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Baldrige system reform in New Mexico: a grounded theory study of elementary school principals' implementation of the Strengthening Quality in Schools (SQS) initiative

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BALDRIGE SYSTEM REFORM IN NEW MEXICO: A GROUNDED THEORY STUDY OF ELEMENTARY SCHOOL PRINCIPALS' IMPLEMENTATION OF THE STRENGTHENING QUALITY IN SCHOOLS (SQS) INITIATIVE

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This dissertation, written by

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DOCTOR OF EDUCATION

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DEDICATION

I would like to dedicate this dissertation to Julie, my best friend and true love. Our Father in Heaven only knows how many hours you spent proof reading this manuscript – now that's true love ;-)

To my mom, Edna Edmondson, who spent 53 years of her life serving as a teacher, administrator and college professor. I was in fourth grade when she received her Education Specialist degree. I am standing on her shoulders.

To our five children and now husbands and wives and grandchildren – Joash, Matthea & Coram, Ashen Joy, Tattney, Fabio, Abigail and Calem (who is due this May), Selah and Gideon. In this eight year journey, you have grown up, left home, and started lives of your own. What a hoot this has been!

Finally, to our most precious loving Father in Heaven, we indeed, have had great times working together in my pursuit of wisdom, understanding and knowledge.

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ABSTRACT

In 1992, the New Mexico Governor's Business Executives for Education (GBEE) launched the Strengthening Quality in Schools (SQS) initiative and Baldrige Reform. In 2006, Dr. Peter Winograd, Director of Educational Accountability for the New Mexico Public Education Department, studied 48 Baldrige schools and discovered increased student achievement in only 63% of the schools. The purpose of this research was to gather state-wide data about the Baldrige Reform implementation process and develop a grounded hypotheses aimed at increasing the reliability of the implementation.

The following questions served as a guide for the study:

1. What barriers do New Mexico elementary principals at Baldrige-JSA training sites perceive to be common implementation barriers?
2. When do common barriers occur?
3. What do the principals report as proven solutions?
4. How can the principals better plan and prepare to address barriers?
5. If provided the opportunity to make changes, what changes would these elementary principals identify?

The New Mexico SQS website identified 18 school districts that were engaged in the Baldrige reform. Nine superintendents granted permission to conduct research. Phase I Written Surveys were mailed to 132 elementary principals. Thirty principals responded and 9 of those

principals met the Phase II criteria and participated in telephone interviews.

During the telephone interview process, elementary principals identified staff buy-in, time for training, training materials, and change in building leadership as the most significant implementation barriers. It was concluded that these 4 barriers had an influence on the fidelity of program implementation.

Findings from this study revealed 3 key categories related to the fidelity of implementation. The first involved developing a long-range reform plan to provide alignment of policies, procedures and district resources. The second emphasized the significant role principals play during the program launch. The third category underscored the principals' role in sustaining the reform through modeling, monitoring and development of staff collaboration, and staff development schedules.

The researcher concluded that if a long-range, comprehensive reform blue print is developed and followed, it will enhance implementation fidelity and sustainability. This, in turn, will lead to an increase in student achievement in all participating school districts.

Chapter 1: Introduction and Background

In 1991, New Mexico educators began a comprehensive, system-based school reform initiative. The goal of this initiative was to attain "Best-In-Class" student achievement through improved performance of the New Mexico educational system. This initiative was founded upon the adoption of the Malcolm Baldrige criteria and core values. This study focused on the adoption of the Baldrige approach by those participating in the New Mexico public educational system. More specifically, it involved interviews with elementary principals who lived in New Mexico and who had received training through the Strengthening Quality Schools New Mexico (SQSNM) Professional Development Unit and Jim Shipley & Associates (JSA) as these organizations endeavored to train educators to align best educational practices with proven system processes.

Introduction to the Problem

Fifty years of reform.

Sputnik: The first wave of school reform: (1958 - 1983). The dawn of October 4, 1957, was ushered in with the deafening roar of a rocket engine. This rocket engine would successfully carry a basketball size payload into a 98-minute elliptical orbit around the earth (Conti, Ellsasser, & Griffin, 2000). The trauma of World War II was forever seared into conscious minds of the American people. The Cold War was nearing its peak, and now the Russians had successfully launched a

198-pound satellite. If the Russians could do this, they could also design ballistic nuclear missiles. The American nation was clearly at risk: at risk of nuclear attack and at risk of losing its economic and military superiority. Why and how was America superiority being challenged? Something had to be done –immediate action had to be taken. By July 1958, the National Aeronautics and Space Administration (NASA) had been created (Garber, 2007). The formation of NASA was the correct answer for the development of rocket and space technologies. But, the American people were interested in enduring, world dominance and they knew the answer included enhancement of the educational system. In September of 1958, the largest class of baby boomers were starting first grade and their parents wanted the best education taxes could buy (Tapscott, 1998). The current educational system had not kept pace with the rest of the world, and it was time to take a closer look to determine why and how this had happened. As one group of legislators was crafting the law leading to the creation of NASA, another group was working on the provision of the National Defense in Education Act of 1958. An act that placed the educational system under the watchful eye of the Federal government, opened the doors of public involvement in education, and launched the era of educational reform movement (Conti et al., 2000).

Sputnik, a fear driven response, drove the first wave of educational reform. As noted in the title, "The National Defense in Education Act"

was intended to balance, if not transition, the educational curriculum from the broad platform of a liberal arts education to the narrow technical platform provided in the study of math, science, and technology. The basic assumption was that our schools were working. The call was not that of major restructuring, but that of fine-tuning. It was assumed that, instruction was of a high quality. Therefore, the emphasis was on working harder (Bacharach & Mundell, 1995).

A nation at risk: The second wave: (1983 - 2000). The second wave began when the Secretary of Education, T. H. Bell, addressed the prevailing view that the quality of instruction in the American educational system was declining (Conti et al., 2000; Gardner, 1983). In response to this concern, he created the National Commission on Excellence in Education and charged the commission with the task of reporting on the quality of the American educational system. The commission reported that the American Educational system was losing the momentum created in the Sputnik awakening. The report, A Nation at Risk, identified deficiencies in school leadership, curriculum, instruction and school funding (Conti et al., 2000; Gardner, 1983).

During the Sputnik wave, the basic assumption was that schools were fundamentally sound. In wave two, this assumption radically changed. Newspaper and television reports comparing American schools with European schools had created an undercurrent of suspicion. The American people had begun to question the quality of the educational

system. The "Nation at Risk" report confirmed these doubts and suspensions and in so doing devastated American confidence in the public school system. In the second wave, change efforts focused on rethinking, restructuring, and reinventing schools (Cuban, 1990). Traditional roles and responsibilities of students and parents were challenged and soon began the gradual transformation process. A great attempt was made to develop partnerships between businesses and schools. Moral and ethical issues began to separate the nation. The move toward private Christian schools and home school became an acceptable option. It was during this period that school choice was first introduced in the form of vouchers. Efforts at restructuring continued and gained momentum through the late 1980s. These efforts incisively defined in the nineties.

The third wave: No Child Left Behind (2001 - present). On Wednesday, January 3, during the first official session of the 107th Congress, President George Bush signed what is now titled the "No Child Left Behind Act of 2001" (NCLB). NCLB introduced the most extensive legislative changes since the inception of the department of education. Unlike the two earlier reforms, this reform challenged the existence of public education. Options such as open enrollment, charter schools, and vouchers caused educators in traditional public education scramble to create schools where students can learn, succeed, and compete on an international level.

In Larry Lezotte's co-authored 2002 publication, *Assembly Required*: *A Continuous Improvement System* he noted,

One of the strengths of a classic bureaucratic system is that once it is up and running and the culture is set, it can be virtually left alone for a thousand years and it probably would not change. Clearly, this predictability and inertia represents a real asset – providing the system is doing what you want it to do. Unfortunately, the inertia of the system-in-place turns out to be its greatest liability if we want the system to do something different. Sustainable school reform calls for dramatic changes in school system structures, therefore, schools engaging in reform will need to overcome the inertia created by the existing system structures (Lezotte & McKee, 2002).

A quick comparison of the performance of American students with their international peers certainly validates Dr. Lezotte's statement. Over the past 11 years, the International Association for the Evaluation of Educational Achievement has been assessing student performance around the world. The organization assesses and reports the findings in the Trends in International Mathematics and Science Study (TIMSS). In 2003, 25 countries administered a mathematics assessment to fourth graders. Students from the United States were outperformed by students from 11 countries (U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, n.d.a). The list of higher performing countries included China, Japan, and the Russian

Federation (Gonzales et al., 2004). When international comparisons are made, American schools are ranked in the middle of the pack and when national comparisons are made, New Mexico schools are ranked seventh from the bottom (U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics, n.d.a, n.d.b). In 2005, 416 (53%) New Mexico schools failed to make Adequate Yearly Progress (AYP). In 2006, this number increased to 433 (54%), by 2007 AYP failures had grown to 440 schools (55%; New Mexico Public Education Department, 2007b).

Fifty years have now passed since the beginning of the school reform movement. The children sitting in first grade classrooms on October 4, 1957 are now retiring from the workforce. The first and second waves of reform have failed and the number of schools failing to make AYP as defined by NCLB increase each year (see New Mexico Public Education Department, 2007b). These reforms have focused on improvement of curriculum and instruction rather than focusing on the root cause of the problem—the system (Covey, 1989).

Focusing on the system. System thinking provides a new paradigm to organizational management. It calls for leadership to transform the lineal, competitive, departmentalized organizational structures into organizations that follow a holistic conceptual model that is centered in a clearly defined purpose (Havener, 1999). In these organizations, the purpose is clarified through the collaborative

development of mission, vision, and value statements. The focus of organizational members extends beyond their individual departments to include a focus on the mission of the organization as a whole. Members place a premium on relationships that exist between these departments. In so doing, alliances are formed and system processes become synchronized (Havener, 1999; Senge, 1990).

School leadership can make or break this process (Fullan, 2003; Lezotte & McKee, 2002; Marzano, Walters, & McNulty, 2005). In the traditional school system, information flows up to building and district leadership and decisions flow down to those responsible for implementation (DuFour & Eaker, 1998). In these systems, bottle-necks form at the limited decision making points, the flow of disconfirming information is limited and decisions are made by those with second hand, impersonal, and distant knowledge of the facts causing the original problem (Knowles, 2002; Schein, 1997). At the school site, the principal must develop a culture in which organizational members are keenly aware of their mission and this mission is referenced as the foundation for all decision making (DuFour & Eaker, 1998). The principal must develop system communication structures that allow for shared decision making and necessitate distributed leadership. The principal must place a premium on the development and maintenance of relationships as organizational intelligence as realized in the flow of information through these key synaptic points (Wheatly, 1999).

Additionally, the principal must create a learning culture that values continual improvement and transparency in the work place (Argyris, 1990; Lezotte & McKee, 2002; Senge, 1990).

As building principals journey toward the development of a professional learning culture, the day-to-day challenges serve as detours that all too often lead to roadblocks. Keeping up with student discipline, parent concerns, central office requests, and state mandates is more than a full-time job. To transform the school culture, these principals must also be prepared to challenge existing assumptions and develop new system structures. As noted above, without the identification of key processes and without the development of key timelines the school reform process can be all but impossible (Lezotte & McKee, 2002). Without a clear plan, the forces of the established normative system will triumph over the forces of school reform. The Baldrige criteria provide a blue print of the needed system structures and the key processes principals need to chip away at the normative educational system and transition it into an integrated educational system (Havener, 1999). The Baldrige system reform can serve as a north star for those engaged in system reform. However, as the application of Baldrige system reform processes is relatively new to the field of education, there are still many trails that need to be blazed.

The New Mexico Public Education Department has used the Baldrige system reform as the foremost school reform strategy for the

past 15 years (Albuquerque Business Education Compact [ABEC], n.d.). By August 2006, over 500 schools in 73 school districts had received training in the Baldrige system reform (Strength in Quality Schools [SQS], n.d.c). In many of these schools, student achievement has shown a dramatic increase; however, there are also large numbers of schools that have begun the reform and have not seen an increase in student achievement. In 2006, Dr. Peter Winograd, Director of Educational Accountability for the New Mexico Public Education Department, studied 48 schools that had received the same 8 days of on-site Baldrige training through Jim Shipley & Associates trainers (Winograd, 2007). It was noted that 30 New Mexico schools had shown a positive change in student reading proficiency while 18 schools had shown a loss in student reading proficiency (Winograd, 2007). This large spread in student achievement should not exist between schools. There is a need to investigate why some schools are succeeding and others are not, even though all principals have participated in same training. We must identify what has compromised the reliability of this proven reform model.

Statement of Problem

New Mexico elementary schools that implemented Baldrige for 3 years or longer and whose principals had the same JSA training were not all successful in increasing student-reading achievement (Winograd, 2007). There was a need to study this issue and learn more of the

implementation barriers; timing of their advent; ways to prepare to face the barriers; proven solutions; and ways to expedite implementation of the reform.

Purpose

If the Baldrige reform was so very successful in some schools, why was it not successful in all schools? In many cases, principals started the journey without the ability to count the cost. That is, they did not have an inkling of the challenges they would face or the resources they would need to be successful. Principals who begin the Baldrige reform needed a well marked trail to follow from commencement to full deployment. There was a need to study this issue and learn more about what was causing this discrepancy in performance and compromising this reform model (Winograd, 2007). There was a need for the development of grounded hypotheses that could be used as a guide for further research (Glaser, 2008). Therefore, the purpose of this study was to (a) identify and study the commonly occurring barriers that have impeded Baldrige reform efforts, (b) explore practices that would enable principals to foresee and avoid barriers, (c) explore practices that would enable schools to overcome the barriers, (d) identify ways that would expedite the implementation of this proven reform, and (e) to use this information to develop grounded hypotheses that could be used as a guide for further research.

Research Questions

The following questions served as a guide for the study:

1. What barriers do New Mexico elementary principals at Baldrige-JSA training sites perceive to be common implementation barriers?
2. When do New Mexico elementary principals at Baldrige-JSA training sites, believe that common barriers occur during the adoption process?
3. What do New Mexico elementary principals at Baldrige-JSA training sites report as proven solutions for the common barriers?
4. How can New Mexico elementary principals at Baldrige-JSA training sites better plan and prepare to address barriers common to Baldrige-JSA reform implementation?
5. If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would these elementary principals identify?

Significance

This was a first-of-its-kind study and involved interviewing New Mexico elementary school principals who had been involved in the Baldrige, SQS implementation process for 3 or more years. The office of SQS contracted with JSA to provide staff development. The elementary principals identified the barriers they faced during the implementation process. They also identified a set of solutions for the most commonly occurring barriers. Application of the system thinking is new to the field

of education. Those responsible for staff development rely on research to streamline the adoption process (American Society for Quality [ASQ], 2008). In most cases, as these school districts move toward successful deployment, student academic achievement improves and the results are sustained (JSA, n.d.d, n.d.e). Schools in 41 states are engaged in the Baldrige Total Quality Management school system reform (National Institute of Standards and Technology [NIST], 2007). Many of these schools are teaming with JSA to provide consulting and training services (JSA, n.d.c). Results from this study added to the limited body of research, and it will be helpful to JSA trainers and elementary principals as they seek to increase the reliability of the Baldrige implementation in New Mexico and throughout the United States by

- Providing school teams more complete information when adoption considerations are being made.
- Helping school teams accurately identify implementation barriers
- Helping school teams more accurately foresee and avoid common barriers
- Helping school teams prepare for common barriers
- Serve as an implementation calendar, to let school teams know they are right on track when certain barriers arise or when certain barriers are overcome

- Helping school teams identify a resource pool of proven solutions for the most frequently occurring barriers (Baldrige National Quality Program [BNQP], 2007a).

Delimitations of the Study

Intent to study school sites using deployment, pilot, and regional quality center training strategies. The Strengthening Quality in Schools (SQS) unit provided system training using four training strategies: (a) public workshops, (b) deployment school workshops, (c) demonstration schools, and (d) regional training centers (L. Moore, personal communication, January, 4, 2008). This study focused on the latter three training strategies. In chapter 3, a detailed description of these models was presented.

Focus on Jim Shipley & Associates. There are many organizations that provide staff development in Baldrige system reform. This study focused on JSA as they supplied all of Baldrige training in New Mexico (L. Moore, personal communication, January, 4, 2008).

Focus on New Mexico. JSA provides training in nine other states (JSA, n.d.b). Each state approaches reform in different ways with different funding formulas. This study was narrowed to just New Mexico as state policy, procedures, and funding formulas play a major role in the Baldrige implementation practices. A study of just one state yielded more reliable results for New Mexico elementary school principals.

Intent to study highly committed, trained, and experienced elementary principals. There were approximately 143 elementary principals in New Mexico who were involved in the Baldrige school reform. This study was narrowed to principals who were highly committed to the Baldrige system reform, who had been participating in the training delivered by JSA for a minimum of 3 years, and had been a principal at their current school for a minimum of 3 years.

Limitations of the Study

State training model. All research was conducted using principals trained by JSA. Perhaps a different organization might have different training procedures that would yield a different set of barriers.

Subject response. This study called for the interview of 12 elementary school principals. The study failed to receive an adequate number of positive responses, so I reviewed the list of subjects who failed to return a complete form and the list of subjects who failed to respond. Subjects identified in these lists received a personal telephone call requesting their participation in the study.

Oversight of a critical research group. The interviews were directed to principals who have been using Baldrige for 3 or more years. Perhaps there are other principals who were faced with insurmountable barriers that led to failure of the reform at their school. These principals were not identified by this study.

Assumptions

I assumed that the principals interviewed had operational knowledge regarding the Baldrige-JSA reform initiative. I also assumed the principals provided honest responses to the questions.

Definition of Terms

The following terms appeared throughout this document. Familiarity with these terms is a prerequisite to understanding of the manuscript.

1. Continual Improvement: A quality philosophy that demands frequent review of system goals and processes to insure the end products meet stakeholder expectations (Corace, 2000).
2. Core Values: Term and phrases that define organizational relationships by providing guidelines for employment behavior. They identify the best practices necessary for a focused on performance excellence (Deal & Kennedy, 1982; Lezotte & McKee, 2002; Peters, 1982).
3. Customer: The individual(s) who use a product or service. In a school system they include, but are not limited to, students, parents, and community members. These customers give the school an aim and a purpose (JSA, 2003b, 2005).
4. PDSA: A fact-based decision making model that uses a Plan, Do, Study, Act cycle as a tool in continual organizational improvement (Covey, 1989; Deming, 1993; JSA, 2003b; Krisco, 1997; Schein, 1997).

5. Performance Excellence: Gaining competitive advantage in the marketplace through significant and sustained performance that is driven by customer expectations (JSA, 2003a, 2006).
6. Process: An orderly and well-defined method for accomplishing a task. It generally involves a series of repeatable steps (Senge, 1990).
7. System: A congress of specifically designed processes working interdependently to achieve a shared performance goal (Deming, 1993; Senge, 1990).
8. System Alignment: The process of focusing all value choices and system resources toward the achievement of a shared performance goal (JSA, 2005; Schein, 1997)
9. System Perspective: A gestalt understanding of the organization. It requires knowledge of individual systems parts and how they can be aligned and integrated to function with speed and efficiency (Senge, 1990).
10. Systemic Approach: An approach that involves identification and understanding of various system parts and their inter-relatedness and interdependency to the system as a whole (JSA, 2003b, 2003c).

Chapter 1 Summary

As educators, it is our moral imperative to equip each child with proficiency in reading, writing, and mathematics. The Baldrige Total

Quality System provides a proven path to achieve this end. Implementation of this system can be slow as schools encounter, address, and overcome barriers in this change process. Given the ability to foresee problems, stakeholders will be prepared to address or eliminate the problems before they arise. In some cases, the barriers cannot be skirted. In these cases, administrators will be able to use their knowledge of barriers to identify progress milestones as they journey toward full deployment.

Organization of Manuscript

This study is organized into five chapters. Chapter 1 is the introductory chapter and includes the context of the problem, the purpose of the study, the research questions, hypothesis, definitions of key terms, limitations of the study, and significance of the study. Chapter 2 contains a literature review. Chapter 3 describes the methodology applied. Chapter 4 reports the results of the study. Chapter 5 presents a discussion of the findings, makes conclusions, and presents recommendations for future research.

Chapter 2: Literature Review

Introduction and Background

In 1991, New Mexico educators officially embarked on the journey involving the reform of their failing educational system. This journey was initiated with the hope of attaining "Best-In-Class" student achievement through the adoption of the Malcolm Baldrige Total Quality System Reform model. This system-based approach is presented in the following concept map (Figure 1).

The three notable suppositions of this system reform include (a) clearly articulated mission statement will yield alignment of precious resources, (b) system processes should undergo frequent systematic formative review, and (c) an optimum school culture can be developed by the identification and adoption of research-based core values.

Chapter 2 Overview

This chapter will ground the reader in the fundamentals of system thinking, provide answers to the frequently asked questions surrounding the Baldrige Systems Approach, provide a discussion of what is known about nation-wide Baldrige reform outcomes, provide a review of the theory and best practices research that has been woven into the Malcolm Baldrige seven performance criteria and 11 core values, and provide an overview of the New Mexico implementation processes as directed by the Office of Strengthening Quality in Schools (SQS). Finally, this chapter

will specifically address what is known and what is not known about program outcomes in New Mexico.

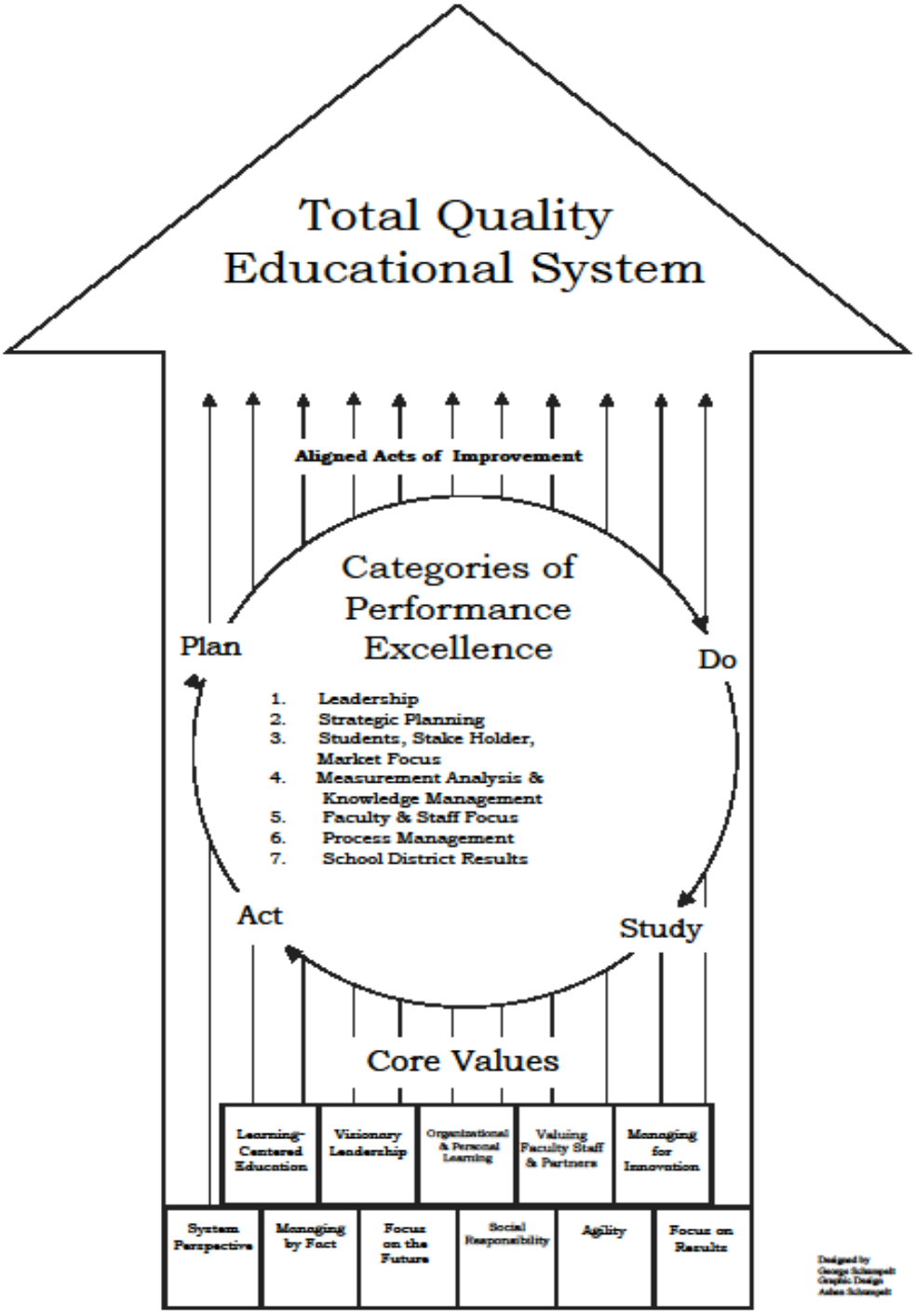


Figure 1. Concept map of the Total Quality education system.

Fundamentals of System Thinking

It is a bright sunny day in Pleasantville, USA. Just like every other day, the students have come to school and are busying themselves in the daily routine. However, this day the students seem to have more energy. They are talking in louder voices. They are out of their seats more frequently and their attention spans seem shorter. Teachers are also bearish. As the cacophony increases, student control measures tighten, and clashes erupt between teachers and their students. Parents are called, students are sent to the principal's office and at the day's end everyone, agrees that it was a simply horrible day. What happened this day that was different than from other day? Perhaps the explanations could be as simple as a change in the barometric pressure that signaled the approach of a storm. When novices to the field of education first experience these days, they go home attempting to analyze their student control procedures with a desire to tighten up on the students' behavior. Those who have weathered 10 to 12 similar occurrences know that the storm will pass and that the students will be back to normal the following day.

Student achievement and barometric pressure are just two factors, of the thousands, that come together to create the tapestry of each school day. Each of these factors is tightly woven into a vast array of cause and effect relationships that give the fabric of the day its special beauty. These events can be distant in time and space yet; they are all

connected within the same fabric. Each event has an influence on the other, an influence that can be veiled and go undetected (Senge, 1990). With the advent of another school day, these tacit interconnections will change and generate a completely new and different set of cause and effect relationships, resulting in the creation of completely different, but equally as beautiful, daily tapestry.

What is systems thinking? Systems thinking begins with the fundamental that all of creation is a system comprised of subsystems and all systems have a unifying alliance—a purpose. All of creation is connected by this purpose. These systems work together through relationship processes to accomplish the purpose. The structure of the system influences behavior and defines the nature of the relationships (Havener, 1999; Senge, 1990; Wheatley & Kellner-Rogers, 1999).

Many individuals have a linear view that sees only snapshot, cause-effect chains, rather than the vast array of patterns and interrelationships in the world around them (Senge, 1990). They were taught to simplify problems by breaking them down into smaller units of analysis. This process of fragmentation does simplify the study; but an understanding of the connections to the larger whole and relationships in the larger whole is lost (Senge, 1990). Systems thinking is a holistic conceptual model that has evolved from 20 years of study (Senge, 1990). This conceptual model calls for an open, inclusive, non-linear, approach to understanding the world (Havener, 1999). It requires a contextual

understanding of system elements in their relational roles to the larger whole (Havener, 1999). Systems thinking provides the language of distinctions necessary for understanding of the hidden structures, the interrelationships and patterns of change that are characteristic of complex systems (Senge, 1990). Finally, through system thinking, we are able to clearly identify the system purpose and align system elements and processes with this central originating purpose (Havener, 1999; Senge, 1990).

What does systems thinking look like? Foundational to system thinking is the understanding of the three phases of the lifecycle of a system: formative, normative, and integrative (Havener, 1999). In the formative phase, the system is new and members have joined the system to address a clearly defined purpose. This etiological purpose provides meaning and serves as the central motivational force (Havener, 1999). Policies and procedures are developed for the accomplishment of the system's founding purpose (Havener, 1999). Over time, the organization's etiological purpose loses clarity and the system begins devolving into a normative system. In this phase, the focus of the participating members has shifted from the original meaning to maintenance of the policies and procedures that ensure efficiency and continuation of the system (Havener, 1999). These perfunctory policies maximize predictability through the elimination of diversity (Havener, 1999). Management in a normative system uses single-loop thinking to

solve problems. Single-loop thinking is the band-aid approach to problem resolution – it stops the bleeding without addressing the cause of the injury. Single-loop thinking asks, "Are we doing things right?" rather than asking "Are we doing the right things?" (Havener, 1999, p. 40). Old, ineffective assumptions are transparent to those who hold them most dearly. Those in charge, demand adherence to outdated policies and procedures even when there is irrefutable evidence that they are no longer applicable (Havener, 1999). If a system becomes locked into normative phase, it will eventually self destruct (Havener, 1999). The survival of a system depends on its ability to transition into the integrative phase. In the integrative phase, the members of the system have resurrected the system purpose and are committed to the process of double-loop thinking which challenges the relevance and usefulness of current assumptions, core values, policies and procedures. Double-loop thinking calls for the realignment of policies and procedures with the organization's clearly defined purpose (Argyris, 1990; Havener, 1999). Once systems are rooted in a clarion of purpose, these new integrative systems continue to grow in complexity while operating in an open, adaptive, and fluid manner (Havener, 1999; Wheatley & Kellner-Rogers, 1999).

Additional understandings that are equally as critical in system thought include the importance of relationships, a comprehensive alignment of system resources, and the engineering of a system that is

inherently self-correcting. These topics will be discussed in the following paragraphs.

Relationships. A key ingredient of effective systems is diversity (Havener, 1999). However, this diversity must be integrated to achieve a single intent, diverse in function but unified in purpose (Peters, 1982). The power of the organization is generated through the connection between employees as diverse members function together in optimum relationships one to another (Havener, 1999). On most high school basketball teams, there are students who are extremely tall, students with exceptional agility, and students who have a special "touch" and can make the outside three-point shots. During basketball season, coaches have these individuals meet to practice together, not in isolation, so the talents of each individual can be optimized by the abilities of the other players. As they practice together, interdependence is developed and the sum total of the team's special ability exceeds the total of the talent of each individual player (Covey, 1989).

Systems thinking calls for teams of specialists to be cognizant of the principle compliment of each team member and to be keenly aware of how to optimize their interdependent relationship with that person (Havener, 1999; Wheatley & Kellner-Rogers, 1999). It is this recognition of the value of the principle complement that creates the unifying interdependence (Havener, 1999). Additionally, because system structure influences behavior, participants must be ever vigilant in their

review of policies, because many of these policies and procedures are based on assumptions that fail to optimize an organization's capacity for building relationships (Havener, 1999; Schein, 1997). System perspective places the utmost value on alignment of larger systems with their subsystems.

Alignment. "Studying and working closely with some of the world's most visionary organizations has made it clear to me that these organizations concentrate primarily on the process of alignment" (Cohen & Hesselbein, 1999, p. 237).

As resources become focused, organizations operate more effectively and efficiently (Cohen & Hesselbein, 1999). This begins when system participants search their own mental models and dialogue about *what is* and *what should be* (DuFour & Eaker, 1998; Lezotte & McKee, 2002; Senge, 1990). From this process, the system purpose emerges in the form of mission, vision, values, and goals, statements (Havener, 1999; Lezotte & McKee, 2002). This shared identity leads to "clearly identified centers rather than imposed restraints" (Wheatley & Kellner-Rogers, 1999, p. 132). Rather than be bullied into change, system members work together in the creation of the new reality (Wheatley & Kellner-Rogers, 1999). Critical areas of alignment include policies and procedures, curriculum and instruction, extracurricular activities, food service, transportation, and maintenance. Finally, and crucial to the alignment process, is the development and use of common system tools

and a common system language. Through the use of common tools and a common language, the separation caused by distance, time, and culture can be minimized while optimizing the diversity caused by these same factors.

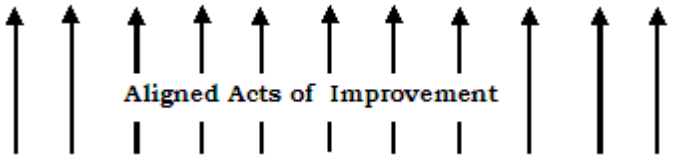


Figure 2. Aligned acts of improvements in a system perspective.

Continuous improvement. Inherent in system thinking is the understanding that integrative systems are perpetually engaged in the process of renewal (DuFour & Eaker, 1998). The capacity to study and respond to self-correcting information in a timely manner is essential for organizational survival and growth (Wellman & Lipton, 2004). For schools systems to be successful, this process must be engineered into the fabric of the school culture (Csikszentmihalyi, 2003). It will not be firmly anchored in the school culture until time for meaningful collaboration is regularly and systematically embedded into the daily life of the school (DuFour & Eaker, 1998; Lezotte & McKee, 2002). System stakeholders must be relentless in asking why until the root or ancillary causes are identified (Covey, 1989; Lezotte & McKee, 2002; Reeves, 2002). They must question the status quo, require timely and quality data, and search out new methods for accomplishing agreed upon goals

(DuFour & Eaker, 1998; Reeves, 2002; Stiggins, 2001). In closing, the good news is that school systems can initiate the continual improvement process at anytime. The bad news is that this process should never end (Lezotte & McKee, 2002).

Fractal nature of a system. An understanding of the fractal nature of and organizational system can best be developed by looking at the fractal nature of a cellular icy crystal under a magnifying glass. In an ice crystal, every design exists in its own identity; yet, there is a symmetry and balance that exists as one figure flows and merges into the existence of another. Then, combined as a larger design, the spiral flows and merges with yet larger spirals that are also a repeated pattern of marvelous, intricate swirls. This fractal design is apparent in cellular ice crystals, in billowing cumulous clouds, and the distant galaxies of God's endless universe (Wheatley, 1999). Fractals also exist in the context of organizational systems (Wheatley, 1999). To optimize the operations of an organizational system, a common language and common processes should be used at all school system levels. Use of these common conventions should range from a student-teacher conversation surrounding a datum bit found in the student's data folder student, to a school board discussion of the district-wide student performance (JSA, 2003a).

System thinking conclusion. In the previous sections of this manuscript, a foundational understanding of system thinking has been

provided. It was noted that system structures can create barriers that have a direct affect on participant behavior. The following section provides a brief glimpse into the types of barriers that typically face planners engaged in school reform.

System Reform Implementation Obstacles: Empirical Literature

Earlier in this manuscript, the following central notion was postulated and defended: Despite 60 years of reform, the age-old American educational system has remained largely unchanged. With this reality as the context, one must pause in reflective review. What has research identified as the major reform barriers and do these barriers have corresponding solutions? The following section will provide a brief review of barriers and solutions identified in the research of seven doctoral candidates.

Teacher beliefs. In 2009, Jennings studied the affect teacher beliefs had on their participation in the reform processes at their schools (Jennings, 2009). Her research data established a connection between teacher beliefs and participation in school-wide reform process. She noted that teacher beliefs can create barriers that impede their participation (Jennings, 2009).

Kaufman (2009) studied performance management and school reform. In Dr. Kaufman's literature review, he noted there are classrooms that seem to remain unchanged even after the teachers have participated in the reform training process (Kaufman, 2009). His research finds

suggest five potential solutions: (a) all planning efforts should have a specific intense focus on the classroom, (b) teachers need to be equipped with quality data, (c) there must be a direct connection between the reform elements and daily instruction, (d) it is important to supply teachers recent student performance data, and (e) student assessment performance should be published to assist with collaboration and accountability (Kaufman, 2009).

Central office support. In 2009, Daniels studied the principal's role in teacher professional development. Dr. Daniels' research indicated that those at central office can have a positive or negative bearing on principal's site-based staff development activities depending on the quality of support and resources that they provide (Daniels, 2009).

In 1994, Tourgee studied teachers' mental models and the impact their mental models have on school reform. Her review of barriers included lack of understanding at the central office level as a key constraint (Daniels, 2009).

Leadership. In 2005, Morrison studied the role principal competencies played in successful school reform. In her research, she labeled the role of the principal in school reform as being of paramount importance. It was noted that the principal can serve as a leader in the change effort or as a barrier to a quality implementation (Morrison, 2005).

Leadership and staff stability. In 1994, Goodman studied school reform processes at Harris Elementary School. It was noted that over a 10 year window, the student achievement had improved and staff had gradually accepted their new roles in shared decision-making and staff development. Dr. Goodman noted staff and administrative stability as an attributing factor to the gradual increase in student achievement and the perpetuation of the reform (Goodman, 1994).

Time as a barrier to staff development and collaboration. As noted above, in 1994, Dr. Tourgee studied teacher mental models and the impact these models can have on adoption of reform. She concluded that time for reflective thinking was the most critical barrier.

In 2010, Maynor researched the development and perpetuation of professional learning communities. In his study, he emphasized the significant role collaboration played in building the school's capacity to increase student achievement (Maynor, 2010). Maynor's research on professional learning communities identified time for collaboration as a major barrier. He noted that successful principals had an unrelenting solution focus on overcoming this barrier (Maynor, 2010).

Thus far, this literature review has provided a fundamental understanding of system thinking and it has listed several of the most prevalent school reform barriers identified in current school reform studies. The next section will transition from a broad focus on system

thinking and school reform barriers to a singularly narrow presentation the Baldrige Total Quality System approach.

Baldrige Total Quality System

Background information. Who was Malcolm Baldrige? Malcolm Baldrige served as the U.S. Secretary of Commerce for a period of 6 years until he lost his life in a rodeo accident in 1987 (Baldrige National Quality Program [BNQP], 2001). He was a champion for quality management and advocated it as the only sure path to enduring American economic strength. In 1987, Congress established The National Quality Award program to recognize achievements in quality and performance. This program was named the Malcolm Baldrige award in his honor (BNQP, 2001).

What is the Malcolm Baldrige Award? The Baldrige award provides annual presidential recognition for quality and performance in manufacturing, service, small business, education, and health care (National Institute of Standards and Technology [NIST], 2007). Primary support for the program comes from the Foundation for the Malcolm Baldrige National Quality Award, established in 1988 (BNQP, 2001). This award is funded through a partnership of both public and private sources (BNQP, 2001).

Why was the award established? In the early to mid 20th Century, American goods and services were first in demand because of the built-in American quality. By the mid to late 1970s, America

manufacturing and businesses began losing market share as foreign countries began producing products of equal or greater quality (Senge, 1990; Senge et al., 2000). This trend continued and by the mid-1980s, an alarm sounded as economic indicators began projecting financial crisis for America, if current import trends continued (Senge, 1990). These leaders felt the new focus on quality was necessary for America to remain competitive in the world market (NIST, 2007). The Baldrige award was created as a vehicle for the alignment of American goods and services around a common theme of quality and continual improvement (NIST, 2007).

How did Baldrige transition from business to public education? Throughout America's history, innovation has progressed from the private sector to the public sector. In the following quote, Peter Senge (1990), author of *The Fifth Discipline*, explained why this historic trend exists:

> As I began my doctoral work, I had little interest in business management. I felt that the solutions to the big issues lay in the public sector. But I began to meet with business leaders who came to visit our MIT group to learn about systems thinking. These are thoughtful people, deeply aware of the inadequacies of prevailing ways of managing. They were engaged in building new types of organizations: decentralized, non-hierarchical organizations dedicated to the well-being and growth of employees

> as well is to success. Some had crafted radical corporate philosophies based on core values of freedom and responsibility. Others had developed innovative organizational designs. All shared a commitment and a capacity to innovate that was lacking in the public sector. Gradually, I came to realize why business is the locus of innovation in an open society. Despite whatever hold past thinking may have on the business mind, business has the freedom to experiment missing from the public sector and, often, in nonprofit organizations. It also has an indisputable "bottom line" so that experiments can be evaluated, at least in principle, by an objective criteria. (p. 15)

Critics of the Baldrige in Education initiative contend that imposing a business perspective on those in the field of education is like trying to drive a round peg into a square hole. However, this is not true of the educators who have taken time to see the heuristic value system thinking brings to the field of education. The following organizations endorse the Baldrige approach to system thinking: the National Education Association; the American Federation of Teachers, the American Association of School Administrators, the National Association of Secondary School Principals, the National School Board Association and the Council of Chief School (Siegel, 2002). These organizations have joined together to participate in the National Baldrige in Education (BIE) Initiative. In an attempt to fund the introduction of systems thinking

into the public education sector corporations, such as AT&T, Caterpillar, Citigroup, Corning, and Federal Express have also joined the BIE (Siegel, 2002).

What does Baldrige offer public education? The Baldrige Total Quality school reform is based on 20 years of best-practice research (Senge, 1990). Schools operating as normative systems can use these principles to transition their organization into enduring integrative systems (Havener, 1999). Integrated systems are founded on a shared understanding of the organization's mission, vision, values, and goals (DuFour & Eaker, 1998). In integrative systems, team members are united in purpose and their work has meanings and value (Havener, 1999). Individuals participating in integrated systems are pragmatic, and they embrace continual improvement (Fullan, 2003; Lezotte & McKee, 2002; Wheatley & Kellner-Rogers, 1999). Additionally, those individuals participating in integrative system understand and value system analysis (Havener, 1999). The attributes of system analysis will be described in the following sections.

Understanding system structures. System structure is a generator of participant behavior (Senge, 1990). Participants who are unaware of this fact are fixed in a reactive existence. They are blind to system relationships — the deeper designs lying beneath the events and details (Senge, 1990). Through the discipline of system thinking, participants are able to see through the complexity and develop a

coherent understanding of the underlying structural forces that are generating the behavior patterns (Senge, 1990). They are able to predict the behavior pattern a system archetype will generate and are able to identify and make changes at the all crucial point of leverage. Hence, they are able to identify and develop enduring solutions in a truly proactive sense (Senge, 1990).

Development of relationships. Schools that are in the integrative system phase operate in a world of encircling partnerships (Wheatley & Kellner-Rogers, 1999). They are living systems that draw identity and sustainability as organizational members join together to accomplish mutually agreed upon tasks (DuFour & Eaker, 1998). Organizational power is generated through the development of relationships that optimize the capabilities of all school staff and result in greater student achievement (Havener, 1999). As these relationships strengthen, the sum of the total is greater than the sum of the parts (Covey, 1989).

Motivation. Integrated schools systems are designed to empower and energize individuals (Havener, 1999). Organizational norms are well defined and shape the behaviors of all school stakeholders (Wellman & Lipton, 2004). Team members have a well-defined vision of their mission and job assignment (DuFour & Eaker, 1998). In integrative schools systems, organizational leaders have confidence in team members and are willing to take growth risks (Csikszentmihalyi, 2003). In these

schools systems, assignments are demanding and gravitate toward greater complexity (Csikszentmihalyi, 2003). Participants have the support, tools, and connections to perform their assignments (Lezotte & McKee, 2002). Staff participating in integrative school cultures find meaning and purpose in their work and naturally exercise self-direction and self-control (Csikszentmihalyi, 2003). They are frequently interested and excited about a project and commit personal energy, creativity, and time in their pursuit of excellence (Csikszentmihalyi, 2003). As a corollary, school staff enjoy a high quality of life and frequently experience feelings of gratification, satisfaction, enjoyment, and personal accomplishment (Csikszentmihalyi, 2003).

Information management. In integrated school systems, the ability to create and speedily share information is equated with organizational intelligence (Wheatley & Kellner-Rogers, 1999). It is a task of central administration to develop broader, faster information channels as they identify and rethink the policies and procedures that restrict the flow of information (Senge, 1990; Wheatley & Kellner-Rogers, 1999). Critical to this process is training in the principles of dialogue and time for structured collaboration to occur (DuFour & Eaker, 1998; Lezotte & McKee, 2002; Wellman & Lipton, 2004). As information is shared, a culture of organizational trust is established, students, parents, staff, and community members assume greater responsibility. The net result is improved student learning (Csikszentmihalyi, 2003).

Commitment to truth. The double-loop process is central to the Baldrige Integrated school system approach (Argyris, 1990). It is this system tool, known as the Plan, Do, Study, Act (PDSA) cycle, that ensures "sustainable, continuous academic achievement for all students" (Lezotte & McKee, 2002, p. 36; see Figure 3).

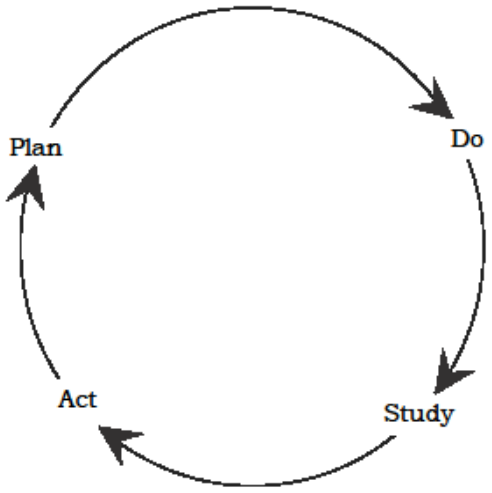


Figure 3. The cycle of continuous improvement: plan, do, study, and act.

This process is founded on the work of Dr. Shewhart and was later championed by Edward Deming (1993). Double-loop analysis empowers educators to surface and confront quixotisms; examine assumptions; and develop solutions that are consistent with the school's mission, vision values, and goals (Argyris, 1990). This process of self and group reflection is established as members invite inquiry into personally held beliefs, values, and principles (Argyris, 1990). In this relational model, school stakeholders must place a premium on truth (Argyris, 1990). It is understood that the greatest path to personal and organizational

development involves confrontation with the cold brutal facts, as this confrontational process yields new information that is valuable for ongoing improvement (Argyris, 1990). When using this process, school stakeholders learn to confront opinions, fears, and prejudices at the assumption level. A culture of trust exists that requires members to be transparent and abandon their self-protective nature in exchange for an opportunity for personal growth (Lezotte & McKee, 2002). In this school culture, founded on trust, educational staff members learn to speak on the behalf of student learning, without the need to belie or enervate the truth (Argyris, 1990).

Nation-wide Baldrige reform outcomes. Is the Baldrige Educational Reform, a proven reform? Researchers are mixed. This author believes the answer to this question to be both yes and no. There are hundreds of schools across America that have adopted the Baldrige reform. Some of these schools have been very successful. This list includes the Montgomery County Schools, the Chugach School District, Chugach, Alaska; the Pearl River School District, Pearl River, New York; and most recently the Iredell-Statesville School in North Carolina (Chugach School District, 2001; Iredell-Statesville Schools, 2008; Montgomery County Public Schools, 2006; Pearl River School District, 2009). However, there is no information provided that suggests why the reform is successful in some schools and not all schools (Winograd, 2007). Additionally, in all schools, other reform strategies have been

embedded within the Baldrige framework. Each school district has its own individual list. Such strategies can include differentiated instruction, the use of a research based basal reading/math series, the quality of a Response to Intervention (RTI) plan or and an extended day/extended school year program. These programs becloud the picture on Baldrige success. One must ask, "What is the actual cause of the student achievement?" There are no multivariate quantitative analyses that provide a solid link between implementation of the Baldrige reform and increased student academic achievement (Chugach School District, 2001; Iredell-Statesville Schools, 2008; Montgomery County Public Schools, 2006; Pearl River School District, 2009).

The Baldrige framework is comprised of two critical components: the seven performance excellence categories and the 11 core values. These components have emerged through a process involving best practices research dating from the 1930s (Skymark Corporation, 2007).

Baldrige seven performance categories. Developing an understanding of the nature of school systems is the first step in school reform (Havener, 1999; Senge, 1990). The seven performance categories would be beneficial in this step since they are used for the examination and analysis of complex performance systems (NIST, 2008). They provide the language distinctions necessary for the understanding and discussion of various system performance archetypes (Senge, 1990). The focus of the seven performance categories strengthens organizational

learning and leads to sustained school improvement (Lezotte & McKee, 2002; Senge, 1990). Thus, the process enables participants to focus on the underlying system structures and hidden personal assumptions that frequently cloak the true origin of a problem (Schein, 1997; Senge, 1990). In particular, the seven criteria are used for evaluation at all levels of the educational system, ranging from a school board's performance assessment to a student performing a self-assessment on a weekly learning goal (JSA, 2003a, 2003c, 2004). Thus, a common language and common understandings are developed that serve to unify educational subsystems (JSA, 2003a, 2003c, 2004).

One of the world's most extensive sources of best practice information is the Business Performance Improvement Resource ([BPIR], 2007). This noted resource identified six international business performance frameworks that also include the seven Baldrige criteria: (a) the Baldrige Criteria for Performance Excellence, (b) the European Business Excellence Model, (c) the Singapore Quality Award Framework, (d) the Canadian Framework for Business Excellence, (d) the Australian Business Excellence Framework, and (e) the Business Performance Improvement Resource Model (BPIR, 2007). The seven Baldrige criteria (see Figure 4) are (a) leadership; (b) strategic planning; (c) student, stakeholder; and market focus; (d) data analysis and knowledge management; (e) faculty and staff focus; (f) process management; and (g) results (BNQP, 2007b; NIST, 2007).

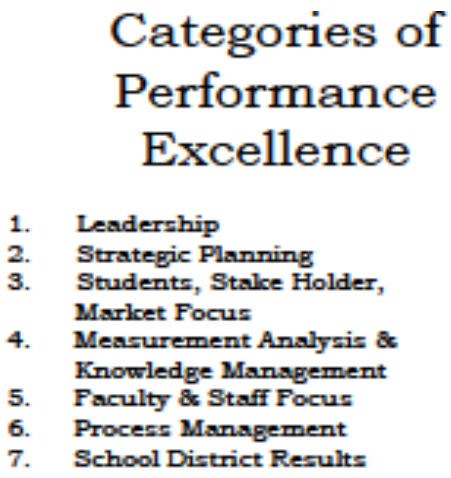


Figure 4. Baldrige seven categories of performance excellence.

As noted above, the seven criteria provide the language distinctions necessary for the examination and analysis of complex systems (BNQP, 2004). When used in system analysis, each of the seven criteria stands as an independent area for analysis. However, the interconnection and interdependence of each criterion cannot be overstressed (BNQP, 2004). These criteria have had a profound impact on our nation's quality focus and they are now widely accepted around the world, as the standard for performance excellence (NIST, 2007). Each of categories will be discussed in the following paragraphs.

Leadership. This category examines how senior leaders develop, guide, and sustain a workforce culture that is engaged in the on-going pursuit of excellent (Cohen & Hesselbein, 1999; JSA, 2003c; NIST, 2008).

Areas of examination include mission, vision, and values; communication; governance; and ethical behavior (NIST, 2008).

Mission, vision, and values. The review team examines (DuFour & Eaker, 1998; JSA, 2003c; Lezotte & McKee, 2002; NIST, 2008; Peters, 1982; Schein, 1997; Senge, 1990)

- How organizational vision and values are identified.
- How they are deployed and reinforced.
- How leadership establishes a school culture that is able to sustain organizational improvement, learning, agility, creative innovation and development of future leadership.

Communication. The review team examines (Csikszentmihalyi, 2003; DuFour & Eaker, 1998; JSA, 2003c, 2004; Knowles, 2002; Schein, 1997; Wheatley, 1999)

- How leadership gets the entire workforce engaged, enrolled and involved in caring about the success of the school.
- How disconfirming information is handled.
- How important decisions are communicated.
- How leaders create a focus toward action—what performance indicators are regularly reviewed.
- How the review of these indicators provides a progress check on goal accomplishment.
- How quality values and expectations are communicated and how excellence is recognized and rewarded in both students and staff.

Governance and social responsibility. The review team asks (NIST, 2008; Reeves, 2002)

- Is there accountability and transparency in decision making processes?
- Is there financial accountability?
- Is there accountability in the evaluation of senior leaders?
- Is there accountability in the evaluation of the board of governance?
- What key processes are used to monitor ethical behavior?
- Does leadership model actions that personally foster legal and ethical behavior?
- How does the school serve and strengthen the community?

Strategic planning. The category focuses at the goal level. It examines how strategic goals and action plans are developed, implemented, measured, and modified (NIST, 2008).

Strategy development process. The review team examines (NIST, 2008; JSA, 2003c)

- What are the steps in the strategic planning process?
- Who participates?
- How are organizational strengths and weaknesses identified?
- Are both short-term and long-term goals developed?
- What processes are employed to address both the short and long-term goals?

Strategy development. The review team asks (JSA, 2003c; NIST, 2008)

- What are the goals and timelines?
- Do the goals show consideration of both the school's strengths and weaknesses?
- Does the plan call for a balanced focus between short and long-term goals?
- Does the plan call for a balanced focus between the needs of students and other stakeholders?
- Does the plan take into consideration the school's opportunities for innovation in operations and program offerings?

Strategy implementation. The review team asks (JSA, 2003c; NIST, 2008)

- How are strategic goals translated into action plans?
- What are the performance indicators?
- Does the deployment plan address all key areas?
- What guarantees are provided that the plan can be sustained?
- What resources are required (human resources and financial) and is there a time limit on the availability of these resources?
- Have performance projections been made; what is the basis for the determination and how do the projections compare with the school's performance history and the performance of competitors?
- What assurances are there that the goals will be met?

- What performance gaps have been identified and how are they being addressed?

Stakeholder focus. This category examines how the school identifies the requirements, expectations, and wishes of stakeholders. It studies how the school builds relationships that lead to stakeholder satisfaction and loyalty. Finally, it examines the key strategies the school uses to increase educational services and build in sustainability (NIST, 2008).

Market knowledge. The review team asks (JSA, 2003c; NIST, 2008; Peters, 1982)

- How do you identify and develop curriculum?
- How do you determine what educational programs the school will use to deliver the intended curriculum?
- In an attempt to ensure continuing relevance, what strategies are used to identify future educational offerings?

Stakeholder relationships. The review team examines (Deal & Kennedy, 1982; JSA, 2003c; NIST, 2008; Peters, 1982)

- What strategies are used to build attractive relationships that retain stakeholders?
- What strategies are used to foster the development of new referrals?

Stakeholder satisfaction and dissatisfaction. The review team examines (JSA, 2003c; NIST, 2008)

- What strategies are used to determine stakeholder satisfaction and dissatisfaction?
- How do these methods differ based on stakeholder groups?
- How is the information used for the improvement of programs?
- What methods are employed to identify how the school follows-up on stakeholders concerns?
- Is a comparison of the customer satisfaction of competitors being conducted as it relates to the satisfaction of the school's customers? If this is being done, how is that information being used?

Sustaining stakeholder loyalty. The review team examines what strategies are used to identify customer satisfaction. Particular focus is given to ensure these methods are kept current (JSA, 2003c; NIST, 2008).

Data analysis/knowledge management. This category examines what measures the school uses to analyze performance. It also examines how the school obtains current knowledge and makes application of this knowledge to improve academic achievement. Finally, it examines how performance data and organizational knowledge are systematically incorporated into sustainable program improvement (JSA, 2003c; NIST, 2008).

Performance measurement. The review team examines (Bernhardt, 2003; JSA, 2003c; Krisco, 1997; NIST, 2008; Stiggins, 2004)

- How is the data collection system chosen?
- What strategies are used to select and align data collection processes?
- Does data collection include the gathering of comparative data?
- How does the school ensure the data collection systems remain effective and current?

Performance analysis. The review team examines (Bernhardt, 2003; JSA, 2003c; Krisco, 1997; NIST, 2008; Stiggins, 2004)

- How does the school ensure the accuracy of the data?
- How is the collected data managed and presented to stakeholders?
- How is the data used to assess organizational performance?
- What processes are in place to ensure valid conclusions are being reached?
- How are performance reviews used to inform the decision-making process and identify priorities for continuous improvement?

Knowledge assets. The review team asks (JSA, 2003c; NIST, 2008; Senge, 1990)

- What steps have been taken in ensure organizational learning has been included as a systemic process?
- How is the knowledge gathered from action research transferred to stakeholders?
- How is best practices information used to plan for the future?

Human resources. This category examines how the school makes the most of staff capabilities in the development and formation of a high performance school culture. It studies how workforce policies and practices alignment with the school's mission (JSA, 2003c; NIST, 2008).

Utilization of workforce. The review team asks (Csikszentmihalyi, 2003; JSA, 2003c; NIST, 2008)

- How does the school utilize staff to attain personal and organizational success?
- How does the school identify the factors affecting employee satisfaction?
- How does the school create a culture that encourages two-way communication, skill sharing, and idea sharing?
- How does the school motivate and empower employees?
- How does the school motivate and empower employee to go above and beyond minimum job requirement—to purse excellence?
- How does the school compensate and reward employee excellence?

Workforce development. The review team asks (Csikszentmihalyi, 2003; DuFour & Eaker, 1998; JSA 2003c; NIST, 2008; Senge, 1990)

- How does the school develop a climate that fosters diversity of ideas and innovation?
- How does the school create an effective school culture?

- How does the school climate foster employee's personal need for continual learning and self improvement?
- How does the school develop future leadership?
- How does the school provide for the transfer of knowledge from departing and retiring members to those assuming the new role?

Appraisal of employee engagement. The review team asks (Csikszentmihalyi, 2003; Elmore, 2002; JSA, 2003c; Krisco, 1997; NIST, 2008)

- How are the school's employee satisfaction assessed?
- How are the employee satisfaction results compared with the satisfaction results of other schools?

Process management. This category examines the effectiveness of the system processes. It also examines how performance systems are monitored to ensure continual improvement (JSA, 2003c; NIST, 2008).

Leadership. The review team asks (DuFour & Eaker, 1998; JSA, 2003c; NIST, 2008)

- What processes are used to create mission, vision, values, and goals?
- What processes are used to maintain a focus on the mission, vision, values, and goals?

Strategic planning. The review team asks (Lezotte & McKee, 2002; JSA, 2003c; NIST, 2008)

- What processes are used develop goals and action plans?

- What processes are used to ensure and review on-going improvement of the strategic design?

Student focus. The review team asks (Lezotte & McKee, 2002; JSA, 2003c; NIST, 2008)

- How does the school design instructional support services?
- How does the school design instructional processes?
- What processes are used to ensure an on-going increase in student academic achievement?

Stakeholder focus. The review team asks (Epstein et al., 2002; JSA, 2003c, 2004; NIST, 2008; Reeves, 2002)

- How does the school design involve stakeholders?
- What processes are used to ensure an on-going involvement of stakeholders?
- How does the school work with stakeholders to improve services to students?

Results. This category has an outcome focus. It examines student achievement results, stakeholder satisfaction reports, workforce satisfaction reports, and leadership reports concerning leadership effectiveness (JSA, 2003c; NIST, 2008).

Student academic achievement. The review team examines how the school monitors and reports the ultimate outcome—student learning. The review team examines (JSA, 2003c; NIST, 2008; Reeves, 2002)

- Current baseline achievement results

- Long-term improvement trends
- Comparative data with schools of similar demographics
- Comparative data of high performing schools of excellence

Stakeholder satisfaction outcomes. The review team asks (JSA, 2003c; NIST, 2008; Reeves, 2002)

- What are the schools current levels of stakeholder satisfaction?
- How do these results compare with satisfaction results of other schools?

Workforce satisfaction. The review team examines (JSA, 2003c; NIST, 2008)

- What are the schools current levels and trends of employee morale based on factors including health and safety of the work environment, job satisfaction, willingness of employees to exceed minimum job requirements, and feelings of employment security.
- What are the school's current levels and trends in measures concerning employee engagement and leadership development.

Leadership reports. The review team examines (JSA, 2003c, 2005; Krisco, 1997; NIST, 2008)

- The role leadership has played in current student achievement results and trends in student achievement.
- The current level of stakeholder satisfaction and trends in stakeholder satisfaction.

- The current level of employee satisfaction and trends in employee satisfaction.

This category examines how senior leaders develop, guide, and sustain a workforce culture that is engaged in the on-going pursuit of excellent (Cohen & Hesselbein, 1999; JSA, 2003c; NIST, 2008). Areas of examination include vision and values, communication, governance, and ethical behavior (NIST, 2008).

Mission, vision, and values. The review team examines (Dufour & Eaker, 1998; JSA, 2003c; Lezotte & McKee, 2002; NIST, 2008; Peters, 1982; Schein, 1997; Senge, 1990)

- How organizational vision and values are identified.
- How they are deployed and reinforced.
- How leadership establishes a school culture that is able to sustain organizational improvement, learning, agility, creative innovation and development of future leadership.

Communication. The review team examines (Csikszentmihalyi, 2003; DuFour & Eaker, 1998; JSA, 2003c, 2004; Knowles, 2002; Schein, 1997; Wheatley, 1999)

- How leadership gets the entire workforce engaged, enrolled and involved in caring about the success of the organization.
- How disconfirming information is handled.
- How important decisions are communicated.

- How leaders create a focus toward action—what performance indicators are regularly reviewed.
- How the review of these indicators provides a progress check on goal accomplishment.
- How quality values and expectations are communicated and how excellence is recognized and rewarded in both students and staff.

Governance and social responsibility. The review team asks (NIST, 2008; Reeves, 2002)

- Is there accountability and transparency in decision making processes?
- Is there financial accountability?
- Is there accountability in the evaluation of senior leaders?
- Is there accountability in the evaluation of the board of governance?
- What key processes are used to monitor ethical behavior?
- Does leadership model actions that personally foster legal and ethical behavior?
- How does the school serve and strengthen the community?

Baldrige 11 core values. As noted above, the seven performance criteria focus on process (JSA, 2003c). In contrast, the focus of the 11 core values focus on relationship (Wheatley, 1999). Each participant of the system is, in some way, connected to each other (Wheatley, 1999). The sum total of all connections (relationships) combine to form the

organizational culture (BNQP, 2007b; Deal & Kennedy, 1982). The 11 core values identify the principles necessary for the development of optimum organizational relationships; hence, the development of performance excellence (BNQP, 2007b; Deal & Kennedy, 1982). They are the grist of the organization's culture. The core values emanate from a comprehensive review of years of best practices system research and have application in both business and educational systems. They are essential for development of each district subsystem. These subsystems include district level systems, school level systems, classroom level systems, and learner systems. Finally, these heuristic values are the force that draws and holds all of the subsystems together as one united educational system (JSA, 2003c, 2005). The importance of this applied research to Baldrige Performance Excellence cannot be over stated. Integration of the core values into the daily operation of a system is essential for high performance (JSA, 2003c).

The 11 core values are systems *perspective, visionary leadership, learning-centered education, organizational and personal learning, valuing faculty staff, and partners, agility; focus on the future, managing for innovation, managing by fact, social responsibility,* and *focus on results* (BNQP, 2007a; see Figure 5). Because of their tremendous importance, this literature review will also provide an in-depth examination of these 5 of the 11.

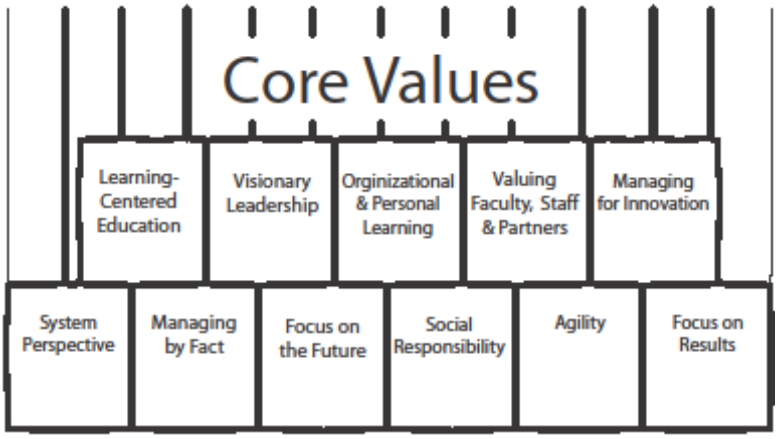


Figure 5. Baldrige 11 core values.

Visionary leadership.

Vision. Victor Frankl, a psychologist, was among the 10% that survived the holocaust that occurred at the Auschwitz prison camp (Frankl, 1984). The years of extreme depravation were years of epiphany for Dr. Frankl, as he had the opportunity to experience and study the holocaust. One of these truths involved personal vision—the need each individual has for an authentic personal vision. Dr. Frankl noted, "a prisoner who lost faith in the future, - his future was doomed" (p. 82). The book of Proverbs 29:18 (New International Version) provided additional support to Dr. Frankl's point of view, "Where there is no vision, the people perish." What is vision and why is it so important?

Vision defined. Vision is a substance that brings existence to a potential reality (Hebrews 11:1). This substance exists in the form of compelling used to enlist others as co-creators (Cohen & Hesselbein, 1999; Csikszentmihalyi, 2003; Zander & Zander, 2000). Without vision,

organizations simply drone forward; while organizations with a vision function as creators of their own new reality (Covey, 1989).

The greatest mistake a leader can make is to push forward without the development of a realistic, engaging shared vision that is co-created by all stakeholders (DuFour & Eaker, 1998). Without shared vision, the leader is forced to rely on organizational authority, panjandrum, and positional power as a motivator. At best, misalignment causes waste of valuable resources. At worst, gritching and kvetching become pandemic. Stakeholders are drawn into a downward spiral that leads to malaise, passive resistance, and destructive compliance (Argyris, 1990; Zander & Zander, 2000).

On the other hand, if the leader creates a values based and principle-centered shared vision, it will unleash the limitless power of human passion (Covey, 1989; Zander & Zander, 2000). Stakeholders will find value and true meaning in production results (Csikszentmihalyi, 2003). This co-created vision will be a self-sustaining, self-regulating source of pride for all organizational members (Cohen & Hesselbein, 1999; Wheatley & Kellner-Rogers, 1999). It will call forth the best in people and will attract the best of people as participants (Cohen & Hesselbein, 1999). Relationships will be fed and enhanced by the bonds created as participants work together for the common good (Krisco, 1997). Finally, it will generate sustained trust, risk taking, and a culture of continuous improvement (Cohen & Hesselbein, 1999).

Learning-centered education. In the United States, the current educational system is a teaching-centered system. In teaching systems, the focus is on delivery of the curriculum. In this system, it is assumed that a certain percentage of the students will fail. This is unacceptable—as educators, it is our moral imperative to develop a system wherein all students learn and succeed (Gerber, n.d.). In this section the critical components of learning-centered education will be presented.

Foundational to a learning-centered education is the understanding that curriculum selection originates from market demand—the wants and needs of students and their parents. Customer demands call for schools to anticipate market changes and adapt curriculum and instruction with reasonable agility. Hence, the learning system must be malleable and adaptive in nature (BNQP, 2007b). In recent years, consumer reform demands have been presented in the 2002 No Child Left Behind legislation. This legislation is now calling for the American public education system to educate all students.

We as educators, now have a clear understanding of the essential ingredients of student learning (Lezotte & McKee, 2002). We can, if we so choose, guarantee student mastery of the essential curriculum. Schools that are attaining this goal have

- The instructional curriculum that is well articulated between grades and is reasonable in scope

- Established a culture of high expectations and continual improvement
- Carved out time for structured staff collaboration
- Abandoned quick fixes and excuse making
- Students developing goals and monitoring their personal progress
- Recognized assessment is an integral part of instruction.

These five areas will be the discussed in the following paragraphs.

Curriculum. In learning-centered education, the job begins when teachers are handed a copy of the state standards (R. DuFour & R. DuFour, personal communication, November 11, 2004). After receiving the standards, school administration must provide teachers the needed time and training to learn how to unpackage and repackage the standards in kid-friendly, bite-size learning targets (Ainsworth, 2003b). This process should begin with the development of a clear understanding of the customer demands (Hertz, 2006). In this step, stakeholders, including students, parents, and members of the business community, meet to review the state standards to divide them into three groups (Lezotte & McKee, 2002). The first group of standards is frequently referenced as safety net or power standards (Ainsworth, 2003a). This group of standards is a subset of the state standards that contains essential learning skills—knowledge students must have to be successful members of the community. It is the school's moral imperative to ensure all students master these standards. Through their identification,

teachers are able to make informed decisions regarding the use of instructional time and resources. It must be stressed—students also need exposure to the broader knowledge areas identified in the next group of standards (Center for Performance Assessment [CPA], n.d.). Following the identification of essential skills, a second group of standards needs to be ranked. These standards represent the group of important-to-know standards. After grouping standards into these subsets, the remaining standards are paced in the nice-to-know group. Again, it is not the intent of these groupings to eliminate curriculum, but rather to assist in the wise use of educational resources (CPA, n.d.).

After standards have been ranked in importance, it is time to backward map the standards (Lezotte & McKee, 2002). In the backward mapping process, high school teachers meet with middle school teachers, middle school teachers meet with fifth grade teachers, and fifth grade teachers meet with fourth grade teachers, and so on. Their task is to vertically align the pre-ranked standards.

The next step is for the standards to be unpackaged. This is a two-step process: (a) standards are divided into bite-sized learning targets and (b) they are rewritten in a language that students can understand (Stiggins, 2001).

Then, and most importantly, a system must be developed to insure the curriculum is being taught. This can best be provided through the development of a pacing guide that identifies the cycle of when the

standards are being taught and by developing of common assessments. All regular education teachers, who are delivering the same standards, should follow the pacing guide and administer the same common assessment (Lezotte & McKee, 2002). When teachers follow the same pacing guide and administer a common assessment, they are then able to discuss and improve upon the instruction (R. DuFour & R. DuFour, personal communication, November 11, 2004). Teams comprised of teachers and administrators should meet quarterly to monitor classroom success on weekly common assessments and short cycle assessments progress and classroom progress through the pacing guide (New Mexico Public Education Department, 2007a).

Finally, as workers in the system, students are responsible for mastery of the state standards. All students should be developing performance goals and using the Plan, Do, Study and Act cycle to monitor their progress on the standards (JSA, 2004).

School culture. As noted in the System Perspectives section of this manuscript, school culture and performance excellence are inextricably linked. It is not possible to attain performance excellence without the development of a culture that values learning and continuous improvement. It begins with a written formulation of mission, vision, values, and goals that finds meaning in the day-to-day relationships that are forged in the high-pressure public education environment (DuFour & Eaker, 1998; Wheatley, 1999). All school

systems and subsystems have a culture (DuFour & Eaker, 1998; Schein, 1997). Leadership can influence culture or be controlled by it (Schein, 1997). Jones (1987), in his work in cognitive instruction, identified the powerful impact a positive environment can have on student learning (see also Jones, Plinscar, Ogle, & Carr, 1987). It is therefore, incumbent upon leadership to strive for the development of a positive, learning culture (DuFour & Eaker, 1998). This begins with administrative follow through in providing teachers the resources needed to get the job done (Lezotte & McKee, 2002). This includes managing the scope of the instructional curriculum to insuring there is enough time to deliver the intended curriculum, insuring adequacy of supplies and materials, and lobbying for appropriate student-to-teacher ratio (Lezotte & McKee, 2002).

High expectation and high academic achievement. "The most wonderful gift we can give our children is the heartfelt belief that they can learn and achieve" (Lezotte & McKee, 2002, p. 18).

Bottom line, the students must do the learning; but it is the duty of school administration and teachers to insure the state standards are delivered (DuFour & Eaker, 1998). The quality and content of the curriculum taught to students has a greater impact on influencing student success than demographic variables (Reeves, 2002). If teachers fail to provide students with the essential curriculum, students—especially the underprivileged—will not learn it (Lezotte & McKee, 2002).

In successful schools, there is a culture of high expectations in which the staff demonstrate their belief that all students can master the school's essential curriculum. In these schools, there is a plan to deliver extended learning activities to students who have mastered the curriculum and plan to deliver interventions to students who need additional assistance. When students fail to grasp the must-know curriculum, the important-to-know and nice-to-know curriculum is tabled to allow time for additional targeted, diagnostic intervention (Fielding, Kerr, & Rosier, 2004; Tomlinson, 1999).

Continual improvement. Culture is a stabilizer; it provides the conventions and predictability necessary for organizational cohesion (Schein, 1997). The development of these structures takes tremendous time, attention, and ingenuity. It is, therefore, very difficult to change (Wheatley & Kellner-Rogers, 1999).

Yet, another necessary ingredient of performance excellence is the process of continually striving for and redefining excellence (JSA, 2003d). This poses a paradox, how do we create organizations that expedite the process of change rather than constrain it (Wheatley & Kellner-Rogers, 1999).

It begins with the nascent understanding that organizations are living systems, with the same capability to adapt and grow as all other life systems (Wheatley & Kellner-Rogers, 1999). Just as change is a natural part of biological life systems, the capacity to change needs to be

designed into organizations' systems. This can be achieved through the introduction of continuous improvement process into the system and by providing adequate time for structured collaboration to occur (DuFour & Eaker, 1998).

The teacher as collaborator. "The most promising strategy for sustained school improvement is building the capacity of school personnel to function as a professional learning community. The path to change in the classroom lies within and through professional learning communities" (McLaughlin, as cited in DuFour & Eaker, 1998, p. xi).

In teaching systems, teachers operate independently of one another in an environment of isolation. In systems of this nature there is no assurance the intended curriculum is actually being taught (Lezotte & McKee, 2002). Indeed in this system, the crucial questions go unanswered: (a) Is the state curriculum actually being taught?, (b) Are students learning it?, and (c) What is happening to the students who are not learning it? (Eaker, DuFour, & DuFour, 2002; Lezotte & McKee, 2002). In learning-centered systems, the role of the classroom teachers changes from of independent contractor to professional collaborator. Teachers work from a mutually developed foundation-mission, vision, values, and goals-in delivering the state established curriculum at a predetermined pace (Lezotte & McKee, 2002). The quality of the instruction is frequently measured at common intervals using commonly developed assessments (Lezotte & McKee, 2002). Additional

distinguishing features of professional learning communities include data-driven collective inquiry into the current reality, action oriented experimentation, use of a continuous improvement processes, and a commitment to results (Elmore, 2002; Wellman & Lipton, 2004).

Finally, none of this is possible unless collaboration time is carved out of the regular workday. For learning-centered education to become a reality, the school calendar must have regularly allocated blocks of time for instructional teams to meet and work interdependently on pre-developed tasks (DuFour & Eaker, 1998; Eaker et al., 2002).

Student instruction. In learning-centered instruction, the focus of educational resources is on student learning (JSA, 2003c). Educational strategies aimed at making adequate yearly progress (AYP) through quick-fix processes have been abandoned. In these systems, sustainable continuous student achievement is the product of educational excellence (Lezotte & McKee, 2002). Characteristics of this excellence in student instruction are provided in the following paragraphs.

Sense of urgency. Student mastery of the essential curriculum is seen as a morale imperative (Fullan, 2003). The potential of student failure has created a sense of urgency.

Near-perfect attendance. Near-perfect student attendance is a byproduct of affirmative parent-school relationships (Center for the

Education and Study of Diverse Populations & New Mexico Highlands University [CESDP], 2006; Epstein et al., 2002; Lezotte & McKee, 2002).

Time-on-task. The school's daily schedule is time efficient. Lunch and recess breaks are necessary, but, are kept at a minimum. The primary focus of instruction is toward essential learning. Community presentations, assemblies that present nice-to-know information, and other instruction stoppers are eliminated or significantly reduced. In classrooms, students know how to quickly transition from activity to activity. Time limits are presented during learning activities.

Orderly instructional environment. An orderly instructional environment is essential for student learning. It is the byproduct of clearly developed and clearly communicated classroom procedures (Wong & Wong, 2005).

Direct instruction. The morning instructional periods are replete with lengthy periods of direct instruction (Fielding et al., 2004). During this time, there is an exciting interchange between the teacher and the students as they dance "to the music of the curriculum" (Fielding et al., 2004, p. 2).

Cognitive development. Teachers understand and apply principles of cognitive development to classroom instruction. Classroom environments are safe, positive, and encouraging. Teachers encourage students to study and discuss metacognitive processes. The presentation of curriculum is well organized and is presented in a reoccurring, spiral

fashion. Instruction is goal-oriented, linked to prior knowledge and, where possible, concomitant with student interest (Lezotte & McKee, 2002).

Role of the student. In learning-centered instruction, students are workers (JSA, 2006). Each student is responsible for her or his learning. With the assistance of classroom teachers, each student reviews her or his personal performance against classroom goals; develops personal goals that aligned with classroom goals; creates a means to track learning growth; develops a plan to meet individual goals; establishes regular times —weekly or monthly—to monitor growth; revises the learning plan based on new information; and shares their performance with teachers and parents (JSA, 2004).

Assessment. There are many ways educators wish to measure success in the classroom; however, the ultimate indicator is student achievement. In learning-center systems, it has not been taught until students have demonstrated learning (Gerber, n.d.). Therefore, it is of paramount importance to use assessment as an instructional guide.

Assessment has three uses: (a) to target instruction before teaching begins, (b) to reveal areas of instructional failure so timely intervention can be provided, and (c) to generate summative information for performance comparisons (Bernhardt, 2003; Lezotte & McKee, 2002; Stiggins, 2004). These critical uses of the assessment are discussed below.

Prevention. Prevention begins with the development of data-driven systems for monitoring students. These data systems should include information on student attendance; behavior; item analysis performance on state standards; home-language survey; Special Education placement; performance on district short-cycle assessments; performance on the state assessment; and when available, results of psychological assessments. This information is warehoused in a district data system that is secure, but is available to educators who need the information in a timely manner (Lezotte & McKee, 2002). The data is accessed through user-friendly software that enables users to build graphs, disaggregate data, and follow cohorts (Bernhardt, 2003). Through the use of this information, educators are able to identify learning deficiencies and take the necessary steps to reduce student failure before instruction begins (Lezotte & McKee, 2002).

Response. The response principle states, "If you cannot solve a problem before it occurs, at least solve it as soon as it occurs" (Lezotte & McKee, 2002, p. 31). In observation of this principle, assessment is used as a guide to inform instruction. Stiggins (2004) referred to this use of assessment as "assessment of learning" (p. 46). Teachers use preassessment, questioning skills, and drop quizzes to create a "continuous stream of information" for use in monitoring student performance (Reeves, 2002, p. 6). When students fail to grasp a concept, "just-in-time" assistance is provided in ample quantity and quality to

enable to students successfully get over the learning hurtle (Lezotte & McKee, 2002, p. 137).

Summative assessment. In addition to assessment for learning, assessment results are use to provide student learning results to stakeholders (Stiggins, 2004). Stiggins referred to this as "assessment of learning" (p. 279). Assessment of learning includes assessments for grading purposes and standardized tests (Stiggins, 2004). In both cases, summative assessment is intended to provide comparative performance information. At the school building and district level, this information provides an opportunity to compare student achievement against annual performance goals.

This information should also be used to compare student performance among other schools in the district, state, and nation. In evaluation of this nature, care must be taken to ensure the demographic make up of the groups is being considered (Stiggins, 2004). Ultimately, standardized assessment results can be used to show progress toward a goal of 100% proficiency in reading and math, as all students must master the essential curriculum (Fullan, 2003).

Organizational and personal learning. In the traditional teaching system, teachers were not given the opportunity to work as true colleagues. Instead, they worked in isolation, behind closed doors, at the development and delivery of lessons they may have or may have not connected with the district essential curriculum (Eaker et al., 2002). Not

only did this system fail to educate all students, but it also created a backdrop of isolation, loneliness, and despair for the teachers (Wellman & Lipton, 2004). Educators took classes and attended workshops to obtain the needed credits for recertification. This training appealed to the interests of the teacher, but lacked alignment with the needs identified in the school improvement process. This created confusion and served as a pernicious drain on limited system resources (Elmore, 2002).

In total quality systems, there is an assumption that all participants will master a clearly identified body of knowledge and that mastery of this knowledge will be evident in classroom instructional practices and in student academic performance (DuFour & Eaker, 1998; Elmore, 2002). Therefore, those who plan professional development activities should be able to explicitly identify how the knowledge and skills acquired in the training will be manifested in professional practice (Elmore, 2002).

Organizational and personal learning involves the development, implementation, and evaluation of a comprehensive professional development plan (JSA, 2003c). Essential to this plan is the engagement of all organizational members including teachers, students, parents, and community stakeholders as full contributors to the improvement process (Elmore, 2002; Fullan, 2003). Characteristics of successful implementation include alignment of systems resources, alignment of

professional development strategies, and standardizations of organizational terminology resulting in improved student achievement (JSA, 2005).

For staff development to be meaningful to participants it must align with the educators' values, have an explicit purpose that addresses an area of perceived need, have clearly defined learning outcomes, operate within a clearly defined timeframe, and occur within the agreed upon school calendar (DuFour & Eaker, 1998). Current research has led to the identification of three essential elements of staff development. Effective staff development must be (a) collaborative in nature, (b) job embedded, and (c) use the Plan, Study, Do, Act model of continuous improvement (DuFour & Eaker, 1998; Elmore, 2002; JSA, 2005). Each of these elements will be discussed in the following paragraphs.

Collaborative in nature. Learning is fundamentally a collaborative activity (DuFour & Eaker, 1998; Elmore, 2002). Teachers accomplish more when they are working together in learning teams than they when they are working in isolation (DuFour & Eaker, 1998; Lezotte & McKee, 2002). Through collaboration, teachers develop trust and are empowered to take risks (Lezotte & McKee, 2002). As a result, a culture of innovation is created and through this culture, the artisanship of instruction finds genesis (Wellman & Lipton, 2004). Benefits of collaboration include a focus on the established curriculum, development of improved assessment practices, the use of data to improve

instructional strategies, and greater motivation for staff to engage in the continuous improvement process (DuFour & Eaker, 1998; Reeves, 2002; Stiggins, 2004; Wellman & Lipton, 2004).

For communities of practice to reach optimum effectiveness, the collegial interaction needs to be well structured with clearly defined outcomes (Eaker et al., 2002). Additionally, a scheduled time for collaboration must be built into the school calendar (Eaker et al., 2002). Administrators must take the initiative in the scheduling of this time and they must be able to articulate their defense of when it is presented to parents and community members (Lezotte & McKee, 2002).

Job embedded professional development. Guskey (as cited in Elmore, 2002), in his research on staff development, found that teachers employed strategies that had been proven to be effective in the daily grind of student of instruction. The strategies that led to demonstrated student learning were retained while other practices were abandoned (Elmore, 2002). This rather obvious finding has had profound implication for professional development. Some of these implications are provided below:

- Student instruction itself is the most engaging and effective form of professional development available to schools (Elmore, 2002).
- Professional development should include job-embedded learning that is in practice at all levels of the organizational system (Elmore, 2002).

- Professional Development should occur at school in the teacher's classroom, and the learning should be included as a regular part of the teacher's daily work activity (Elmore, 2002).
- Professional development should involve teachers observing teachers engaged in the process of actual teaching (Elmore, 2002).
- A central focus should be the development of practices that make the connection between teaching practices and student learning more direct and clear (Elmore, 2002). Some of these practices include mentoring, peer coaching, peer observations, peer coaching, reflective dialogue, and action research (DuFour & Eaker, 1998).
- In these schools, teachers receive satisfaction as they grow professionally with a group of teachers who are also growing to become masterful teachers (Wellman & Lipton, 2004).

Plan, Do, Study, Act (PDSA). The greatest tool for use in embedded professional development is the PDSA process (JSA, 2004; Lezotte & McKee, 2002). This continuous improvement model should be used for embedded professional development at all system levels (JSA, 2004). In this mode, step one plan is to develop a plan of action. Step two, do involves implementation of the plan. Step three, study involves a study of performance data to determine the effectiveness of the plan and a review of current literature to insure the re-planning includes current best-practice research. In step four, act, the revised plan is implemented

(JSA, 2006). These PDSA steps are systematically designed into all system processes ranging from quarterly review of the district improvement plan, to a student weekly reviewing his or her progress on a personal learning goal (JSA, 2003b, 2006).

Accountability. In total quality systems there in a well defined system of internal accountability (Elmore, 2002). This is evidenced through the agreement among teachers as to what constitutes quality work and the agreement in the use of frequent assessment to a guide to instruction practices (Stiggins, 2004). In this system, the success of professional development activities is not measured by teacher attendance, but rather, by the impact it had on student achievement (DuFour & Eaker, 1998; Elmore, 2002).

Conclusion. In total quality schools, teacher isolation becomes a thing of the past as educators become members of a community of practitioners (Elmore, 2002). Through collaborative, job-embedded staff development activities, teachers become more adaptive, innovative, and motivated (Elmore, 2002). As teacher satisfaction increases, staff retention also increases and the organization experiences a net gain in organizational knowledge (Hertz, 2006). All in all, an upward spiral of success through learning is repeated and the organization moves forward on the path of excellence through continuous improvement (Wellman & Lipton, 2004; Zander & Zander, 2000).

Valuing faculty, staff, and partners. Total quality educational systems recognize people as the organization's greatest resource (Peters, 1982). Based on this core value, tremendous energy is devoted to the on-going development of people, relationships, and partnerships (JSA, 2003c). Before the pursuit of excellence is a possibility, system procedures must be based on understandings drawn from human motivational theory (Peters, 1982). Several central themes in motivational theory include people need to have meaning in their lives, people need to feel as though they are making a contribution, people must be able to trust one another, people need to feel they have a modicum of control, organizations operate through relationships, and people need to feel successful (Csikszentmihalyi, 2003; Frankl, 1984). These and other topics will be addressed in the following section.

Meaning. "As for myself, I can look back peacefully on my life for I can say my life was full of meaning and I have tried hard to fulfill it" (Frankl, 1984, p. 143).

What is my purpose? Many people go through life in an existential vacuum (Frankl, 1984; Wheatley, 1999). That is, they fail to identify their purpose for being. Without this North Star—a clearly defined purpose—they wrestle with "feelings of emptiness and meaninglessness and battle psychological problems such as depression, aggression, and addiction" (Frankl, 1984, p. 143). The psychological makeup of human beings is not focused on avoidance of pain or the pursuit of pleasure; but

rather, the identification and fulfillment of meaning (Frankl, 1984). All in all, human beings have three basic needs: (a) the need to be loved, (b) the need to be fulfilled, and (c) the need to be a part of an organization that engages individuals in meaningful tasks (Peters, 1982). In total quality systems, leaders understand the tremendous human potential that can be ignited when the values of organizational members—students, teachers, parents, and community members—are aligned with the values and mission of the school. These shared values evoke the sally, which is essential for excellence (Peters, 1982).

Motivation. "The desire to make a difference in the lives of their students is the single most powerful factor that attracts people to the teaching profession" (DuFour & Eaker, 1998, p. 281).

As noted above, when time is allocated for the regular alignment and realignment of personal values with system values, the organization will reap a harvest of time and energy generated from intrinsic motivation (Csikszentmihalyi, 2003). The commitment of personal energy will be as natural at work, as it is at play (Cohen & Hesselbein, 1999).

However, it is possible to snuff out intrinsic motivation through procedures that serve as disincentives for improvement (Csikszentmihalyi, 2003). Examples of these disincentives include failing to align espoused mission vision and values with system processes, foisting misaligned expectations on staff, failing to provide clear performance expectations, failing to provide staff with the resources to

perform the required tasks; and breaching employee trust (Argyris, 1990; Csikszentmihalyi, 2003; Fullan, 2003; Lezotte & McKee, 2002).

In total quality systems, leaders work to identify incongruencies between the organizations espoused theory and the organization's theory in practice (Argyris, 1990). When incongruencies are identified, leaders evaluate the problem at the assumption level before significant solutions can be developed (Argyris, 1990; Lezotte & McKee, 2002; Schein, 1997). When employees are involved in the process of identifying and rectifying inconsistencies, organizational trust is built (Knowles, 2002).

Relationships. Leaders in total quality systems understand that a key determinate of organizational success is the quality of the relationships between the supervisor and employees and between the employees themselves (Krisco, 1997; Peters, 1982). Therefore, the greatest task facing these educational leaders involves transitioning the organization from the draconian, industrial world of hierarchy and departmentalization into a world of encircling partnerships that characterizes a total quality system (Knowles, 2002; Wheatley, 1999). Leaders in these systems also understand that relationships are built or destroyed in the course of daily events, and they are present to the relationship in each and every event (Covey, 1989). When leaders focus on building a community of shared values through positive relationships, they give up an element of predictability to unleash human creativity and potential (Cohen & Hesselbein, 1999; Lezotte & McKee, 2002; Wheatley,

1999). Clearly, organizational creativity and success are a byproduct of positive relationships (Wheatley, 1999).

Happy productive employees. Psychologists study the need for self-determination in a field called illusion of control. Stated simply, its findings indicate that if people think they have even modest control over their personal destiny, they will persist at tasks (Peters, 1982). Leaders in total quality educational systems are empowering, not controlling, and they lead people rather than contain them (Cohen & Hesselbein, 1999).

In these systems, leaders recognize that talent and expertise are evenly distributed throughout an organization and every employee is seen as a resource for information and ideas (Lezotte & McKee, 2002; Peters, 1982). Order is achieved through the development of mutually shared and clearly defined centers rather than the imposition of polices that curtail commitment (Wheatley, 1999). They understand that people value what they create and that people are happier and more fulfilled when their talents are being fully engaged and expanded (Csikszentmihalyi, 2003; Wheatley, 1999). When individuals commit to the organization's values, they naturally apply self-direction and self-control toward the accomplishment of assigned tasks (Cohen & Hesselbein, 1999; Csikszentmihalyi, 2003). They feel they are a part of the organization and will stretch to achieve (Peters, 1982).

As individuals take the step of faith, leaders must be careful to create a safe and supportive environment where risk taking is

encouraged (Csikszentmihalyi, 2003). System savvy leaders establish excellence as a performance standard (BNQP, 2007b). Once this standard of excellence is clearly defined, employees are then trusted to perform their task in creative and autonomous ways, free from restraints and interference imposed when supervisors micromanage assignments (DuFour & Eaker 1998; Wheatley, 1999). Finally, leaders in total quality systems operate with a mentality of abundance (Covey, 1989). That is, they are quick to recognize the efforts of others and to share the glory when success is finally achieved (Covey, 1989).

Recognition. "Satisfied needs do not motivate. Next to physical survival, the greatest need of a human being is psychological survival—to be understood, to be affirmed, to be validated, to be appreciated" (Covey, 1989, p. 241).

Human beings naturally seek responsibility and recognition (Covey, 1989; Frankl, 1984; Wheatley, 1999). We are motivated to do our best, care for the less fortunate, and create a better world (Csikszentmihalyi, 2003). We are happiest when we are working for a cause—rather than simply for a living (Csikszentmihalyi, 2003). In total quality educational systems, job responsibilities are imbued with meaning and value (Csikszentmihalyi, 2003; Cohen & Hesselbein, 1999). Stakeholders believe in the inherent worth of the project, and as an added bonus, the organizational vision has an appeal that serves as an

attractor for high caliber individuals to join the organization (Csikszentmihalyi, 2003; Peters, 1982).

Human beings also have an aspiration to succeed. In deference to this basic desire, organizational members need to be recognized for their contributions. In total quality systems, time is allocated to recognize and show appreciation to individuals who have done a job well (Cohen & Hesselbein, 1999). Particular attention is focused on individuals who have been successful in meeting aligned organizational goals. These individuals are recognized and they are treated like heroes—even if for a short time (Deal & Kennedy, 1982).

Contribution. There is a basic human yearning to live a life of significance, to serve a purpose, to make a contribution, and to leave the world a better place (DuFour & Eaker, 1998; Frankl, 1984; Wheatley, 1999; Zander & Zander, 2000). Total quality educational systems recognize this deeply ingrained human quality and intentionally develop procedures to insure the inclusion of a culture of appreciation, recognition, and respect (Peters, 1982). When people believe their job enhances the lives of children, they are happier and find joy in the effort (Cohen & Hesselbein, 1999; Csikszentmihalyi, 2003). This happiness and joy can be complimented by setting time aside to recognize various individuals for self-sacrificing devotion to students (Peters, 1982). This recognition can be in the form of a public thank you, a certificate of appreciation, or a piece of colored ribbon (Peters, 1982).

Each individual has the option to participate and to do her or his best. A culture that places a value on personal contribution can be created. When this happens, the education of children truly becomes joyous business (Csikszentmihalyi, 2003).

Trust. Organizational efficiency flows out of positive relationships (Wheatley, 1999). In organizations where there is limited trust, there is no foundation for enduring success (Covey, 1989). Great care must be taken to build and preserve this fragile resource because lost trust can seldom be regained (Reina & Reina, 1999). In total quality schools, leadership goes to great lengths to care for employees and ensure their fair and appropriated treatment (Deal & Kennedy, 1982). These schools guard and protect the emotional well-being of staff against the two greatest trust breakers - deception and humiliation (Csikszentmihalyi, 2003; Reina & Reina, 1999). Attention is paid to the definition of group boundaries and procedures are in place that encourage the development of positive peer relationships (Csikszentmihalyi, 2003; Wheatley, 1999). Additionally, in periods of transition, school leaders provide emotional stability and remain supportive, even when group members become emotional and obstructive (Schein, 1997). In these schools, an atmosphere of trust is created where candid conversation is welcomed and encouraged. Additionally, people respect one another's job competencies, admit mistakes, maintain confidential information, and honor agreements (Csikszentmihalyi, 2003; Lezotte & McKee, 2002;

Reina & Reina, 1999). Finally, in these organizations each and every employee enjoys the right to have the undivided attention of the leader in times when confidential conversation is needed (B. LaPenta, personal communication, March, 6, 2004).

People improvement. Leaders in total quality educational systems understand that people are happier and more fulfilled when their talents are being fully engaged and expanded upon (Csikszentmihalyi, 2003). These leaders get the best out of staff by creating a demanding, yet, supportive environment that encourages staff to engage in tasks that require additional training and technical skill (Csikszentmihalyi, 2003).

Who is in charge? In educational systems that follow the anachronistic industrial design, the focus is on the few individuals who are "in charge" (DuFour & Eaker, 1998). In systems of this nature, a bottleneck forms at the top and the whole organization is forced to move at the speed of the few decision makers. Organization production gets capped and organizational agility is greatly compromised (JSA, 2003c). In total quality systems, leaders know that organizational success is dependent on the distribution of leadership to a broad and diverse range of people (Peters, 1982). These individuals must have both an interest and talent and they must be willing to assume responsibility for the challenge. Those with a willing attitude are identified and given leadership responsibility in their area of interest and expertise (DuFour &

Eaker, 1998). As a result, a culture of interdependence is developed between organizational leaders and those that have assumed responsibility for leadership (Schein, 1997). Leaders succeed through the conglomerate efforts of these responsible organizational members (Cohen & Hesselbein, 1999). The best use of a leader's time is to identify these individuals and align their interests and passions with the organization's goals (Peters, 1982; Zander & Zander, 2000). The net result is a talented and motivated workforce (Cohen & Hesselbein, 1999).

Celebration. Leaders of total quality schools understand the significant role celebration plays in providing an ongoing focus on the organization's goals (DuFour & Eaker, 1998). These planned celebrations provide a pleasant way to recognize students for their achievement. It also provides a formal and public way to recognize staff, parents, and community members for their contributions. Celebration fuels new momentum and serves to reenergize staff members. It serves to model a commitment to achievement of organizational goals. Leaders take great care to ensure incentives are clearly defined and well aligned with the organization's values and performance goals (DuFour & Eaker, 1998). Finally, celebrations are designed to be just plain fun and enjoyable (Lezotte & McKee, 2002).

Valuing the customer. *Being responsive to customer needs.* Charter school advocates contend that it will take "the spur of the market" to change the public educational system (DuFour & Eaker,

1998, p. 54). Indeed, the greatest oversight in public education today is the failure to identify the wants and needs of parents and other community stakeholders (Peters, 1982). In many schools, parents are treated as time consuming pesky annoyances that slow or halt the teaching process (Peters, 1982). This is not the case in total quality educational systems where leadership sends out a consistent and clear message of the value of parents and stakeholders (Wheatley, 1999). In these systems, there is a parent-centered culture that reflects commitment to customer service (Cohen & Hesselbein, 1999; Deal & Kennedy, 1982). Staff members, in these schools, genuinely care and they strive to maintain regular communication with all parents (Peters, 1982). Additionally, members fully understand that parents are the school's bread and butter and they allow themselves to be pushed around by their most involved parents and community stakeholders (Cohen & Hesselbein, 1999; Peters, 1982).

Customer driven improvements. Leadership and staff members in total quality systems understand that school improvement and change must be driven by customer needs and delivery of high quality instruction is preferred over flashy supplemental programs that rob students of precious instructional time (Fielding et al., 2004; Peters, 1982). In these schools, staff members are trained to be good listeners and to pay especially close attention to the concerns and suggestions of parents who have the best interests of all students at heart (Peters,

1982). In these schools, staff members go the extra mile to understand service problems from the parents' point of view, as parents are seen as the "supreme user, generator and tester of the ideas" (Peters, 1982, p. 197). Additionally, and very important to note, the parents and stakeholders are seen as a primary source for the development of solutions for customer centered service problems (Peters, 1982). Finally, these schools have identified their niche—they know their areas of strength and they stick to improvement of these areas rather than branching out into new areas where they have limited expertise (Peters, 1982).

School, family, and community partnerships. Just as successful businesses feel that the sale truly begins after the sale occurs, in total quality schools, the staff understands that a student-parent-teacher partnership begins when the child enrolls in the school (Peters, 1982). This partnership is a joint commitment to the safety, well being and academic achievement of the child. It is based on the following research-based premises: (a) Parents want their children to succeed in school, the development of quality partnerships is the responsibility of the school, on-going training is needed to build and maintain quality partnerships and (b) teachers who develop and maintain partnerships have increased student achievement, regardless of socioeconomic status, ethic/racial background, or the parent's educational level (CESDP, 2006; DuFour & Eaker, 1998; Epstein et al., 2002). Leaders understand that

partnerships are founded on quality communication. They also understand this communication must be authentic, two-way and that it must include a variety of forums to overcome language barriers and other barriers created by work schedules and the lack of telephone service to homes of rural isolation and poverty (DuFour & Eaker, 1998). Finally, they understand that it is of the utmost importance that the communication be timely, systematic, consistent, and that it includes points to celebrate as well as the identification of concerns (DuFour & Eaker, 1998).

Introduction to Strengthening Quality in Schools New Mexico

In August of 1991, New Mexico's Governor Bruce King held a forum of business leaders to discuss improvement of New Mexico schools. In September of the same year, the governor appointed a cabinet referenced as the Governor's Business Executives for Education ([GBEE]; Strength in Quality Schools [SQS], n.d.b). This committee was reappointed by Governor Johnson in 1995 (Albuquerque Business Education Compact [ABEC], n.d.). The GBEE's mission is to "establish a climate of continuous improvement of New Mexico's educational system through the partnership of business, education, and government to achieve 'Best-In-Class' results for all students in New Mexico" (ABEC, n.d., p. 1).

In 1992, the GBEE launched the Strengthening Quality Schools initiative. This initiative is funded through partnerships with New

Mexico Public Education Department, Sandia National Laboratories, and numerous other business organizations (L. Moore, personal communication, January, 22, 2008). GBEE membership currently includes representation from the governor's office, the House of Representatives, Sandia National Laboratories, New Mexico Public Education, Strengthening Quality in Schools, the Office of Educational Accountability, Quality New Mexico (the state Baldrige initiative), New Mexico Business Roundtable, New Mexico Public Service Company, 12 businesses, the health care industry, the Secretary of Education, the Secretary of Higher Education, and numerous school districts (Quality New Mexico, 2010; SQS, n.d.b). The GBEE's board provides governance for the implementation of the SQS New Mexico initiative.

SQS New Mexico 1992-2000. Immediately after its inception in 1992, the SQS New Mexico implementation unit was formed. The team's mission was and is "To accelerate improvement of student achievement and system performance in New Mexico schools by promoting the Baldrige Criteria and Quality Concepts as the basis of an integrated education system" (SQS, n.d.c). Late in the winter of 1992, Phase I staff development began in three New Mexico schools located in Grants, New Mexico. The training presented the Baldrige business criteria and lasted for 2 days. Limited follow-up coaching was also provided (L. Moore, personal communication, January, 22, 2008). At the end of the first year, it was obvious that additional training time was needed and a 2-

year training cycle was initiated (L. Moore, personal communication, January, 4, 2008). In phases II–IV schools were invited to send a team of teachers to Albuquerque to receive training. The curriculum included system analysis techniques, system alignment, and the use of data to inform instruction (ABEC, n.d.). The workshops were spread out over the year to allow time for the teachers to receive training and then to return to their schools to train the staff members who were unable to attend (L. Moore, personal communication, January, 4, 2008). At the end of the 2-year cycle, it was assumed that schools were ready for a successful implementation (L. Moore, personal communication, January, 4, 2008). Phase IV ended in May 2000 (ABEC, n.d.; L. Moore, personal communication, January, 4, 2008). During this 8 year period, 200 schools in 39 districts had completed the training (ABEC, n.d).

SQS New Mexico 2000 – 2006. In response to comments provided through customer feedback, the training window was greatly extended (L. Moore, personal communication, January, 4, 2008). In August 2000, the SQS team began offering three different levels of training: Awareness phase for school teams in their first 2 years, Commitment phase for school teams in their 3rd and 4th years and, Deployment phase for schools in their 5th and 6th year (L. Moore, personal communication, January, 4, 2008). This three-tiered training process continued through June, 2006 (L. Moore, personal

communication, January, 4, 2008). By August 2006, over 500 schools in 73 school districts had attended SQS training (SQS, n.d.c).

SQS New Mexico 2006 – present. Once again, in response to the customer feedback and Baldrige training successes experienced across the nation, the SQS team modified their training strategies to include four different models: (a) public workshops, (b) deployment school workshops, (c) demonstration schools and (d) regional training centers (L. Moore, personal communication, January, 4, 2008).

Public workshops. The public workshops are for all New Mexico schools (J. Thai, personal communication, January, 4, 2008; SQS, n.d.a). These workshops are springboard workshops that provide an introduction to Baldrige in Education. The content of the public workshop training sessions is determined by the director of SQS New Mexico and members of JSA as they review customer requests and workshop evaluations (L. Moore, personal communication, January, 4, 2008). Based on this input, the training sessions can range from an introduction to systems thinking via the Baldrige education criteria, to application of the continuous classroom improvement processes (J. Thai, personal communication, January, 8, 2008). The public workshops are usually held in Albuquerque and the training is provided by JSA. All schools registered with the New Mexico Department of Education receive notice of the training opportunities (J. Thai, personal communication, January, 8, 2008).

Deployment level sites. The deployment level workshops are designed for schools in their 5th and 6th year of implementation (J. Thai, personal communication, January, 4, 2008; SQS, n.d.a). The content of the 15 days of training is drawn from the JSA Leadership series and is designed specifically for New Mexico schools. The training is provided by JSA trainers (J. Thai, personal communication, January, 4, 2008; SQS, n.d.a). Funding for this training is largely provided by SQS New Mexico, but participating schools must agree in writing to the following commitments: (a) school teams will attend all training sessions, (b) building principals will attend all training sessions, (c) Site coaches will be identified, and (d) all workshop homework assignments will be completed prior to the advent of the next training session (J. Thai, personal communication, January, 4, 2008). This training is also evaluated at the end of each session using the written workshop 1 to 5 scale and through an End-of-Phase Evaluation Survey (J. Thai, personal communication, January, 4, 2008; SQS, n.d.a).

Pilot schools. The pilot school model began in August 2007 (L. Moore, personal communication, January, 22, 2008). The pilot sites were selected through a process involving the New Mexico Public Education Department, New Mexico SQS and school district input. These schools are in the process of becoming pilot sites and are not ready for school visits upon enrollment in the process (L. Moore, personal

communication, January, 22, 2008). The selected schools agree to six requirements that will lead to quality and success (JSA, 2007, p. 1):

- Serving as a role model.
- Accelerating deployment and the degree of implementation through training, coaching, and support.
- Allocating time for staff to collaborate to learn, study, and improve.
- Allowing visitors to observe and learn at their school through a visitation process that is mutually beneficial for both visitors and staff.
- Developing an exit survey to learn from their visitors
- Sharing lessons learned with other schools

Pilot schools receive support for training and coaching through JSA (2007). If this model proves to be successful, it will be expanded to include other schools (L. Moore, personal communication, January, 22, 2008).

Regional quality centers (RQC). The RQC began in August 2007 and are a part of joint venture of the New Mexico Public Education Department; the GBEE; SQS; and four school districts: Albuquerque Public Schools, Espanola School District, Central Consolidated Public School District, and Gallup-McKinley County Public Schools (L. Moore, personal communication, January, 22, 2008). These schools were identified because of their geographic location, because they have large numbers of students demonstrating academic need, and because of a

district commitment to deployment of the Baldrige criteria (L. Moore, personal communication, January, 22, 2008). It is the intent of RQC to provide regional support for schools involved in continuous improvement using a systems approach (Albuquerque Public Schools, 2006).

Jim Shipley & Associates Overview

Jim Shipley served as the Executive Director of Pinellas County Quality Academy. While in this position, he led the deployment of the Baldrige criteria in 155 schools involving 100,000 students and 17,000 employees (JSA, n.d.a, n.d.c). JSA was formed in 1998 (JSA, n.d.a, n.d.c). The organization's mission is to "serve as the catalyst for educational improvement by providing products and services that engage educators in a practical approach to using the Baldrige Criteria to achieve performance excellence" (JSA, n.d.c, column 3). JSA provides an array of consulting services and products based on the Baldrige criteria including coaching, training, and system check assessment tools (JSA, n.d.a, n.d.c). JSA is the primary training organization used by SQS New Mexico. The organization provides both consulting services for the Regional Training Centers and training for the Public Workshops, Deployment Workshops, and Demonstration schools (L. Moore, personal communication, January, 22, 2008).

Chapter 2 Summary

This chapter began by identifying the four critical components of the Baldrige Total quality Systems Approach (a) alignment of resources

through mission and goal statements, (b) adoption of a continuous improvement process, (c) identification of the categories that provide formative review of the system, and (d) core values that form the basis of the school culture. The chapter included an orientation to system thinking and the three phases in the life cycle of a system: formative, normative, and integrative phases. The seven performance criteria were presented as language distinctions that provide a lens that facilitates the study the effectiveness of system processes, and 5 of the 11 core values were presented as foundational characteristics of an optimum school culture. An orientation to SQS New Mexico and Jim Shipley & Associates was briefly provided and information about the success of the program was discussed. In Chapter 3, the research methodology will be presented.

Chapter 3: Research Method

Introduction

In New Mexico, the Baldrige system reform is referenced as Strengthening Quality in Schools (SQS). It was New Mexico's primary educational reform initiative. Participants have received training in the Baldrige system reform process; however, the training has not produced the assurance of success. The purpose of this research was to conduct qualitative research surrounding the Baldrige implementation process and construct grounded hypotheses that can be used to guide further research. This study identified the commonly occurring barriers that served to impede Baldrige reform efforts, explored practices that enabled principals to foresee and avoid common barriers, explored practices that enabled schools to overcome the barriers, and identified other ways to expedite the implementation of this proven reform. The results of this study may increase the reliability of the Baldrige (SQS) implementation in New Mexico and throughout the United States.

This chapter will provide and orientation to qualitative research and grounded theory research. It will present the plan for protection of human subjects and it will also provide a detailed description of the instrumentation, data collection, analysis, and study procedures.

Purpose

The purpose of this study was to (a) identify the commonly occurring barriers that impede Baldrige reform efforts, (b) explore practices that will enable principals to foresee and avoid barriers, (c) explore practices that enable schools to overcome the barriers, (d) identify ways to expedite the implementation of this proven reform, and (e) to use this information in the development of grounded hypotheses that can be used as a guide for further research.

The following questions served as a guide for the study:

1. What barriers do New Mexico elementary principals at Baldrige-JSA training sites perceive to be common implementation barriers?
2. When do New Mexico elementary principals at Baldrige-JSA training sites, believe that common barriers occur during the adoption process?
3. What do New Mexico elementary principals at Baldrige-JSA training sites report as proven solutions for the common barriers?
4. How can New Mexico elementary principals at Baldrige-JSA training sites better plan and prepare to address barriers common to Baldrige-JSA reform implementation?
5. If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would these elementary principals identify?

Research Method Overview

This study was qualitative in nature and utilized a modified grounded theory methodology. It has been identified as a modified grounded theory study because the five essential interview questions have been preconceived and will be static. This methodology was followed to obtain "comparable data among subjects" (Bogan & Biklen, 2003, p. 96). However, the follow up questions were modified on an ongoing basis using the theoretical sampling process (Charmaz, 2006; Corbin & Strauss, 2008). The study had two phases. Phase I involved sending a survey to all elementary principals in New Mexico who were involved in the Baldrige school reform, approximately 143 principals. This survey was used to identify the principal's level of commitment and engagement in the Baldrige reform and their willingness to participate in the study. Thus, a purposeful sampling was conducted to identify 12 elementary school principals. These principals were requested to participate in Phase II. Phase II involved a prearranged telephone interview with each of the principals (Isaac & Michael, 1997, p. 223). The telephone interview obtained information about the subject's training, experience and contact information, demographics of the school of employment, the school's history with the Baldrige System Reform, and the five essential research questions.

The subjects were elementary school principals who were committed to implementation of the Baldrige reform and who were

working at a deployment level site, pilot school, or RQC. If there were less than 12 principals who meet the minimum criteria or if research saturation has not been reached, I was broaden my search to include districts that have contracted professional development services from JSA in the past 3 years, but had not been listed on the SQS website.

Qualitative research. Qualitative research is an inductive form of data analysis rather than a deductive form of analysis (Corbin & Strauss, 2008; Creswell, 1998; Isaac & Michael, 1997). It is concerned with the identification and examination of multidimensional system structures and the effects these naturally occurring social structures have on system participants (Charmaz, 2006; Corbin & Strauss, 2008; Leedy & Ormrod, 2005). It is also concerned with the examination of the relational interaction of the participants- one with another- as they attempt to survive by making sense of the veiled system structures that make up their world (Charmaz, 2006; Leedy & Ormrod, 2005). Qualitative research is not concerned with the compilation of hard, empirical data about physical events, but rather, it is concerned development of soft, rich, thick description of social system structure as seen, from the inside, through the eyes of the participants (Charmaz, 2006; Corbin & Strauss, 2008; Leedy & Ormrod, 2005). Finally, qualitative procedures do not lead to identification of ultimate truth, but rather, to leveraging of multiple perspectives and multiples meanings out of a world of abstraction (Bogan & Biklen, 2003; Leedy & Ormrod, 2005).

Why a qualitative research approach was selected. A qualitative methodology is multidisciplinary, highly adaptable, and opens doors to a broad field of diverse research (Corbin & Strauss, 2008). This research approach was selected because this investigation has a system focus and is inherently broad and complex (Corbin & Strauss, 2008). It went beyond the what, where, and when focus of quantitative research to spotlight the how and why (Leedy & Ormrod, 2005). The qualitative methodology provided the opportunity to study participants engaged in their social, religious, racial, cultural, and political context (Corbin & Strauss, 2008). In keeping with this methodology, data were gathered through interviews and through engagement of the researcher as a participant (Charmaz, 2006). I employed both of these processes. In many cases, the questions and discussions were laden with nuances and a holistic understanding of the situation was needed (Corbin & Strauss, 2008). The deep discussions generated rich insights into the participants' view and understanding of their world (Charmaz, 2006). Finally, it must be recognized that this methodology captured an understanding of social system relationships and processes as seen through the eyes of the participants and as interpreted by the inherent bias of the researcher (Charmaz, 2006; Corbin & Strauss, 2008).

Accounting for interpretation bias: A constructivist point of view. It must be noted that I served as the primary research instrument (Corbin & Strauss, 2008). Great care will be taken in during data

analysis to reduce the likelihood of confirmation bias (Isaac & Michael, 1997). The concern with confirmation bias involves a researcher's natural tendency to force preconceived ideas on the data (Charmaz, 2006). Yet, without the researcher's background and disciplinary perspectives, interpretative analysis would not be possible. The concerns surrounding confirmation bias have resulted in the formation of two camps of thought surrounding qualitative research-positivism and constructivism (Charmaz, 2006). A researcher using the positivist approach would develop highly prescriptive principles and practices in an attempt to identify and eliminate bias from their research, while constructivist would apply research principles as flexible guidelines (Charmaz, 2006). Kathy Charmaz presented the constructivist argument to bias:

> We are not scientific observers who can dismiss scrutiny of our values by claiming scientific neutrality and authority. Neither observer nor observed came to the scene untouched by the world. Researcher and research participants make assumptions about what is real, possess stocks of knowledge, occupy social statuses, and pursue purposes that influence their respective views and actions in the presence of each. (p. 15)

I saw the value in both camps of thought; however, the constructivist research approach was more applicable for this study (Charmaz, 2006). This approach assumes that each researcher draws a

reality from the research and that each reality is equally as legitimate (Isaac & Michael, 2007). I took great care to account for my biases in the analysis and interpretation of the data, while using my years of training and experience as an elementary principal as a fluid guide in the development of the data collection, analysis and reporting procedures (Charmaz, 2006). I did understand the need to put my autobiography aside and see the Baldrige implementation through the eyes of the subject (Charmaz, 2006; Covey, 1989; Leedy & Ormrod, 2005). During this process, I peeled back superficial surface observations to get to the assumption level (Schein, 1997). Ultimately, I was responsible for providing an interpretation the perspectives and voices of those being studied (Charmaz, 2006; Corbin & Strauss, 2008; Isaac & Michael, 2007). The test of time will determine if the findings of this study are consistent with those of similar studies; and if the findings are dependable and transferable when applied to other contextually similar situations (Isaac & Michael, 2007; Leedy & Ormrod, 2005).

Grounded theory.

Grounded theory methodology defined. As noted before, grounded theory is an inductive research methodology (Leedy & Ormrod, 2005). Rather than starting out with a hypothesis that is to be tested, this methodology calls for the researcher to follow a series of steps that lead to the formulation of a theory that accounts for the current research situation (Grounded Theory Institute, 2008). The theory is grounded in

the field data rather than collected through a review of literature (Leedy & Ormrod, 2005). It demystifies and expedites the data collection process (Charmaz, 2006). The objective of a grounded theory study is to achieve an understanding of the research environment and to establish the theory inherent in the data (Leedy & Ormrod, 2005). Grounded theory research steps include data collection, note-taking, coding, sorting, and writing (Dick, 2000). Grounded theory follows rigorous research procedures that lead to an inductive explanation of the dynamics that are in operation in the situation being studied (Glaser, 2008). When conducting grounded theory research, the investigator maintains a system focus while the relationship between the emerging concepts/categories is reviewed (Grounded Theory Institute, 2008). When done properly, grounded theory produces a theory that truly fits the case being studied—that is, people are able to use the results to make sense of their current conditions and to better understand situations in their lives (Glaser & Strauss, 1967).

Why grounded theory was the best approach for this research. Baldrige is an organizational framework that has direct application to systems that involve human interaction. The study of these organizational systems was rich with data and multifaceted in nature. The goal of this research was not to simplify the complex implementation the Baldrige reform; but rather, to observe characteristics of the process in operation in their natural setting (Leedy

& Ormrod, 2005). The grounded theory approach was ideal for study of these multifaceted systems (Leedy & Ormrod, 2005).

Like many educational reform movements, the Baldrige reform was a proven reform model in the business sector that was later applied to the field of education (Senge, 1990). Because Baldrige is relatively new to the field of education, there were few research-based theories to guide the implementation process. As noted above, the aim of the grounded theory research approach was the development of operational theories/hypotheses; it was the ideal methodology for the study of the Baldrige reform (Bogan & Biklen, 2003).

Qualitative versus quantitative. In the 1960s, positivists viewed qualitative as "impressionistic, anecdotal, unsystematic and biased" (Charmaz, 2006, p. 5). They assumed that the researcher should be unbiased and the research should be replicable (Charmaz, 2006, Glaser, 2008). Debates between quantitative and qualitative researchers were common as these two groups attempted to question the credibility of the other (Charmaz, 2006). Those days have passed and both forms of research are now widely accepted. In the case of grounded theory, the two research methods are now wed, as the goal of grounded theory is to develop grounded hypotheses. These grounded hypotheses can then serve as substantive theory for quantitative research (Charmaz, 2006; Glaser, 2008).

This research project was a qualitative, modified grounded theory study. As such, a systematic approach was followed as "flexible guidelines not as methodological rules" (Charmaz, 2006, p. 5). To some extent, this research could be replicated. That is, another researcher could begin with the same research questions and then group interviews into the same global categories. However, the very nature of grounded theory research would cause another researcher to follow her own hunches and to develop her own set of codes; her theoretically sampling would take her in another direction and ultimately, she would construct a different, but equally as useful grounded hypotheses (Bruce, 2007; Charmaz, 2006). The procedure provided a detailed explanation of the systematic processes that were followed throughout this research project.

Population and Sample

Population. There were 16 elementary deployment schools in 9 school districts and 1 Archdioceses (see SQS, n.d.f). The deployment schools are listed in Appendix A. There were 11 pilot schools in 4 school districts. The pilot schools are listed in Appendix B. There were four school districts with a RQC: Albuquerque Public Schools, Central Consolidated Schools, Espanola Public Schools, and Gallup/McKinley County Public Schools. The number of elementary schools in each of these districts is provided in Appendix C.

Sample. This grounded theory study relied on expert opinion; therefore, a purposeful sampling, rather than a random sampling was

obtained (Isaac & Michael, 1997). The goal of this study was to gain an in-depth, qualitative understanding of the factors affecting the efficacy of the reform's implementation. Therefore, I needed to interview enough subjects to develop a concise understanding of the implementation barriers; their advent, solutions to common barriers, and other ways to expedite the reform. This goal was accomplished when *theoretical saturation* had occurred. That is, when there is no other significant data were emerging, when the categories were fully developed, and when relationships among various categories were evident (Thompson, n.d.).

It was estimated that theoretical saturation would be attained by conducting a minimum of 12 interviews that range from15 to 20 minutes in duration (Bruce, 2007). However, if theoretical saturation had not occurred, additional interviews would have been conducted.

The SQS New Mexico team provided professional development using four different approaches: (a) public workshops, (b) deployment school workshops, (c) pilot schools, and (d) RQC (L. Moore, personal communication, January, 4, 2008). The study focused on the latter three approaches. Public workshops were springboard workshops that provide an introduction to the Baldrige system reform. Since this study focused on the identification and analysis of implementation barriers, public workshops were not studied. The sites under investigation included deployment schools, pilot schools, and schools in districts that had a RQC.

Based on the information provided by the Strengthening Quality in Schools, New Mexico website, there were approximately 143 elementary principals who are involved in the Baldrige school reform (SQS, n.d.e). The goal of the Phase I survey was to identify elementary principals who meet a clearly defined criterion. Phase I research did not begin until after the Pepperdine Institutional Review Board (IRB) application had been approved. This approval called for the knowledgeable consent of district superintendents. After receiving IRB approval, the Phase I packet of materials was mailed to all elementary principals under the supervision of a superintendent who had granted knowledgeable consent to conduct research. The packet of materials contained a list of Deployment Schools, Appendix A; a list of the Pilot Schools, Appendix B, a list of Districts with Regional Quality Centers, Appendix C; a recruitment letter, Appendix D; a description of the study, Appendix E; a letter of Informed Consent, Appendix F; the Phase I Written Survey Questions, Appendix G; and the Phase II: Telephone Interview Questions, Appendix H. The packet also contained a self-addressed stamped envelope. The principals who (a) affirmed a willingness to participate on the returned Informed Consent letter, (b) indicated an earnest commitment to implementation of the Baldrige reform, (c) who had been involved in the implementation of the Baldrige school reform at their current school of employment for the past 3 years, and (d) who had received training from Jim Shipley trainers were considered for research

the Phase II telephone interviews. Phase II principal telephone interviews were conducted until research saturation was reached. According to Creswell (1998), research saturation occurs when there is no new information to be gained by further investigation. If more than 12 principals would have express a willingness to participate, the first priority would have been to create a balanced representation from each of the SQS professional development models: Deployment schools, Pilot Schools or schools receiving services from a RQC. The second priority would have been to recruit principals who evidenced greater commitment to the school reform by their selecting of option A.

There were less than 12 principals who met the minimum criteria, therefore, I broadened my search to include districts that had contracted professional development services from JSA in the past 3 years, but were not listed on the SQS website. In keeping with IRB requirements, principals of these schools were contacted after receiving prior signed approval from the district superintendent and the Pepperdine Institutional Review Board.

Human Subjects Protection

Permissions. This research called for elementary principals to reflect on the implementation of Baldrige school reform strategies at their school site. The blueprint for this study was developed in a series of conversations with Laurel Moore the past Director of Strengthening Quality in Schools, New Mexico. Marilyn Wescott, Director of Product

Design and Development/Senior Consultant for JSA, is now serving as the Interim Director. Evidence of Marilyn Wescott's support can be found in Appendix I. Additionally, the New Mexico division of SQS used JSA to provide all staff development. Mr. Shipley, president of Jim Shipley & Associates, provided an email expressing his willingness for the research to be conducted. This email can be found in Appendix J.

Informed consent. As principals enter an honest dialogue, negative facts affecting the implementation will naturally surface. Therefore, great care was taken to insure confidentiality of subject responses. All subjects were required to complete an Informed Consent Form, Appendix F. This form acknowledged known risks and systematically presented the actions that were taken to protect confidentiality of subject responses. All subjects were given the opportunity to review the transcripts from the telephone interviews to confirm accuracy of representation. Additionally, the Pepperdine University Institutional Review Board approved this research proposal before data collection began.

Minimization of personal risk. Confidentiality of subject responses was an integral part of the research design. The names of the principals who participated in this study will not be reported. A question involving school enrollment was asked; however, this information was only reported in statements regarding the range of the school size. No

information, which had the potential of being traced to an individual or a specific elementary school, was used.

Security of data. Subject contact information and response data were stored in a locked file cabinet located in my home. I am the only one that will access to the key to this cabinet. Research data will be securely stored for a period of 3 years and will be properly disposed of at the end of that time.

Identification of the Research Scope and Specific Research Questions

Development of the scope of the research, the research approach, and the actual research questions was a 4 year process that involved conversations with 16 noted experts in the field of qualitative research and/or Baldrige School reform. In order to provide an understanding of the caliber and depth of expert involvement in this research project these individuals and their conceptual contributions are described in Table 1.

Table 1

Experts and Conceptual Contributions

Expert	Conceptual Contributions
Dr. Peter Winograd, Director the New Mexico Office of Educational Accountability	Dr. Winograd's studies identified performance inconsistencies among Baldrige Schools (Winograd, 2007). The key question resulting from our conversations was: How can deployment of this proven reform produce such different results in student achievement? His studies identify the need for additional study of the implementation procedures of this reform.

(continued)

Expert	Conceptual Contributions
Dr. Linda Jungwirth, Founder and President of Convening Conversations, Inc. Dr. Philip Mirci, Assistant Professor University of Redlands.	Dr. Jungwirth and Dr. Mirci presented a cogent argument and modeled the use of a qualitative approach for this study. The key point of our conversations was that life systems are multifaceted and are best studied in the context in which they are occurring using a holistic perspective.
Dr. Robert Paull, Professor Emeritus at Pepperdine University	Researchers have often overlooked the wisdom of practitioners when identifying the problems and solutions that they have found. Dr. Paull encouraged me to have a practitioner focus for my research - and more particularly a focus on New Mexico practitioners.
Dr. Susan Parks	Dr. Parks suggested that I narrowed my focus to working with the Strengthening Quality in School New Mexico (SQSNM) Unit.
Laurie Johnson Assistant Program Manager and Data Analyst, SQSNM Chery Curtain, SQSNM Data Analyst	I referenced the data fields these analysts developed in their data collection processes: (a) interviewee's personal information, (b) school information, and (c) the school's history with the Baldrige system reform.
Brenda Clark, (Retired), JSA Cay Moore, Senior Consultant Cheryl Kmiecik, Consultant, JSA Marilyn Wescott, Director of Product Design and Development, Senior Consultant, JSA	Over the past 4 years I have had repeated conversations with these ladies regarding challenges schools face as they endeavor to implement Baldrige reform strategies. Repeatedly, the conversation turned to the pivotal role building leadership played in successful implementation of this reform. As a result of these conversations, the focus of this study was narrowed to building leadership. Additionally, these ladies emphasized the fractal nature of social systems and the impact continuous improvement processes can have each system level. This study will focus on building leadership, but application of research can also be made to the classroom and district leadership.

(continued)

Expert	Conceptual Contributions
Jim Fawver: Lobbyist for the Governor's Business Executives for Education (GBEE) and for the Strengthening Quality in Schools initiative.	My discussion with Mr. Fawver generated the theory that perhaps implementational barriers occurred at predictable intervals in the adoption process and if this were true, then it would be possible for principals to anticipate a barrier, and circumvent it or prepare for it while using the occurrence of the barrier as a potential landmark denoting a certain level of progress.
Dr. Tom Ganoff, teaches graduate level research methods and statistics courses at Loyola Marymount University and Pepperdine University	Conversations with Dr. Ganoff generated the fifth of the five essential questions. Basically, the question asks, if you could do it all over again, what would you do differently?
Dr. Linda Purrington supervises Educational Leadership Academy Tier I student fieldwork at Pepperdine University.	Dr. Purrington, aside from her obvious contributions as Committee Chair, guided me toward the selection of the Grounded Theory methodology. As the Baldrige systems approach is new to the field, there are few theories guiding the development of best practice. Being that the intent of the Grounded Theory methodology is to develop hypotheses, it is the best methodology to use in this study.

Phase I

Phase I: Data collection. The goal of the Phase I Written Survey was to identify subjects for the Phase II Telephone Interview. In keeping with the assurance of confidentiality provided to all subjects, data collection and reporting of the Phase I survey was limited. There were only eight elementary schools with the pilot school designation (see SQS, n.d.g). Phase I data were disaggregated for reporting purposes, as it would have been possible to identify subjects. Phase I findings provided

insight into of the level of commitment and engagement of elementary principals in the Baldrige SQS reform; however, this information was not reported.

Phase I: Identification of subjects. A packet of materials was mailed to all elementary principals under the supervision of a superintendent who had granted knowledgeable consent to conduct research. The packet of materials contained a list of Deployment Schools, Appendix A; a list of the Pilot Schools, Appendix B, and a list of Districts with Regional Quality Centers, Appendix C; a recruitment letter, Appendix D; description of the study, Appendix E; an letter of Informed Consent, Appendix F; Phase I Written Survey Questions, Appendix G; and Phase II: Telephone Interview Questions, Appendix H. The packet will also contain a self-addressed stamped envelope.

The principals who returned the Informed Consent letter indicating lack of consent, and the principals who indicated a *C, D,* or *E* level of commitment, were not considered for Phase II of the study. The C, D and E responses are provided below for easy of reference.

- C: I am not fully committed to the Baldrige reform and am engaged in implementation at my supervisor's request.
- D: I am participating because I have been told to do so; but I wish the Baldrige reform would be discontinued in my district/at my school.

- E: I am actively engaged in discontinuing the implementation of the Baldrige Reform at my district/at my school.

The principals who successfully complete the Phase I process were eligible to participate in a drawing for a $50.00 gift certificate to a Red Lobster restaurant. A Phase I Written Survey Concept map has been provided in Appendix K.

Phase I: Review of responses.

Data collection: Coding of subjects. The coding of subjects was kept very simple. It was better to let software track the identity of the subjects rather developing a system that constantly reminds me of the principal and the school that was being coded. A category (case node) was developed for each of the subjects. Case nodes were used to gather information that contained attributes, for example years of training or percentage of students receiving free or reduced school lunches (QSR International [QSR], 2008). The case node was identified using a name of a letter from the Greek alphabet (see Appendix L).

All returned Phase I responses were sorted into five categories:

- Category 1: Those who sign and return the Informed Consent letter, who have been involved in the implementation of the Baldrige school reform at their current school of employment for the past 3 years, who have received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office, and who

indicate an earnest commitment to the Baldrige reform by selecting statement A in the recruitment survey.

- Category 2: Those who sign and return the Informed Consent letter, who have been involved in the implementation of the Baldrige school reform at their current school of employment for the past 3 years, who have received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office, and who indicate an earnest commitment to the Baldrige reform by selecting statement B in the recruitment survey. (Categories 1 and 2 will also be grouped by training model –deployment, pilot, or RQC).
- Category 3: Those who return incomplete forms
- Category 4: Those who did not respond to the survey
- Category 5: Those who meet one or more of the following conditions
    1. Return the Informed Consent letter and did not wish to participate and/or had not been at their current school for a minimum of 3 years
    2. Had not received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office
    3. Select option C, D, or E on the Written Survey Form

Twelve subjects were not identified, therefore, I made personal calls to subjects listed in Category 3 and then Category 4. The first

priority was to balance the number of subjects from each training model. Please reference the Phase I Written Survey Concept Map provided in Appendix K. When this failed, I broadened my search to include districts that had contracted professional development services from JSA in the past 3 years, were not been listed on the SQS website. In keeping with IRB requirements, principals of these schools were not contacted without prior signed approval from the district superintendent and from Pepperdine IRB.

Number, nature, and rationale for survey questions. In a thorough review of the literature surrounding school reform, it is apparent that leadership quality is a factor in sustainable student achievement (Marzano et al., 2005). It is also apparent that the development of an optimum school culture, one that embraces a systems approach to continual improvement, can take years to develop (Lezotte & McKee, 2002; Senge, 1990). Therefore, it was the intent of the Phase I Survey to identify elementary principals who were committed to the Baldrige school reform and who had continuity in implementation of the reform at one school site for at least 3 years. The survey also obtained contact information for those who participated in the Phase II Telephone Interview Questions. The number, nature, and the rationale for the questions in each section are presented in Table 2.

Table 2

Rational and Nature of Phase I Survey Questions

<table>
<tr><th>Question</th><th>Nature of the question</th><th>Rationale for question</th></tr>
<tr><td>Question 1
Name:</td><td>Nature:
Contact information</td><td>Rationale: This information was needed for the telephone interview – should the potential subject be identified for the telephone interview.</td></tr>
<tr><td>Question 2
Name of elementary school where you serve as principal:</td><td>Nature:
Contact information</td><td>Rationale: This information was needed to ensure the accuracy of the data and to ensure school information is properly coded.</td></tr>
<tr><td>Question 3
What is the SQS site classification of your elementary school? Please check the appropriate response.<table><tr><td>Type of Site:</td><td></td></tr><tr><td>Deployment Level Site</td><td></td></tr><tr><td>Pilot School</td><td></td></tr><tr><td>Regional Quality Center</td><td></td></tr></table></td><td>Nature:
Beyond mere contact information, this information was needed for advanced study of the subjects' responses.</td><td>Rationale: Professional development and state required district commitment at these three types of sites varies greatly (SQS, n.d.d) Therefore, the type of site can have a significant impact on implementational barriers and/or solutions.</td></tr>
<tr><td>Question 4
Preferred contact information:
Work:
Cell:
Home:
Email Address:</td><td>Nature:
Contact information</td><td>Rationale: This information was needed for the telephone interview and to email the transcripts from the interview.</td></tr>
<tr><td>Question 5
Have you been serving as principal at your current school of employment for the past 3 years? Please check the appropriate box.<table><tr><td>Yes</td><td></td></tr><tr><td>No</td><td></td></tr></table></td><td>Nature:
Background Information</td><td>Rationale: Principals new to a school have plethora of issues to address. These can include getting to know the staff, students, parents; forming a working relationship with those at Central Office; and learning district policies and procedures. Tasks of this</td></tr>
</table>

(continued)

Question	Nature of the question	Rationale for question
		nature distract from implementation of the Baldrige school reform process. Therefore, this research focused on principals that have established a degree of continuity and stability at the school site (Lezotte & McKee, 2002; Reeves, 2002; Senge, 1990).
Question 6 As principal, have you been involved in the implementation of the Baldrige school reform at your current school of employment for the past 3 years? Please check the appropriate box. Yes ☐ No ☐	Nature: Background Information	Rationale: The telephone interview questions required subjects to have a history in implementing the Baldrige reform. Three years of implementational experience provide sufficient history to provide rich, quality responses (C, Kmiecik, JSA National trainer, personal communication, November 4, 2009). As noted in the literature review, the Baldrige statewide implementation processes are dynamic. Therefore, the 3-year limit focused the research on current implementation processes rather than those of the more distant past.
Question 7 During your tenure as principal, have you been receiving training from Jim Shipley trainers as contracted by the SQS New Mexico's Office? Please check the appropriate box. Yes ☐ No ☐	Nature: Background Information	Rationale: Strengthening Quality in Schools contracted all training through JSA. A positive response to this question provided me, the researcher, with an assurance of the content and quality of training the principal had received.

(continued)

Question	Nature of the question	Rationale for question
Question 8 How engaged are you in the Baldrige reform at your school site? Please circle the response that best matches your commitment and engagement with the Baldrige Strengthening Quality in Schools reform. A) I am completely committed to the Baldrige reform and am fully engaged in implementation at my school site. B) I am committed to the Baldrige reform and am engaged in implementation at my school C) I am not fully committed to the Baldrige reform and am engaged in implementation at my supervisor's request. D) I am participating because I have been told to do so; but I wish the Baldrige reform would be discontinued in my district/at my school. E) I am actively engaged in discontinuing the implementation of the Baldrige Reform at my school.	Nature: Background Information	Rationale: This research focused on barriers and solutions identified by elementary principals who truly desired to reform their elementary school using the Baldrige system approach.

Interviews

Telephone interviews (Phase II). In Phase II, a semi-structured telephone interview format was followed (Charmaz, 2006; Corbin &

Strauss, 2008). In keeping with the research purpose, which is to expedite the implementation of this reform, five key questions were identified. These key questions emerged from the research-based school reform practices identified in the Chapter 2 Literature review (see Table 3). These key precepts included (a) the root cause of the system problem should be identified, (b) system cycles and hidden system archetypes should be identified, (c) systems can be improved when individuals set aside defense routines and have transparent conversations about successes and failures, (d) systems perform in predictable ways which allows for early identification of barriers, and (e) systems will continually improve when participants formally engage in formal Plan, Do, Study, and Act cycles.

Instrumentation Validity

Survey. The purpose of this research was to gather statewide data about the Baldrige implementation processes and construct grounded hypotheses aimed at increasing the speed and reliability of the implementation. The data collection and data analysis processes were tailored to match the purpose of the study (Bruce, 2007). This study had two phases. The purpose of Phase I was to identify a minimum of 12 elementary school principals who meet a clearly defined participation criterion. A concept map of this phase can be found in Appendix K. Phase II involved a telephone interview with each of the selected principals. A concept map of this phase can be found in Appendix M.

After the development of this instrument, it was validated and pilot tested.

Table 3

Relational Comparison Between Interview Questions and Literature Review

School reform theme	Interview question	Cited reference
Get to the root cause of the problem by asking, "Why" at five different levels. Use Double Loop thinking to identify and fix the cause of the problem rather than just fixing the problem.	As you work to implement the Baldrige system approach at your school, what significant barriers have you faced?	(Argyris, 1990; Covey, 1989; DuFour, & Eaker,1998; Lezotte & McKee, 2002)
Organizational systems go through adoption cycles. Systems archetypes affect participant behavior.	At what phase of the implementation process did the barriers occur?	(Deal & Kennedy, 1982; Havener, 1999; Schein, 1997; Senge, 1990)
Teachers and Schools get better through transparent conversations regarding successful practices.	How did you overcome these barriers?	(Argyris, 1990; DuFour & Eaker, 1998; Elmore, 2002)
Prudent individuals foresee and prepare for problems, while the foolish proceed on and blunder into calamity.	Looking back was there anything you could have done to prepare for, minimize, or avoid the barrier?	(Proverbs 22:3 version; Krisco, 1997; Leedy, & Ormrod, 2005).
Total Quality Systems are in the perpetual state of improvement	If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would these elementary principals identify?	(JSA, 2003c; Lezotte & McKee, 2002; Marzano et al., 2005)

Survey validity and reliability.

Who validated your interview protocol/instrument?

Expert review. To ensure validity and reliability and to finalize the outcome of the developmental conversations, Marilyn Wescott, Director of Product Design and Development/Senior Consultant for JSA, and the Interim Director of Strengthening Quality in Schools New Mexico (SQSNM) reviewed Phase I and II protocol and instruments. Her review served as a final appraisal of the protocol and instruments, and it ensured her awareness and involvement in the research. Ms. Wescott reviewed the selection of the questions, formatting of the instrument and order of the questions. The Expert Review of Research Activities form can be found in Appendix I. After a comprehensive review of the documents, Ms. Wescott felt the protocol and instruments were valid and reliable (personal conversation, January 27, 2010). Her comments are provided in Appendix I.

Pilot study. Two principals participated in a pilot testing of the Phase I and Phase II processes. The principals selected were personal acquaintances. They were selected because of their commitment to the Baldrige reform and because I was certain their criticism would be both candid and of a very high quality. Principal A has over 30 years experience in the field of education. He was the principal of the first All-Native-American elementary school in New Mexico to make Adequate Year Progress (AYP). His school received the New Mexico Public

Education Department's School-on-the Rise classification. He is also the recipient of the National Association of Elementary School Principals' Distinguished Principals Award. Principal B also has over 30 years of educational experience as a teacher, administrator, and consultant. She was principal of an elementary school in a district that received the national Baldrige Award. She was also a principal of a Baldrige Model school. Her school received site visitations from interested educators from across the nation. Both Principal A and B received and responded to the Phase I packet. Then, they participated in the Phase II telephone interview as described earlier in this chapter. After participating in the process, they responded the following five questions:

1. Was the survey aligned with the research purpose?
2. Was there hidden bias in the phrasing of survey questions?
3. Did the sequencing of the questions lead you to a biased response?
4. How long did it take for you to participate in the Phase I Survey process?
5. How long did it take for you to participate in the Phase II process?
6. Regarding improvement of Phase I and Phase II, what constructive criticism can you provide?

Their responses have been provided in Table 4.

Table 4

Pilot Study: Principals' Responses

Question	*Principal A*	*Principal B*
1. Was the survey aligned with the research purpose?	"Yes"	"Yes"
2. Was there hidden bias in the phrasing of survey questions?	"No"	"The first question made me feel you were anti-Baldrige."
3. Did the sequencing of the questions lead you to a biased response?	"No"	"No"
4. How long did it take for you to participate in the Phase I Survey process?	"Five minutes"	"Five minutes"
5. How long did it take for you to participate in the Phase II process?	"30 to 40 minutes"	"About 15 minutes" "I feel the actual principal interview will take even less time."
6. Regarding improvement of Phase I and Phase II, what constructive criticism can you provide?	"I think your research is genuine and that is a positive."	Paraphrase: When you ask the first question referencing barriers, be careful not to project the feeling that the interview is anti-Baldrige.

Chair's review. These responses were then reviewed by Dr. Purrington, dissertation committee chair, to determine what changes needed to be made. Her response and the resulting adjustments are provided in Table 5.

Table 5

Chair's Review and Resulting Adjustments

Dr. Purrington's response to pilot comments	Resulting adjustments
Comment and Adjustment 1	
"Regarding Pilot B response: In addition to emphasizing the constructive purpose of your study, and more specifically why you are asking about barriers (as you suggested in your message), also consider changing question language just slightly to read....what barriers, if any,.....Adding, if any, might read as less leading.	Initially, during the pilot interviews I provided a brief review of the purpose of the research. As noted above, this process left Pilot B felling there might be an "anti-Baldrige bias." During the interviews, use the following statement, "the purpose of this research is to expedite the implementation of this proven reform."
Comment and Adjustment 2	
"Regarding Pilot A and B response times, this is truly your call. If you think that 15 minutes is sufficient, then change time mention to 15 minutes. Other alternative might be to compromise and indicate a time range, say 15-20 minutes.	In the Informed Consent for Participation in Research Activities, Appendix F, the projected time for the telephone interview was changed from 30 to 45 minutes to 15 to 20 minutes.

Subject selection. Returned Phase I Surveys were reviewed to identify the principals who had qualified to participate in the Phase II telephone interview process. The returned forms were sorted based on the SQS classification of the elementary school: deployment level sites, pilot schools, and RQC (see SQS, n.d.f, n.d.g, n.d.h, n.d.i).

The telephone interview process was the main data collection instrument. It was the intent of the telephone call to gather rich-thick

descriptive information in the subjects' own words so that I could gain insights from the subject's point of view (Bogan & Biklen, 2003; Leedy & Ormrod, 2005).

I began each interview with a reminder that the interview was being recorded. The telephone interview had three phases. The questions in the initial phase questions were to probe the subject's background. These questions were short, easy-to-answer questions. These questions were followed with a brief review of the purpose for the research and assurances of confidentiality (Bogan & Biklen, 2003). I asked clarifying questions to make certain the subjects understand the intent and benefits of the research (Wellman & Lipton, 2004). It was the intent of questions in the initial phase to place the subject at ease (Bogan & Biklen, 2003; Charmaz, 2006).

The questions in the intermediate phase compromised the grist of the interview (Charmaz, 2006). These questions had an open-ended design to allow themes to naturally emerge (Bogan & Biklen, 2003). In the final phase, the questions were designed to bring the interview to a positive close (Charmaz, 2006).

Procedures.

Phase II: Data collection procedures.

Recording device. This grounded theory study used telephone interviews as the one and only data collection process. To ensure accuracy, the telephone call was recorded using an Olympus VN- 3200

PC Digital Voice recorder and an Olympus Mini Tele-Recording device Model TP-7. This equipment provided high quality digital recordings that were stored using traditional computer-based backup systems.

Transcription from the interview. Interviews were immediately transcribed after each interview using NVivo ® software produced by QSR International. Transcripts from the telephone interview were mailed to subjects to confirm accuracy of representation.

Organization of the data. The subject-approved transcripts were stored in case nodes using NVivo research software. To ensure the protection of the subject's identity, a case node was for each subject. These nodes were coded using the Greek alphabet found in Appendix L.

Data Analysis (Phase III)

Initial data coding. I began analysis with a complete reading of all transcribed interviews. It was the intent of this reading to truly live the descriptions through the senses of the subject (Corbin & Strauss, 2008).

Initial coding began during the second reading. It was the intent of initial coding to develop an analytical sense of the direction the data as taking. These provisional codes were grounded in the data and comparative in nature (Charmaz, 2006). Initial coding practices included line-by-line and incident-by-incident coding (Charmaz, 2006). An attempt was made to identify and code key gerund phrases (Charmaz, 2006; Corbin & Strauss, 2008). Additionally, there was an intense focus

on identification and examination of hidden assumptions (Charmaz, 2006). Because of their provisional nature, most initial codes were stored as NVivo free nodes (QSR, 2008).

Examining initial codes. Early *memo writing* was used as a key process in the examination of the initial codes. Steps in early memo writing included defining categories, spelling out detail, offering conjectures, and identifying gaps in analysis (Charmaz, 2006). Through this process, codes began to align to form nascent categories. Memos were linked to specific codes using NVivo software (QSR, 2008).

Focused coding. As the research progressed, *focused coding* formed the nucleus of grounded theory investigative process. When concept clusters emerge, the coding changed from free node coding to coding of tree nodes (Charmaz, 2006; Corbin & Strauss, 2008; QSR, 2008).

Advanced memo writing. Once again, memo writing played a key role in the reflection and inquiry process. Advanced memo writing provided the space for a qualitative analysis of the data. Through this process, conceptual categories were developed compared and integrated (Charmaz, 2006). As conceptual categories coalesce, sample theories emerged (Charmaz, 2006).

Preliminary and draft writing. Advanced memo writing called for unearthed theoretical inconsistencies. These inconsistencies were sorted and integrated. This process eventually led to the development of the

categories identified and presented in Chapter 4. Theories were pinpointed and reviewed. This theoretical sorting process will lead to the development of substantive theory.

Final Writing: Chapters 4 and 5

It was the intent of the final report to guide the reader through the investigation. It began with the identification of the research problem. Graphs, tables, flow charts, and timelines were used to provide transparency and explicate concept relationships and category development. Finally, a concise presentation of the grounded theory hypothesis statement(s) was provided (Corbin & Strauss, 2008).

Dissemination

The findings and grounded theory hypothesis statement(s) are presented in Chapters 4 and 5 of this manuscript. In addition, a summary of the presentation was mailed to all elementary principals who successfully completed Phase I of this study. The summary will also be mailed to Marilyn Wescott, Director of Product Design and Development/Senior Consultant for JSA and the Interim Director of SQSNM; and Dr. Peter Winograd, Director the New Mexico Office of Educational Accountability. These individuals are free to distribute the summary as needed.

Finally, I would like to report the findings to the group who oversees Strengthening Quality in Schools New Mexico, to the Governor's

Business Executives for Education, and at the Baldrige, Quality in Education New Mexico conference.

Chapter 3 Summary

This chapter began by providing an account of the research purpose and research questions. An overview of the Qualitative Grounded Theory research was supplied and a justification for the use of this methodology was stated. The sample population was described and the human subject safeguards were listed. The procedures used in data collection, data analysis were identified. The chapter ended with a discussion of how the research findings would be disseminated.

Chapter 4: Results

Overview

In 1991, the New Mexico Public Education Department adopted the Baldrige system reform as its primary school reform strategy (Albuquerque Business Education Compact [ABEC], n.d.). By August 2006, over 500 schools in 73 school districts had received training in the Baldrige system reform (Strength in Quality Schools [SQS], n.d.c). In many of these schools, student achievement showed a dramatic increase; however, there were also large numbers of schools that began the reform and did not realize an increase in student achievement. In 2006, Dr. Peter Winograd, Director of Educational Accountability for the New Mexico Public Education Department, studied 48 schools that had received the same 8 days of on-site Baldrige training through Jim Shipley & Associates trainers (Winograd, 2007). It was noted that 30 New Mexico schools had shown a positive change in student reading proficiency while 18 schools had shown a loss in student reading proficiency (Winograd, 2007). This large spread in student achievement should not have existed between schools. There was a need to investigate why some schools were succeeding and others were not, although even though all principals had participated in same training.

Purpose

If the Baldrige reform was so very successful in some schools, why was it not successful in all schools? In many cases, principals start the

journey without the ability to count the cost. That is, they do not have an inkling of the challenges they will face or the resources they will need to be successful. Principals who begin the Baldrige reform need a well-marked trail to follow from commencement to full deployment. There was a need to study this issue and learn more about what was causing this discrepancy in performance and compromising this reform model (Winograd, 2007). There was a need for the development of grounded hypotheses for use as a guide for further research (Glaser, 2008). Therefore, the purpose of this study was to (a) identify and study the commonly occurring barriers that impeded Baldrige reform efforts, (b) explore practices that will enable principals to foresee and avoid barriers, (c) explore practices that will enable schools to overcome the barriers, and (d) identify ways to expedite the implementation of this proven reform. This information was used in the development of a constructivist grounded hypotheses that will serve as a guide for further research.

Design

This study was qualitative in nature and utilized a constructivist grounded theory methodology. The study had two phases. Phase I involved sending a survey to 132 elementary principals in New Mexico. The survey was used to identify principals:

- Who had been serving as principals at their current school of employment for 3 or more years.
- Who had been engaged in implementation of the Baldrige reform

- Who had received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office.
- Who were committed to a successful implementation of the Baldrige reform.
- Who were willing to participate in the Phase II telephone interview.

A sample of the Phase I written survey can be found in Appendix G.

Phase II involved a telephone interview of principals identified through the Phase I written survey. During the telephone interview, principals answered five questions that provided basic demographic information about their school and answered five open-ended questions involving implementation of the Baldrige initiative at their school sites.

During the Phase II telephone interview, the initial research questions were intended to put the interviewee at ease and to provide demographic information about their school. The questions included:

- The number of students at the school site.
- The approximate percent of students participating in the school's free and reduced lunch program.
- The school's No Child Left Behind rating (Progressing, S1=School Improvement, S2 = School Improvement 2, CA Corrective Action, R-1 = Restructuring 1, R-2 = Restructuring 2, Delay = made AYP, the first of 2 years required to return to Progressing.
- The number of years of engagement with the Baldrige system reform as an elementary principal.

- The school's history with the Baldrige System Reform: (Type of Baldrige intervention: Deployment, Pilot School or Regional Training Center).

After obtaining demographic information, the interview progressed to the five central research questions. These questions called for analytical and evaluative thinking. The five essential research questions were:

1. As you work to implement the Baldrige system approach at your school, what barriers, if any, have you faced?
2. At what phase of the implementation process did the barriers occur?
3. How did you overcome these barriers?
4. Looking back was there anything you could have done to prepare for, minimize, or avoid the barrier(s)?
5. If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would you identify?

Chapter Organization

The remainder of this chapter is divided into five sections. The first section describes the research approval process, the second describes the data organization processes, the third section describe the data analysis process, the fourth section reports the demographic information provided by the first five questions and, the fifth section

reports findings from the five essential questions. The participants' responses and quotations in this chapter were obtained through a survey and interviews conducted from June 30, 2010 through December 15, 2010.

Process for Research Approval

The steps in the research approval process included: (a) obtaining the superintendent's permission to conduct research for each school district of study, (b) applying and receiving approval from the Pepperdine Institutional Review Board to conduct research in school districts where I had received approval from the superintendent, (c) preparing and submission of an application to a school district that had its own IRB process, (d) requesting and receiving approval from the Pepperdine IRB to modify the research tools as requested by a district that had it own IRB process, and (e) requesting and receiving approval from the Pepperdine IRB to conduct research in all school districts where the superintendent's permission to conduct research was received after the Pepperdine IRB approval had been granted. Detailed information about these processes is provided in Table 8.

Phase I: Written Survey - Process for Organizing of Data

After permission to conduct research was received from the Pepperdine IRB, Phase I Potential Subject Recruitment Surveys (Written Surveys) were mailed to 132 elementary principals serving in nine

districts. As Phase I data were collected it was sorted into five categories. These categories are described in Table 6.

Table 6

Phase I: Written Survey - Process for Organizing of Data

Phase I: Written Survey - Process for Organizing of Data				
Category 1. Those who signed and returned the Informed Consent letter; who have been involved in the implementation of the Baldrige school reform at their current school of employment for the past 3 years; who have received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office and who indicate an earnest commitment to the Baldrige reform by selecting statement A in the recruitment survey. . This category will also be grouped by training model –Deployment, Pilot or RQC	*Category 2.* Those who signed and returned the Informed Consent letter; who have been involved in the implementation of the Baldrige school reform at their current school of employment for the past 3 years; who have received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office and who indicate an earnest commitment to the Baldrige reform by selecting statement B in the recruitment survey. This category will also be grouped by training model –Deployment, Pilot or RQC.	*Category 3.* Those who return incomplete forms.	*Category 4.* The names and contact information of principals that failed to respond to the survey.	*Category 5.* Those who returned the Informed Consent letter and indicate they did not wish to participate. And/OR Had not been at their current school for a minimum of 3 year minimum survey And/OR Had not received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office And/OR Had selected option *C, D,* or *E* on the Written Survey Form

Thirty principals responded to this survey. Based on their responses, 10 of the principals met the Category 1 or Category 2 criteria, 1 principal met the Category 3, 102 principals met the Category 4 criteria, and 19 met the Category 5 criteria. This information has been summarized in Table 7. In Table 8, a log of the research approval and data collection process is provided.

Table 7

Principal Survey Response

Category 1	Category 2	Category 3	Category 4	Category 5
2	8	1	102	19

Phase II: Telephone Interview - Process for Organization of Data

Digital recording. During Phase II, the telephone interviews were recorded using an Olympus VN- 3200 PC Digital Voice recorder. This device provided high quality digital recordings that were stored using traditional computer-based backup systems. The confidentiality of the data was password protected.

Interview transcription. The Phase II telephone interviews were transcribed using the transcription feature provided in the NVivo ® software produced by QSR International. Transcripts from the interviews were emailed to subjects to confirm accuracy of the transcription process. If the subject did not reply within two weeks, it was assumed the transcript was accurate.

Table 8

Log of the Research Approval and Data Collection Process

Date	Action	Response
12.05.2010	Permission to conduct research letters was mailed to 16 superintendents.	Three superintendents granted permission to conduct research.
1.2010	A telephone call was placed to all superintendents who had not responded.	
1.30.2010	Permission to conduct letters were mailed a second time to the superintendents who had not responded.	Five additional superintendents granted permission to conduct research. One large school district in the southwest responded by sending their IRB application packet.
1.19.2010	Submission of IRB application to Pepperdine Review Board	June 4, 2010 Pepperdine IRB application approved
6.05.2010	Mailed Phase I Written Survey to elementary principals of approved school districts.	Two principals were identified for Phase II telephone interviews. On 6.30.10 & 8.3.10 interviews were conducted.
6.28.2010	Requested date change modification on IRB application	7.12.10 Requested date change modification approved by Pepperdine IRB.
7.17.2010	Submission of IRB application to large school district in the southwest.	10.1.2010 Approval granted to conduct research in large school district in the southwest.
9.6.2010	Phase I Written Survey was re-mailed to the elementary principals of approved school districts that had failed to respond to the 6.5.10 mailing.	One principal was identified for Phase II telephone interviews. On 11.20.2010 the interview was conducted.

(continued)

Date	Action	Response
9.17.2010-9.20.2010	The search was broadened to include districts that contracted professional development services from JSA in the past 3 years, but were not listed on the SQS website. Two school districts were identified.	One additional superintendent granted permission to conduct research.
10.12.2010	Requested Pepperdine IRB to approved modifications to research tools as required by school district IRB process.	10.29.2010 Requested changes approved by Pepperdine IRB.
10.12.2010	Request modification to Pepperdine IRB to include permission to conduct research in one additional school district.	10.29.2010 Requested changes approved by Pepperdine IRB.
10.30.2010	Mail Phase I Written Survey to elementary principals of newly approved school districts.	Six principals were identified for Phase II telephone interviews. Interviews were conducted on 11.10.2010, 11.17.2010, 11.30.2010, 12.3.2010, 12.3.2010, & 12.9.2010.
12.6.2010–12.18.2010	Twelve subjects were not identified. Therefore, Principals identified for Category 3 and Category 4 were reviewed and 103 potential subjects were identified. A personal call was placed to each principal – 103 calls.	One principal was identified for Phase II telephone interviews. On 12.15.2010, the interview was conducted.

Phase II Data Organization Procedures

After each transcription, the subject's name was replaced with a letter from the Greek alphabet (see Appendix L). The original transcription, which included the subject's name, school, and school district, was maintained in a separate file folder for emergency reference.

The transcript was imported as a source file into the NVivo data-base. Each interview transcript was transferred into a Case Node. A Tree Node was created for each of the ten questions. At that point, the data were ready for analysis.

Data Analysis (Phase III): Initial Data Coding

Process for analyzing data. Data were initially analyzed using established grounded theory processes involving coding. These processes were assisted through the use of NVivo ® qualitative analysis software. Case nodes were created for each principal interview, a tree node was created for each question, and free notes were created for each substantive concept. In this initial process 9 case nodes were created, one for each interview; 10 tree nodes where created, one for each questions; and 188 free nodes were identified. This was followed by early memo writing. In this incipient process, I read through all nodes and jotted down speculative ideas involving relationships between and among the various free nodes. Early memo writing was followed by focused coding. In this process, the free nodes were compared and contrasted and then placed in groups. At the end of the focused coding process, 29 tree nodes had been emerged. During the next analysis process, advance memo writing was combined with the writing of Chapter 4. Axial coding was employed to further refine and combine categories based on their relationships one to another. In this process, the 29 tree nodes were merged into 19 tree nodes. Chapter 4 represents the culmination of the

advanced memo writing process and these 19 tree nodes were presented and discussed in this chapter.

Review of Phase I Demographic Information

Research question 1: Approximate number of students at each school site. Participating principals were assured their responses would remain confidential. In order to maintain anonymity of the subjects, the demographic information has been grouped and reported in tables rather than reported by each elementary school.

The approximate enrollment of the nine elementary schools is represented in Table 9. In this study, there was a good representation of schools ranging from smaller schools to some of the largest schools in New Mexico. There was also good sampling of schools with a more typical enrollment.

Table 9

Approximate Enrollment at Nine Elementary Schools

200-299	300-499	500-699	700-1200
Alpha Delta Epsilon	Theta	Beta Zeta Iota	Gamma Eta

Research question 2: Approximate percent of students participating in free and reduced lunch program. Table 10 reports the approximate percent of students participating in free and reduced lunch program. The mean percentage was 71% and the median

percentage was 79%. Schools comprising the mode had 100% participation in Free and Reduce lunch program.

Table 10

Approximate Percent of Students Participating in Free and Reduced Lunch Program

0 %-25%	26%-50%	51%-75%	76%-100%
Alpha Zeta		Beta Epsilon	Delta Gamma Eta Theta Iota

There was a wide cultural spread in schools represented in this study. Some schools were comprised almost entirely of students from middle to higher social economic backgrounds, while other schools were comprised entirely of students coming from homes of poverty. The data showed a negative skew of -0.934, which indicates the most of the five schools listed in the right column had a very high percentage of students of poverty.

Research question 3: The school's No Child Left Behind rating. In Table 11, the schools in the study were compared with the New Mexico State-wide Improvement Status data. A higher percentage of the schools in this study have maintained the status of progressing and a lower percentage of the schools in this study have the Restructuring 2 status (New Mexico Public Education Department, n.d.).

Table 11

2010 School Improvement Status Compared With Status of Principals/Schools Under Study

New Mexico School Improvement Status	Principals/ Schools Under Study	2010 New Mexico School Improvement Status
Progressing	37.5	33.9
S1=School Improvement	12.5	9.1
S2 = School Improvement	25.0	12.6
CA Corrective Action	0	7.3
R-1 = Restructuring 1	12.5	8.3
R-2 = Restructuring 2	12.5	28.9
No Rating	Alpha	

Research Question 4: How many years have you been engaged in the Baldrige system reform as an elementary principal?

The average subject had been engaged as a principal involved in implementation of the Baldrige school reform for 7.5 years (see Figure 6).

Iota	*Zeta*	*Gamma*	*Beta*	*Epsilon*	*Alpha*	*Delta*	*Eta*	*Theta*
4	*5*	*6*	*7*	*8*	*9*	*9*	*10*	*10*

Figure 6. Principals' years of engagement on the Baldrige reform.

The principals with the most experience had 10 years and the principal with the least experience had 4 years. The median principal had 8 years of experience. The data were bimodal with two sets of principals with 9 years of experience and two sets of principals with 10 years of

experience. The principals who chose to participate in this process brought much more depth to the research than was built into the design, which was requiring a minimum of 3 years experience.

Research question 5: School's history with the Baldrige system reform: What was the type of Baldrige intervention: deployment, pilot school or regional training center? As noted in Table 12, the majority of the subjects had a history of participation with the Deployment intervention model. Superintendents from three of the four school districts who had pilot schools did not grant permission to conduct research did not have an elementary school classified as a Pilot school. The one superintendent who did grant permission to conduct research did not have an elementary school classified as a Pilot school.

Table 12

Reform Models

Reform Model	Principal
Deployment	Alpha Beta Gamma Epsilon Zeta Eta Theta Iota
Regional Training Center	Delta Zeta
Pilot	

Essential Research Question One

Essential research question 1: As you work to implement the Baldrige system approach at your school, what barriers, if any, have you faced?

Response overview. The responses to this question included the following topics: No Barriers, Buy-in, Time for Training, Training Materials, and Change in Building Leadership. Each of these responses has been summarized in Table 13.

Table 13

List of Barriers Identified in Essential Research Question One

Barriers	Barrier Description
No Barriers	One of the principals interviewed felt he had faced no barriers in the implementation of the Baldrige reform.
Buy-in	Two of the principals interviewed felt the biggest barrier they faced involved engaging teachers who did not fully committee to the continuous improvement process.
Time for Training	Two of the principals interviewed felt the biggest barrier they faced involved a shortage of time for training and time for training follow up
Training Materials	One principal felt the materials were "wordy" and "overwhelming."
Change in Leadership	Three principals noted they had been assigned to a school already engaged in the Baldrige Reform. All 3 principals referenced the difficult transition period they had gone through, as they defined their leadership vision at the school.

No barriers. One of the principals interviewed felt he had faced no barriers in the implementation of this reform. For example, he said, "I don't think there has been any real barriers at all. It has been a very positive approach and all the other aspects. I do not know that we could

have found a better organization for our stakeholders. So, I don't see any barriers".

Buy-in. Two of the principals interviewed felt the biggest barrier they faced involved teacher buy-in. That is, teachers who did not fully buy into the process of continuous improvement. One principal identified these teachers "as the obstacles" and later in the interview referenced them as "submarine commanders." The other principal noted that "some of the teachers asked the same old questions and used the same old statements," Why do we have to do this? And what good is it, because next year it will go away." This principal also noted that the Baldrige process comes with greater "responsibility and accountability and that initially, teachers did not see that as a good thing."

Time. Two of the principals interviewed felt the biggest barrier they faced involved a shortage of time for training and time for training follow up.

Training materials. One principal felt the biggest barrier she faced were the training materials. She felt the materials were "wordy," "overwhelming," and that they "turned teachers off."

Change in building leadership. During the interview process, 3 principals noted they had been assigned to a school already engaged in the Baldrige Reform. All 3 principals referenced the difficult transition period they had gone through. During this period, they were deeply

engaged in redefining the reform in their terms, rather than the terms of their predecessor.

In the following quotes, the struggle 2 of principals were having is briefly defined. In both cases intensity of the struggle is evidenced through their word choice: "When I got here it was heavy Baldrige. But it was a lot of wallpaper. It was not meaningful for the teachers and it wasn't meaningful for the kids. So we scrapped it" and "The biggest challenge that I faced - I had a group of teachers who were considered to be our continuous improvement Baldrige experts. They ended up using Baldrige as a curriculum rather than a classroom tool. I had to fight them about that. Eventually, what happened is -- they moved on. Which of course, was their choice. Once they moved on, I had to restructure our school's ideas and beliefs about how Baldrige was to be used."

Essential Research Question Two

Essential research question 2: At what phase of the implementation process did the barriers occur?

Response overview. The responses to this question fell into two categories: initially and throughout. Each of these responses has been summarized in Table 14.

Initially. The majority of the principals interviewed felt the preponderance of the barriers occurred initially during the awareness phase of the adoption process. With some principals "initially" implied the first year and with others the term seemed to be a longer span of 1 to

Table 14

When did the Barriers Occur?

Barrier Timing	Barrier Description
Initially	The majority of the principals interviewed felt the preponderance of the barriers occurred initially during the awareness phase of the adoption process. The greatest barrier noted involved obtaining staff buy-in.
Throughout	Schools experience ongoing staff turnover. Turnover occurs at the teacher and the principal level. In both situations, the principal's role in articulating and modeling the school vision was emphasized.

3 years. One barrier involved the challenge of getting staff trained. Another barrier was modification of the training materials. The third and greatest barrier noted was staff engagement. Key phases describing this included obtaining "staff buy-in," "convincing staff," creating "ownership," and "sense" making.

Additionally, 4 principals made references indicating that once continuous improvement processes were established, staff would naturally return to them as problem resolution tools. In the following quote, Principal Delta, does a wonderful job creating context for this notion:

> It is second nature. Your kids are in transition from PE back to the classroom and they are awful. We're not happy with that and so the teacher takes data and kids ask, 'Well how did we do?' Then they mark it and the kids look at the data and say, 'We're not

good, we're awful'. Then they do a PDSA on it and then it is done. You do not have to come back and address it.

Throughout. Principal Alpha emphasized the importance of convincing teachers and obtaining buy-in during the awareness phase. However, she also noted the importance of setting clear expectations and making people accountable well into the deployment process. As noted in Figure 6, Principal Alpha is in her 9th year of implementation and she is still having "chats" with teachers to say, this is the expectation."

Three principals also found themselves in the unique position of being a new principal at a school that had reached the deployment stage of intervention. Two of the principals were quoted in the discussion of essential question one. I saved the discussion of the 3rd principal, Beta, for this question. Beta found herself in that not-so-unique position of being an experienced Baldrige principal, arriving at a school that had been engaged in the Baldrige reform for 7 years. She assumed that the staff would be a lot further along than they were. She found that most of the staff was on board, but "we still had those -- one at each grade level ---- that just wanted to do their own thing. They did not want to follow any of the continuous improvement components."

Essential Research Question Three

Essential research question 3: How did you overcome these barriers?

Response overview. The responses to this question fell into three categories: (a) hold them accountable, (b) training, and (c) training materials. Each of these responses has been summarized in Table 15.

Table 15

Overcoming the Barriers

Success Strategy	Success Strategy Description
Hold Them Accountable	This solution addressed the concern with staff buy-in. Four of the principals developed clear school-wide performance expectations and held staff members accountable by following up and monitoring implementation.
Training	Two principals reduced or eliminated implementation barriers through the use of sustained embedded professional development activities.
Training Materials	One principal found the training materials to be wordy and overwhelming. This teacher simplified the materials and modeled the strategies.

Hold them accountable. In reference to overcoming the barrier created when staff members failed to buy-in to the reform process, 4 of the principals developed clear school-wide performance expectations and held staff members accountable by following up and monitoring implementation. When teachers failed to perform, they provided additional training for the staff members while maintaining the same high performance expectations.

Principal Delta, was a principal in a district engaged in a district-wide Baldrige implementation. Those at Central Office were making clear expectations regarding the development of district-wide and school-wide educational improvement plans. Building teams were meeting with teams from other schools. As a result, staff members felt an additional push to get onboard. This district also developed a plan for the gradual deployment of the reform. In this plan people were allowed time to gradually learn the process. The following quote provides an understanding of how the district adoption planned worked, "We worked out a training and by the end of that first year the only way we held people accountable at the end of that first year was mission and vision statements for their classrooms, and mission statements for their reading and math."

Many of the principals mentioned the need to create a collaborative school climate that supported continuous improvement processes such as the development of mission statements, goal teams, grade level teams, frequent assessment and on-going reference to data as a guide for decision making. These processes called for greater teacher responsibility and greater teacher transparency. In many cases, the principals used peer pressure to enroll reluctant staff members. In the following quote, Principal Beta describes how this process worked at her school:

> But it took a lot of tears and pushing and shoving --- in the sense that when staff didn't want to do things, the other staff started saying, You know what, we're moving in the right direction and so little by little those submarine commanders have either left the building, they have gone to other schools, they retired --- or --- they have come onboard.

Finally, there comes a time for the reluctant teachers to make a decision. In the following quote, Principal Gamma describes this process:

> First off, I had to have some critical and very straight forward conversations with the barriers- the employees themselves. They did not like what I had to say. They did not like what I had to say -- so much -- that they made a choice. That was the choice to move on. Once they moved on, I was able to have more meaningful conversations with other staff members who were ready to use the Baldrige model as it was meant to be used. I have very, very excellent teachers at my school. They all have very, very high standards. They love teaching and they love student learning. So, what we were able to do, was to use the Continuous Improvement framework as a tool to increase student learning. When that happened, things got better. We're seeing steady gains.

Training. Principals Eta and Iota reduced or eliminated implementation barriers through the use of sustained embedded

professional development activities. The commitment and focus of this solution is captured in the following quote, “We continue to work on them. We are constantly assessing our level of understanding and reorganizing our instruction and reorganizing our professional development. We continue to do the PDSA.

Training materials. Principal Theta found the training materials to be “wordy,” “overwhelming,” and hard for the teachers to digest. She broke the concepts down and simplified the terminology. She modeled the strategies, observed the teachers, and provided feedback on their instruction and lessons design.

Essential Research Question Four

Essential research question 4: Looking back was there anything you could have done to prepare for, minimize, or avoid the barrier(s)?

Response overview. The responses to this question fell into three categories: (a) no, we were learning together, (b) leadership changes, (c) assumptions, (d) training materials, and (e) being proactive. Each of these responses has been summarized in Table 16.

No, we were learning together. As noted earlier in this chapter, several of the principals who participated in this study have been implementing the Baldrige reform for 9 or 10 years. These principals felt that when they were getting started, the reform was so new, they were

pioneers in the development of the processes. Principal Alpha's pioneering spirit is captured in the following quote, "When we got involved, it was at a point when the trainers themselves were still trying to figure out what to do. I mean, how to deploy this in the educational setting. So we basically were just all learning together."

Table 16

Minimizing or Avoiding the Barriers

Success Strategy	Success Strategy Description
No, we were learning together	Several principals felt they had been working closely with the trainers in the early development of the reform processes.
Leadership Change	Three of the principals assumed leadership of their schools years after the school had engaged in the Baldrige reform. All three of these principals felt that, to some degree, conflict was unavoidable.
Assumptions	One principal had been engaged in the Baldrige Reform for 6 or 7 years when she received her new assignment as principal of school that had been engaged in the Baldrige reform for 6 or 7 years. She assumed they would have system reform process in place. Lessons from this experience taught the principal to start out slowly and developing and understanding of what teacher know rather than making assumptions.
Training	Throughout the interview process, principals noted the need for training as a deterrent to development of barriers.
Being Proactive	One principal noted the importance of creating an implementation blue print that included a calendar of training that is aligned with performance expectations.

Principal Eta, another pioneer, felt that a number of the barriers they faced have already been identified and eliminated:

> Well, I think they have some tools in place now -- that had we had them ten years ago, it would have helped. You know, with the goal teams and that kind of stuff - because that has clearer divided tasks - and has provided more ownership and buy into the whole

thing. The tools that they have now --- there are some of them that are really good.

Leadership change. As noted earlier in this chapter, 3 of the 9 principals assumed leadership of their schools years after the school had engaged in the Baldrige reform. All 3 of these principals felt that, to some degree, conflict was unavoidable. In the following quote, Principal Gamma's grit is most evident:

> No, I had to face it. When you have a change in leadership it is natural that challenges will happen to the new leadership. It would have happened to anybody. It was a challenge that happened with the change in leadership. There was nothing I could do to prevent it. There was nothing I could do to circumvent it. I found out exactly what was happening. When I found out what it was that was happening, I faced it head on. The principal before me went through forming, storming, norming, and then performing. When she left, we went all the way backward. We went through the forming and when we got to the storming, the only way I could get us through the storming was to confront it head-on. When those individuals chose to move on, we were able to reform and now we are starting to perform.

Assumptions. Principal Beta had been engaged in the Baldrige Reform for six or seven years when she received her new assignment as principal of school that had been engaged in the Baldrige reform for six

or seven years. She assumed they would have system reform process in place. In the following quote, she discusses what she learned about making assumptions:

> I came onboard with the idea that [Unnamed elementary] had already been with SQS for six or seven years --- so my expectations were very high. So instead of just holding off and seeing where everyone was, I just assumed ….. And I tried to go forward with what I believed should have been in place. So If I could go back and do this all over again, I would start out slow and get all my ducks in a row. That would have helped a lot. Because I could work on what teachers know instead of just assuming that you (the teacher) know and it is not getting done. Just as I always do now with this building now, I always get a pulse on how much do you know and what is it that I need to train you on.

Training. Throughout the interview process, principals mentioned the need for sustained training. Principal Theta felt adequate training would have prevented many of the barriers she faced from arising. She felt that if she could have afforded it, she would have taken her whole staff to the training.

Be proactive. In the school district where Principal Delta serves, the school district launched the Baldrige initiative in September. The launching was further complicated because the district was changing superintendents. Principal Delta noted that many of the start-up

barriers could have been avoided if the district would have taken time to develop a blue print for the implementation that included a clear plan for training.

Essential Research Question Five

Essential research question 5: If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would you identify?

Response overview. In many cases, the responses to this question were similar to the responses provided for earlier questions. There were four areas that either were new to this particular question or have been reserved for a discussion at the crucial ending point of the reporting process. These four areas are (a) Finding Time for Collaboration, (b) Tweaking, (c) Funding for Sustained Training, and (d) Central Office Support. Each of these responses has been summarized in Table 17.

Finding time for collaboration. Key to the Baldrige system reform, is the development of a school-wide culture of learning and continuous improvement. Learning processes are fed from two key sources, Knowledge Management and Data Analysis. Embedded in each interview was the foundational supposition that teachers need time to talk about ways to incorporate new teaching methods into their classroom instruction, and they need time to review assessment information to see if their instruction is effective. As principal Alpha

Table 17

Changes to Improve Current Baldrige-JSA reform

Success Strategy	Success Strategy Described
Finding Time for Collaboration	The key role collaboration plays in the implementation of continuous improvement processes was noted by all principals. Without time for collaboration, the process grinds to a halt.
Tweaking	Four principals discussed the importance of "tweaking" the implementation processes to fit the needs and culture of the staff.
Sustained Funding for Training	Six of the nine principals referenced the importance of sustained training as a needed tools in the on-going implementation of the reform
Central Office Support	In all cases, the principals were operating with an understanding that their central office superiors were in support of and encouraging their efforts to implement the Baldrige reform.

noted, "The goal teams are responsible for tracking the data; for making recommendations; for instruction and for pointing out the next steps in terms of where we have got to go to meet our benchmarks." Hence, time for collaboration becomes the linchpin of the reform. In most schools, arranging time for collaboration can be a daunting task. In the following quote, Principal Alpha references one strategy she found to be successful:

> Oh yes, just finding time for collaboration is always a struggle. So one of the things we did this year was to figure out a schedule that enabled the goal teams to meet on a rotating basis from 2:45 to 3:15, which is our independent reading time, while some of our other teachers were covering classes so people could meet.

As principals strive for sustainable academic achievement, those at Central office can be enrolled in the solution process. In this example, the superintendent assisted in the development of a solution:

> Okay, I think another way we were able to be successful - too – was around collaboration time – we petitioned our superintendent to consider minutes versus days for accreditation. And so that gave us one day a month that we could meet as a staff to work in goal teams.

Tweaking. When asked about suggested changes to the reform implementation, 4 principals discussed the importance of *tweaking* the implementation processes to fit the needs and culture of the staff. In three of the four times tweaking was identified in this study, the entire staff was engaged in the design of the modification. In the following quote, Principal Gamma provides description of their school-wide tweaking process, "I have identified a change and we did this with our staff last year. We came to consensus and we decided that it needed to happen together." The engagement of staff in the tweaking process was also evidenced at Iota's elementary. In the following quote, please note the use of the "we" pronoun in the school-wide decision making process, "We made our own adjustments to what suits us and what fits our school. We take the basic framework and hold on to the basic framework. I wouldn't say we do every single thing that they say to do."

Sustained funding for training. During the interview process, 6 of the 9 principals referenced the importance of training.

- Principal Zeta, "Well to do it right, you would need to have ample time to train your staff to assimilate and accommodate to how Baldrige would enhance their curriculum delivery and ultimately help students' productivity in improving test scores."
- Principal Alpha, "Funding is critical."
- Principal Beta, "Although we maintain continuous improvement in the classroom, we have not been to any training in the last two years. I could not afford it. But up to that point, they were making some wonderful changes."
- Principal Delta, "I guess more sustained. We train a staff and then we say we're trained. We saw tremendous examples of how this was helping in the classroom. That is the things that really helped us." Principal Alpha, "Well, considering that SQS and Shipley are not going to be in place anymore because the GBEEs, and neither is Sandia, I believe what I would do is find money to cover the cost of that --- to continue training. But I also believe there has to be a commitment from the administration of any school --- that they are going to do this."

All 6 principals conveyed the sentiment that there was a time when Baldrige was the featured professional development concern. Now,

funding for Baldrige training has been withdrawn and the principals are left attempting to sustain the reform without support.

Central office support. Throughout the interview process, the principals gave tacit references to central office support. Principal Alpha mentioned, "We petitioned our superintendent to consider minutes versus days for accreditation" and Principal Delta mentioned a district-wide support in training his Instructional Council. However, in all cases the principals were operating with an understanding that their Central Office superiors were in support of and encouraging their efforts to implement the Baldrige reform.

Chapter 4 Summary

Summary of the five demographic questions. By the end of the study, eighteen superintendents received letters requesting permission to conduct research. Nine of these superintendents responded in the affirmative. Phase I Potential Subject Recruitment Surveys (Written Surveys) were mailed to 132 elementary principals serving in these nine districts. Thirty principals responded to this survey. Based on their responses, 10 of the principals met the Category 1 or Category 2 criteria, 1 principal met the Category 3, 102 principals met the Category 4 criteria, and 19 met the Category 5 criteria. This information has been summarized in Table 7. Therefore, 10 principals representing three school districts qualified to participate in the Phase II telephone interview. During the telephone interview process, it became apparent

that one interviewee had not received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office and this interview was respectfully concluded. Therefore, nine successful interviews were conducted.

Summary of the five essential questions. The first question was concerned with the identification of barriers the principals had faced during implementation of the Baldrige reform. The barriers listed included: No Barriers, Buy-in, Time for Training, Training Materials, and Change in Building Leadership.

The second question asked when the barriers occurred. Most of the principals felt the majority of the barriers occurred during the start-up process. However, it was noted that throughout the process, principals must communicate clear performance expectations and monitor implementation. Three principals were assigned to their schools after the school was well along in the implementation. Each of these principals went through a period of storming, as new expectations were communicated and adopted by the staff.

The third question asked how principals overcame the barriers. There were three major responses. The first addressed the principal's need to communicate and model the school vision and mission. The second topic identified the importance of training in addressing and overcoming barriers. The third topic addressed the need for principals to modify the training materials to fit the learning need of the teachers.

The fourth question asked participant what they could have done to prepare for, minimize, or avoid the barrier(s)? There were three major responses. The first response involved a change in leadership. The principals who found themselves in this situation noted the need to do a good job communicating their vision, while understanding that not all teachers will agree or fit into the school culture they plan to create. The second response involved the need for new principals to identify the true performance levels of teachers, rather than basing performance expectations on assumptions. The third response noted the importance of timely training as this will address the concerns before the barrier has time to develop.

The fifth question asked participant what changes they would make to improve the implementation of this initiative? The first response noted the importance of developing time within the workday for teacher collaboration. The second response noted that many schools do in fact tweak the process to fit the individual needs of their school. The third response identified the need for sustained funding for on-going implementation at school sites. The fourth response addressed the important role those at Central Office leadership play in supporting and sustaining the Baldrige reform.

Chapter 5: Discussion of Findings, Theoretical Perspectives, and Recommendations

In 2006, Dr. Peter Winograd, Director of Educational Accountability for the New Mexico Public Education Department, studied 48 schools that had received the same 8 days of on-site Baldrige training through Jim Shipley & Associates trainers (Winograd, 2007). His research noted that 30 New Mexico schools had shown a positive change in student reading proficiency while 18 schools had shown a loss in student reading proficiency (Winograd, 2007). If the Baldrige reform was so very successful in some schools, why was it not successful in all schools? This compelling question intrigued me as an educational leader and a researcher and led me to identifying the purpose of this study.

The purpose of this study was to (a) identify and study the commonly occurring barriers that impeded Baldrige reform efforts, (b) explore practices that will enable principals to foresee and avoid barriers, (c) explore practices that will enable schools to overcome the barriers, and (d) identify ways to expedite the implementation of this proven reform The following questions served as a guide for the study:

1. As you work to implement the Baldrige system approach at your school, what barriers, if any, have you faced?
2. At what phase of the implementation process did the barriers occur?
3. How did you overcome these barriers?

4. Looking back was there anything you could have done to prepare for, minimize, or avoid the barrier(s)?
5. If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would you identify?

This study was qualitative in nature and utilized a constructivist grounded theory methodology (Charmaz, 2006). The study had two phases. Phase I involved sending a survey to 132 elementary principals in New Mexico. The survey was used to identify principals who had been serving as principals at their current school of employment for 3 or more years, who had been engaged in implementation of the Baldrige reform, who had received training from Jim Shipley trainers as contracted by the SQS New Mexico's Office, who were committed to a successful implementation of the Baldrige reform, and who were willing to participate in the Phase II telephone interview. Thirty principals responded to the Phase I survey and 9 principals actually met the Phase II interview criteria. All 9 of these elementary principals participated in the telephone interview.

The key findings from this study will be discussed in the following sections, a theoretical perspective will be presented to explain why some schools' Baldrige reform efforts had less successful outcomes than others and to shed light on what constitutes successful implementation practice. Finally, recommendations will be offered for further research.

Discussion of Key Findings

During the telephone interview process, elementary principals identified staff buy-in, time for training, training materials, and change in building leadership as the most significant implementation barriers. The principals also proffered a wide array of ways to prepare for, avoid, or overcome these barriers. A discussion of the findings has been provided in the following paragraphs.

Barrier: Staff buy-in. Principals identified staff buy-in as a major barrier to the implementation of this reform (Gladwell, 2002; Rogers, 2003). This barrier was also identified by Dr. Kaufman's in his 2009 study of performance management and school reform. Dr. Kaufman noted that there are classrooms that seem to remain unchanged even after the teachers have participated in the reform training process.

The barriers created by lack of staff buy-in were at their greatest intensity during the early adoption (Beckhard & Pritchard, 1992; Evans, 1996). However, when the existing building principal left and a new principal was appointed, staff buy-in resurfaced as a significant barrier (Egolf, 2001; Goodman, 1994).

Preparing for, avoiding, and overcoming the barrier of teacher buy-in. First and for most, one principal noted the importance of being proactive by developing a long-range school reform plan (Bolman & Deal, 1997). This could take the form of a long-range blue print, complete with staff development plans that closely aligned with classroom expectations

(Marzano, 2007; Marzano, Norford, Paynter, Pickering, & Gaddy, 2001; Senge et al., 2000).

When faced with lack of teacher commitment during the early phase, principals stated that it was important to start slow and then add additional expectations as teachers began to value and appreciate the reform process (Beckhard & Pritchard, 1992; Evans, 1996; Rogers, 2003). They felt appropriate and timely training would go a long way to address concerns and misunderstandings while developing new understandings and encouraging buy-in.

As their schools transitioned into becoming professional learning communities, the school culture encouraged involvement and ownership of the processes (Lindsey, Jungwirth, Pahl, & Lindsey, 2009). Teachers began to hold one another accountable for reform implementation and peer pressure served to promote buy-in (Csikszentmihalyi, 2003; DuFour & Eaker, 1998).

When faced with lack of teacher commitment during the deployment phase, principals cited the importance of sustained embedded professional development (Elmore, 2002). They also emphasized the importance of providing clear expectations (Alvy & Robbins, 1998). These principals closely monitored, modeled, and coached teachers to ensure reform processes were appropriate and meaningful to both staff and students (Reeves, 2006).

Barrier: Time for training. Another significant obstacle identified by principals was a shortage of time for training and training follow up (DuFour & Eaker, 1998; Lezotte & McKee, 2002). They recognized this as a problem throughout both the awareness and deployment phases. This critical barrier also appeared in Dr. Tourgee's (1994) study of teacher mental models and the impact these models have on adoption of reform. She concluded that time for reflective thinking was the most critical barrier (Tourgee, 1994).

Preparing for, avoiding, and overcoming the barrier of time for training. Principals advocated a training hybrid that included both on-site, context-rich embedded training, as well as, the importance of taking teachers to regional trainings where they may meet with teachers of other schools (Elmore, 2002; Wellman & Lipton, 2004). While at conferences, teachers learned from the experiences of others, while validating their personal efforts and progress (Senge et al., 2000).

Principals used four different approaches to address the time concern. One strategy was to meet with Central Office superiors and request the use of district and federal professional development funds to pay teachers stipends for after school and weekend training (DuFour & Eaker, 1998; Lezotte & McKee, 2002). Another strategy was to add brief training clips during staff meeting times (Lezotte & McKee, 2002). The third approach was to gain the superintendent's approval to base accreditation on the number of hours of student contact time, rather

than number of days (Lezotte & McKee, 2002). In this approach, the number of instructional hours exceeded the state requirement, so students could be released and staff would have time for professional development (Lezotte & McKee, 2002). In the final approach, the principal and staff developed a rotating schedule that enabled some staff members to meet while others covered classes (Lezotte & McKee, 2002).

Barrier: Training materials. One of the principals felt the materials were "wordy". She noted that the busy format design and specialized vocabulary was overwhelming to teachers.

Preparing for, avoiding, and overcoming the barrier of training materials. This principal scaffolded the concepts and simplified the terminology (McKenzie, 2000). She modeled the reform strategies and performed classroom observations, which were followed by coaching (JSA, 2009; Reeves, 2006). It must be noted that another principal stated that the materials' "tools" were much improved and very useful.

Barrier: Change in leadership. Surprisingly, 3 of the 9 principals interviewed began their tenure at the school while the school was in the deployment phase. In all cases, the principals went through a turbulent period as they established themselves as the building leader. This finding was consistent with the finding in Dr. Goodman's 1994 study of the school reform processes at Harris Elementary School. She identified staff and administrative stability as an attributing factor to the gradual

increase in student achievement and the perpetuation of the reform (Goodman, 1994).

Preparing for, avoiding, and overcoming the barrier of change in leadership. These principals did not feel it was possible to avoid the barrier (Alvy & Robbins, 1998; Fullan, 2005; Hargreaves & Fullan, 1998). They emphasized the importance of developing and clearly articulating their vision and expectations (Beckhard & Pritchard, 1992). They consistently visited classrooms to monitor and document teacher performance (Payne & Magee, 2010). In two of the three cases, there were classroom teachers who failed to commit to the process. These principals chose to confront the dissenting teachers using the direct dialog process (Alvy & Robbins, 1998). In some cases, the teachers chose to commit to the reform. In many cases, the teachers chose to transfer to a school that provided a closer match to their philosophy of education.

Identify ways to expedite the implementation of this proven reform.

Finding time for collaboration. Principals identified collaboration as a key element of the Baldrige Continuous School Improvement reform (DuFour & Eaker, 1998; Lindsey et al., 2009; Senge, et al. 2000; Wellman & Lipton, 2004). They repeatedly referenced the importance of providing time for professional conversation surrounding curriculum, assessment, student intervention, design of the instructional day, design of the stakeholder involvement processes, and ongoing

performance reviews (DuFour & Eaker, 1998). Principals' efforts were focused on the inclusion of the collaboration as a regularly scheduled workday event (Lezotte & McKee, 2002). This finding can be directly linked with the finding of Dr. Maynor's (2010) study of the development and perpetuation of professional learning communities. Maynor's research on professional learning communities identified time for collaboration as a major barrier. He noted that successful principals had an unrelenting solution focus on overcoming the time barrier (Maynor, 2010).

Many principals conveyed a sense of frustration because funding for training had ended. This lack of sustained funding was a predominate theme of the interview process. Principals noted that the reform is based on continuous improvement principles and they cited ongoing training as a prerequisite for continuous improvement (Senge et al., 2000).

Tweaking. Several principals mentioned the need to tweak the reform processes to fit the idiosyncrasies of their school staff. However, two of these principals felt they would have done less tweaking if they could have afforded consistent quality training.

Central office support. Superintendents were the gatekeepers of this research, as they had to grant approval before the elementary principal could be contacted. During the interview process, several principals directly referenced central office support and in many other

interviews central office support was an assumed condition (Jim Shipley & Associates, 2003c). The need for district-wide support for this reform was a golden thread that connected all principal interviews (Jim Shipley & Associates, 2003c, Senge, 1990). This finding was consistent with findings identified in Dr. Daniels' (2009) research on staff development. Dr. Daniels indicated that those at central office can have a positive or negative bearing on principal's site-based staff development activities depending on the quality of support and resources that they provide. Additionally, the significance of central office personnel as proponents of the reform was highlighted in Dr. Tourgee's 1994 study of teacher mental models. In her study, lack of understanding at the central office was identified as a key constraint (Daniels, 2009).

Constructivist Theoretical Perspectives and Implications

In many cases, principals started the journey without the ability to count the cost. That is, they did not have an inkling of the challenges they would face or the resources they would need to be successful. Principals who begin the Baldrige reform need a well-marked trail to follow from commencement to full deployment.

Schools across the nation are implementing the Baldrige school reform. Some schools are very successful and these schools are recognized on state and national websites. Three key websites are the NIST Baldrige homepage, the Quality New Mexico website, and the Jim Shipley and Associates website (www.nist.gov/baldrige/,

www.qualitynewmexico.org/index.shtml, and www.jimshipley.net/). Yet other schools with similar contexts, similarly trained principals, have not experienced success. In fact, some schools in this study experienced declines in student performance. In many of these cases, principals started the journey without the ability to count the cost. That is, they did not have an inkling of the challenges they would face or the resources they would need to be successful. Principals who begin the Baldrige reform need a well-marked trail to follow from commencement to full deployment.

Before the Baldrige reform can be hailed as a silver bullet, it must be honed into a model that provides clear descriptors identifying implementation fidelity in the classroom, at the school site, in the central office, and at the school board level. With this as a backdrop, I would like to offer the following theory for why some Baldrige reform schools do not achieve desired positive results/outcomes and offer some ideas for Baldrige reform leaders to consider to improve the outcomes of their efforts.

The differences in Baldrige reform school performance in the schools under study can be attributed to the fidelity of implementation. When implemented with fidelity for a period of 7 or more years, the Baldrige Continuous Improvement school reform will produce statically significant student achievement in 100% of the schools. Fidelity, for the purpose of this hypothesis, must be defined as a score of proficient or

advanced on the Jim Shipley Systems III checklist as applied at each system level, the classroom, the school, the district and the school board level (Caldwell & JSA, 2001; JSA, 2003d, 2003e, 2004).

Findings from this study revealed three key categories related to the fidelity of implementation that are essential to the quality of the reform. The three categories are: (a) counting the cost; (b) initial: getting the reform up and running; and (c) long-term sustainability of the reform. Each of these recommendations will be discussed in the following paragraphs.

Counting the cost: Principals need a clear path. Principals connoted the importance of developing a long-range school system reform plan: A proactive long-term blue print for change. All school districts have long-range facility management plans, but few, if any, school districts have a long-range school system reform plan. The principals felt the proactive approach, a blue print, should call for the clarification of purpose through the development of a vision –that compels system workers and stakeholders to engage (Csikszentmihalyi, 2003; Wheatley, 1999). The blue print should call for the realignment of policies and procedures with the new school mission (Cohen & Hesselbein, 1999). The blue print will need to include strategic plans for long-term alignment of resources from the classroom to the boardroom (JSA, 2005). The principals participating in the interviews recognized implementation of this reform would only be possible in locations where

school boards, superintendents, and other critical central office staff provided unwavering long-term support for staff development and staff collaborations (DuFour & Eaker, 1998; Lezotte & McKee, 2002). Finally, the principals were advocating the development of a collaborative learning community where learning and innovation would be institutionalized – built into the design - and sustained (Lindsey et al., 2009).

Initial: Getting the reform up and running. All the principals that encountered barriers faced them during the early adoption or awareness phase (Rogers, 2003). During this period, the burden of the reform was on the shoulders of the building principal (Fielding et al., 2004). The principals not only created the vision, but they embodied the vision (Havener, 1999; Schein, 1997). The principals needed to develop and encourage processes that led to shared and distributed decision-making (DuFour & Eaker, 1998; Knowles, 2002; Lindsey et al., 2009; Senge et al., 2000). This included the development of schedules for grade level and goal team meetings (Reeves, 2006). When possible they needed to attend meetings and ensure the team regularly used evaluation criteria to monitor the quality of the session (Payne & Magee, 2010).

Most principals indicated that they followed a gradual adoption process (Beckhard & Pritchard, 1992; Rogers, 2003). This process helped teachers with feelings of being overwhelmed (Evans, 1996). Principals

noted the importance of timely, targeted training as a key process aimed at heading off barriers that arise when teachers are left to develop uninformed solutions (Lezotte & McKee, 2002; Reeves, 2006). Classroom performance expectations were closely aligned with the staff development (Elmore, 2002). Principals noted that the training included a hybrid of embedded on-site training as well as opportunities for teachers to network with their peers at regional training sessions (JSA, 2009). Finally, principals consistently monitored classroom implementation. They modeled the process and provided coaching when necessary (Payne & Magee, 2010; Reeves, 2006).

Throughout: Long-term sustainability of the reform. Principals emphasized the importance of maintaining a clear vision and ongoing maintenance of system process (Frankl, 1984). They noted that the system processes, mission development, classroom PDSA processes, data folder processes, grade level, and goal team meeting processes needed to be regularly monitored with an eye for improvement (Payne & Magee, 2010; Reeves, 2006; JSA, 2009). New staff had to be trained and returning staff had to be encouraged to follow new processes, rather than being allowed to return to old assumptions and habits (Havener, 1999; Schein, 1997).

Throughout the interview process, there was an undertone of frustration caused by feelings of abandonment. The principals had created the vision, embodied the vision, and had successfully led their

staff through the deployment process only to be abandoned in the harsh desert of limited resources. They noted the loss of funding for continued training. Some mentioned the loss of collaboration time and the struggles they were facing as they attempted to hold collaborative sessions after work hours or in makeshift situations that fail to provide equal collaboration time for the all staff (Lezotte & McKee, 2002). When staff members had said, "This too will pass." These principals stood their ground and compelled staff to go the extra mile and engage in this statewide reform. Now there was a sense that the all-critical alignment of resources had shifted. An unspoken question permeated the interview of many principals: "Has the day of this reform passed?"

Recommendations for Further Research

1. As noted earlier in this study, several principals mentioned the need to tweak the reform processes to fit the idiosyncrasies of their school staff. Each principal provided a justification for the needed modification. However, 2 of these principals felt they would have done less tweaking if they could have afforded consistent quality training. As these principals modify the processes, it is possible that the long-term effectiveness of the reform was compromised. For this reason, I would like to recommend a study to identify salient Baldrige reform practices for use in the classroom, at the school site, at central office and at the school board level. This study would be followed by a quantitative analysis of the academic performance of students

attending schools that implement the salient reform practices with 90% fidelity.

2. Surprisingly, 3 of the 9 principals interviewed began their tenure at the school while the school was in the deployment phase. In all cases, these principals went through a turbulent period, as they established themselves as the building leader. If a third of the schools in this study had experienced a leadership change, what is the percentage across the state? Do schools of poverty experience greater administrative turn over? Which schools have better administrative retention capabilities, rural schools or urban schools and why? What causes principals to leave schools? When principals leave, what happens to the reform implementation? Should school leaders assume that administrators would change and build depth in the school structure that will provide continuity in spite of leadership changes? If so, what are the characteristics of an enduring design? For reason of this nature, I would like to recommend a study on the length of principal tenure and impact principal turnover it can has on school reform and sustainable student achievement.
3. Principals identified collaboration as a central element of the Baldrige Continuous School Improvement reform. They frequently referenced the importance of providing time for professional discussion concerning curriculum, assessment, and student intervention. They mentioned the importance of including collaboration as a regularly

scheduled workday event. Yet, state agencies, school boards, and central office personal assume that collaborative endeavors are a distraction from student instruction. For this reason, I recommend a comparative investigation to identify which strategy yields the greatest student achievement. In this study, the effectiveness of collaboration time during the day would be compared with the effectiveness of collaboration when it is scheduled outside the contracted workday.

Chapter Summary

In 1992, the New Mexico's Governor's cabinet referenced as the Governor's Business Executives for Education (GBEE) launched the Strengthening Quality in school (SQS) initiative. This initiative called for system reform of all under-performing New Mexico schools. It became New Mexico's primary educational reform initiative. This study sought to gather statewide data about the Baldrige implementation processes and develop grounded hypotheses aimed at increasing the speed and reliability of the implementation.

Study findings underscored the importance of finding time for collaboration during the scheduled/paid workday. It was noted that many principals tweaked processes to fit the needs and culture of the staff. Most principals referenced the importance of sustained training as a needed tool in the on-going implementation of the reform. In all cases, the principals were operating with an understanding that their central

office superiors were in support of and encouraging their efforts to implement the Baldrige reform.

Final Thoughts

During the Sputnik era, public education was focused on increasing the quality of science and math instruction (Conti et al., 2000; Gardner, 1983). During the 1980s, our nation was declared at risk. Public attention was directed toward improvements in curriculum and instruction, increasing the amount of time students spent in school, enhancing educational leadership, and increasing fiscal support (Cuban, 1990; "A Nation at Risk," n.d.). These national reforms have come and gone. The No Child Left Behind (NCLB) school reform movement is now upon us, but it will not last forever. As a result of NCLB, our public schools are meeting specific learning needs of an unprecedented number of children. Each reform brought improvements that have served as a foundation for the subsequent reform.

In a personal conversation with Laurel Moore (January, 4, 2008), she noted that by August 2006, over 500 schools in 73 school districts had attended SQS training. There are only 89 school districts in New Mexico (New Mexico Public Education Department, n.d.). Clearly, this school reform initiative has had a profound impact on the quality of New Mexico schools and the essential reform elements have been adopted as new assumptions and the new way New Mexico educators conduct business.

The final question of the telephone interview process was, “If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would you identify?” I would like to paraphrase the answer provided by principal Delta: We train a staff and then we say we are trained. We saw tremendous examples of how this was helping in the classroom. That is the thing that really helped us. People would bring their PDSAs and saying this is what we did and these are the results we've seen. This is the way we get the data. I think that was back in 2001 and 2002. We all knew about the data but we didn't know how significant that was going to be. Where now, everything is data and all the decisions are data based. We didn't see this was something we were going to be using forever in education.

In some New Mexico schools, the Baldrige Continuous Improvement reform has transitioned into the category of “This too will pass.” Even as this is happening, other schools around the state and the nation are turning to this reform, as it provides a pathway to excellence. Early in this manuscript it was noted that application of Baldrige system reform processes is relatively new to the field of education; there are still many trails that need to be blazed. Principals need a well-marked trail to follow from commencement to full deployment. In closing, it is the hope of this researcher that the information provided in this manuscript has served to further rid the trail of obstacles and to suggest guidelines that will ensure a safer more pleasurable hike.

REFERENCES

Ainsworth, L. (2003a). *Power standards: Identifying standards that matter the most*. Denver, CO: Advanced Learning Press: Distributed by Center for Performance Assessment.

Ainsworth, L. (2003b). *"Unwrapping" the standards: A simple process to make standards manageable*. Denver, CO: Advanced Learning Press: Distributed by Center for Performance Assessment.

Albuquerque Business Education Compact. (n.d.). *GBEE fact sheet strengthening quality in schools* [Fact sheet]. Retrieved from http://abec.unm.edu/resources/gallery/text/GBEE_fs.pdf

Albuquerque Public Schools. (2006, December). *Perspective: Albuquerque Public Schools employee newsletter*. Retrieved from http://www.jimshipley.net/articles/Perspective1206qxp.pdf

Alvy, H. B., & Robbins, P. (1998). *If I only knew…Success strategies for navigating the principalship*. Thousand Oaks, CA: Corwin Press.

American Society for Quality. (2008). *Baldrige for education: FAQ*. Retrieved from http://www.asq.org /communities/baldrige-education/faq.html

Argyris, C. (1990). *Overcoming organizational defenses. Facilitating organizational learning*, Boston, MA: Allyn and Bacon.

Bacharach, S. B., & Mundell, B. (1995). *Images of schools: Structures and roles in organizational behavior*. Thousand Oaks, CA: Corwin Press.

Baldrige National Quality Program. (2001). *The Malcolm Baldrige National Quality Improvement Act of 1987 - Public Law* 100-107. Retrieved from http://www.baldrige.nist.gov /Improvement_Act.htm

Baldrige National Quality Program. (2004, September). *Why Baldrige: A proven approach to performance improvement* (NIST0060*).* Retrieved from http://www.quality.nist.gov/PDF_files/Why_Baldrige.pdf

Baldrige National Quality Program. (2007a). *1988-2006 award recipients' contacts and profiles*. Retrieved from http://www.baldrige.nist.gov /Contacts_Profiles.htm

Baldrige National Quality Program. (2007b). *2007 education criteria for performance excellence*. Retrieved from http://www.baldrige.nist .gov/PDF_files/2007_Education_Criteria.pdf

Beckhard, R., & Pritchard, W. (1992). *Changing the essence: The art of creating and leading fundamental change in organizations*. San Francisco, CA: Jossey-Bass.

Bernhardt, V. L. (2003). *Using data to improve student learning in elementary schools*. Larchmont, NY: Eye On Education.

Bogan, R.C, & Biklen, S, K. (2003). *Qualitative research for education: An introduction to theories and method*. Boston, MA: Allyn and Bacon.

Bolman, L. G., & Deal, T. E. (1997). *Reframing organizations: Artistry, choice, and leadership* (2nd ed.), San Francisco, CA: Jossey-Bass.

Bruce, C. D. (2007). Questions arising about emergence, data collection, and its interaction with analysis in a grounded theory study.

International Journal of Qualitative Methods, *6*(1), 1-12. Retrieved from http://www.ualberta.ca/~iiqm/backissues/6_1/bruce.pdf

Business Performance Improvement Resource. (2007). *See the business excellence models*. Retrieved from http://www.bpir.com/total-quality-management-business-excellence-models-bpir.com /menu-id-96.html

Caldwell, M., & Jim Shipley & Associates. (2001). *System check school board resource guide: A guide for practitioners using the Baldrige approach for school improvement and performance excellence district*. North Redington Beach, FL: Jim Shipley & Associates.

Center for the Education and Study of Diverse Populations & New Mexico Highlands University. (2006). *Working together: School-family-community partnerships, a toolkit for New Mexico school communities* (2nd ed.). Santa Fe, NM: The New Mexico Public Education Department.

Center for Performance Assessment. (n.d.). *Safety net*. Retrieved from Township High School District 13 website: http://www.dist113.org /DHS/Depts/safetynet /safetynet_index.htm

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis (Introducing qualitative methods series).* Thousand Oaks, CA: Sage.

Chugach School District. (2001). *Chugach school district: Voyage to excellence.* Retrieved from http://www.chuchaghschools.com /baldrige_press_small.html

Cohen, P. M., & Hesselbein, F. (1999). *Leader to leader, enduring insights on leadership from the Drucker foundation's award-winning journal.* San Francisco. CA: Jossey-Bass.

Conti, S. D., Ellsasser, C. W., & Griffin, G. A. (2000). *School restructuring: A literature review* (RD97124001). New York, NY: Columbia University, Teachers College. (ERIC Document Reproduction Service No. ED450451)

Corace, M. B. (2000). *The importance and application of the Malcolm Baldrige criteria in classrooms and its association with student outcomes* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 3001940)

Corbin, J. & Strauss, A. (2008). *Basics of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Covey, S. R. (1989). *The seven habits of highly effective people: Restoring the character ethic.* New York, NY: Simon and Schuster.

Creswell, J. W. (1998) *Qualitative inquiry and research design, choosing among five traditions.* Thousand Oaks, CA: Sage.

Csikszentmihalyi, M. (2003). *Good business: Leadership, flow, and the making of meaning.* New York, NY: Viking.

Cuban, C. L. (1990). How schools changed reforms: Redefining reform success and failure. *Teachers College Record*, *9*0(3), 453-477.

Daniels, D. M. (2009). *Leadership, learning and school change: The elementary principal's role in teacher professional development* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 3366276)

Deal, T. E., & Kennedy, A. A. (1982). *Corporate cultures: The rites and rituals of corporate life*. Reading, MA: Addison-Wesley.

Deming, W. E. (1993). *The new economics for industry, government, and education*. Cambridge, MA: Massachusetts Institute of Technology.

Dick, B. (2000). *Data-driven action research*. Retrieved from http://www.scu.edu.au/schools/gcm/ar/arp/datadriv.html

DuFour, R., & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement.* Alexandria, VA: Association for Supervision and Curriculum Development.

Eaker, R. E., DuFour, R., & DuFour, B. (2002). *Getting started: Reculturing schools to become professional learning communities*. Alexandria, VA: National Education Service.

Egolf, D. B. (2001). *Forming, storming, norming and performing: Successful communication in groups and teams*. Lincoln, NE: Writers Club Press.

Elmore, R. F. (2002). *Bridging the gap between standards and achievement: The imperative for professional development in education.* Washington, DC: Albert Shanker Institute.

Epstein, J. Sanders, M., Simon, B., Clark-Salinas, K., Rodriquez-Jansorn, N., & van Voorhis, F. (2002). *School, family, and community partnerships, your handbook for action* (2nd ed.). Thousand Oaks, CA: Corwin Press.

Evans, R. (1996). *The human side of school change reform, resistance, and the real-life problems of innovation.* San Francisco, CA: Jossey-Bass.

Fielding, L., Kerr, N., & Rosier, P. (2004). *Delivering on the promise*. Kennewick, WA: The New Foundation Press.

Frankl, V. E. (1984). *Man's search for meaning: An introduction to logotherapy*, New York, NY: Simon and Schuster.

Fullan, M. (2003). *The moral imperative of school leadership*. Thousand Oaks, CA: Corwin Press.

Fullan, M. (2005). *Leadership & sustainability: System thinkers in action*. Thousand Oaks, CA: Sage.

Garber, S. (2007). Sputnik and the dawn of the Space Age. *NASA History Web*. Retrieved from http://www.hq.nasa.gov/office/pao /History/sputnik/

Gardner, D. P. (1983). *A nation at risk The imperative for educational reform. An open letter to the American people. A report to the nation*

and the secretary of education. Washington, DC: Superintendent of Documents, Government Printing Office. (ERIC Document Reproduction Service No. ED226006)

Gerber, R. E. (n.d.). *Billy Spady's definition of OBE* [Powerpoint slides]. Retrieved from Nelson Mandela Metropolitan University website: http://www.petech.ac.za/robert/obe/fslide6.htm

Gladwell, M. (2002). *The tipping point: How little things can make a big difference*. San Francisco, CA: Jossey-Bass.

Glaser, B. G., (2008). *Doing quantitative grounded theory.* Mill Valley, CA: Sociology Press.

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

Gonzales, P., Guzmán, J. C., Partelow, L., Pahlke, E., Jocelyn, L., Kastberg, D., & Williams, T. (2004). *Highlights from the Trends in International Mathematics and Science Study: TIMSS 2003* (Report No. NCES 2005-005). Retrieved from National Center for Education Statistics website: http://nces.ed.gov/pubsearch/pubsinfo.asp ?pubid=2005005

Goodman, S. L. (1994). *From effectiveness to excellence: Reforming the urban elementary school* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 9511219)

Grounded Theory Institute. (2008). *The official site of Dr. Barney Glaser and classic grounded theory*. Retrieved November 29. 2008 from http://www.groundedtheory.com

Hargreaves, A., & Fullan, M. (1998). *What's worth fighting for out there?* New York, NY: Teachers College.

Havener, C., (1999). *Meaning: The secret of being alive.* Edina MN: Bever Pond Press.

Hertz, H. S. (2006). *2006 education criteria for performance excellence*. Retrieved from National Institute of Standards and Technology—The Baldrige National Quality Program website: http://baldrige.nist.gov/PDF_files/2006_Education_Criteria.pdf

Iredell-Statesville Schools. (2008). *Quality in ISS*. Retrieved from http://iss.schoolwires.com/153110861529370/site/default.asp

Isaac, S., & Michael, W. B. (1997). *Handbook in research and evaluation for education and the behavioral sciences* (3rd ed.) San Diego, CA: EdITS/Educational and Industrial Testing Services.

Jennings, B. A. (2009). *Teacher beliefs and full participation in whole school reform: What's the connection?* Doctoral disseration). Retrieved from Proquest Digital Dissertations. (AAT 3378037)

Jim Shipley & Associates. (2003a). *Baldrige: A practical way of getting better: An orientation for teachers*. North Redington Beach, FL: Author.

Jim Shipley & Associates. (2003b). *Classroom resource guide: A guide for practitioners.* Redington Beach, FL: Author.

Jim Shipley & Associates. (2003c). *Leading for performance excellence. Part I: A focus on application and deployment* (2nd ed.). North Redington Beach, FL: Author.

Jim Shipley & Associates. (2003d). *System check III: Classroom (Rev 9/05).* North Redington Beach, FL: Author.

Jim Shipley & Associates. (2003e). *System check III: School (Rev 2/07).* North Redington Beach, FL: Author.

Jim Shipley & Associates. (2004). *System check III: District.* North Redington Beach, FL: Author.

Jim Shipley & Associates. (2005). *District leadership team resource guide: A guide for practitioners-A systems approach for school improvement and performance excellence.* North Redington Beach, FL: Author.

Jim Shipley & Associates. (2006). *Continuous classroom improvement: as system approach to improving learning results.* North Redington Beach, FL: Author.

Jim Shipley & Associates. (2007). *SQS Baldrige demonstration schools.* Retrieved from http://sqsnm.org/docs/SQSDemoSchCriteria.doc

Jim Shipley & Associates. (2009). *A principal's guide to school improvement using a systems approach to engage staff and improve results.* Redington Beach, FL: Jim Shipley & Associated Integrated System Solutions.

Jim Shipley & Associates. (n.d.a). About us. *Jim Shipley & Associates*. Retrieved from http://www.jimshipley.net/about_us.htm

Jim Shipley & Associates. (n.d.b). Here is what our clients are saying about us. *Jim Shipley & Associates*. Retrieved from http://www. jimshipley.com/testimonials.htm

Jim Shipley & Associates. (n.d.c). *Jim Shipley & Associates*. Retrieved from http://www.jimshipley.net/index.htm

Jim Shipley & Associates. (n.d.d). Percentage proficient mathematics grade 3-8. *Jim Shipley & Associates* . Retrieved from http://www. jimshipley.net/docs/3-8mathproficiency.jpg

Jim Shipley & Associates. (n.d.e). Vandalia-Butler City school district long-term proficiency trends. *Jim Shipley & Associates*. Retrieved from http://www.jimshipley.net/docs/fifth.jpg

Jones, B. F. (1987). *Strategic teaching and learning: Cognitive instruction in the content areas*. Alexandria, VA: Association for Supervision and Curriculum Development.

Jones, B. F., Plinscar, A. S., Ogle, D. S., & Carr, E. G. (1987). *Strategic teaching and learning: Cognitive instruction in content area.* Alexandria, VA: Association for Supervision and Curriculum Development.

Kaufman, T. E. (2009). *Performance management and school reform: A multi-case study of middle and high school performance*

management for instructional improvement (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 3385021)

Knowles, R. N. (2002). *The leadership dance: Pathways to extraordinary organizational effectiveness* (3rd ed.). Niagara Falls, NY: Center for Self-Organizing Leadership.

Krisco, K. H. (1997). *Leadership and the art of conversation: Conversation as a management tool.* Rocklin, CA: Prima.

Leedy, P. D, & Ormrod, J. E. (2005). *Practical research, planning and design.* Upper Saddle River, NJ: Pearson.

Lezotte, L. W., & McKee, K. M. (2002). *Assembly required: A continuous improvement system.* Okemos, MI: Effective Schools Products.

Lindsey, D., Jungwirth, L., Pahl, J., & Lindsey, R. (2009). *Culturally proficient learning communities: Confronting inequities through collaborative curiosity.* Thousand Oaks, CA: Corwin Press.

Marzano, R. J. (2007). *The art and science of teaching: A comprehensive framework for effective instruction.* Alexandria, VA: Association for Supervision and Curriculum.

Marzano, R. J., Norford, J. S., Paynter, D. E., Pickering, D. J., & Gaddy, B. B. (2001). *Classroom instruction that works: Research based strategies for increasing student achievement.* Alexandria, VA: Association for Supervision and Curriculum.

Marzano, R. J., Walters, T. & McNulty, B. A. (2005): *School leadership that works: From research to results.* Alexandria, VA: Association of Supervision and Curriculum Development.

Maynor, C. E. (2010). *The development and perpetuation of professional learning communities in two elementary schools: The role of the principal and impact on teaching and learning* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 3397854)

McKenzie, J. (2000). *Beyond technology: Questioning, research and the information literate school.* Bellingham, WA: Linworth.

Montgomery County Public Schools. (2006). *Baldrige education criteria for performance excellence: Baldrige for parents: The role of parents*. Retrieved from http://www.montgomeryschoolsmd.org/info /baldrige/parents/role.shtm

Morrison, D. (2005). *Principal leadership competencies in a successful school reform effort* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 3222538)

A Nation at Risk. (n.d.). *Wikipedia*. Retrieved from http://en.wikipedia.org/wiki/A_Nation_at_Risk

National Institute of Standards and Technology. (2007). *Frequently asked questions about the Malcolm Baldrige National Quality Award*. Retrieved from http://www.nist.gov/public_affairs /factsheet/baldfaqs.htm

National Institute of Standards and Technology. (2008). *Education criteria for performance excellence*. Retrieved from http://www .baldrige.nist.gov/PDF_files/2008_Education_Criteria.pdf

New Mexico Public Education Department. (2007a). *Educational plan for student success 2007-2008*. Retrieved from http://209.85.173.104 /search?q=cache:YySbvgzHjz8J:www.ped.state.nm.us/div/psb /dl08/20072008%2520Webversion%2520EPSS.doc +epss&hl=en&ct=clnk&cd=3&gl=us

New Mexico Public Education Department. (2007b). *2007 quick facts*. Retrieved from http://www.ped.state.nm.us/ayp2007 /press/2007QuickFacts.pdf

New Mexico Public Education Department. (n.d). *New Mexico Public Education Department district superintendent list with contact information*. Retrieved from http://www.ped.state.nm.us /resources/personneldirectory/superintendents.pdf

Payne, R., & Magee, D. (2010). *School improvement: 9 systemic processes to raise achievement creating sustainable excellence*. Highlands, TX: Aha! Process.

Pearl River School District. (2009). *District home.* Retrieved from http://www.pearlriver.org/education/district/district.php ?sectiondetailid=1

Peters, T. (1982). *In search of excellence: Lessons from America's best-run companies*. New York, NY: Harper and Row.

QSR International. (2008). *NVivo 8: Getting started*. Retrieved from http://www.qsrinternational.com/FileResourceHandler.ashx /RelatedDocuments/DocumentFile/289/NVivo8-Getting-Started -Guide.pdf

Quality New Mexico. (2010). *Quality New Mexico: Committed to a state of excellence*. Retrieved on from http://www.qualitynewmexico.org /nmqa.shtml

Reeves, D. B. (2002). *Holistic accountability: Serving students, schools and community*. Thousand Oaks, CA: Corwin Press.

Reeves, D. B. (2006). *The learning leader*: *How to focus school improvement for better results.* Alexandria, VA: Association for Supervision and Curriculum.

Reina, D. S., & Reina, M. L. (1999). *Trust & betrayal in the workplace: Building effective relationships in your organization*. San Francisco, CA: Berrett-Koehler.

Rogers, E. M. (2003). *Diffusion of innovation* (5th ed.). New York, NY. Little Brown and Company.

Schein, E. H. (1997). *Organizational culture and leadership* (2nd ed.). San Francisco, CA: Jossey-Bass.

Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. New York, NY: Doubleday.

Senge, P., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *Schools that learn.* New York, NY*:* Doubleday.

Siegel, P. (2002). *Dancing with the bear: Real-life adventures in transforming education*. Retrieved from http://www.ecs.org /html/Document.asp?chouseid=4069

Skymark Corporation. (2007). *Walter Shewhart—The grandfather of total quality management*. Retrieved from http://www.skymark.com /resources/leaders/shewart.asp

Stiggins, R. (2001) *Student-involved classroom assessment* (3rd ed.). Upper Saddler River, NJ: Prentice-Hall.

Stiggins, R. J. (2004). *Classroom assessment for student learning: Doing it right, using it well*. Portland, OR: Assessment Training Institute.

Strength in Quality Schools. (n.d.a). *2007-2008 public workshops*. Retrieved from http://sqsnm.org /workshops/public.html

Strength in Quality Schools. (n.d.b). *GBEE members*. Retrieved from http://sqsnm.org/horizon/src/website/website_pages/view/gbees /gbee_members

Strength in Quality Schools. (n.d.c). *History and background*. Retrieved from http://sqsnm.org/about/history.html

Strength in Quality Schools. (n.d.d). *Public workshop calendar for 2009-2010.* from http://www.sqsnm.org/horizon2_sqs/src/website /website_pages/view /workshopsmeetings/public_workshops

Strength in Quality Schools. (n.d.e). *SQS sites*. Retrieved December 20, 2008 from http://sqsnm.org/horizon2_sqs/src/website_pages /view/about_sqs/sqs_sites

Strength in Quality Schools. (n.d.f). *SQS sites*: *Deployment level.* Retrieved from http://sqsnm.org/horizon2_sqs/src/website/website_list_items/view/18

Strength in Quality Schools. (n.d.g). *SQS sites*: *Pilot districts/pilot schools.* Retrieved from http://sqsnm.org/horizon2_sqs/src/website/website_list_items/view/19

Strength in Quality Schools. (n.d.h). *SQS sites*: *Regional quality centers.* Retrieved from http://sqsnm.org/horizon2_sqs/src/website/website_list_items/view/20

Strength in Quality Schools. (n.d.i). *Strength in Quality Schools: Home*. Retrieved from http://sqsnm.org/horizon/src/website/website_pages/view/about_sqs/sqs_participating_sites

Tapscott, D. (1998). *Growing up digital: The rise of the net generation*. New York, NY: McGraw-Hill.

Thompson, S. B. (n.d.). *Qualitative research: Grounded theory - sample size and validity* [White paper]. Retrieved from Monash University, Business and Economics website: http://www.buseco.monash.edu.au/research/studentdocs/mgt.pdf

Tomlinson, C. A. (1999). *The differentiated classroom: Responding to the needs of all learners*. Alexandria, VA: Association for the Supervision and Curriculum Development.

Tourgee, B. K. (1994). *Surfacing mental models: Interpretive case histories of three educators* (Doctoral dissertation). Retrieved from Proquest Digital Dissertations. (AAT 9527833)

U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics (n.d.a). *Mathematics and science achievement of fourth-graders in 2003. Trends in International Mathematic and Science Study*. Retrieved November 22, 2008 from http://nces.ed.gov/timss/results03_fourth03.asp

U.S. Department of Education. Institute of Education Sciences, National Center for Education Statistics (n.d.b). *National assessment of educational progress*. Retrieved from http://nces.ed.gov /nationsreportcard/nde/viewresults.asp

Wellman, B., & Lipton, L. (2004). *Data-driven dialogue: A facilitator's guide to collaborative inquiry*. Sherman, CT: Mira Via, LLC.

Wheatley, M. J. (1999). *Leadership and the new science: Discovering order in a chaotic world*. San Francisco, CA: Berrett-Koehler.

Wheatley, M. J., & Kellner-Rogers, M. M. (1999). *Leadership and the new science: Learning about organizations from an orderly universe.* San Francisco, CA: Berrett-Koehler.

Winograd, P. (2007, January). *A draft for discussion: The impact of Baldrige on New Mexico's schools in need of improvement*. Paper presented at the meeting of the Governor's Business Executives for Education (GBEE), Albuquerque, NM.

Wong, H., & Wong, R. (2005). *How to be an effective teacher, the first days of school*. Mountain View, CA: Harry Wong.

Zander, R. S., & Zander, B. (2000). *The art of possibility*. Boston, MA: Harvard Business School Press.

APPENDIX A

List of the Deployment Schools

- **Albuquerque Public Schools (10)**, Superintendent, Winston Brooks, Elementary Schools: Armijo ES, Barcelona ES, East San Jose ES, Georgia O'Keeffe ES, James Monroe MS, Kirtland ES, LBJ MS, Painted Sky ES, Mary Ann Binford ES, Kit Carson ES
- **Archdiocese Schools (5)**: Superintendent, Susan M. Murphy, Schools: Holy Ghost Catholic School, Our Lady of Annunciation, Our Lady of Fatima, Saint Mary's Catholic School, Saint Pius X High School, Santo Nino Regional
- **Capitan Municipal Schools (2):** Superintendent, Shirley Crawford, Schools: Capitan ES, Capitan MS
- **Cimarron Municipal Schools (1):** Superintendent, James Gallegos, Schools: Eagle Nest Schools
- **Las Cruces Public Schools (1)**: Superintendent, Stan Rounds, Elementary Schools: Mesilla Park ES
- **Moriarty-Edgewood Schools (1):** Superintendent, Karen M. Couch, Ed.D., Elementary Schools: Edgewood ES
- **Mountainair Public Schools (4):** Superintendent, Jay Mortensen, Schools: Mountainair District Office, Mountainair ES, Mountainair HS, Mountainair MS

- **Pojoaque Valley Schools (4):** Superintendent, Adon Delgado, Pablo Roybal Elementary, Six Grade Academy, Pojoaque Middle School and Pojoaque Valley High School
- **Santa Fe Public Schools (2):** Superintendent, Bobbie J. Gutierrez, Schools: Capital HS, Santa Fe District Office
- **Springer Municipal Schools (4):** Superintendent, Zita Rae Lopez, Schools: Forrester ES, Miranda Jr. High, Springer HS, Wilferth ES
- **Tucumcari Public Schools (2):** Superintendent, Aaron McKinney, Schools: Tucumcari ES, Tucumcari HS

APPENDIX B

List of the Pilot Schools

- Alamogordo Central Office, Director of Curriculum & Instruction, Jann Hunter Ph.D., Schools: Alamogordo High School, Mountain View Middle School
- Animas Central Office, Superintendent, Jerry Birdwell, Schools: Animas PK-8, Animas High School
- Deming Central Office, Superintendent, Harvie Lee Moore, Schools: Deming High School, Deming Middle School
- Gadsden Central Office, Superintendent, Cynthia Nava, Elementary Schools: Berino Elementary, Desert View Elementary, La Union Elementary, North Valley Elementary

APPENDIX C

Name of Districts with Regional Quality Centers and Number of Elementary Schools

Name of District	Superintendent	Number of Elementary Schools
Albuquerque Public Schools	Winston Brooks	87
Central Consolidated Schools	Gregg Epperson	10
Espanola Public Schools	Janette Archuleta	11
Gallup/McKinley County Public Schools	Ray Arsenault	19

APPENDIX D

Revised Written Research Protocol

Recruiting Letter

Revised June 28, 2010

Dear Principal XXXX

I am an elementary school principal in Dulce, New Mexico and a doctoral candidate at Pepperdine University, in the Education Leadership, Administration and Policy (ELAP) Program. You were selected to participate in this study because of your role as an elementary school principal in a school that is engaged in the Strengthening Quality in Schools (SQS) Baldrige school reform initiative. I am hoping that you will invest a few minutes of your time in this research study, as the results will be beneficial to you and other principals engaged in the (SQS) Baldrige initiative.

This research will involve you in two phases: 1) The first phase will only require you to answer the enclosed Potential Subject Recruitment Survey, sign the enclosed Informed Consent form and mail both of these documents in the self addressed stamped envelope. (Both of these forms have been copied on yellow paper for easy of identification.) The confidentiality of your response is assured. The information provided from the first phase of questions will not be disaggregated. The candidates that indicated a high level of commitment to the Baldrige

reform process; that have been engaged in the reform at their current elementary school for the past three years and who return a signed Informed Consent Letter will be considered as candidates for research Phase II. An attempt will be made to obtain a balanced percentage of principals from each of SQS training models: Deployment Level sites (17 elementary schools), Pilot Schools (8 elementary schools), and Regional Training Centers (118 elementary schools).

Included in this correspondence, please find an Informed Consent form containing a Statement of Assurances and a Right to Refuse statement. If you so choose, please sign the Informed Consent form; answer the Potential Subject Recruitment Survey (on yellow paper) and return both in the stamped self-addressed envelope provided in this packet of material. **Those who successfully complete these processes will be eligible to participate in a drawing for a $50.00 gift certificate to Red Lobster Restaurant.**

I will happy answer any questions regarding the benefits and risks of participating, and any other questions that you may have regarding this study. Your assistance in this research is greatly needed. I will make every effort to value and respect your time. If you choose to participate, the telephone interview will be scheduled at your convenience.

I would like to thank you in advance, for the investment of your time in this worthwhile research project.

Sincerely,

George Schumpelt

Principal Dulce Elementary School

APPENDIX E

Revised Written Research Protocol

Study Description

Revised June 28, 2010

Title:

Baldrige System Reform In New Mexico: A Grounded Theory Study of Elementary School Principals' Implementation of the Strengthening Quality in Schools (SQS) Initiative

Purpose:

The (SQS) Baldrige initiative is very successful in some schools; yet, in other schools significant student achievement is not occurring. Why is this reform initiative not successful in all schools? In many cases, principals start the journey without the ability to count the cost. That is, they do not have an inkling of the challenges they will face or the resources they will need to be successful. Principals that begin the Baldrige reform need a well marked trail to follow from commencement to full deployment. There is a need to study this issue and learn more about what is causing this discrepancy in performance and compromising this proven reform model. Therefore, the purpose of this study is to: (a) identify and study the commonly occurring barriers that impede Baldrige reform efforts, (b) to explore practices that will enable principals to foresee and avoid barriers; (c) to explore practices that

enable schools to overcome the barriers, and (d) to identify other ways to expedite the implementation of this proven reform.

Subjects: New Mexico Elementary School Principals who are committed to and engaged in implementation of this reform.

Researcher: George Schumpelt, Doctoral Candidate, Pepperdine University

Participation: Participation in this study is voluntary. In order to participate, you must sign an Informed Consent to Participate form. There will be no compensation provided for your participation in this study. In addition to your informed consent, I will begin the interview with:

- A reminder that the interview will be tape recorded
- An assurance of confidentiality
- An assurance that I will not place excessive demands your time
- An assurance that I will be sensitive to your concerns
- A right to refuse statement

Permissions: Permission to conduct this research has been granted by Pepperdine University. I will need your informed consent prior to your participation in this study. (See Informed Consent document).

Risk: The elements of risk for research studies include physical, psychological, social, economic, and legal. The risk expected as a direct result of participating in this study has been minimized. Minimal risk may involve the physical risk of fatigue, the psychological risk of boredom and anxiety, and the social risk of embarrassment. The researcher will provide breaks as needed and limit questions to those that relate to your implementation of the Baldrige reform. You may choose to not answer a question.

Activities: You will be requested to participate in the following activities:

- Respond to the selective response Phase I Question Survey
- Sign the Inform Consent form
- Return both of these items in the stamped, self addressed envelope.
- Participate in a 15 to 20 minute tape recorded telephone interview

Timeline: **This study will be conducted once the proposal obtains approval from Pepperdine University. All data collection will be completed by August 31, 2011.**

Confidentiality:

No anonymous data will be collected. Your identity will be kept confidential by coding transcribed statements and recording coded statements into an electronic database. Personal documents will be coded, scanned, and stored electronically. Original documents and recordings of interviews will be safeguarded and not shared with others. I will take all reasonable measures to protect the confidentiality of the data and identities will not be revealed in any publication that may result from this project.

If the findings of the study are published or presented to a professional audience, no personally identifying information will be released. Interviews will be tape-recorded only with your permission as documented by the written Informed Consent, as well as confirmed orally prior to each interview. The raw data gathered will be stored in locked file cabinets to which only I will have access. The possibility exists that the data may be used in future research. If this is the case, the data will be used without any personally identifying information so that you cannot be identified. The use of the data will be supervised by me. The raw data will be maintained in a

secure manner for 3 years at which time it will be destroyed. I do not anticipate the need to share uncoded data with others, and would do so only with permission from you.

Thank you for your consideration in this matter.

Sincerely,

George Schumpelt

APPENDIX F

Revised Written Research Protocol

Informed Consent for Participation in Research Activities

Revised June 28, 2010

Subject:_____

Principal Investigator: _____ George Schumpelt

Approval Date: June 4, 2010

Title of Research Study: Baldrige System Reform In New Mexico: A Grounded Theory Study of Elementary School Principals' Implementation of the Strengthening Quality in Schools (SQS) Initiative

Name of Subject

I _____, agree to participate in the dissertation research study being conducted by doctoral candidate George Schumpelt, from the Educational Leadership, Administration and Policy Program at Pepperdine University. I understand that I may contact the Chair of Mr. Schumpelt's dissertation committee, Dr. Linda Purrington, at 6100 Center Dr. – 5th Floor, Los Angeles, CA 90045, or by telephone at 949-223-2568, if I have questions or concerns regarding this study.

If I have questions about my rights as a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University Graduate and Professional Schools Institutional Review Board (GPS IRB) at (310) 568-2389.

Purpose

I understand that the purpose of this research is to gather state-wide data about the Baldrige implementation processes and construct theories aimed at increasing the speed and reliability of the implementation. This study will seek to identify the commonly occurring barriers that serve to impede Baldrige reform efforts, explore practices that will enable principals to foresee and avoid common barriers, explore practices that enable schools to overcome the barriers, and identify other ways to expedite the implementation of this proven reform.

Right to Refuse

I understand I have the right to refuse to participate in this research.

Commitment

I understand that excessive demands will not be placed on my time and that my participation will involve the following:

- Response to the Phase I Survey Questions and a positive response on this Informed Consent form.
- Mailing of the Phase I Survey Questions and the Informed Consent letter to the researcher.

- A telephone interview that will last from 15 – 20 minutes.
- Review of the transcripts from the telephone interview to confirm accuracy of representation.
- My participation in this study will end no later than August 31, 2011.

No Benefit

I understand that I might or might not benefit from this research. I understand I will not receive any compensation, financial or otherwise, for participating in this study.

Assurance of Sensitivity to Subject's Concerns

I understand that the researcher will work with me to ensure there is minimal risk, discomfort, and inconvenience, identifying and addressing any concerns I may have. I understand that harm to human subjects is not limited to physical injury, and that there are certain risks and discomforts that might be associated with research. These risks include: psychological, social, economic, and legal risks. Physical risks may be fatigue. Psychological risks may include boredom, embarrassment, and anxiety. I believe the risks of this study are minimized and are reasonable in relation to the anticipated benefits of the study

Refusal to Continue with Participation

I understand that my participation is voluntary and that I may refuse to participate and/or withdraw my consent and discontinue participation in

the project or any activity at any time. I also understand that the researcher may find it necessary to end my participation in this study.

Assurance of Confidential

I understand that the investigator will take all reasonable measures to protect the confidentiality of my records and my identity will not be revealed in any publication that may result from this project. The confidentiality of my records will be maintained in accordance with applicable state and federal laws. Under New Mexico law, there are exceptions to confidentiality, including suspicion that a child, elder, or dependent adult is being abused, or if an individual discloses an intent to harm him/herself or others.

If the findings of the study are published or presented to a professional audience, no personally identifying information will be released.

Permission to Tape Record Conversation

Subjects must be aware that the telephone interviews will be tape recorded.

Transcripts will be Provided for Review

Transcripts from the telephone interview will be mailed to subjects to confirm accuracy of representation.

Security of the Data

The raw data gathered will be stored in locked file cabinets to which only the investigator will have access. The possibility exists that the data may

be used in future research. If this is the case, the data will be used without any personally identifying information so that I cannot be identified, and the use of the data will be supervised by the investigator listed above. The raw data will be maintained in a secure manner for 3 years at which time the raw data will be destroyed. I do not anticipate the need to share uncoded data with others, and would do so only with your permission.

Right to Question

I understand that I may contact the Chair of Mr. Schumpelt's dissertation committee, Dr. Linda Purrington, at 6100 Center Dr. – 5th Floor, Los Angeles, CA 90045, or by telephone at 310-###-####, if I have questions or concerns regarding this study.

If I have questions about my rights as a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University Graduate and Professional Schools Institutional Review Board (GPS IRB) at (310) 568-2389.

Signed Consent

I understand to my satisfaction the information regarding participation in the research project. All my questions have been answered to my satisfaction. I have received a copy of this informed consent form which I

have read and understand. I hereby consent to participate in the research described above.

Name of Elementary School:_____

Name of School District:_____

Print Subject's (Principal's) Name: _____

Subject's (Principal's) signature: _____

Date: _____

I have explained and defined in detail the research procedure in which the subject has consented to participate. Having explained this and answered any questions, I am cosigning this form and accepting this person's consent.

_____ _____

Principal Investigator Date

My contact information is as follows:

Mailing address:

George Schumpelt
P.O. Box ####
Dulce, NM 87528

Email: George.Schumpelt@#####
Phone: 575-###-#### (Cell)
575-###-#### (Work)

APPENDIX G

Revised Written Research Protocol

Potential Subject Recruitment Survey

Potential Subjects Contact and Background Information

Revised June 28, 2010

The confidentiality of your response in assured.

You have the right to refuse to participate in this research.

Contact Information:

Please provide the necessary contact information.

Name:

Name of elementary school where you serve as principal:

What is the SQS site classification of your elementary school? Please check the appropriate response.

Type of Site	Please check the Appropriate Box
Deployment Level Site	
Pilot School	
Regional Quality Center	

Preferred contact information:

Work:

Cell:

Home:

Email Address:

Background Information: Please Circle the appropriate response.

Have you been serving as principal at your current school of employment for the past 3 years? Please check the appropriate box.

Yes	
No	

As principal, have you been involved in the implementation of the Baldrige school reform at your current school of employment for the past 3 years? Please check the appropriate box.

Yes	
No	

During your tenure as principal have you been receiving training from Jim Shipley trainers as contracted by the SQS New Mexico's Office? Please check the appropriate box.

Yes	
No	

How engaged are you in the Baldrige reform at your school site?

Please circle the response that best matches your commitment and engagement with the Baldrige Strengthening Quality in Schools reform.

A) I am completely committed to the Baldrige reform and am fully engaged in implementation at my school site.

B) I am committed to the Baldrige reform and am engaged in implementation at my school

C) I am not fully committed to the Baldrige reform and am engaged in implementation at my supervisor's request.

D) I am participating because I have been told to do so; but I wish the Baldrige reform would be discontinued in my district/at my school.

E) I am actively engaged in discontinuing the implementation of the Baldrige Reform at my school.

Once again, the confidentiality of your response in assured.

Thank you for participating in this study.

APPENDIX H

Revised Written Research Protocol

Phase II: Potential Subject Telephone Interview Questions

Revised June 28, 2010

Telephone Interview Questions. The telephone call will be recorded to ensure accuracy. The questions to be used in the telephone survey are provided below.

Initial Interview Questions

Personal information:

1) Confirm identity of person being interviewed
    - Remind the subject that the interview is being recorded
    - Remind the subject that the purpose of this research is to expedite the implementation of this proven reform
    - I will ask clarifying questions to make certain the subjects understand the intent and benefits of the research (Wellman & Lipton, 2004).

School Information:

2) Number of students at the school site.
3) The approximate percent of students participating in free and reduced lunch program.
4) The school's No Child Left Behind rating:

    Progressing

S1=School Improvement 1

S2 = School Improvement 2

CA Corrective Action

R-1 = Restructuring 1

R-2 = Restructuring 2

Delay = made AYP, the first of two years required to return to Progressing.

5) Number of years of engagement with the Baldrige system reform as an elementary principal.

School's history with the Baldrige System Reform:

6) Type of Baldrige intervention: Deployment, Pilot School or Regional Training Center

Intermediate Phase

Five Essential Research Questions

7) As you work to implement the Baldrige system approach at your school, what barriers, if any, have you faced?
8) At what phase of the implementation process did the barriers occur?
9) How did you overcome these barriers?
10) Looking back was there anything you could have done to prepare for, minimize or avoid the barrier?

11) If provided the opportunity to make changes to improve current Baldrige-JSA reform implementation, what changes would you identify?

Final Phase

12) Confirm Telephone Numbers and email address:

Work:

Cell:

Home:

Discuss the timetable for the research. Remind the subject that he/she will receive a copy of the transcripts for approval. Assure the subject that they will receive a summary of the research findings. Close the interview with a final note of appreciation to the subject for the investment of their time in this research.

APPENDIX I

Study Validity and Reliability Review:

Marilyn Wescott, Director of Product Design and Development/Senior Consultant for JSA and Interim Director of SQSNM

Expert Review of Research, Reply Email

Email: FW: Validity/Reliability Review form

From: Marilyn C. Wescott

Sent: Wed 1/27/2010 3:51 PM

To: Schumpelt, George (student)

Subject: Validity/Reliability Review form

FW: Validity/Reliability Review form

Hi George

Attached is the Validity/Reliability Review form. Let me know if you would prefer a signed one – I can print, sign, scan and e- back to you this weekend if that would help.

m

Marilyn C. Wescott

Director of Product Design and Development

Jim Shipley & Associates, Inc.
717-###-#### - Home Office
717-###-#### - Fax
727-###-#### - Cell Phone
www.jimshipley.net

Expert Review of Research, Returned Form

Subject: Baldrige System Reform in New Mexico

Expert Review is provided by: Marilyn Wescott

Director of Product Design and Development/Senior Consultant for JSA, and the Interim Director of Strengthening Quality in Schools New Mexico (SQSNM),

Principal Investigator: George Schumpelt

Title of Research Study: Baldrige System Reform in New Mexico: A Grounded Theory Study of Elementary School Principals' Implementation of the Strengthening Quality in Schools (SQS) Initiative

Purpose

I understand that the purpose of this research is to gather state-wide data about the Baldrige implementation processes and construct theories aimed at increasing the speed and reliability of the implementation. This study will seek to identify the commonly occurring barriers that serve to impede Baldrige reform efforts, explore practices that will enable principals to foresee and avoid common barriers, explore practices that enable schools to overcome the barriers, and identify other ways to expedite the implementation of this proven reform.

Review Comments

____x____I have reviewed Phase I and II protocol/instruments and have found them to be of a satisfactory nature.

____x____I have reviewed Phase I and II protocol/instruments and have the following comments:

I feel confident that George Schumpelt has accurately defined protocol and instruments that will ensure validity and reliability of the research as well as lead to an outcome of conversations with the potential to support school leaders in reform efforts.

Expert's Signature

_____
Expert's Signature

Marilyn C. Wescott
Date Jan. 27, 2010

APPENDIX J

Copy of Jim Shipley's Letter of Approval

Jim Shipley Letter of Permission
(Please sign and return this copy in the enclosed envelope.)

George Schumpelt

12.30.09

Mr. Jim Shipley,

Dear Mr. Shipley:

I would like your permission to conduct research in New Mexico school districts that have been served by Jim Shipley and Associates (JSA) trainers. This study will be the foundation of my doctoral dissertation for the Educational Leadership and Policy Program at Pepperdine University.

The purpose of this research is to: (a) identify and study the commonly occurring barriers that impede Baldrige reform efforts, (b) explore practices that will enable principals to foresee and avoid barriers; (c) explore practices that enable schools to overcome the barriers and (d) identify ways to expedite the implementation of this proven reform.

Elementary principals who have received training through JSA or SQS New Mexico will be the focus of the study. To be considered for the study the elementary principal will need to indicate he/she has been committed to the implementation of the Baldrige System Reform at their present school site for a minimum of three years.

Study Phase I
This study has two phases. The goal of the Phase I Written Survey is to identify principals for the Phase II Telephone Interview. A packet of materials will be mailed to all elementary principals whose school is listed as a deployment school, pilot school, or a school receiving services from a Regional Quality Center (RQC). These schools are listed on the Strengthening Quality in Schools, New Mexico website.

The packet of materials will contain:

- A recruitment letter, Appendix A
- A description of the study, Appendix B
- A letter of Informed Consent, Appendix C
- Phase I Written Survey Questions, Appendix D
- Phase II: Telephone Interview Questions, Appendix E
- A list of Deployment Schools, Appendix F
- A list of the Pilot Schools, Appendix G
- A list of Districts with Regional Quality Centers, Appendix H.
- A self-addressed stamped envelope.

A concept map of Phase I can be found in Appendix I.
A concept map of Phase II can be found in Appendix J.

Phase II: Telephone Interviews
Phase II involves a telephone interview with each of the selected principals. Returned forms will be reviewed to identify the principals who have qualified to participate in the Phase II telephone interview process. The returned forms will be sorted based on the SQS classification of the elementary school: deployment level sites, pilot schools, and RQC.

Each subject will be interviewed one time. The telephone interview process will be the main data collection instrument. It is the intent of the telephone call to gather rich-thick descriptive information in the subjects' own words so that I may gain insights from the subject's point of view.
A concept map of Phase II and III can be found in Appendix J.

Recording Interviews
To ensure accuracy, the telephone call will be recorded using a digital voice recorder. Interviews will be immediately transcribed after each interview. Transcripts from the telephone interview will be mailed to subjects to confirm accuracy of representation.

Protection of Subjects
I provide an assurance that subjects will be exposed to minimal risk, discomfort, and inconvenience. Subject identities will be kept confidential by coding transcribed statements. Recordings of interviews will be safeguarded and not shared with others. Any information that is obtained in connection with this study that could be used to identify a single school district will remain confidential. I do not anticipate the need to share uncoded data with others, and would do so only with your permission and that of the distict superintendent.

If you have any questions, please feel free to contact me at If you have questions regarding your rights, please contact my supervisor, Dr. Linda Purrington, at 310-568-2361. You have been given a copy of this form to keep.

Your signature indicates that you have read and understand the information provided above, and that you willingly agree for me conduct research in New Mexico school districts that have been served by (JSA) trainers. (School District Superintendents must also submit a letter of approval – Appendix K.) You may withdraw your consent at any time without penalty. Your signature also indicates that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Title President Jim Shipley + Associates

Print Name Jim Shipley

Signature Jim Shipley Date 1/05/10

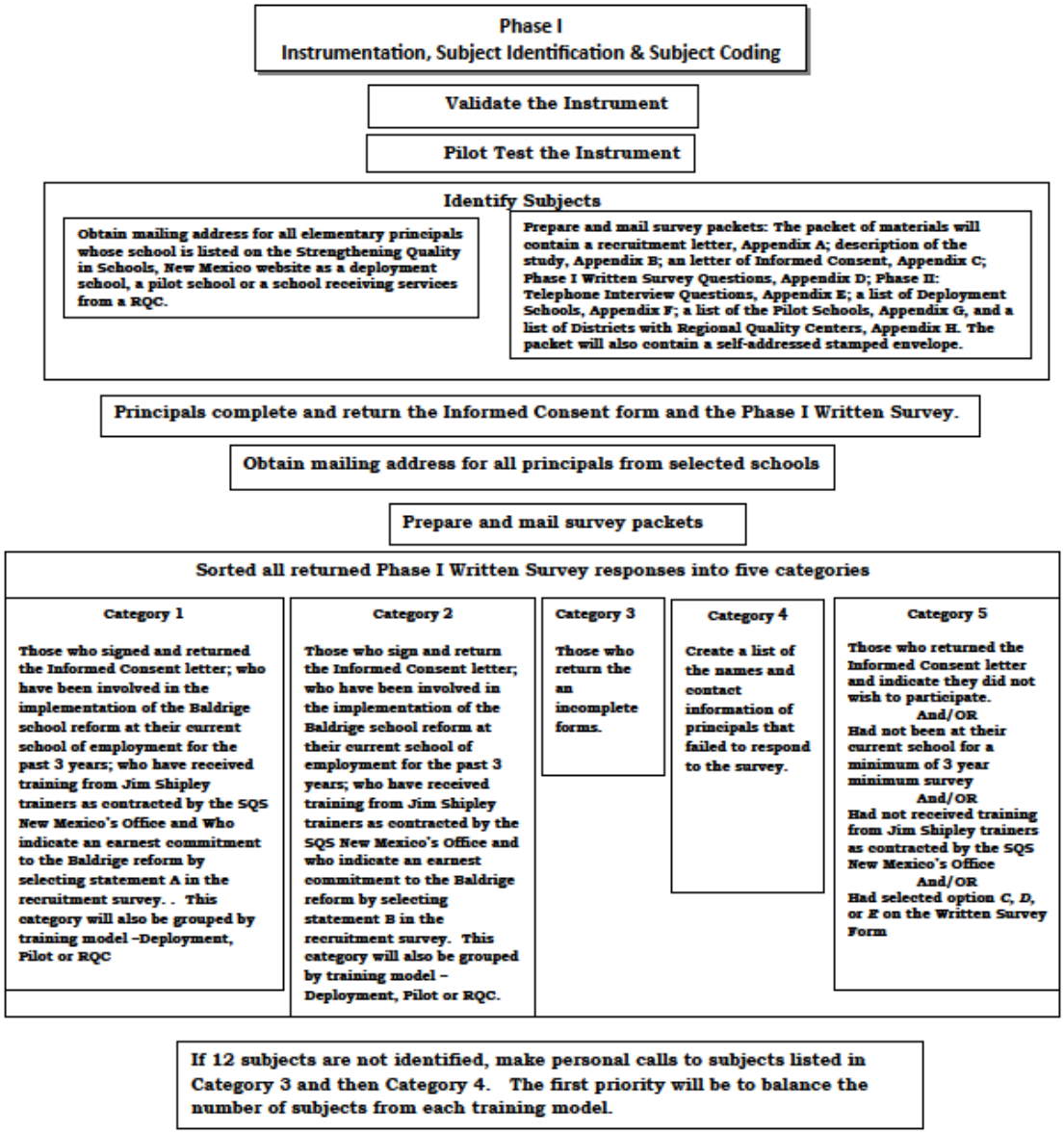
Thank you for your consideration in this matter.
Sincerely,

Geo. Schumpelt

George Schumpelt

APPENDIX K

Phase I Concept Map



APPENDIX L

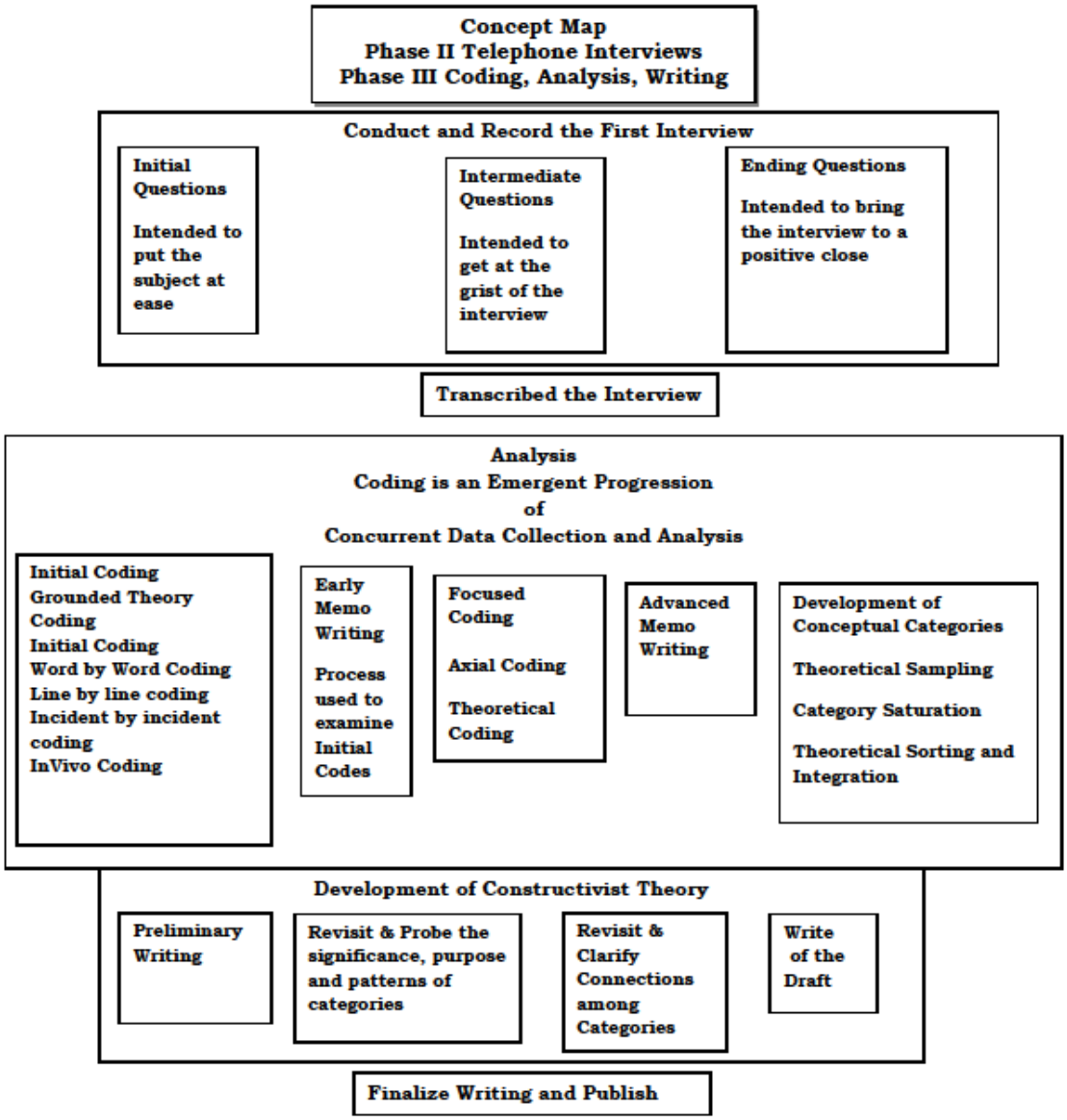
Greek Alphabet

Used to Code Research Subjects

A α	alpha	N ν	nu
B β	beta	Ξ ξ	ksi
Γ γ	gamma	O ο	omicron
Δ δ	delta	Π π	pi
E ε	epsilon	P ρ	rho
Z ζ	zeta	Σ σς	sigma
H η	eta	T τ	tau
Θ θ	theta	Y υ	upsilon
I ι	iota	Φ φ	phi
K κ	kappa	X χ	chi
Λ λ	lambda	Ψ ψ	psi
Mμ	mu	Ω ω	omega

APPENDIX M

Phase II and III Concept Map



APPENDIX N

Superintendent Request for Permission to Conduct Research

George Schumpelt

Current Date:

Superintendent

District Name

Mailing Address

City, State Zip Code

Names of Elementary Schools:

Dear Name of Superintendent:

I would like your permission to conduct research in your school district. This study would be the foundation of my doctoral dissertation for the Educational Leadership and Policy Program at Pepperdine University.

A 2007 study conducted by the New Mexico Office of Educational Accountability indicated New Mexico elementary schools, which have implemented the Baldrige School reform for 3 years or longer, were not all successful in increasing student reading achievement. There is a

need to study this issue to identify ways expedite implementation of this reform.

The purpose of this research is to (a) identify and study the commonly occurring barriers that impede Baldrige reform efforts, (b) explore practices that will enable principals to foresee and avoid barriers; (c) explore practices that enable schools to overcome the barriers and (d) identify ways to expedite the implementation of this proven reform.

Your school district was selected as a possible site because you have at least one elementary principal who is actively engaged in implementation of the Baldrige school reform.

Study Phase I

This study has two phases. The goal of the Phase I Written Survey is to identify Principals for the Phase II Telephone Interview. A packet of materials will be mailed to all elementary principals whose school is listed as a deployment school, pilot school, or a school receiving services from a Regional Quality Center (RQC). These schools are listed on the Strengthening Quality in Schools, New Mexico website.

The packet of materials will contain:

A recruitment letter, Appendix A

A description of the study, Appendix B

A letter of Informed Consent, Appendix C

Phase I Written Survey Questions, Appendix D

Phase II: Telephone Interview Questions, Appendix E

A list of Deployment Schools, Appendix F

A list of the Pilot Schools, Appendix G

A list of Districts with Regional Quality Centers, Appendix H.

A self-addressed stamped envelope.

A concept map of Phase I can be found in Appendix K.

A concept map of Phase II can be found in Appendix M.

Phase II: Telephone Interviews

Phase II involves a telephone interview with each of the selected principals. Returned forms will be reviewed to identify the principals who have qualified to participate in the Phase II telephone interview process. The returned forms will be sorted based on the SQS classification of the elementary school: deployment level sites, pilot schools, and RQC.

Each subject will be interviewed one time. The telephone interview process will be the main data collection instrument. It is the intent of the telephone call to gather rich-thick descriptive information in the subjects' own words so that I may gain insights from the subject's point of view.

A concept map of Phase III can be found in Appendix M.

Recording Interviews

To ensure accuracy, the telephone call will be recorded using a digital voice recorder. Interviews will be immediately transcribed after each interview. Transcripts from the telephone interview will be mailed to subjects to confirm accuracy of representation.

Protection of Subjects

I will work with you to ensure subjects are exposed to minimal risk, discomfort, and inconvenience. Subject identities will be kept confidential by coding transcribed statements. Recordings of interviews will be safeguarded and not shared with others. Any information that is obtained in connection with this study and that can be identified with your district or your principal will remain confidential. I do not anticipate the need to share uncoded data with others, and would do so only with your permission and that of your participating principal.

If you have any questions, please feel free to contact me at 575-###-####. I understand that I may contact the Chair of Mr. Schumpelt's dissertation committee, Dr. Linda Purrington, at 6100 Center Dr. – 5th Floor, Los Angeles, CA 90045, or by telephone at 310-###-####, if I have questions or concerns regarding this study. If I have questions about my rights as a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University a research participant, I may contact Dr. Doug Leigh, chairperson of the Pepperdine University

Graduate and Professional Schools Institutional Review Board (GPS IRB) at (310) 568-2389. You have been given a copy of this form to keep. Your signature indicates that you have read and understand the information provided above, that you willingly agree for me conduct research in your school district. You may withdraw your consent at any time without penalty. Your signature also indicates that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Title _____

Print Name _____

Signature _____ Date_____

Thank you for your consideration in this matter.

Sincerely

George Schumpelt