rather than deplete the commitment of the organizational members.” An additional, if not different perspective on the responsibility of the effective change agent is that they are leaders who “protect those who take risks” (Silins, Mulford, & Zarins, 2002). This nurturing of leadership throughout the system is further explained as “the extent to which staff feel empowered to make decisions and feel free to experiment and take risks.”

Collins (2001) breaks down the transformation within leadership even further. According to Collins, leadership can fit into a hierarchal structure that incorporates five levels that in several ways reflect the characteristics of the transformational leader. For example, the Level 3 leader on Collins’ Hierarchy exhibits these traits: “Organizes people and resources toward the effective and efficient pursuit of predetermined objectives.” In what may be described as an organizational view of the world, from the perspective of its leadership, the human tendency is to design one’s actions consistently according to four basic values (Argyris & Schon, 1996):

1. To remain in unilateral control;
2. To maximize “winning” and minimize “losing”;
3. To suppress negative feelings; and
4. To be as “rational” as possible—by which people mean defining clear objectives and evaluating their behavior in terms of whether or not they have achieved them.

The essence of these values, as Argyris and Schon (1996) points out, essentially blocks out any fruitful learning or change in an organization. According to Senge (2012), these traditional values represented the “Principal Do-Right” model (p. 412). A good leader gains and remains in control at all times. Never let them see you doubt or sweat. Take a stand and hold that position. No one else will defend the children (or policy, teacher, or curriculum) as well as you will.

A good leader “wins” all confrontations, regardless of the party with whom she or he is sparring—child, parent, teacher, administrator, board member, politician. Winning is not always possible, so be able to recast the exchange as learning, planning or negotiation. Above all, when pursuing a “win,” wear your opponents down with rationality. Another strategy for winning is to redefine the issue as a local situation that will be dealt with privately. By dividing a complex situation and initiating local “fixes” on the parts, the leader can declare a “win.”

Negative feelings expressed by the principal indicate loss of control and maybe incompetence. *If the building has an undertone of negative feelings, it is a sign that the principal has not been able to inspire or motivate the teachers.* A display of anger, anxiety, or grief by the principal or superintendent poisons the air and ultimately spills over to the children. “If negative feelings have a hold in your building,” said one principal, “it’s like getting rid of roaches in an old apartment building.”

Being rational is a sign of being educated—it is that simple. An educator, after all, develops the minds of our young people. Herein lies the problem from a leadership perspective in a system that is struggling to improve its performance; struggling to change. Effective leadership, as described by these values simple means to “advocate.” Clarify the problem and take a position. Do not back down. Be strong. Be rational. Be convincing. Be right. This “Principal Do-Right” model, in itself, is a burden that many of our public educators are saddled with. It leads directly to the kinds of behavior that make it difficult to inquire and reflect at length, or to draw people together to a common purpose, a shared vision (Senge, 2012).

The negative consequences from such a (leadership) style can include inevitable anxiety from being wrong, or the passivity and cynicism it engendered among the teachers. The

“Principal Do-Right” model is clearly one that does not engender itself for organizational change/improvement to a profound and sustainable level.

Ron Heifetz, director of the Leadership Education Project at Harvard’s Kennedy School of Government, defines leadership itself as the ability to mobilize people to tackle tough problems. In other words: *engagement*. Engagement, according to Peter Senge has two components. First is the capability to recognize a situation or issue that has no clear definition, no simple “cause” and no obvious answer.

Engagement, according to Senge (2012), is not as easy as it might seem. First, the complexity of the situations usually comes with a lot of emotion on the part of constituents. Creating safe space for conversation and facilitating listening as well as speaking are not skills taught in graduate schools. As tensions rise and people become more emotional, as they most surely will in times of organizational change, leaders and subordinates alike may find themselves agitated by the lack of clarity and high pitch of emotions. Those who are identified among an organization’s leaders, both by title and/or inferred, may be tempted to go back to Argyris’s Value One, gain unilateral control, and create temporary peace.

Systems Thinking. Represents the second most significant characteristic of the Senge leadership model. “*Systems thinking*” is the ability to recognize the hidden dynamics of complex systems, and to find leverage, goes hand-in-hand with engagement. Ludwig von Bertalanffy, one of the grandparents of systems thinking, offered a critical question to reflect on before taking action on a complex problem: “Where are the boundaries to this situation?” That is no small question. The answer identifies (or begins to identify) the people who need to be included in the thinking and action.

Leading Learning. To lead learning means to model a “learner-centered,” as opposed to an “authority-centered,” approach to all problems, inside and outside the classroom (Senge, 2012). However, the ability to engage people and to study systems is not enough for dealing with complex issues in public education. Many people can relate to the authority-centered approach to problems in the way we were taught as we progressed through our school-age years. Teaching in its authoritative form exposes the child to theories, techniques, and rules, and requires the child to prove the accurate reception of all this information through testing. Teachers “grade” the quality of the child’s reception or comprehension and if the child receives poor grades over time, he or she gets “remediation.” Teaching, in short, is organized for the adults in the system—in the same way that the “Principal Do-Right” leadership is organized for the sake of the administrator’s self-image (Senge, 2012).

Authority-centered problem-solving is insidious and sometimes difficult to spot. But beware of schools even where there is a plaque on a wall saying “We are student centered,” because it is quite possible that they are closer to the authority-centered model than they are the learner-centered one. The goal of this study/researcher was to find exactly a school(s) that has shifted from the former to the latter model in its quest for systemic change and improvement.

What, then, does learner-centered leadership, as a competence of educational leaders, mean? It means that learning and the acceptance of uncertainty that is always part of learning are part of the culture of the school system (Senge, 2012). Teachers will teach—but when the child has not learned, what questions will the teacher ask? Will they ask, “How did I contribute to this situation? What does this child/children need to succeed? What can I say or do to help this child take in and apply these concepts? Does the student feel a part of his or her learning?”

In such a culture, all people in the system are seen as learners and act as learners. It is no longer as important to appear “learned”—“to have several graduate degrees and authoritativeness as the primary credential of leadership. Instead, leaders expect themselves and others to be uncertain, inquiring, expectant of surprise, and perhaps a bit joyful about confronting the unknown (Senge, 2012).” In these situations, the leader can “induce learning by asking hard questions and by recasting people’s expectations to develop their *response ability* (Heifetz, 1994).

Self-Awareness. Leaders must be self-aware. They must see the impact they are having on people and the system and how that impact has changed over time. The designated school leaders: the principal, superintendent, etc. seem to transient today at an alarming rate. Therefore the characteristic of self-awareness, especially during a time of profound organizational change is critical. Self-awareness is a position of strength. There are at least two components to the task of developing it: taking time away from the office to personally reflect, and engaging a personal coach in the office over a period of time. There will always be pain (and joy) in any leadership position. Knowing one’s strengths, personal vision and values, and where your personal “lines in the sand” are drawn will build a base of self-awareness that allows you to craft your career and have more good days than bad.

Collins (2001) uses the analogy of “getting the right people on your bus” as a model for staff analysis and placement. In order to maximize the potential of your school, the instructional leader must figure out “if everyone is in the correct seat.” An important manner in which to help determine this, is by maintaining visibility. Visibility serves multiple purposes, which is why the instructional leader places a high value on this strategy. Visibility has significant importance on multiple levels. Visibility can be maximized at the entrance of the school, in and throughout the

hallways, the cafeteria and inside classrooms, as well as at extracurricular programs. A supervisor will quickly identify their teacher leaders. They are your positive team—players whose enthusiasm rubs—off on their students. They are creative and energetic. They set an example of life—long learning. These individuals typically stand out regardless of the overall morale of a building. In essence, your most effective people have a fairly good attitude toward their work or else they would not be so effective. Once these “players” are identified, you can begin to see the impact their support. Spreading their enthusiasm and effectiveness can potentially growth throughout the rest of your faculty. It is easy to understand why buy-in from teacher leaders is so valuable to the mission and those in instructional leadership positions.

Visibility by the principal can be reassuring and supportive to the most hardened teachers and makes a statement about holding everyone accountable as well as establishing your priorities as a supportive school leader. Nonetheless, we must continually nurture the “stars” (i.e., the most effective and positive people) first, before we can shift our attention to the majority. Maintaining a high level of visibility sets an expectation for accountability to the stated values of the district, school and principal. Even if a primary goal is to continually monitor the dynamics of the faculty and its instructional effectiveness, you hold people accountable to doing what is expected of them as well as communicate the importance of being a part of all those informal interactions and the power that they can hold.

Although we often think of the peer pressure that children encounter during their school—age years, the same is really true for teachers. A few key and influential people are capable of setting the tone for an entire building (in terms of faculty dynamics and morale). The influence of those “informal relations” in the faculty room, on the playground, in the parking lot on the way to their car at the end of the day cannot be overstated. This form of interaction can

affect a teacher's outlook, as well as their approach to work. They can shape the philosophical beliefs of young teachers. It can also change the more malleable, if not submissive faculty members. A visible leader who is continuously interacting with teachers and students alike, evaluating the tone of the building, reinforcing the worthwhile work that we do, presenting him or herself as accessible can make these informal relations an effective means to the desired end work for him rather than against.

Through a study done to determine the effectiveness of principal leadership, M. E. Whitaker (1995) sought to identify important characteristics of what he termed "participatory management" with both highly effective and less-effective principals. A principal's effectiveness had been previously determined through an instrument called Comprehensive Assessment of School Environments, coupled with on-site visits and interviews with principals and groups of teachers. What he found was that one of the major differences between the two groups of schools and their respective leaders was the identification and subsequent use of teacher leaders at the more effective schools and the lack thereof at the less effective schools. Effective principals consistently were able to identify and utilize their "stars." Transformational leadership has been around since the late 1970s, and one of the characteristics evidenced in both businesses as well as schools is the participative decision-making (Leithwood & Jantzi, 1990). This represents a form of "consensual" or "facilitative" power that is manifested through people instead of *over* people (Leithwood, 1992).

When teachers have input and are given the chance to make suggestions for school improvement, a sense of ownership is created. Frequently seeking and utilizing this information significantly improves the chance of attaining your goals. The issue is more than simply who is making the decisions, but rather finding ways to be successful in collaboratively defining the

essential purpose of teaching and learning and then empowering the entire school community to become energized and focused. In schools where such a focus has been achieved, we found that teaching and learning became transformed for everyone (Haque, 2008). Conversely, Whitaker discovered that one of the most glaring weaknesses of the less effective principals was their inability to identify informal teacher leaders on their faculties. Those principals were unable to rely on the informal relationships and transactions among their “star” faculty members. Their potential support in attaining the overall goals was never realized or actualized. Hence, they were less successful in leading their organization in a positive direction.

Summary

Chapter 2 began with a review of the history behind the NCLB legislation. Following a review of the history of legislation directed at school achievement, the literature review guides the reader through the definition of Academic Content Standards, Adequate Yearly Progress, and the current School Performance Profile used to measure a school’s academic achievement. Theories related to systemic change and organizational learning were detailed next. The key elements of systemic change theory, according to Peter Senge (2012) are outlined as the primary theoretical framework used for this research study. Additional theories revolving around instructional and transformational leadership were also presented in the review of related literature. In Chapter 3, this researcher outlines the research methodology selected for data collection and analysis as it related to this study of school improvement.

CHAPTER 3
METHODOLOGY

“One of the true tests of leadership is the ability to recognize a problem before it becomes an emergency.”

– Arnold H. Glasgow

Introduction

Since the passing of the federal NCLB Act (2001), school improvement has become a nearly constant topic in the arena of public education. School systems as a whole are faced with an unprecedented era of accountability for student achievement. The political pressure to not only pursue 100% student proficiency, but to ensure it is the new standard. In a world where a growing percentage of children are coming from nontraditional, if not dysfunctional, homes and increasing levels of poverty, many children are simply not prepared to compete in the more complex and hypercompetitive market. The purpose of this study was to examine the elements and perceptions of systemic change as experienced by teachers and administrators over the course of a school accountability turnaround. Although there are numerous theories regarding systemic change and organizational improvement, the elements of change were examined using the theoretical framework for systemic change by Peter Senge (2012). This multiple case study examined three Pennsylvania schools that failed to achieve AYP. The study consisted of an extensive exploration of the experience and perceptions of building administrators and teachers working during the time of their respective school’s accountability turnaround. Chapter 3 begins with the description of the research design.

Research Design

A qualitative approach for this research study into systemic change was selected because it best matches the purpose of the study, which was to describe the perspectives of school administrators and teachers regarding systemic change theory in three select schools' accountability turnaround. This purpose is aligned with a description that Denzin and Lincoln (2005) provide in that “qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them” (p. 26). In addition, the purpose of this study was to understand *what* happened in the schools' turnaround, as well as *how* and *why* it happened. Quality refers to the what, how, when, and where of a thing—its essence and ambience. Therefore qualitative research will speak more to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things evaluated as part of this study. Yin (2009) points to case study research as the ideal approach for descriptive questions that are intended to provide an in-depth understanding of people and events. The basis of case study methodology is to seek a more holistic description of an event or system. The holistic approach, supported by Berg (2009) refers to how a whole system can be very different and yet greater, than its individual parts. Case study methodology involves systematically gathering enough information about a particular person, social setting, event, or group to permit the researcher to effectively understand how the whole case operates or functions (Berg, 2009). The case study method is the type of approach capable of examining simple or complex phenomenon, with units of analysis varying from single individuals to large corporations and businesses (Berg, 2009). By applying a variety of data-gathering strategies, the study can apply a theoretic perspective more meaningfully (Creswell, 2007; Yin, 2003). Case studies can provide a kind of deep understanding of phenomenon, events, people, or

organizations. In essence, case studies open the door to the processes created and used by individuals involved in the phenomenon, event, group, or organization under study (Wieck, 1995). In creating formal designs for case-study investigations, Yin (2009) recommends five component elements:

- Study (research) questions
- Theoretical framework
- Identification of the unit(s) of analysis
- The logical linking of the data to the propositions (or theory)
- The criteria for interpreting the findings

A case study's *questions* are generally linked toward *how* and *why* considerations, and their articulation and definition were the first task of the researcher. They were built-in to the overall research questions found in Chapter 1. To the contrary, a quantitative approach would focus more upon the traits and patterns of the individual parts. By using a qualitative method, the researcher was provided the opportunity to examine the phenomenon as a whole, and to gain an understanding of the perspectives of the participants. By examining these perspectives in rich detail and in the fullness of their contexts, the data provides a better understanding of the complexity of the system as a whole. This study examined the perspectives of this complex systemic process through the following research questions.

Research Questions

1. What elements of systemic change theory were present prior to and throughout the school improvement process?
2. What elements of systemic change, using Senge's framework, are responsible for school improvement achieved?

3. How has the perception of school leadership evolved and in what way has it impacted the success of the school improvement effort?

4. How has the schools' success affected the perception of the school as a learning community?

This study involves three individual cases bounded by their previous failure to attain AYP. Two of the three followed their respective failure to attain AYP status by successfully reaching this benchmark. The third on the other hand, failed to reach the benchmark. Each individual case is a select Pennsylvania school that faced the challenge of an accountability turn around. Challenges for the case study researcher include the identification of the case (Merriam, 1998; Yin, 2006), as well as overcoming the criticism of an individual case's lack of generalization. It is for this reason that a multiple-case approach was utilized in order to provide the researcher data to compare and cross case analyze from three separate schools. Merriam (1998) states "the inclusion of multiple-cases is a common strategy for enhancing the generalizability of findings" (p. 40). Yin (2009) recommends the use of multiple-case design due to the potential analytical benefits with two or more cases. It is also stated that external generalizability can be expanded if common conclusions are found to exist for the select cases under varied circumstances or contexts. The researcher selected three schools so that the opportunity to compare the findings was present, while maintaining a small enough number that allowed the researcher to gain an in-depth understanding of the experiences and perceptions of the participants.

Qualitative researchers tend to collect data in the field at the site where participants' experience the issue or problem under the study (Creswell, 2007). The most common form of data collection in qualitative studies in education is the interview, and more specifically, the

person-to-person encounter (Merriam, 1998). Conducted in the natural school setting, the data can be gathered through face-to-face interaction with the participants over the course of the time. By collecting the interview data in the school, the research includes observations of participants in their natural setting, opportunities to review documents and artifacts, further strengthening the validity of the interview data gathered.

The semi-structured interview was selected for this study. However, when considering which interview structure was best suited for the nature of this study, several formats were reviewed. Three major categories of interview structures were identified: the standard (formal or structured) interview, the non-standard (informal) interview, and the semi-standard (guided or semi-structured or focused) interview. The major difference between these different interview structures is the degree of rigidity with regard to presentational structure (Berg, 2009). The semi-structured (semi-standard) interview can be located somewhere between the extremes of the completely standard and the completely non-standard interview structure. Semi-structured interviews involve the implementation of predetermined questions used to provide a focus throughout the interview. These questions are typically asked of each interviewee in a systematic and consistent order, they are open-ended which allows freedom to digress; that is, the interviewers are permitted (in fact, expected) to probe beyond the answers to their prepared standard questions. This adaptability is another major advantage of the semi-structured interview.

Skilled interviewers can follow up a respondent's answers to obtain more information and clarify vague responses. They can also build trust and rapport with respondents, thus making it possible to obtain information that the individual probably would not reveal by any other data-collection method. (Merriam, 1998)

The semi-structured interview incorporates the assumption that individual respondents have the chance to define the world in their own unique ways. The questions used in the semi-structured interview approach can reflect awareness that individuals understand the world in varying ways (Gubrium & Holstein, 2003). Unscheduled probes can be added to the semi-structured interview allowing the interviewer the flexibility to delve more deeply into the meaning of an interviewee's response whenever one is ambiguous or too general. When matching the purpose of this study to a reliable data collection method, the semi-structured interview emerged as the best fit.

Participants

The superintendents of the three participating school districts were initially contacted by telephone or email and formally invited by letter to allow the school within their district to participate in this multiple-case study (Appendix A). A self-addressed stamped envelope addressed to the researcher was provided for the teacher-participants and school administrator-participants to return the Informed Consent Form to the researcher (Appendix B). In this manner, the researcher and the superintendent did not select or persuade any individual to participate. Participation in this study is purely voluntary and any individual could withdraw from the study at any time without penalty by notifying the researcher either by telephone, in writing, or via email.

The anticipated number of participants for each school was 10-12, including 8-10 teachers and 1-2 building or district-level administrators. Teacher participants represented each of the grade levels or departments located within their respective school. In order for the participants to take part in this study, they had to have been employees of the school identified during the time in which the accountability turn around occurred. Informed Consent Forms were

collected from each participant. The semi-structured interviews were scheduled to last approximately 45 minutes to one hour. Both phases of the interview process were digitally audio-recorded, with the participant's permission.

Document analysis provided information that may not be visible through observations or interviews. The building administrator, as well as the superintendent or a representative from central office administration, were asked to provide copies of documents that included meeting agendas, minutes, schedules, power point presentations, and photographs. The analysis of the documents provided the opportunity to determine if the contents support or contradict information gathered via interviews and observations.

Interview Questions

The interview questions were based on the theoretical framework of Peter Senge's (2012) five disciplines of learning organizations and were designed to determine *if* and *how* the process of a successful school accountability turnaround was impacted by elements of the systems thinking framework (Appendix C). Furthermore, the questions were designed to reflect the perception of the school as a community as an effect of the systemic change process. These four research questions and the corresponding interview questions were utilized by the researcher to gather the perceptions of the participants regarding participation in the school improvement process. Questions were developed to be open-ended so that respondents could focus on their own interests and concerns and would share a variety of experiences with the reform efforts. Appendix D, Systemic Change Interview Guide, provides a list of the interview questions. The researcher's approach aligned with Merriam's (1998) definition of a "semi-structured interview."

Validity and Reliability

Data triangulation was utilized in order to promote validity. Berg (2009) suggests that a variety of research methods impose a certain perspective on reality. Each method reveals slightly different facets of the same symbolic reality. Each method represents a different “line of sight” directed toward a same point, observing social and symbolic reality. By combining several lines of sight, researchers obtain a better, more substantive picture of reality; a richer, more complete array of symbols and theoretic concepts; and a means of verifying many of these elements. The use of multiple lines of sight is frequently called triangulation.

Semi-structured interviews with school administrators and teachers are phase-one, and are the primary method for the purpose of attaining a full rich perspective of the experiences of the participants. The researcher broke the data gathering into two phases at each school. The first phase included focus group interviews with the teacher participants and individual interviews with the administrative participants. Phase-two of the data collection process involved meeting with the key spokesperson(s) from the original focus group and reviewing the responses and researcher’s interpretations from phase one of the data collection process. Recording the interviews ensures the data accuracy for the purpose of cross-referencing with the detailed transcriptions taken by the researcher. Additionally, document analysis and detailed field notes from personal observations made on-site by the researcher complete the methodological triangulation. In order to best capture a holistic picture of each case, the use of artifacts collected and/or photographed by the researcher further supported the established validity of data.

A third approach to establishing validity was the use of member checks. Lincoln and Guba (1985) identify this technique as the most critical for establishing credibility. Member

checks provide the opportunity for the participants to assess the accuracy of the data, as well as to confirm particular aspects of preliminary findings. The researcher provided the participants the interpretations and conclusions so that they could judge the accuracy and credibility. In this manner, the researcher's interpretation of the participant's reality ensured the truth-value of the data.

Expert Panel

The interview questions were shared with an expert panel consisting of a principal, and teachers who have experienced an accountability turn-around in their school(s). Although this group does not represent formal participants of this study, their experience and position within their school gives them credibility for serving as the study's expert panel. Feedback from the panel provided a basis from which to refine the interview questions as needed. The results provided a means for the researcher to determine if the interview questions wean the type of information that lead to providing answers to the research questions. A majority of three out of five from the expert panel was required in order to change, eliminate or add questions to the original interview guide. The results listed represent recommended changes to the original questions.

4. What is your school's vision? This question was changed to: Does your school have a clear vision? If so, what is it?
7. What is the school's mechanism that identifies problems and challenges? Eliminated.
9. Do you have individual goals? Are they linked to building goals and your role in attaining those goals? Eliminated.

Data Analysis

Merriam (1998) states, “Data analysis is a complex process that involves moving back and forth between concrete bits of data and abstract concepts, between inductive and deductive, between description and interpretation” (p. 178). The researcher’s role was to identify the meaning of the data from these differing perspectives.

The data collected as a part of this study, provided an in-depth description of the school accountability turnaround and improvement process. Furthermore, any connection or affect on this process from the five disciplines, identified in Senge’s framework, was highlighted. Since this is a multiple-case study, two frameworks were used for data analysis. The first was the completion of within-case analysis followed by a cross-case analysis. As part of the within-case analysis, this study incorporated data analysis that was simultaneous with the data collection in qualitative studies. According to Yin (2009), multiple-case studies should follow logic of replication. This technique is analogous to how individuals replicate scientific experiments to duplicate significant things. The use of a matrix designed to enter the narrative data from the interviews with teachers and administrators provides a starting point. The first step was to transcribe the responses of each interviewee as quickly as possible into the matrix and to provide the transcription to each interviewee to review and confirm the accuracy of their recorded responses.

The last information that this researcher used to complete the data was an examination of written documents from the schools. According to Merriam (1998), content analysis is the method for analyzing written correspondence and other written documents. Yin wrote, “The most important use of documents is to corroborate and augment evidence from other sources” (2009, p. 87).

Summary

Outlined in Chapter 3 are the methods and procedures necessary for conducting an examination of systemic change through a qualitative research study. In addition, this chapter identifies the instruments developed for collecting the data, as well as the data analysis procedures for recording and analyzing the data. Selection and identification of the participants have also been explained.

CHAPTER 4
DATA ANALYSIS

Introduction

The researcher is grateful to the three school districts, and most notably the principals and teachers who participated in this study. The names of the participants, from the school principal, the teachers, the name of the schools, and respective districts are all fictitious in order to protect the right to privacy and security. All three Western Pennsylvania schools face the challenges of socio-economic diversity, shrinking enrollment, and a steady decline in local industry. All three school districts have experienced an unstable economy without any foreseeable hope for dramatic improvement. The poor economy and the heightened expectations for school performance, all contribute to the challenges faced by the teachers and administrators in each of the participating schools.

Allenville Area School District: The Elementary School

The Allenville Area School District is a small, rural, public school district operating in Western Pennsylvania. The district encompasses just 22 square miles and according to the 2010 Census Bureau data, the population of residents is just over 6,500 people. Allenville is one of the 500 public school districts of Pennsylvania and according to the Pennsylvania Budget and Policy Center, 51.4% of the residents of the Allenville Area School District live at or below the federal poverty level. Allenville Elementary has an enrollment of approximately 400 students and is one of only two schools in the Allenville Area School District. The other is the Allenville Junior Senior High School. Almost 60% of the pre-kindergarten through sixth grade students at Allenville Elementary receive federal free or reduced price meals due to family poverty. Additionally, 14.7% of the students receive special education services, while less than 1% have

been identified as gifted. Allenville Elementary is designated as a Title 1 school and provides preschool for four-year-olds and full day kindergarten. Prior to improving the achievement scores at Allenville, the scores reached a low of 60% proficient on the PSSA. Dr. Alvarez was hired head principal of Allenville Elementary during the spring of 2011.

Allenville Elementary employs 31 teachers that yield a student to teacher ratio of approximately 13:1. Years of teaching experience range from a first year teacher to 37 years teaching experience. The teachers who were interviewed for this study had five years to 15+ years of teaching experience. The focus group was comprised of 10 teachers and one school counselor and all 11 were part of the Allenville Elementary faculty throughout the period of the achievement score turn-around. The teachers represented each grade level from pre-k to sixth, along with a special education/learning support teacher, a pre-k to sixth health and physical education teacher, and a school counselor. From 2009-2012, Allenville Elementary achievement scores were designated in the category of School Improvement I because of low reading and math achievement scores on the PSSA. PSSA Reading & Math during this period of time fluctuated from a low of 60% proficient in reading to reaching over 80% proficient in reading. In 2013, Allenville received a passing School Performance Profile score of 84% in reading. This score earned Allenville Elementary a passing grade and out of School Improvement I status.

Allenville Elementary was constructed in 1955 and has not had any major capital improvements since its original construction. In many ways, the school is showing signs of its age including: corrosion and moisture around the window panes, spot evidence on its ceilings and walls of a serious roofing problem, lack of adequate classroom and storage space, and the list of defects could go on. Plans for a new facility were being approved by the district's board of school directors.

Allenville Elementary School can be described as a ranch-style building that is consistent with many school's built in the early 1950s and 1960s. Allenville Elementary is showing its age and in need of structural updates to the windows, roof, and some of the basic amenities of a modern school. Visitors must pass through two sets of doors upon entry. The researcher later learned that the first thing you see once inside is a mural of a tree with cut-outs of birds scattered all over the branches. This is a visual reinforcement for students who have shown growth in the area of reading. The main office is located immediately to the right and two secretaries are stationed behind the counter. The principal's office is situated directly behind the desk of one of those secretaries and above the principal's door hangs a banner that reads "ALL KIDS CAN LEARN." This may seem cliché to some, but Dr. Alvarez had this banner placed there for two reasons. The first, everyone entering the office will see it and the message is clear. Second, "it serves as a reminder to students, faculty, staff, and community of the number one priority." Reflecting upon the time when Allenville failed to make AYP, Dr. Alvarez asked, "Do you believe that all children can learn?" During his interview, Dr. Alvarez said, "It was a yes or no question." There had to be an initial understanding of "where we were as educators, but also an important statement as to where we needed to be." The *vision* that all kids can learn was the focus for teachers and administration at Allenville when *team learning* began to take form throughout their data analysis.

Bakersfield School District: The Middle School

Bakersfield School District encompasses approximately 29 square miles and according to recent federal census data, the district's population is just under 21,000. Eighty percent of the district's students live at or below the federal poverty level as indicated by their eligibility for the federal free or reduced price school meal programs. In 2013, the median household income in

the United States was \$52,100.00. While the median income for Bakersfield was just over \$30,000.00. Bakersfield provides basic educational services for approximately 1,900 students district-wide.

The middle school's enrollment of 600 students is administrated by the principal, Dr. Baumgartner. With over 80% of the school's population eligible for the federal free or reduced price lunch due to family poverty, this population has felt the economic crunch of lost industry and gainful employment opportunities. Recent achievement scores at Bakersfield were on a downward trend from a School Warning Level 1, to Warning Level 2, before bottoming out at Corrective Action Level 1.

Bakersfield Middle School includes grades sixth-eighth and employs 54 teachers with a student-teacher ratio of 12:1. According to a report by the Pennsylvania Department of Education, 100% of Bakersfield Middle School's teachers were rated "Highly Qualified." Six teachers, along with one guidance counselor participated in this study. The six teachers represented a sample of Bakersfield's Middle School staff and included teachers from grades six-eight Math, English-Language Arts (ELA), Science, Learning Support, and Guidance. These teachers have all taught in the middle school for the past six years and were on staff during the turn-around in achievement scores.

Like Allenville, Bakersfield's principal implemented a shared vision by including all faculty and staff in an exercise that started with: "Student-Focused, Every Day." Dr. Baumgartner believes the secret to his school's success started with the process of getting everyone on the same page with the data analysis and aggressive strategies, but the vision was a simple way to keep teacher's priorities focused as well. "Turning around Bakersfield's poor test scores was incredibly challenging," said Dr. Baumgartner. But as an alumnus of the Bakersfield

Area School District, Dr. Baumgartner took advantage of his connections, the teachers, as well as the surrounding community that he believes helped create the buy-in for new ideas. Dr. Baumgartner's enthusiasm and genuine pride for his school certainly helped and when he says that he is student focused, it is hard not to believe him. Dr. Baumgartner's positive energy reflects both individual pride and an understanding of the tradition of Bakersfield, but throughout the interviews those characteristics resonated with teachers as well. Dr. Baumgartner said, "The greatest factor that helped our test scores was quality teaching; it's what makes the biggest difference in student growth and learning." What Dr. Baumgartner failed to say, is that the school lacked a concerted focus before he arrived. The influence of data and the aggressive manner that data were used to inform teachers what they needed to focus more on was a big part of what made the quality of teaching improve. Secondly, the vision statement, just like Allenville's kept the focus simple and clear. One teacher said, "The school really changed to more of a true learning community and I think that changed when our principal helped us use the achievement data to guide our teaching." Instructional practices became the focus point for the turn-around at Allenville and Bakersfield, and that began to change when a vision statement paired with achievement data were used to enhance professional practices in the classroom and improve overall achievement.

Dowling Area School District: The Elementary School

The Dowling Area Elementary School is a small, rural school that encompasses approximately 144 square miles and has a population of 9,000 residents. The median family income is \$31,893.00 compared to \$49,500.00 in the Commonwealth of Pennsylvania. Unlike the two previous schools, recent achievement scores of Dowling Area Elementary have been consistently failing without a turn-around in their achievement scores. Within a space of four

years, Dowling Elementary declined from School Warning to Corrective Action I, then to Warning Corrective Action II, then to Warning Corrective Action II. The Pennsylvania Department of Education required the school's administration to develop a School Improvement Plan for improving student achievement. Student achievement at Dowling Area has failed to reach AYP status. The principal, Dr. Donaldson has been the building administrator of Dowling Area Elementary for over 15 years and is in the 30th year of his career in education.

Upon the researcher's first visit to the Dowling Area Elementary School, he was captivated by the beautiful wooded environment that seemed to engulf the area around the school. The school had a well-kept appearance and one might get the impression that the school district was not experiencing tough financial issues. However the school was experiencing difficult economic times. Just like the other schools in this study, the loss of local industry has had a deep impact on the local community and economy. The principal of Dowling Area Elementary, Dr. Donaldson seems to genuinely care about his school. Despite the principal and teacher efforts, Dowling Elementary continues to struggle with continued low achievement scores. As a longtime member of the community, Dr. Donaldson acknowledges the economic decline and the negative impact on school resources. What has not been clearly established is a clear vision to help focus teachers' and school resources. Dr. Donaldson's connection to his community and pride for his school, may be an advantage for the school's quest to achieve a level of proficiency on the PSSA. There is no question that Dr. Donaldson cares about his community. He said, "I truly have a passion for our kids!" Dr. Donaldson's answers to questions about his role and the effort to turn around the test scores are oftentimes overly general. For example, when describing his part in the school improvement process, Dr. Donaldson said, "My role is that of the building leader; the building principal . . . I'm the one

who has that leadership role. We do what we can to improve our students' scores." Unlike the action taken at both Allenville Elementary and Bakersfield Middle School, Dr. Donaldson did not identify specific strategies that were being implemented to enhance learning and improve test scores. The need for change is important to acknowledge, and the teachers of Dowling Area at least say that something has to change. However, their interviews too often revealed excuses like little support from the home, students' poor work ethic, and fewer teachers and staff due to budget cuts as the primary reasons for their failure. Dr. Donaldson pointed to the recent loss of his librarian as one of the reasons Dowling is struggling to reach the ELA threshold for achievement. The principal said, "We need our librarian to help us get kids reading" Specific intervention strategies for Dowling's non-readers are never mentioned by the principal. Instead, the excuse Dr. Donaldson reiterates his focus on the loss of teaching positions like the librarian as a reason for declining scores in ELA.

Dr. Donaldson selected the six teachers and a guidance counselor to participate in this study. Teachers from grades second-fifth, in addition to one elementary learning support, and one guidance counselor comprised the group. These teachers have taught in the elementary school from six-15 years. Dr. Donaldson said, "We've been working to improve our test scores. My teachers are focused on all students' learning."

Table 2 lists frequently used terms and phrases that were used throughout the interviews at each school. These terms and phrases have direct links to the five domains of systemic change.

Table 2

Common Terms and Phrases Used by Participants

Terms & Phrases	Systemic Change Domains	A/P	A/T	B/P	B/T	D/P	D/T
Vision; Common Vision; Shared Vision; School Vision	Shared Vision, Team Learning	x	x	x	x		
Team; Teaming; Team Planning	Team Learning, Systems Thinking	x	x	x	x	x	
Strategic Professional Development	Team Learning, Systems Thinking, Mental Models, Personal Mastery	x		x			
Collaboration; Collaborating; Teachers Collaborating	Team Learning, Systems Thinking	x		x	x		
Curriculum Alignment; Alignment to Standards; Standards Aligned	Mental Models, Systems Thinking, Personal Mastery	x	x	x	x	x	x
Common Assessments; Universal Assessments	Team Learning, Systems Thinking		x	x	x		
Student- Centered	Shared Vision, Mental Models	x	x	x			
School Community; School Climate	Shared Vision, Mental Models, Systems Thinking		x	x		x	
Celebrate; Celebrations	Mental Models, Systems Thinking	x	x				
Trust	Team Learning, Personal Mastery			x	x	x	

Table 2

Common Terms and Phrases Used by Participants

Terms & Phrases	Systemic Change Domains	A/P	A/T	B/P	B/T	D/P	D/T
Consistent; Consistency Across Classrooms; Consistency throughout Departments	Systems Thinking, Mental Models, Personal Mastery	x	x	x	x		
Teaching Strategies	Personal Mastery, Mental Models	x		x	x		
Common Planning	Systems Thinking, Team Learning	x	x	x	x	x	
Leadership	Shared Vision, Personal Mastery	x	x		x	x	
Visibility	Personal Mastery	x	x	x	x		x
Wins; Winning	Shared Vision, Mental Models	x	x	x			
Data Driven; Data Informed	Team Learning, Systems Thinking	x	x		x		
Flexible Grouping	Team Learning	x	x	x	x		
Culture; Positive School Culture; Community Culture	Systems Thinking	x	x	x	x		x
Working in Isolation	Mental Models, Personal Mastery, Systems Thinking		x		x	x	
Work Ethic; Poor Work Ethic	Personal Mastery		x	x		x	x

Table 2

Common Terms and Phrases Used by Participants

Terms & Phrases	Systemic Change Domains	A/P	A/T	B/P	B/T	D/P	D/T
Support from Home; No Support for School	Personal Mastery		x		x		x
Prioritized Learning Objectives	Systems Thinking	x	x	x	x		
Pinpointing Similar Beliefs; Beliefs About Teaching and Learning	Mental Models, Systems Thinking, Team Learning, Personal Mastery	x		x			
Student Recognition	Systems Thinking	x	x	x			
Focus; Focusing Teachers	Systems Thinking, Team Learning, Personal Mastery	x	x		x		x
Fidelity; Coherency	Systems Thinking, Team Learning, Personal Mastery	x		x			
Total		22	22	21	17	8	6

Note. A/P = Allenville Principal; A/T = Allenville Teacher; B/P = Bakersfield Principal; B/T = Bakersfield Teacher; D/P = Dowling Principal; D/T = Dowling Teacher.

Both the Allenville Elementary School and Bakersfield Middle School experienced a turn-around in PSSA scores in part because of an established *vision* by the school principal. Having a clear school vision, coupled with an aggressive strategy to analyze the achievement data turned out to be a significant difference between the two schools that achieved success and the one that did not. The system failed to promote a clear vision for Dowling Elementary School. Consequently, that may have made it more difficult to build a consensus behind the need to implement instructional strategies that would be driven by the achievement data. The

strategies and practices that were implemented at both Allenville and Bakersfield supported the vision statements, and more importantly the quest for higher achievement scores. The renewed success also had positive impacts on the school community that seemed to create a positive cycle for greater success. While Allenville and Bakersfield implemented comparable strategies, teachers from Dowling Area Elementary were oftentimes too focused on outside forces such as unemployment and lack of support from the home as the primary causes for their failure. There are numerous parallels that can attribute to the success of Allenville Elementary and Bakersfield Middle School. The first and most recognizable is that each principal established a *vision* for their respective school. Throughout the interviews, Dr. Alvarez and Dr. Baumgartner point toward the importance of communicating a clear *vision*. Peter Senge lists a *shared vision* as one of the characteristics associated with successful systemic change.

A *vision statement* was added to the two successful schools. Throughout the interview process, teachers spoke of its importance. The third school has not yet implemented a shared vision for student learning. The vision statement-served as a reminder of the number one priority during a time when distractions and excuses were plenty. For example, the dilapidated facilities of both Allenville and Dowling Area Elementary were both in need of significant updates.

Creating a shared vision was one of the distinguishing differences between the success at Allenville and Bakersfield, and the continued struggle at Dowling Elementary. One teacher from Allenville said, “As soon as Dr. Alvarez arrived, there was a different feel to our school. First, he organized the data committee and he always attended our meetings.” The presence of the building principal was something teachers from both Allenville and Bakersfield pointed out. It kept everyone accountable and on-task during team planning. An Allenville teacher said, “Knowing Dr. Alvarez would be attending these meetings, we couldn’t just complain or make

excuses. We focus on teaching strategies that help our kids become better readers, no matter what.” Teachers credit the building principal, Dr. Alvarez for staying focused, “Dr. Alvarez always, always, always brings it back around to our expectation that ‘All kids can learn!’” After year three under Dr. Alvarez’s leadership, the reading score at Allenville rose from 62% proficient to 79%. A similar increase occurred at Bakersfield over the course of Baumgartner’s first two years. However the scores at Dowling Elementary continued to hover around 68%-70% during this same time frame. The lack of a clear vision and similar approaches in the classroom appear to be major differences between Dowling’s failure and the other two schools’ success. Department and data-team meetings became routines that Dr. Alvarez established at Allenville. These settings were used to analyze PSSA or classroom data and discuss and share instructional strategies for reading comprehension. According to several of his teachers, Dr. Baumgartner brought “an energy” to Bakersfield. Dr. Baumgartner said, “What was essential for us to start winning was to get focused to get everybody on the same page!” This process of getting everyone on the same page started with working toward a vision statement. Following that statement up with action steps was even more empowering. Schools have the PSSA data and it is broken down into each standard but one has to know how to drill down into that level of the data. Using that to their advantage, Baumgartner and Alvarez taught their teachers how to hone-in on the standards that showed the poorest performance. Once those were identified, correcting the poor performance became a matter of making sure the curriculum at the respective grade was aligned to the test and the teaching strategies to support student learning were being implemented. Senge (2012) emphasizes the need for unifying around a *shared vision* to meet the goals of the organization. The team meetings had that unifying affect, however the affect did not have the same impact at Dowling Elementary. Drs. Baumgartner and Alvarez demonstrated how

a focused initiative is necessary to enhance test scores and learning in their respective schools.

Dr. Alvarez said:

After about a year, I knew that we had to do something different. Small group strategies, reading comprehension and building vocabulary became “look-fors” in lesson plans. I pulled-in my star teachers for them to a part of identifying our *purpose* for these meetings: to share and improve our instructional practices. From there, we collaborated to identify the greatest needs that the data revealed. By coming together and planning and problem-solving the situation became more about what we were doing versus what excuses we were making.

As teachers committed to the vision, “All Students Can Learn” the focus shifted from changing demographics and what seemed like less support from the home to the school’s intentions while the kids were in school. The visions of both Allenville and Bakersfield set them apart from the excuse making and blame game that the principal and teachers from Dowling were continuing to play. Senge emphasizes that a shared vision can create a systemic focus and buy-in from the members of the organization. A shared vision identifies common interests, and identifies a shared purpose for all organizational activities (Senge, 2012). In the cases of both Allenville and Bakersfield, establishing the vision statement followed by coming together to come up with action steps, connections were made within the school, and the shared purpose of raising achievement test scores built capacity for a more collaborative school community. Sharing effective teaching strategy, or even a shared vision have occurred at Dowling Elementary and consequently, the test scores at this school continue to be in the 73% range.

Shared Vision

The way leaders identify and communicate the need for change is critical. A vision statement was clear almost from the moment the researcher entered the Allenville Elementary. In addition to the vision statement, he observed a mural of a tree and paper cut-outs of birds taped to its branches. The printed names on those birds were those of students showing growth in reading comprehension. By placing that particular mural front and center, the principal was making a statement regarding the importance of improved reading scores. That mural, coupled with the banner displaying the school's vision statement, declared the school's focus. Allenville Elementary and Bakersfield Middle School attained higher test scores due to purposeful positive changes that were strategic from an instructional point of view and always linked to the school's vision.

A clear vision and a purposeful strategy in the approach to poor test scores was not evident at Dowling Elementary. Dr Donaldson has taken a less assertive approach to poor test scores than his Allenville and Bakersfield counterparts. At Allenville and Bakersfield, the approach began with engaging teachers with data and establishing basic understandings about the collective role of teachers in the effort to improve scores. Throughout the initial data analysis, Alvarez and Baumgartner emphasized vision. The shared vision at both schools was linked to teachers' core beliefs about teaching and learning, but seeing progress was also important to the vision statement's effectiveness. It was important to see progress, so celebrating small wins along the way became another element of successful change that will be explored at each school. Senge (2012) refers to the early stage of the change process as building capacity. Improved test scores at both Allenville and Bakersfield started with the data-analysis to determine what kind of

change was needed. In addition, teachers were guided by their principal to focus on specific reading skills that could address poor test scores.

Team Learning/Data Analysis

The principals and teachers at Allenville Elementary, Bakersfield Middle School, and Dowling Elementary all experienced the pressure from repeatedly poor test scores. Teachers and administrators from all three schools acknowledged the internal stress this caused at their school. The approach at both Allenville Elementary and Bakersfield Middle School that forced teachers to move past their feelings, was to study the achievement data to identify learning gaps. In addition, teachers would become more reliant on formative assessment data that measured reading comprehension. The increase of 23% in reading at Allenville Elementary and 19% in reading at Bakersfield Middle School occurred over a two year span. The use of PSSA and classroom assessment data was important for improving test scores in reading. The PSSA data can be broken down into how well the students performed in each of the core standards. Teachers at both Allenville and Bakersfield planned their lessons according to the most significant gaps identified through the PSSA data. Dr. Alvarez and Dr. Baumgartner took active roles in helping teachers interpret the data.

Systems Thinking/Curriculum Alignment

Standards that establish benchmarks for what students are expected to know and be able to do had changed. Schools were required to align curriculum to the new standards or risk the possibility that students were not being exposed to and taught the content that would be measured on the PSSA. The principals and teachers of Allenville Elementary, Bakersfield Middle, and Dowling Elementary aligned curriculum in reading and math to the new standards in order to raise their PSSA scores. The initial focus on reading and math was due to the fact that

recent PSSA data revealed gaps in both reading skills and comprehension at Allenville and Dowling, as well as overall reading and mathematics at Bakersfield. The principal of Bakersfield, Dr. Baumgartner said, “Aligning the curriculum to the standards assured us that we were teaching the correct eligible content at each grade level.” Solving the problem of underachievement in the areas of reading and mathematics took another step forward when each of these three schools aligned the curriculum to the core standards outlined by the Pennsylvania Department of Education. The curriculum alignment made an impact at the classroom level when Dr. Alvarez required teachers to incorporate and list reading and math standards in their weekly lesson plans. Dr. Alvarez oversaw the alignment of curriculum to reading standards, so both he and his teachers shared consistent expectations of what standards needed to be addressed at each grade level. Aligning instruction to the standards and linking those standards to weekly lesson plans for reading and mathematics ensured all stakeholders that the students were being instructed on grade level, as defined by the new standards. As each school adjusted the scope and sequence of reading and math curriculum, achievement data revealed learning gaps which for Allenville and Bakersfield, led to specific changes in the way each school addressed poor test scores.

Systems Thinking/Flexible Grouping

Once reading instruction was aligned to the core standards, a flexible grouping period was added to the regular English Language Arts block. The flexible grouping period provided specific time for remedial reading instruction at a student’s individual reading levels. The flexible grouping period was in addition to, not in place of the regular ELA block. It was during flexible grouping that specifically designed objectives, aligned to each respective group of students were taught. The objectives were identified based on what was assessed on the PSSA

tests. Dr. Alvarez, the principal of Allenville, helped teachers recognize statistical breaks in the PSSA data which were used to form leveled tiers for flexible grouping. Teachers matched the tiers with specific reading levels for grouping and planning instruction according to the needs of each reader. Dr. Alvarez said:

We initiated flexible grouping that went beyond classrooms at each grade level. Teachers taught students from across the entire grade but only to a specific level of readers at a time. This approach meant we exchanged students from each other's classrooms so that specific instructional objectives could be more specific for each group.

Although the flexible grouping occurred three times per week, the traditional approach of students remaining with the same reading teacher all day would slightly change. Dr. Alvarez said:

Teachers could teach reading strategies to a specific level of reader. Flexible grouping was important when we have classrooms with students that are above grade-level readers mixed with students that are non-readers. We had to address the specific needs at both ends if we were expecting to increase test scores.

By exchanging students three times per week, for 45 minutes per session, students at every level received direct intense reading instruction that was manageable for teachers to reach all the levels of individual readers. The word "flexible" in flexible group, suggests that the groups were not static. Student progress within the flexible group was tracked by running records for reading fluency and comprehension. Therefore, students were able to move to a higher group when fluency and comprehension improved. The groups were also reshuffled whenever the specific strategy that was being taught changed. Reshuffling of groups helped keep the feeling of freshness to the approach. Teachers would focus on a new reading skill every six weeks.

Students were able to move between groups based on the student's individual reading progress. Student reading records gave teachers student-specific and timely information regarding reading progress, as well as the effectiveness of the teaching strategy. The content taught within all the groups ranged from pre-reading skills, vocabulary development, reading fluency, comprehension, and using reading materials that were appropriate to the student's reading level. Students with various degrees of reading and comprehension ability received instruction specific to their reading level. Before implementing this collaborative approach to remedial reading instruction, teachers had to teach to the full range of reading abilities found in the heterogeneously grouped self-contained classroom setting. Although the benefits from heterogeneous grouping are many, the difficulty of teaching non-readers all the way through the continuum of advanced readers in one isolated instructional setting contributed to the difficulty of making progress on reading scores. An added benefit from the consistent planning and implementation of reading strategies, was the increased level of collaboration between teachers.

Collaboration/Team Learning

Teachers at Allenville and Bakersfield use common planning time for reading and math lessons. Once reading and math content was aligned to the grade level standards, skill areas requiring the greatest need for improvement could be more directly addressed by teachers. In other words, teachers began to use the results from test data to plan lessons that focused on specific reading and math skills that were designed to improve test scores. The principal of Dowling Elementary, Dr. Donaldson, had not previously scheduled common planning time for teachers who taught the same grade level. Therefore, grade level collaboration and team instructional planning did not seem to occur. Dr. Donaldson summed-up the reason for not promoting team planning time saying, "I realize that teachers need time to plan with one another.

We have great teachers, but many of them have been teaching for so long, they are set in their individual ways.” However, the team planning approach at Allenville and Bakersfield appeared to create more consistency from classroom to classroom and resulted in improved test scores in math and reading. The principals from both Allenville and Bakersfield believe that reading and math teachers became more collaborative in aligning curriculum to the standards. Teacher collaboration was enhanced as teachers applied the aligned curriculum to daily lesson plans in a consistent manner. Team lesson planning coupled with a standards-aligned curriculum was a major accomplishment. Teachers from Bakersfield said, “Lesson plans were linked to the standards and far more consistent because we planned together.” In addition, this collaboration would eventually contribute to an improving school climate.

At Dowling Elementary, teachers still worked in isolation and test scores remained stagnant. If implemented and used effectively, common planning could improve the level of teacher collaboration and increase test scores at Dowling Elementary too. Recall how Allenville’s teachers and principal used common planning to identify reading levels across each grade and how that information led to implementing a 45 minute remediation period. The new flexible group period provided time for direct instruction at individual reading levels. The flexible grouping period was not a major philosophical or scheduling shift, since Allenville’s students remained in their traditional heterogeneous groups the rest of the day. Dr. Donaldson indicated that common planning time was going to be scheduled for his teachers. Dowling Elementary teachers may require direction from the principal on how to best utilize common planning. When the principals of Allenville and Bakersfield implemented a common planning period, they directed teachers to align lesson plans to the standards. In addition, both Alvarez and Baumgartner emphasized addressing the standards where the greatest achievement gaps

existed. Where Dowling Elementary teachers had a more disjointed approach to the analysis and planning process, Allenville and Bakersfield created small committees of teachers that guided data review and analysis.

Data Analysis

Teachers at all three schools spend significant time reviewing test data and identifying learning objectives based on the data. At Allenville Elementary, baseline reading assessments were administered at the beginning of school year. Baseline testing in reading was emphasized because Allenville's students had poor PSSA reading scores. Under the guidance of Dr. Alvarez, the school principal, Allenville's regular education classroom teachers, reading specialists, and learning support teachers reviewed the test data and planned classroom remediation efforts as well as specific ones for their flexible groups. These tests provided every student a levelled score for reading. The test was administered two-three more times throughout the year to track the growth in reading comprehension and fluency. Dr. Alvarez said, "The baseline test helped teachers meet kids at their level as readers." A third grade teacher added, "Based off of the students' reading levels, everything from our lesson planning and flexible grouping became more specific to student needs."

At Bakersfield, math, reading, and English teachers reviewed the PSSA scores along with Dr. Baumgartner, the principal. The planned remediation for students who performed poorly on the PSSA was what followed. Reading and math labs were built into the schedule by Dr. Baumgartner and students were placed in the labs, in addition to the regularly scheduled reading and math courses. Although Dowling Elementary teachers, along with their principal, formed a data-analysis team, the remediation efforts were not consistent from classroom to classroom. It appeared that the inconsistency was caused by practices versus the more universal approach at

Allenville and Bakersfield where groups were not formed outside of the teacher's regular classroom. Therefore, teachers at Dowling were teaching students with diverse reading skills in the same classroom as opposed to students in Allenville and Bakersfield who were placed in homogeneous reading groups. An additional consequence of not having a common planning time at Dowling was less collaboration and low reading and math scores. Although the principals and teachers from all three schools said that public schools have become more data-driven, only Allenville and Bakersfield have effectively used the test data to group students within those groups. While it appeared that each principal facilitated data-analysis to varying degrees, the principals from Allenville and Bakersfield applied the analysis to determine learning objectives for flexible groups.

Beliefs and Values

Improving test scores did not come easily for either Allenville Elementary or Bakersfield Middle School. The principal of Bakersfield described teachers initial excuse-making as the reasons behind the recurring poor test scores. Dr. Baumgartner said:

We had to get real! I mean, we had very real discussions regarding teacher's beliefs about teaching and learning. There were strong opinions about our student's commitment to learning, as well as what we could do to improve test scores.

As a result, the need for a clear vision that was grounded in the teachers' core beliefs about our students' capacity to learn was Dr. Baumgartner's focus. Department meetings at Bakersfield provided the platform for Dr. Baumgartner to promote the school's vision for student learning. A Bakersfield math teacher said, "We do believe that every one of our kids can learn, but our scores were not showing that. We realized we had to work more as a team!"

If Dr. Donaldson and the teachers of Dowling Elementary would implement more consistent teaching strategies in reading and math across classrooms the way Bakersfield and Allenville have done, their students would also see an increase in test scores. By committing teachers to a focused approach regarding effective math and reading strategies, Dr. Donaldson could take a big step to improve test scores. Just as Allenville teachers have pointed out, students who had difficulty with reading comprehension strategy could be placed in small groups and then focus on comprehension skills. Training teachers to help promote reading skills in small groups was new at Allenville as well. Dr. Alvarez said, “Teachers were utilizing so many different strategies, we weren’t being consistent, and more importantly kids weren’t engaged. I recognized we needed to apply more effective and consistent teaching strategies if we were ever going to improve scores.” In order for more consistent and effective teaching practices, collaboration had to replace isolated teaching practices. A more collaborative school culture exists at Allenville and Bakersfield. Teachers work together to analyze data, apply this information to prioritize learning objectives, and place students beyond their assigned classrooms, into flexible groups. These are the differences between Allenville and Bakersfield’s increased test scores versus Dowling Elementary’s continued poor test scores. Change in school culture was initiated when the two principals from Allenville and Bakersfield challenged teachers’ core beliefs about curriculum, assessment, and instruction. Pinpointing similar beliefs pertaining to teaching and learning was an important step in getting teachers to open-up with one another and become more collaborative. For example, teachers who were used to working in isolation agreed to share students across classes in order to facilitate flexible grouping across the entire grade. This strategy allowed teachers to focus on one level of learners during the flexible grouping period. This homogeneous model was accepted in part because it was not a holistic

change in grouping philosophy, yet teachers were enabled to focus reading and math instruction to a specific level of learner. The process that led to a flexible grouping model included teachers strategizing outside their own classroom walls and developing a new model for delivering direct intense reading and math instruction. Senge defines mental models as those deep-seated beliefs and values that determine the way people think and act (www.thechangeforum.com, 2015). Dr. Alvarez said, “When students show improvement, we need to recreate what methods worked.” Dr. Alvarez was referring to teachers who planned lessons based on the school-wide data. Following the curriculum alignment to the new standards. Dr. Alvarez facilitated the process beginning with teachers incorporating systems-level work (i.e., curriculum alignment and data analysis) and bringing it down to the personal mastery of individual classroom instruction. Teachers at Allenville and Bakersfield were encouraged by their principals to look at specific test items where students did poorly. Reviewing the strengths and weaknesses of reading and math test data across grade levels helped teachers to develop their awareness of overall academic performance. Teachers learned about their students’ strengths and needs through a more collaborative data analysis than the teachers at Dowling Elementary. One Dowling Elementary teacher said, “Teachers are expected to review the data at the beginning of the year.” Asked if this is done collaboratively or more in isolation, another teacher said, “It depends on the teacher. Some of us prefer doing it ourselves and other teams review their kids’ scores together.” There is a distinction between collaborative planning and teaching at Allenville and Bakersfield versus the freedom teachers exercise that allows them to work in isolation at Dowling Elementary. Dowling Elementary has not adopted a shared vision and teachers appear less inclined to plan lessons and develop reading remediation strategies in a collaborative way on their own. Lack of direction, guidance, or emphasis from the school principal has enabled the inconsistency of

teachers planning and problem solving across each grade level. Continued poor test scores in reading and math along with the freedom for teachers to work in isolation contributes to a stagnant school climate.

Research Question 4: How has the school's success affected the perception of the school as a learning community?

Recalling his first year as Bakersfield's principal, Dr. Baumgartner said, "I would have described the overall morale and school climate as desperate and hopeless. High unemployment and a changing family structure gave the perception among teachers that there was little academic support from the home." An economic downfall across Western Pennsylvania helped give the same perception of school climate at Allenville too. "Poverty seemed to fuel a lot of blaming and excuse-making for poor test scores among teachers" said Alvarez. While describing the school climate prior to the increase in reading and math test scores, teachers at Allenville cited their negative impressions. Dr. Alvarez cited the challenges he faced at that time when he said, "We had to speak about our own attitude toward students and families if we were ever going to improve the test scores." A fifth grade teacher said, "Our attitudes began to change when we only focused on the work we could do to address our scores during the school day." Another teacher added, "The more we worked together, we began seeing student progress in reading comprehension and math, and that was exciting! Seeing student progress helped overcome the negative attitudes."

At Allenville Elementary School, teachers cited examples how the school climate began to improve. A third grade teacher said, "Teachers definitely got a little excited when our kids made progress during the year. I think our own perception of the school was changing because of our effort." Some of the examples that gave the impression of an improving school climate

were initiated by Dr. Alvarez. Weekly announcements recognized students who were showing the most growth in reading. School assemblies recognized kids for achievements such as making the honor roll, maintaining perfect attendance, and those students who were reading the most books. Recognizing and celebrating success was important to the school climate of Allenville and Bakersfield. According to Christopher Day, one of the authors of *Leading Schools Successfully*, “Creating and maintaining different spaces and practices to acknowledge results allows individuals and the community as a whole (students, faculty, parents, etc.), to capitalize their efforts, and learn from their experience to improve their performance in the future” (Day & Gurr, 2014).

Allenville Elementary students saw their names placed on the mural of a tree in the school’s lobby for improving their reading scores. The quarterly awards assemblies added to the level of school spirit and ultimately the belief in the school as a learning community that could improve reading scores. Dr. Alvarez said, “We have award assemblies where student received ribbons, t-shirts, and occasionally prizes like gift cards from local restaurants to get everyone fired up! It’s great! Kids love it!” Similarly, another classroom teacher from Allenville commented about her school’s efforts to celebrate success. She said, “Seeing their progress began to change the kids’ confidence. I also believe the teachers’ confidence and enthusiasm were improving as well.”

The principal and teachers of Bakersfield Middle School cited many remarks about the way their school was perceived as a learning community when reading and math test scores increased. Dr. Baugartner said, “School spirit became contagious when our PSSA scores went up, but we did a lot of things throughout the year, as well that got our students and teachers excited!” In order to make the most of each “win,” Bakersfield Middle School recognized kids

on morning announcements, in the school newsletter, and through the monthly Principal's Star Awards. These awards were given to two students per grade each month. As part of the recognition, students received gift cards from local merchants for free pizza or movie rentals for showing the most increase of reading levels. Dr. Baumgartner said, "Negative school experiences take a toll. We become unaware of our own attitude and how it can affect the students." Celebrating successes, recognition for growth, and adding new strategies to support struggling students helped change the perception of the school as a learning community.

Under the leadership of their principal, Dr. Baumgartner, Bakersfield Middle School began hosting an Academic Fair each fall. Students present projects in the content areas of English, Math, and Science. Families and friends attend the Academic Fair with the school as a learning community. Dr. Baumgartner said, "Celebrating and promoting good performance with our community is what the fair is all about. The Academic Fair gives the whole school a real boost!"

At Allenville Elementary, teachers tracked reading progress and shared the information with other teachers. Students were able to see their growth too! The practice of regularly tracking and sharing classroom data not only created excitement at the classroom level, but the principal and teachers repeatedly cited how they too were excited. The researcher observed first hand that celebrating wins and makes a positive impact on the school climate and the perception of the school as a learning community.

Dr. Alvarez and Dr. Baumgartner keep their respective school's focus on celebrating success and improving test scores. Establishing a vision was important to help clarify the primary role of the school as a learning community. When the concept of a learning community was put toward action steps of data analysis, professional development linked to individual

lesson planning, universal assessments, and school-wide recognition, a new level of collaboration and planning among teachers followed. Dowling Elementary School has not developed this level of clarity via a shared vision, focused professional development, or guidelines for teacher collaboration and planning. There are still too many excuses being made at Dowling Elementary. A student's "lack of motivation," "poor work ethic," or "no support from the home" were only some of the excuses that the teachers and principal cited in regard to improving test scores. Too many excuses coupled with a lacking for a school-wide focus to teach specific reading comprehension strategies are holding back Dowling Elementary's success. According to author Evan Offstein, "Leaders don't make excuses" (Offstein, 2006). Instructional leaders, including the principal and some teachers at Dowling Elementary can pool their talents and address the poor reading scores in a more collaborative manner. But continued failure to adapt will likely result in stagnant student achievement and poor test scores. The leaders at Dowling Elementary must stop making excuses.

Teaching in isolation is a model that has faded at Bakersfield. Dr. Baumgartner said, "Change is constant. The way we adapt is by working together to identify strategies to solve problems and recognize both success and failure." Collaboration among principals and teachers is the foundation for a school that is best equipped to change with the changing demands faced by today's public schools. Allenville Elementary and Bakersfield Middle School moved toward a more collaborative approach to problem solving. Problems are acknowledged as a whole school (i.e., systems thinking) before planning by individual teachers (i.e., personal mastery) is developed and implemented. The collaborative approach to problem solving, coupled with a team approach to learning, and finally applying the most effective teaching strategies enabled

both schools to increase test scores. Dr. Bumbartner summed up his perception of the process when he said,

I came in seven years ago when this school was in School Improvement I. While you can have strong curriculum, without good teaching strategies, it's just paper! My role is to get into the classroom and determine what our instructional strengths and weaknesses are, right now! Do we know what good teaching is? Where are we? Where do we need to be? I am passionate about the role of assessment and utilizing formative assessments. What's my number one "Big Idea" and how am I going to measure it? Do we have a caring environment? Are all kids valued and cared for? The emphasis on the individual, the role they'll play in supporting the vision and the system as a whole is integral to the turn-around is critical.

Dr. Alvarez, principal of Allenville expressed a similar line of rhetorical questions related to content. Dr. Alvarez said, "Are we matching core standards with content? Do we know the relation between our curriculum and the new benchmark assessments? Furthermore, are grade level standards being taught at the correct grade level?" Dr. Alvarez regularly asks teachers questions specific to individual lessons throughout the observation process. Dr. Alvarez regularly asks, "How do we know if the skill or content is learned? Are we using accurate assessments?" Identifying teachers' roles and responsibilities was the important link between systems thinking and personal mastery.

Once the vision was written at both Allenville and Bakersfield, a starting point was established. Individual perspectives related to content and teaching practices were adjusting to the alignment with core standards. At the same time the reading curriculum was aligned at

Allenville, a model for guided reading became implemented from kindergarten through sixth grade. Implementing a reading program that required reading to be taught in a more standardized manner across classrooms, pulled teachers together and contributed to the level of collaboration throughout the school. Numerous teachers shared the sentiment of the second grade teacher who said, “We were adjusting to the newly aligned curriculum and being trained in guided reading at about the same time. The first year of guided reading was so much work, but the benefit was we were all going through implementation together.” In-service days were used to train research-based strategies that supported guided reading across all classrooms. A third grade teacher said, “The implementation of our new reading program pulled us together. We were all learning together and sharing our concerns and uncertainty with each other, but we did it! It worked!” Professional development and problem solving, coupled with individual growth and learning is a great example of teachers moving from a level of systems thinking (i.e., guided reading program) to personal mastery through professional practice and implementation at the classroom level. “Teachers were trained on specific reading comprehension strategies. Guided reading gave us a specific approach to teach reading and develop interventions.” said Alvarez. Systems planning and team learning in this regard, provided the instructional tools needed to address below grade-level readers. Team planning was also used to plan and discuss the new strategies throughout the year. The approach by teachers took team learning and a team problem solving approach to a new level of collaboration at Allenville Elementary. Throughout the implementation of the guided reading model, a more collaborative teaching environment was developing at Allenville Elementary. As teachers’ practices about teaching and student learning evolved, achievement test scores began improving.

Research Question 3: How has the perception of school leadership evolved throughout the school improvements efforts? And Research Question 4: How has the schools success affected the perception of the school as a learning community?

Teachers' commitment to consistency across classrooms and research-based teaching practices that support student learning were challenged by the principals of Allenville and Bakersfield. The principal of each school appears to have a more "hands-on" approach to encourage more consistent instructional practices. An eighth grade history teacher from Bakersfield Middle School said, "Our department meetings included more discussion and planning about reading comprehension strategies for the content areas." A comparable level of uniformity was not cited throughout the Dowling Elementary teachers' interviews. A fourth grade math and writing teacher at Allenville Elementary said, "Team meetings had more collaboration and sharing of ideas after Dr. Alvarez arrived. He constantly referred to the vision, and also said that all the subject areas will see improvement as we get kids reading." Alvarez added to this by saying, "I knew if we could convince the science and social studies teachers to implement just one effective reading strategy into their lessons, we were capable of big improvements in reading comprehension."

The two principals from Allenville and Bakersfield shared another distinction from their counterpart from Dowling Elementary as they looked for ways to maximize instructional time in the morning. This was a scheduling issue, but from the systems level of school operations, it was one the principal could implement. The emphasis on guided reading in the morning, was managed by the principal. "Scheduling courses and remediation times for students who were failing were priorities" said Dr. Alvarez.

Dowling Elementary scheduled a remediation lab, but their lab was a “pull-out” model where students were taken from the regular reading and English classes, and the teachers did not appear to plan consistent objectives or reading strategies together. “Our learning support teacher handles the students with IEPs” said a fourth grade teacher. Additional comments gave the appearance that pull-out services for learning support students are favored over a co-teaching or push-in model of instruction. Consequently, a lack of common planning and teaching strategies appear to be another factor impacting Dowling Elementary’s test scores.

Teachers from all three schools repeatedly cite that professional development is an important factor for consistency across classrooms and improving achievement test scores. Allenville teachers said, “We had specific professional development that emphasized reading comprehension skills. That was a need based on our data.” In addition, Dr. Alvarez selected teachers to visit other schools that promote flexible grouping and strategies for weekly conferences with students. “Teachers simply needed this training if we were going to have consistent teaching” said Dr. Alvarez.

At Bakersfield, Dr. Baumgartner used the term “data-informed” to pinpoint professional development that would most impact instructional effectiveness. Data-team meetings became a springboard to professional development regarding intervention strategies and utilizing new benchmark assessment tools. Dr. Baumgartner said, “The data allowed us what area(s) where students needed the most growth. After we identified those areas, the next task was figuring out how to get growth and that did involve some PD (i.e., professional development).” Achievement data provided the focus for grade level objectives, as well as enhancement within selected departments across each school. Especially in the content-heavy areas like science and history, reading comprehension and math skills were more emphasized. Some teachers admitted that

they needed more help than some of their peers learning how to implement these strategies into their classes. Systems thinking, team learning, mental models, and the teacher's personal mastery of classroom strategies helped lead to successful change at Allenville and Bakersfield.

The elements of Shared Vision, Team Learning, Systems Thinking, and Personal Mastery were evident throughout the descriptions of Allenville's and Bakersfield's planning and intervention process. A distinguishing difference between successful schools versus unsuccessful schools, is the principal. Allenville and Bakersfield's principal led the charge for building capacity for change. Creating a shared vision and leading teachers to implement focused teaching strategies had to happen for the scores to improve. Dowling Elementary does not have the clear vision or a systemic approach to professional development and problem solving. Allenville and Bakersfield focused on PSSA test scores, content standards, benchmark targets for each grade level to initiate the changes that were necessary at each school.

In addition to a systemic approach to poor test scores, teachers from Allenville repeatedly give credit to the importance of leadership. A first grade teacher from Allenville said, "Our whole attitude changed when Dr. Alvarez got here. Unlike our previous principals, Dr. Alvarez attended all of our team meetings. Dr. Alvarez didn't hide in his office, he was always encouraging us and helping us plan together." Visibility is often named as an important element of effective leadership.

While visibility is not a problem for Dr. Donaldson, the lack of a planned focus to improve their test scores by promoting research-based practices and strategies does appear to be a barrier to improving test scores. The lack of consistency and focus across classrooms at each grade level continues to undermine Dr. Donaldson and all of Dowling Elementary in their desire to improve test scores. Not having a shared vision for their school cannot be understated.

Teachers at both schools discussed the importance of having a vision from the building principal. A clear vision and the system-level of planning problem solving helped propel both Allenville and Bakersfield. Recall how an Allenville teacher said, “The statement ‘ALL KIDS CAN LEARN’ is on faculty meeting agendas, emails, and of course the banner located inside the main office.” The perception of leadership at Allenville was that the new principal created a vision that was used at team meetings and certainly reached the classroom level. Although the principal acknowledges the importance what the data demonstrates, a clear vision has not set the focus with what to do with the data. “We use the PSSA to help us see where teaching had to change in order to expose kids to that eligible content” said Dr. Donaldson. Part of the problem is no clear change in the way reading and math instruction is being delivered or in the way teachers in these areas are collaborating. If not for the guidance of the building principal, teachers at Allenville and Bakersfield may have continued practicing classroom interventions for reading and mathematics in relative isolation. One Bakersfield teacher said, “We had to adjust instruction across our grade level teams. Without greater consistency, we probably wouldn’t have been able to make the improvements we needed to make.” Dr. Donaldson already has an advantage of acceptance and connection with his teachers. Using these intangibles to influence focus and consistency throughout Dowling Elementary appears to be within his reach. Dr. Donaldson has a positive rapport with his teachers. In fact, the perception of leadership at all three schools was very positive. Faculty and staff from each school used words like “visible,” “focused,” “caring,” “trusted,” and “dedicated” when describing their respective principal. As a longtime member of the surrounding community, Dr. Donaldson already has the relationship with teachers to influence positive change. A clear distinction from the two successful schools is that Dr. Donaldson and select teachers can work more to bring teams together and challenge teachers to

enhance classroom practices that are data-informed and research based. While teachers at Dowling are doing some of the same things that propelled Allenville Elementary to higher scores, these practices exist in small pockets or in isolation.

The teachers referred to Dr. Alvarez's approach shortly after he arrived at Allenville Elementary. A first grade teacher said, "Dr. Alvarez didn't look at our test scores and point to us in a blameful manner. He got us focused more on the new standards, the eligible content and from there curriculum alignment and instructional practices." The point is, Dr. Alvarez, much like Dr. Baumgartner, was relatively new to his school and did not have the rapport with teachers that Dr. Donaldson already possesses. However, by looking first at the data, then aligning curriculum to the standards, teachers were practicing a new level of collaboration and forward thinking problem solving.

The approach to identifying professional development at Dowling seemed very much like the teaching strategies that were occurring. Training and development were all over the place from training in new school technology to interventions for special education classes, the team learning approach that was more prevalent at Allenville and Bakersfield appeared to be missing from Dowling's process. Recall how the team meeting or team planning was used at both Allenville and Bakersfield to align practices across classrooms. That was an added adjustment to the previous way teachers planned instruction. According to Dr. Alvarez, in-service days were used for curriculum mapping across the grade levels as well. This work trickled into team planning when we aligned the newly mapped curriculum to the new standards at each grade level. These steps were happening in small amounts, but over the course of one-two years, the continuity across classrooms became stronger.

The emphasis on school accountability to improve test scores continues to be a struggle for Dr. Donaldson and Dowling Elementary teachers. In order for Dowling' achievement scores to increase, current leaders must first establish a clear vision. Utilizing the data and mapping out the curriculum will help teachers see the systems perspective and the shared ownership of the poor test scores they all have. The principals from the two successful schools were able to frame their school's strengths, as well as its needs by leading a level of data analysis and review of teaching practices as have been described.

Dr. Donaldson has not identified specific teaching strategies that can improve test scores. A disconnect appears between measureable school performance and the value of community relationships. Furthermore, there are too many excuses at Dowling. One teacher said, "There is no commitment to school. There is no work ethic at home!" Another listed a growing rate of non-traditional families and lowered family values." While knowing one's community and genuinely believing in the ability of students and teachers is important, there must be objective and collective strategy to problem solve at the school level if test scores are going to improve. Consider the statements Dr. Donaldson made when asked to describe the strengths and needs of his school.

Dr. Donaldson said:

Number one, I have to start with the kids. They are good kids! We don't deal with things that bigger schools have to deal with . . . like gangs. We do not have to deal with that stuff! Number two, we have good teachers! I have been around. My teachers trust me and I trust them. We have trust. Number three, I have good counselors. I have the best counselors in the state of Pennsylvania. We have good secretaries too! They are

very loyal. You take care of people: your cleaning people, your secretaries, etc. and they will take care of you.

It is clear to me Dr. Donaldson values relationships with people. However, Dr. Donaldson made excuses when asked to try and pinpoint a reason for the poor reading scores. Dr. Donaldson said:

The prior superintendent tried to tighten the belt. I need our librarian to be full-time. Trying to get kids to read, I have to get these kids into the library. My first wish would be to get back that full-time librarian. I need an English teacher (furloughed). Our writing scores are poor and we need that English teacher to help build-up those writing scores.

Dowling Elementary needs a vision beyond getting a librarian back on its staff. Building capacity can occur by including teachers in a collaborative problem solving and planning process that begins with what the PSSA has identified as areas of strengths and needs. Building leadership must identify and agree upon specific teaching strategies that can be implemented across grade levels. But so far, a level of systems thinking and team learning that is comparable to Allenville and Bakersfield has eluded Dowling Elementary.

Is the school doing everything it can to utilize the school day more effectively? Teachers say they have done all they can to engaging parents/families about their children's educational program. The importance of homework completion or support from the home continues to be a focal point that they have no control.

Allenville and Bakersfield experienced a turn-around in their achievement scores beginning with a clear vision and a strategic approach to planning instruction and regularly assessing student progress. The most easily recognizable difference between the schools

succeeding and the one that has not has been a shared vision and stemming from it, a commitment to improving the effectiveness of instructional practices in each classroom. A shared vision provides a sense of direction that set a foundation for problem-solving, goal-setting, and more at each of the schools that succeeded. The game-changing moves at Allenville and Bakersfield occurred when both schools established a vision, and from it a new focus on team learning, and professional development, all the way down to individual classroom teacher's personal mastery in the roles they held. The teachers from Allenville and Bakersfield admitted to a new sense of pride for their accomplishments and in the school community once test scores improved. "We felt validated!" said a third grade teacher at Allenville Elementary. Aligning attainable targets across each grade level gave teachers a whole-systems perspective to what highlighted the importance of the individual teacher's role and the shared enthusiasm could be heard in the tone and expression in teacher's comments.

Dowling Elementary needs universal professional development and collaboration to extend the good teaching that is occurring beyond isolated pockets throughout the school. Remediation strategies and a consistent approach to reading instruction as building-wide efforts could help students grow from year to year rather than having to adjust to individual teaching approaches and styles. Celebrating as many "wins" along the way will go a long way to creating excitement and belief in the school's efforts. Recalling the mural in the main lobby at Allenville, students and teachers alike were reminded of the school's priority on a daily basis. The birds on the tree gave a visual cue to all who entered, that students were achieving small wins! Bringing attention to even the small wins helped build community because it reminded students, teachers, and parents what was important, as well as what was happening throughout the year. As the

winning schools focused on research-based practices and instructional models aligned with content standards, students began showing growth throughout the entire school year.

Dowling Elementary, like Allenville and Bakersfield, can create the vision for their desired future. Linked to the vision, leaders must define the principles and guiding practices that will sustain progress toward the goal. All three schools experienced the lows of poor achievement test scores, but only Allenville and Bakersfield made establishing a vision one of their earliest priorities. By defining the vision, the systems approach to teaching and learning appeared to be more logical as teachers and their principal collaborated to improve test scores. The overall impact on the perception of the school was positive and in the words of teachers, “the climate changed from one of frustration and futility, to one filled with excitement and hope.” However, the change in scores and the effect of a more positive school climate required specific planning and training at the school level. The achievement data created a sense of urgency for positive change, but progress occurred at Allenville and Bakersfield because of the collective planning and problem solving. Identifying and aligning standards for learning, assessing growth at the classroom level, and celebrating progress were universally implemented across grade levels. The timely feedback to the students and the teacher appeared to fuel the drive to improve reading scores, and as another result the school climate steadily improved.

As Chapter 4 has detailed, there are many factors that influence whether a school achieves success. Allenville and Bakersfield have achieved a turn-around due to school-wide efforts that enhanced instruction and assessment in each classroom. The most impactful characteristics of their models can be traced to the elements of successful systems: Shared Vision, Systems Thinking, Team Learning, Mental Models, and Personal Mastery. Chapter 5

summarizes the scope and sequence of this research study, as well as conclusions from this study and recommendations for other schools.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

“It’s not about resources. It’s about resourcefulness.” (Anonymous)

Presented in this chapter is a synthesis of the elements of successful change gathered from the experiences of teachers and principals at three public schools located in Western Pennsylvania. First a purpose of the study is summarized, followed by findings, conclusions, and recommendations including considerations for further studies.

Purpose of Study

The purpose of this study was to examine the presence or absence of organizational elements of systemic change in three schools; two schools that transformed themselves from failing to succeeding, versus one school that failed to achieve an accountability turn-around based on current achievement tests scores. While there have been numerous books published on organizational change (Fullan, 2006; Reeves, 2009; Schmoker, 2006; Senge, 2012), few have specifically examined how schools have completed an accountability turn-around, from failure to success by the means of increasing achievement test scores.

Of particular interest is the influence of five elements of systemic change on a school. The answers to the following four research questions are presented in this chapter and reveal the influence of the five elements of systemic change in this comparative case-study analysis.

1. What elements of systemic change theory were present prior to and throughout the school improvement process?
2. What elements of systemic change using Senge’s Framework are responsible for school improvement achieved?

3. How has the perception of school leadership evolved throughout the school improvement effort?
4. How has the school's success affected the perception of the school as a learning community?

In order to form a response to the research questions, the following procedures were used to collect the data. Two semi-structured interviews were conducted with the building principal of each school. Similar semi-structured focus group interviews were conducted with teachers from each school, following the individual interviews of the building principal. The focus group from each school included a minimum of one faculty member per grade level and also included two interviews in the process. After all the qualitative data were collected, an analysis to determine the presence of the five elements of systemic change at each school began. The researcher conducted multiple readings of the interview transcripts. The five elements of systemic change—shared vision, systems thinking, team learning, mental models, and personal mastery—were highlighted within the transcripts of the data. The researcher used a matrix designed to enter highlighted words and phrases from the narrative data attained from the interviews with teachers and administrators. The highlighted words and phrases, as well as school artifacts and first hand observations by the researcher helped identify the presence, or absence, of elements that lead to successful systemic change.

Findings

As previously stated, the purpose of this study was to examine three schools and determine whether the presence of the elements that lead to successful systemic change existed in each of these schools. Two of the schools successfully completed an accountability turnaround by raising reading and math test scores while the third school has not completed an

accountability turn-around. The findings revealed whether the elements of shared vision, systems thinking, team learning, mental models, and personal mastery were present prior to and through the school improvement process of each school and if these elements are credited for the turn-around in two out of the three schools. The findings also revealed the perception of school leadership and the how the school is viewed as a learning community. The findings to the following four research question are now presented.

Research Question One

What elements of systemic change theory were present prior to and throughout the school improvement process?

The data reveals some if not all of the elements of successful systemic change were not present prior to the school improvement process at each school. However, the data reveals all five elements of systemic change were present throughout the school improvement process in the two schools that successfully completed an accountability turn-around.

As a recurring example, teachers from each school cited former school leaders, from the superintendent to the building principal, who failed to address inconsistent classroom teaching strategies in the areas of reading and math. Prior to the increase in reading test scores, teachers repeatedly cited past practices that included inconsistent reading instructional strategies, no common assessments for reading and math, and a lack of collaborative data analysis at each school. These examples by teachers and the respective principal of each school represent the missing elements of systems thinking, team learning, and personal mastery. The principals and teachers from all three schools said that their school did not incorporate a shared vision statement prior to the school improvement process. These statements were made in reference to each school, prior to the school improvement process.

Throughout the individual and focus group interviews, participants repeatedly cited key words, phrases, individual perspectives, and experiences regarding the school improvement process. As part of the data analysis process, the researcher linked relevant examples of the key words, phrases, perspectives, and experiences to the elements of: shared vision, systems thinking, team learning, mental models, and personal mastery. The beginning of the school improvement process, according to teachers and the principal, was the time a shared vision was created, as well as the task of aligning curriculum with the new standards. Each of the three schools completed a curriculum realignment to match the new grade level standards. In addition, the data revealed that teachers from all three schools considered the value of this process to be very high. In the case of each school, aligning curriculum to the new standards heightened the awareness of teachers to the whole scope and sequence of the school's program and the importance of each grade level within the school system. This was a clear example of systems thinking by teachers and principals within each of the three schools. However, only two of the three schools created a shared vision at that time. Teachers cited the significance of having a shared vision at the time when collaborative practices such as data-analysis, team planning, and professional development were becoming more common. The presence of elements that support successful systemic change became more prominent in each of the three schools throughout the school improvement initiatives of each. Teachers and principals representing the two schools that experienced an accountability turn-around cited the presence of all five elements during the process, while all five elements were not present based on the data attained from Dowling Elementary School.

Research Question Two

What elements of systemic change, using Senge's framework are responsible for school improvement achieved?

The data revealed that the presence of shared vision, team learning, systems thinking, mental models, and personal mastery are directly responsible for increased test scores in two out of the three schools. Citations from teachers, as well as the building principal, give credit to the overlapping influences stemming between the elements of successful systemic change.

Beginning with the creation of a shared vision coinciding with curriculum alignment, teachers at Allenville Elementary and Bakersfield Middle School identify these as the moment many teachers who were working in relative isolation, began to think and contribute to solving a school-wide problem of poor achievement scores. Evidence of systems thinking and team learning was revealed by principals and teachers who describe how the curriculum alignment (systems thinking), led to school-wide professional development (team learning). Professional development incorporated new guided reading and flexible grouping models (mental models). Implementing and sustaining new teaching strategies (personal mastery) included enhancing a team planning approach to lesson planning and remediation that teachers state was frequently linked back to the school's vision.

Dowling Elementary School did complete the curriculum alignment at each grade. Although this demonstrated a systems level of thinking throughout the school, the principal and teachers did not adopt a shared vision at that time. Based on the frequency of references to the school's vision by the teachers and principals from Allenville and Bakersfield, the researcher considered this to be a significant distinction between the schools. Although systems thinking did emerge, a school-wide professional development initiative to enhance and standardize the

most effective instructional practices was not begun either. The common approach for Dowling Elementary teachers to receive professional development did continue, but team learning that could be linked to the school's achievement data or curriculum alignment did not occur holistically across the school.

The chain of events at the two successful schools, beginning with the creation a shared vision, aligning curriculum, and professional development as a systems thinking to mental models and ultimately a team learning approach to enhancing instruction directly contributed to these two schools' increased test scores.

Research Question Three

How has the perception of school leadership evolved and in what way has it impacted the success of the school improvement effort?

School leadership from the position of building principal and the perception of how school leadership evolved during the school improvement process was unique at each school. Leadership was frequently cited by teachers from both successful schools. At Allenville Elementary, teachers considered the action of creating a shared vision an example of evolving leadership from the building principal. Teachers stated numerous examples how leadership greatly improved with the arrival of Dr. Alvarez. Comparisons were made between Dr. Alvarez and his predecessor, but the noteworthy examples of leadership that teachers gave were frequently linked to Dr. Alvarez's attendance at team meetings, overall visibility throughout the school, and his role in the creation of a school-wide vision for student learning.

At Bakersfield, the principal facilitated the statistical breakdown of the PSSA data. Teachers cited examples of Dr. Baumgartner's greater level of expertise analyzing the data. Specifically, Dr. Baumgartner was generally credited with teaching teachers how to identify gaps

in learning that was revealed in the data. Coupled with Dr. Baumgartner's presence throughout the curriculum alignment and professional development initiatives, the perspective of teachers at Bakersfield was building leadership which included teachers in work that ranged from whole-school to classroom level problem solving.

As it has been stated throughout this study, Dowling Elementary has not successfully achieved an accountability turn-around. Yet teachers at Dowling consider leadership to be an area of strength. Starting with the school principal, Dr. Donaldson, teachers cited his approachability and connection to the local community as leadership attributes. Dr. Donaldson remarked on his philosophy of nurturing leadership from each level of the school and teachers cited their agreement with and appreciation for Dr. Donaldson's leadership style. Perhaps the most significant deficit leadership skill that Dr. Donaldson possesses has been the lack of vision for school improvement. Establishing the need for change originated with the creation of a shared vision coupled with the reality of recurring poor test scores at the two schools that completed an accountability turn-around.

Teachers from all three schools stated that leadership at the teacher level evolved in a positive way during the process of aligning curriculum. Transitioning from the newly aligned curriculum to more consistently used instructional practices in the classroom could be enough of a measure to complete the journey to school improvement at Dowling Elementary. However, in order to complete the accountability turn-around, leadership from within will take a step forward by learning and teaching the importance of establishing a clear vision for systemic change.

Research Question Four

How has the school's success affected the perception of the school as a learning community?

The perception of the school as a learning community was enhanced as a result of the school improvement process. Citing far more collaboration between teachers, as a primary example, teachers and principals discussed their own professional learning, as well as increasing test scores as evidence that the school was improving in numerous ways. Teachers shared their perspective of the school they believed to be growing as a learning community when recalling teams of teachers working outside the individual classroom to analyze data, and align curriculum. From learning the new reading program, and specific strategies to improve reading comprehension, to the application across classrooms; each represented examples by teachers of an improving learning community. In addition to the factors listed, student recognition was credited by the principal of each school for creating a joy and enthusiasm throughout the school that improved the overall climate and perception of the school's effectiveness.

Recommendations and Implications for Professional Practice

As a school administrator, establishing a shared vision is a powerful tool that clarifies systemic purpose. In the case of a school, the shared vision can be used to simplify the most complex problems from the system-level all the way to the classroom and even the individual. Since two of the three school principals created a vision that teachers from across each school claim helped guide an accountability turn-around, other administrators should strongly consider establishing a shared vision for the school.

Collaboration is critical for developing leaders, promoting learning, building teams, and whole community development. The term public school conveys a picture of students with varying degrees of knowledge and skills who are expected to participate and contribute across the school's programs. The same could be assumed from the adults who work in the public school. As each of the three schools demonstrated, principals who lead, and guide, communicate

and collaborate, develop a school community capable of great things. Consider the problem-solving, team-building, and celebrating each school demonstrated. Some of the modern day pressures faced by our public schools include improving student achievement and economic constraints.

Conclusions

This study set out to determine what organizational elements were present and credited for systemic change in three schools. By focusing on the contemporary issue of improving school achievement test scores, specific strategies, experiences, and scenarios were provided by each of the three participants that highlighted varying degrees of the components that support successful system change.

The literature suggests that performance data, measurable goals, and effective teamwork are critical elements for school improvement and reform efforts (Fullan, 2006). In addition, the *Journal of Leadership Education* highlights several important characteristics of developing a shared vision. This list includes defining the meaning and purpose of a leader's vision to an organization, implicit or explicit commentary on why an organization's people should strive to create that future, and finally the importance of an organizational vision when confronting complex challenges and change throughout at system. The results of this study support the literature highlighting the inherent benefits of a vision. In the research, the participants who created and promoted a shared vision in two out of the three schools indicated heightened system awareness and understanding of the complexity of the challenge of increasing test scores. Citing the sequence of steps that include creating a vision, aligning curriculum, facilitating team learning through professional development, and data analysis the participants from the successful schools detailed the change from a more traditional teaching model, to the contemporary model

that relies on data, research-based instructional strategies, teacher collaboration, and community building.

An important conclusion from this study is that creating a vision and facilitating collaboration among teachers are characteristics that can be learned and developed over time. The general maintenance of school operations are maintenance oriented: logistics, schedules, discipline (Camburn, Spillane, & Sebastian, 2010). While these aspects of managing schools are important, creating a vision, setting achievement goals, and building community are all attainable by mobilizing resources, and facilitating collaboration among teachers and administrators. All three principals are recognized by teachers as school leaders, but the two successful principals are described as effective communicators, energetic, analytical, and passionate about teaching and learning. Teachers continually attributed the improved test scores to the increase in teacher collaboration through professional learning and problem-solving. According to the teachers, visibility and participation by the principal throughout data-analysis and team learning positively affected the perception of the building leadership's commitment to and accessibility throughout the stages of the school improvement effort.

In light of past studies and the findings of this research, it is evident that the framework for systemic change can be linked to school achievement and are effective elements for the many challenges faced by contemporary public schools. Regardless of school achievement history, people in administrative positions need to become familiar with the elements of the core systems. Professional development opportunities that focus on organizational purpose and vision, framing systemic problems, and defining the inherent roles that every level of an organization play in reaching solutions, sustaining success, and improving community are in the best interest of professionalism as well as personal growth and satisfaction. The sense of joy and efficacy from

attaining the desired goals in both schools created a vibrancy and energy that can be replicated in any virtually any organization.

Building level administrators must nurture a collaborative, vision oriented culture in order to effectively respond to the limitless challenges and changes in the field of public education. Leaders must be visible, collaborative, and open to input from all levels throughout a system. Open discussions should emphasize organizational vision and team collaboration in forums ranging from faculty to department meetings, grade-level team meetings, student council, parent forums, and the like. Community members should be included whenever possible. Students must have an understanding of the organizational vision and the importance of community and the values and norms within it as well. Finally, administrators and teachers must model the behaviors and practices that are expect of those they lead. Finally, by placing value on the attributes of successful systems at the hiring stage, an organization may be more likely to sustain the versatility needed to respond to unforeseen challenges and sustain overall success.

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Appendix A

Letter Inviting Participation

IUP LETTERHEAD

Dear (name of prospective participant),

I am a student in the Doctoral Program in Administration and Leadership in the Department of Professional Studies in Education at Indiana University of Pennsylvania. I am inviting you to participate in a study to examine the characteristics of systemic change as they may relate to an accountability turn around within a public school located in western Pennsylvania.

If you agree to take part in this qualitative study, you will be asked to participate in a 2-phase interview process.

I do not anticipate any risks to you related to this project. The potential benefit of your participation is that you will have an opportunity to clarify and enhance your understanding of the . . .

Your participation in this study is purely voluntary and you may withdraw at any time without penalty by communicating with me. If you do choose to withdraw, none of the information collected about you will be used.

If you choose to participate, all information provided by you will be held in the strictest of confidence by the researcher. Participants in the study will also be required to keep information confidential that they have learned through this study about and from others in the group. Information collected from you will be used in combination with data collected from other participants. The information will be coded to protect your identity. At any point during the data collection, you are free to withhold any personal information of which you feel uncomfortable about sharing with the group and/or the researcher. The information obtained in the study may be published in educational journals or presented at educational meetings, but your identity will be kept strictly confidential unless you direct otherwise in writing. Your identity will not be disclosed without your written consent. A pseudonym will be used for you and all participants, schools, and districts. Descriptions of events may also be disguised to keep their origins confidential.

If you are willing to participate in this study, please sign the statement on the attached page (two copies have been provided – one to sign and return to me for my records and one to keep for you records) and mail the signed copy to me by (date to be inserted) in the return envelope provided.

After participants have been selected and consent forms returned, you will be called and asked about convenient meeting times. Shortly thereafter you will receive a copy of the prospective meeting dates and meeting topics.

Thank you for considering my request.

Sincerely,

Michael A. Minnick, Doctoral Student
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E: mminnick@iasd.cc

Dr. Robert Millward, Project Coordinator
Administrative and Leadership Studies, IUP
Stouffer Hall, Room 136
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Indiana, PA 15705
P: 724-357-5593

Appendix B

Voluntary Consent Form

I have read and understand the information on the above Informed Consent Form and I consent to volunteer to be a subject in this **pilot** study. I understand that my responses are completely confidential and that I have the right to withdraw at any time. I have received an unsigned copy of this Informed Consent Form to keep in my possession.

Name (PLEASE PRINT) _____

Signature _____ Date _____

Phone number where you can be reached _____

Email _____

Best days and times to reach you _____

(Do not write below this line; for Primary Researcher's use only)

I certify that I have explained to the above individual that nature and purpose, the potential benefits, and possible risks associated with participating in this pilot study, and have answered any questions that have been raised.

Date _____ Primary Researcher's Signature _____

Appendix C

Matrix of Research Questions to Interview Questions

Research Question	Interview Question	Interview Questions
1. What elements of systemic change theory were <i>present</i> prior to and throughout the school improvement process?	1, 2, 4, 7, 8	<p>1. What role did you have throughout the accountability turn-around?</p> <p>2. What are the strengths of your school? What are your school's needs?</p> <p>3. How was the need for change determined, communicated, and received?</p>
2. What elements of systemic change, using Senge's Framework are <i>responsible</i> for school improvement achieved?	1, 2, 3, 4, 5, 9, 10, 12, 14	<p>4. What is the school's vision?</p> <p>5. If specifically targeted changes (i.e. strategies and practices) were identified prior to making AYP, what were they? How effective have those changes been? What barriers and obstacles remain?</p> <p>6. Have your beliefs and values changed, deepened, or remained the same since attaining AYP status? If so, explain <i>how</i>?</p> <p>9. What is the single most influential factor that your school's success can be attributed?</p>
3. How has the perception of leadership evolved and in what way has it impacted the school improvement effort?	3, 4, 6, 7	<p>7. <i>How</i> does your school recognize achievement?</p> <p>8. Is there a <i>system</i> in place for setting goals? How would you describe the evolution and effectiveness of that system?</p>
4. How has the school's success affected the perception of the school as a learning community	3, 5, 6, 8, 9, 11, 13, 14	<p>11. Describe the school in the context of a <i>community</i>. How has it changed before AYP to achieving AYP?</p> <p>12. Are there <i>rituals and procedures</i> in practice today that maintain a sense of community and a shared vision or school-wide goals?</p> <p>13. In what ways does the school mirror the community as a whole? What school improvement strategies support the school as a community?</p> <p>14. What picture, symbol, or metaphor comes to mind that symbolizes the school's accountability turn-around?</p>

Appendix D

Systemic Change Interview Guide

This interview is designed to help assess individual thoughts and opinions of employees in regard to school leadership and organizational change efforts. In order to interpret in the data, the researcher has created a coding chart to identify subcategories or patterns in the data.

PART ONE: DEMOGRAPHIC INFORMATION:

To be completed by the interviewer/researcher.

Term that best describes your current position:

- School Administrator
- Teacher

Gender:

- Female
- Male

Years of service in public education:

- 1 – 5 years
- 6 – 15 years
- 16 or more years

Years of service with the _____ School

District:

From: _____ to: _____.

Professional Assignment:

Department: _____.

Grade: _____.

Highest Level of education:

- | | |
|--|--|
| <input type="checkbox"/> 4 Year Degree | <input type="checkbox"/> Master's Degree +30 |
| <input type="checkbox"/> Master's Degree | <input type="checkbox"/> Doctorate Degree |

PART TWO: REVIEW OF PRIMARY RESEARCH QUESTIONS:

5. What elements of systemic change theory were *present* prior to and throughout the school improvement process?

6. What elements of systemic change using Senge's Framework are *responsible* for school improvement achieved?

7. How has the perception of school leadership evolved and in what way has it impacted the success of the school improvement effort?

8. How has the school's success affected the perception of the school as a learning community?

PART THREE, PHASE I: THE INTERVIEW GUIDE

1. (T/A) What role did you have throughout the accountability turnaround?
2. (T/A) What are the strengths of your school? What are your school's needs?
3. (T/A) How was the need for change determined, communicated, and received?
4. (A) What is the school's vision?
5. (A) *If* specifically targeted changes (i.e. strategies and practices) were identified *prior* to making AYP, what were they? How effective have those changes been? What barriers and obstacles remain?

6. (T) Have your beliefs and/or values changed, deepened, or remained the same since attaining AYP status? If so, explain *how*?
7. (T/A) *How* does your school recognize achievement?
8. (A) Is there a *system* in place for setting goals (individual or building-wide)? How would you describe the evolution and effectiveness of that system?
9. (T/A) What is the single most influential factor(s) that your school's success can be attributed?

PART THREE, PHASE II: THE INTERVIEW GUIDE:

1. Describe the school in the context of a *community*. Has it changed from before reaching AYP since achieving AYP and if so, how has it changed?
2. What *rituals and procedures* help maintain a sense of community and shared vision?
3. What were the key elements of your school's accountability turn around?
4. How could your school's success be copied by other schools?
5. What picture, symbol, or metaphor comes to mind that symbolizes the accountability turn-around?

Appendix E

Matrix of Research Questions to Interview Questions

Research Question	Interview Question	Interview Questions
1. What elements of systemic change theory were <i>present</i> prior to and throughout the school improvement process?	1, 2, 4, 7, 8	<p>1. What is your current position/title and what role did you have throughout the accountability turn-around?</p> <p>2. What are the strengths of your school? Have they always been your strengths? What are its weaknesses/needs? Have they always been weaknesses/needs?</p> <p>3. How was the need for change determined, communicated, and received?</p>
2. What elements of systemic change, using Senge's Framework are <i>responsible</i> for school improvement achieved?	1, 2, 3, 4, 5, 9, 10, 12, 14	<p>4. Does your school have a clear vision? If so, what is it?</p> <p>5. What changes occurred in support of that <i>vision</i>? How effective have the changes been? What barriers and obstacles remain?</p> <p>6. Have your beliefs and/or values changed, deepened, or remained the same since attaining AYP status? If so, explain <i>how</i>?</p>
3. How has the perception of leadership evolved in the school improvement effort?	3, 4, 6, 7	<p>7. What is the school's mechanism that identifies problems and challenges?</p> <p>8. <i>How</i> does your school recognize achievement?</p> <p>9. Do you have individual goals? Are they linked to building goals and your role in attaining those goals?</p> <p>10. Is there a <i>system</i> in place for setting goals? How effective is that system?</p>
4. How has the school's success affected the perception of the school as a learning community? What factors reflected that the building of a learning community was important to the transformation? What were the positives and negatives of the transformation?	3, 5, 6, 8, 9, 11, 13, 14	<p>11. Describe the school in the context of a <i>community</i>. How has it changed before AYP to achieving AYP?</p> <p>12. Are there <i>rituals and procedures</i> in practice today that maintain a sense of community and a shared vision or school-wide goals?</p> <p>13. In what ways does the school mirror the community as a whole? What school improvement strategies support the school as a community?</p> <p>14. What picture, symbol, or metaphor comes to mind that symbolizes the school's accountability turn-around?</p>

Appendix F

Response Coding for the Influence of Individual Domains of Systemic Change

		<u>Domains of Systemic Change</u>				
		PM	SV	MM	TL	ST
Teachers	District					
Administrator	District					

Appendix G

Analysis of Interview Responses

Participant	Position/Title	Years of Experience in Current Position	Years of Experience in Education
A	Superintendent	6	24
AA	Principal	4	12
AAA	Focus Group: Teachers (8) Guidance Counselor (1)	5 – 10	6 – 26
B	Superintendent	5	34
BB	Principal	4	16
BBB	Focus Group: Teachers (9)	6 – 18	6 – 18
C	Superintendent		
CC	Principal		
CCC	Focus Group: Teachers (7) Guidance Counselor (2)		

School leaders' information. This appendix provides information about the work experience and jobs of the participating school leaders.