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THE INFLUENCE OF CORPORATE LEADERSHIP
AND MANAGEMENT PRACTICES ON A PUBLIC
SCHOOL DISTRICT

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Education in the
College of Education
at the University of Kentucky

By

Randall Paul Napier, Jr.

Lexington, Kentucky

Director: Dr. Lars Björk, Professor of Education

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ABSTRACT OF DISSERTATION

THE INFLUENCE OF CORPORATE LEADERSHIP AND MANAGEMENT PRACTICES ON A PUBLIC SCHOOL DISTRICT

The purpose of this case study is to understand how management and leadership ideas that were present in Toyota Motor Manufacturing Kentucky influenced management and leadership practices adopted by Scott County Public Schools during 2002-2011. Data for the study were collected during the summer of 2011, using individual and focus group interviews including teachers, administrators, community and Toyota Motor Manufacturing Kentucky employees; on-site participant observations, and documents.

This study examined Scott County Public Schools implementation of the Quest for Useful Employment Skills for Tomorrow, the formation of The Center for Quality People and Organizations, changes in Science Technology Engineering Math (STEM) curriculum, a shift to a global perspective, continuous improvement, and increased cooperation with business and community partners.

Themes that emerged from the data includes: (a) the need to establish a continuous improvement model; (b) the creation and implementation of a continuous improvement model; (c) global perspectives; and (d) the pivotal role of school district leadership in developing corporate relationships and changing management and leadership practices.

Findings suggest that a confluence of social, economic and political events contributed to situating a major, multinational corporation in a small Kentucky community that espoused a singular organizational and leadership philosophy to Scott County, positive public support for school improvement, and internal commitment of

staff and administrators laid a foundation for the establishment of a continuous improvement model. This model created change that enhanced the professional practice of SCPS.

This continuous improvement model or any model being successfully implemented in public schools comes down to the leadership of the Board of Education, district office staff, principals, and teachers-- but most importantly, the superintendent. "Success or failure of public schools has been directly linked to the influence of the district superintendent" (Bjork, 1993, p. 249).

KEYWORDS: QUEST, continuous improvement, management, leadership, Toyota,

Randall Paul Napier, Jr

February 9, 2012

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February 9, 2012

The work represented by this research study is dedicated to my mother and father, Wanda Taylor Napier and Randall Paul Napier, who taught me the power of commitment in life's endeavors, be it an educational pursuit or personal relationship, and to my wife, Lee Ann Napier, whose belief in my ability to complete this work never wavered. I must also mention my daughter Shelby, whose tenacity outshines the whole lot of us.

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CHAPTER ONE: INTRODUCTION

The release of *A Nation at Risk* (United States, 1983) heightened concern among policymakers, the private sector, and the public that schools would be unable to meet higher expectations for student achievement. The language in the NCCE report was pessimistic, stating that “the education foundations of our society are presently being eroded by the rising tide of mediocrity” (1983, p. 1). In its sweeping indictment of American public education was the claim that the nation’s schools had failed children and jeopardized the national economy (Bjork, 1996; Bjork, Kowalski, & Young, 2005). Since the release of the NCCE report, states have initiated education reform initiatives that are unparalleled in the level of concentration and length (Bjork, 1996). During the last three decades (1983-2010), numerous national commission and task force reports, as well as state education reform initiatives, have underscored the importance of making schools accountable for student learning (Darling-Hammond, 1999; Wise & Klein, 1999; Reeves, 2004), called for more rigorous teacher licensure standards, and used international comparisons to suggest that American students were less prepared than their European and Asian counterparts (Cookson, 1992). Scholarly investigations into the manner in which states, schools, districts, and indeed school leaders have responded to demands for reform have contributed to our understanding of the nature and direction of how practices were altered. One area that remains less well understood is the influence patterns of business on school district leadership practices. This longitudinal, case study is intended to examine the relationship between Toyota Motor Manufacturing Kentucky (TMMK) and Scott County Public Schools (SCPS) during the bounded period (Stake, 1995) 2002-2011, and to explore how management and practices at TMMK might have been adopted by SCPS.

Educational Reform in the United States

Scholars concur that since 1983 national commission and task force reports, which were released in three successive waves, reflected separate yet related themes (Bjork, Kowalski, & Young, 2005; Murphy, 1990) and influenced discourse on the nature and direction of state and national educational reform policy. The first wave of educational reform reports (1983-1986) began with the release of *A Nation at Risk* (1983), “which was followed in rapid succession by similar reports, including *Making the Grade* (1983), *High School* (1983), *Action for Excellence* (1983), and *Educating Americans for the 21st Century* (1983)” (Björk & Murphy 2008, p. 12). These first wave reports focused on improving student test scores, school accountability, increasing high school graduation rate requirements, and teacher licensure requirements. During this wave, many states increased regulatory controls over education and recentralized to the state level many policy and operational prerogatives that were previously under the purview of local school districts (Björk, 1996). In addition, the focus of education moved away from an emphasis on education system inputs and toward student learning outcomes in terms of mastering academic content. Some states used documents such as “*Common Cores*” of learning (Medler & Education Commission of the States 1994, p. 6), while other states described what is expected of students through graduation requirements or certificates of mastery that replaced high school diplomas. Oregon and Minnesota, for example, used this type of reform. Alabama, Arkansas, and Florida placed their collective emphasis on the “6 National Educational Goals” in their state reform initiatives (Medler & Education Commission of the States 1994, p. 6). Other states promulgated major changes in their education codes or enacted legislation that adopted a standards-based system. Some states created statewide commissions or councils to make systemic changes: most notably

Colorado, Kentucky, Massachusetts, Missouri, Pennsylvania, and Washington (Medler & Education Commission of the States 1994, p. 6).

An analysis of second wave reports (1986-1989), including *A Nation Prepared* (1986), *Tomorrow's Teachers* (1986), *Time for Results* (1986), *Investing in Our Children* (1985), and *Children in Need* (1987), indicate several prominent themes. First, they called for creating standards-based assessment systems as a way to hold schools accountable for improving student performance on standardized tests. Second, they called for more emphasis on problem solving, computer competency, and hands-on, group-based learning. Third, they recognized that a child's circumstances (e.g., living in poverty) had implications for learning and called for strengthening family and child support programs to ensure that all children learn (Murphy, 1990). Fourth, they concurred that rigid, bureaucratic school structures inhibited change and called for a greater emphasis on decentralizing decision-making to placing more authority in the hands of local schools (Cookson, 1992) and teachers (Björk, 1996).

Typifying the second wave of education reform were the recommendations of the States Governor's Conference. Governor Lamar Alexander in *Time for Results: The Governor's 1991 Report on Education* (1986) summarized the Governor's Association's year-long analysis of a variety of issues, including teaching, leadership management, parental involvement in choice, readiness, technology, school facilities, and college quality. (Passow, 1989, p. 23)

In addition, many reports called for increased parent participation. A number of reports also endorsed "school choice, school-based management, school business partnerships, effective school movement, and reform of teacher education" (Semel, 1992, p. 455-456).). In sum,

educational reform emphasized accountability and shifted policy making to the state level, the second wave shifted decision making from the districts to the schools.

Authors of the third wave (1989-2003) reports were critical of previous commission recommendations (Peterson & Brookings Institution, 1985; Clark & Astuto, 1994) that placed greater emphasis on organizational and professional issues rather than on the well-being of students and factors that might contribute to improving their learning. Bjork (1996) analyzed third wave reports, including *Beyond Rhetoric: A New American Agenda for Children and Families* (1991), *Turning Points* (1989), *Visions of a Better Way: A Black Appraisal of Public Schooling* (1989), *Education That Works: An Action Plan for the Education of minorities* (1990), *National Excellence: A Case for Developing America's Talent* (1993), *Great Transitions* (1995), as well as *America 2000: An Education Strategy* (1991), *Goals 2000: Educate America Act* (1994), and *No Child Left Behind Act* (2002). “These reports emphasized that a characteristic of authentic and systemic reform are that programs focused on children and learning; support to families was key to improving children’s learning; and schools should serve as the hub of integrated service systems” (Murphy, 1990, p. 29). These concepts were adopted by Professional Development Schools, Cities in Schools, Sizer's Coalition of Essential Schools, and Comer's School Development Programs (Fullan, 1993; Bjork, 1996; Bjork, Kowalski, & Young, 2005).

These reports also raised awareness as to the scope and direction of educational reform, the systemic nature of change, and the magnitude of effort that would be necessary to ensure that all children learn at high levels. Common denominators in these reports include redefining learning and teaching and essentially changing the way schools are organized, managed and led (Bjork, Kowalski & Young, 2005). In this regard, call for managing schools like businesses,

adopting private sector leadership practices, and promoting charter schools were offered as solutions to endemic problems that face education and inhibit change.

Context of the Study

An important dimension of designing a scholarly investigation of a change process is to understand the context in which the change occurs. As previously discussed, the educational reform movement in the United States during the previous decades (1983-2010) was as expansive as it was relentless. The foundation that education was essential to the nation's economic future, collective well-being, and political survival was acknowledged by most members of Congress and state legislators (Bjork, Kowalski, & Young, 2005). The manner in which education reforms were enacted at the state level varied. In one unique instance, the Kentucky Supreme Court handed down a decision that compelled the legislature to redesign the state's education system. Concurrent with educational reform efforts launched in the Commonwealth during the 1980s, was a concerted effort made to expand economic opportunities by attracting large manufacturing plants. The Commonwealth was successful in attracting a Toyota automobile assembly plant to Georgetown, Kentucky. These two events were significant in the state and central to understanding the context of the study conducted in Scott County Public Schools.

Education Reform in Kentucky

When the National Commission of Excellence in Education published its 1983 report, *A Nation at Risk*, Kentucky educators added their voices to the call for reform. As noted previously, this interest in educational reform culminated in a dramatic Kentucky Supreme Court decision and the sweeping Kentucky Education Reform Act (KERA) that attracted national attention. On June 8, 1989, Kentucky Supreme Court ruled the state school system

unconstitutional, and ordered the Kentucky General Assembly to completely restructure the system.

Chief Justice Robert F. Stephens, in writing the majority opinion, stated that the decision was based solely on this section of the Constitution, and stated the ruling clearly:

Lest there be any doubt, results of our decision is that Kentucky's entire system of common schools is unconstitutional. There is no allegation that only part of the common school system is invalid, and we find no such circumstance. This decision applies to the entire sweep of the system--all its parts and parcels. This decision applies to the statute creating, implementing and financing the system and to all regulations, etc., pertaining thereto. This decision covers the creation of local school districts, school boards, and the Kentucky Department of Education to the Minimum Foundation Program and the Power Equalization Program. It covers school construction and maintenance, teacher certification the whole gamut of the common school system of Kentucky. (Kentucky, 1991, p. 6)

Months after the Supreme Court decision, intense discussion, heated debate, statewide meetings, and politicking culminated in the legislature successfully passing KERA: arguably the most significant and comprehensive piece of education reform legislation in the nation. It was accompanied by a substantial tax increase on March 29, 1990. KERA was signed into law by Governor Wallace Wilkinson on April 12, 1990 and it took effect on July 13, 1990. "The major thrust of Kentucky Education Reform Act (KERA) was to improve teaching, learning, and student performance" (Bjork & Gurley, 2003, p. 51). KERA emphasized collaborative leadership and team work. KERA's philosophical orientation was designed to improve education in the Commonwealth. Toyota's philosophical principals of continuous improvement and valuing the

ideas of employees were in sync with KERA. This provided a unique climate for adoption/transference of leadership and management practices from corporations to schools.

Recruitment of Toyota Motor Manufacturing

In the early 1980s, Japanese motor manufacturers were opening plants in the United States. This expansion was in response to the trade frictions between the United States and Japan, beginning in 1982 (Toyoda, 1988). In May of 1984, Kentucky trade officials visited Toyota in Japan. During this meeting, a Toyota official casually mentioned a hypothetical situation for a possible expansion in the United States, stating that Toyota would establish a production facility that would employ 2,000 workers near a city with a population of 200,000. Kentucky officials interpreted this informal remark as Toyota was already in the “site selection process” (Miyauchi, 1987, p. 149).

Governor Martha Lane Collins moved aggressively to recruit Toyota to the Commonwealth. Collins’ administrative officials calculated that \$409 million in tax revenue could be realized in the first 20 years of production. After many meetings and negotiations, Governor Collins signed a final agreement on February 28, 1986. In this agreement, Toyota would build an \$800 million plant, which would employ 3,000 workers and produce 200,000 cars annually. This agreement would bring tax revenues, jobs, and several other businesses to Kentucky. Buckner (1991) reported that Governor Collins’s administrative officials testified before the General Assembly that the direct cost of the incentive package, including an acquisition of real property at the Georgetown, Kentucky site, would only cost the Commonwealth \$135 million. Furthermore, in the event that Toyota would expand, “the commonwealth will in good faith negotiate with Toyota and grant Toyota new incentives” (Buckner, 1991, p. 454).

Scott County Efforts to Improve

Scott County Public Schools (SCPS) is a semi-rural public school district located in Central Kentucky. It is 10 miles north of Lexington and about 70 miles south of Cincinnati, Ohio. SCPS has a yearly budget of about \$48 million. According to Infinite Campus, a central data system managed by SCPS, as of January 2009, 8,134 students are enrolled in SCPS from preschool to twelfth grade. According to Municipal Information Systems (MUNIS), a data system managed by SCPS, the district employs 490 certified employees and 500 classified employees. Both the major interstate highways that pass through Central Kentucky, the east-west Interstate 64 and the north-south Interstate 75, cross Scott County. That, along with its rail access and proximity to Lexington Bluegrass Airport, contributed to TMMK's selection of Georgetown, Kentucky as the location of its automotive manufacturing plant in 1986.

The TMMK plant was located in Georgetown at the invitation of Governor Collins in 1986. TMMK is one of the largest automobile manufacturers in the United States and had a significant economic impact on the region and the school district. TMMK is an automobile plant that employs about 8,000 employees in Georgetown, Kentucky. Several satellite companies are located in close proximity to Scott County to supply parts for TMMK. During the mid-1980s, before TMMK, Scott County had the lowest unemployment rate in the state at 4% (Truman, 1985, p. A1). After the opening of Toyota, Scott County was regarded as one of the fastest growing districts in terms of student enrollment in Kentucky and was viewed as a financially rich district, benefitting from Toyota contributions in lieu of taxes (Baniak, 2001). For example, Toyota paid \$8 million to the local school system after a local tax referendum failed to build a much needed high school. "Toyota played a major part," SCPS Superintendent Dr. Timothy

Williams (pseudonym) told the local newspaper, “They’ve always been extremely supportive of education throughout Kentucky” (McCarty, 1996, p. A1).

Throughout the 1980s, SCPS was engaged in education reform initiatives and then, in July 1990, when the Kentucky Education Reform Act (KERA) was passed, school and district educators were compelled to make sweeping changes. Their “Improvement Plans” were now referred to as school and district “Comprehension Improvement Plans.” SCPS has included continuous improvement as one of its core principles for several years. In 2007, SCPS’s vision, as defined by the SCPS white paper, *The Scott County School District Way*, stated, “All Scott County students achieve their highest level of academic success and personal growth by learning core content through engaging work in a secure learning environment” (www.scott.kyschools.ky.us). This vision statement was adapted by SCPS administrators from the book *The Toyota Way* (Liker, 2004). The paper further discussed concepts such as process and results, developing people and partners, and solving root problems.

As John Gooch (pseudonym) then director of instruction in the Scott County Schools observed, “We don’t necessarily make cars, but we make kids the best way they can be” (http://www.gembapantarei.com/2007/02/scott_county_schools_trying_ou.html). This statement, reported by Gemba Research, a consulting group that trains companies around the world in *Lean Manufacturing* (another variation of the “Toyota Way”), reflects the sentiments of some administrators at that time. As of August 2010, on the SCPS website, there is a link to the Scott County Schools Comprehensive Improvement Plan. The very first goal of the plan states, “We will increase students’ achievement by raising the level of rigor across the district and in every classroom” (www.scott.kyschools.ky.us). SCPS not only expressed this importance of being committed to enhancing student achievement but also committed to continuous improvement.

Review of Literature

Concepts derived from literature on business-education partnerships and organizational change will be used to examine the nature and direction of influence patterns between TMMK and Scott County Public School District. This brief review will examine change literature as well as theoretical frameworks from a wide array of scholarly sources, including published texts, articles, government reports, and independently contracted studies. A brief review of the pertinent change literature may help frame the nature of the proposed study. A more complete discussion of the literature on organizational change will be presented in Chapter Two.

School Business Partnerships

Throughout the 1980s, business leaders had become increasingly concerned about the nation's failing schools. Their concern revolved around the fact that schools would not be able to produce a high school graduate with the necessary skills to revitalize the American economy. Several business-school partnerships were formed during this era: the most notable was the Boston Compact, which began in 1982. Other school business partnerships included scholarships for poor students to attend college and programs where businesses could “adopt” a school. “Despite the considerable publicity that surrounds these partnerships, the fact is that in the 1980s only 1.5% of corporate giving was given to public primary and secondary public schools” (Reich, 1991, p. 43). In fact, corporate and business support for public schools has fallen dramatically since the 1970s. School-business partnerships have attracted considerable media attention; however, there is little evidence that school-business partnerships will address the fundamental problems facing American education (Semel, Cookson, & Sadovnik, 1992). On the other hand, a 2008 survey conducted by the Council for Corporate and School Partnerships found that 95% of schools had a partnership or conducted some activity with business. Kohn

(2002) a critic of school partnerships, believes that the dominant corporate focus on producing competent workers overshadows the teaching of critical thinking skills and democratic ideas (Hann, 2008). Trotter (2007) believes that the intent of such partnerships is to educate the future workforce, add relevance, and improve education. Scholars, business leaders, and school administrators view school-business partnerships in various ways. While many individuals view partnerships as a way to improve education, others caution that we must be cognizant of the unintended consequences, the costs at which improvement comes. Regardless of the influence these partnerships have on schools, it is evident that school district superintendents serve as gate keepers and influence this success or failure of these partnerships. In a larger sense, the “success or failure of public schools has been directly linked to the influence of the district superintendent” (Bjork, 1993, p. 249).

At the most rudimentary level, change focuses on the individual. During the 1990s, reformers attempted to convince skeptical teachers that all students are capable of mastering complex concepts. In Kentucky, this high expectation was communicated through the motto, “all students can learn at high levels” (Jones & Whitford, 1997, p. 1). This exemplifies the basic elements of change for individuals. Other possible units of change could include groups, teams, departments, organizations, and communities.

Over time, there have been shifts in the preferred unit of change. In the wake of the Brown versus Topeka Board of Education decision, the focus for potential change became the school and school district. School officials were often mandated by courts to direct plans for desegregating schools, but these plans often ended with sophisticated bussing routines. The focus in the 1960s questioned the methods of educating disadvantaged youth, and the preferred unit of change shifted from the school to the classroom and special programs. Reformers recognized that

good schools were unlikely to be successful in poorly run school districts, which broadened the discussion of the nature and scope of change to include school districts. However, over the past five decades, schools in poorly run districts have challenged the notion of the school district as the unit of educational change (Duke, 2003).

Implementation of Change

As Duke (2004) observes, when making an effort to improve organizations and schools, there must be a conscious effort and decision as to where to implement the change and when to discontinue the change. He also notes that change agents must also have an understanding of the nature of the system that is to be changed, as well as an understanding and dialogue with the systems around the focal organization. This includes government, higher education, community members, teachers, and principals. This understanding can expose factors that might inhibit or support the proposed innovation. Identifying factors that may resist change is as essential to a change agent's ability to achieve successful change. Duke (2004) notes that change must be systematic and all stakeholders must understand change. Stakeholders must also see the reason for change. Opposition might come from entrenched values and beliefs or from lack of confidence in the system, and the system must be capable of successful change. Any successful change in an organization requires a reasonable degree of stability (Duke, 2004). Although there is a wide array of models used to effect organizational change, accomplishing change is often difficult particularly in education settings.

Purpose of the Study

The purpose of this case study is to understand how TMMK management and leadership ideas may have influenced management and leadership practices adopted by SCPS. When the TMMK automobile assembly plant began operations in the late 1980s in Georgetown Kentucky,

Scott County Public Schools experienced a significant growth in student enrollment over the next two decades. This growth prompted SCPS to build a new elementary school, hire a principal, and add other administrative staff. By 2002, the selection of these individuals was based in part on the applicant's understanding of Toyota principles of leadership and management. During this time, Dr. Dallas Blankenship, the superintendent of schools, had laid the groundwork for the relationship between SCPS and TMMK and agreed to have a TMMK quality advisor on his district office staff. Although he was in his last six years of his tenure (2002-2008), he envisioned that TMMK and SCPS would have an enduring relationship. These circumstances suggest that management and leadership practices espoused by TMMK might have influenced those adopted by SCPS and therefore presented a unique opportunity to study this phenomenon.

Significance of the Study

This study will follow in the tradition of studies focused on understanding the relationship between corporations and school districts. One such relationship began as early as 1906 in Gary Indiana. The city was planned and constructed by U.S. Steel as a model of efficiency, as an outgrowth the Gary School District adopted similar ideas. This motivation was for schools to produce smarter students and thus better workers, these efficiencies were an integral part of business philosophy then as they are today.

This study is unique in time and place. Findings from this study might add to the knowledge base in the field and inform scholars, practitioners, and policy makers on the nature of relationships between private sector corporations and public schools. This study is significant in that it presents an opportunity to examine how business management and leadership concepts can influence practices adopted by public schools that are within a close geographic proximity.

This study will also provide an opportunity to understand community perceptions of TMMK and how those perceptions influence school district decisions. Although policy makers and citizens in Kentucky anticipated that recruiting TMMK could bring benefits to the Commonwealth, including jobs, tax revenue, and add new, spin off businesses, it is less understood as to whether they also had foreseen secondary effects of TMMK in terms of the need for new schools, additional teachers and administrators, or how management and leadership practices of a large corporation might influence local school district administrative practices. At this time in history, it is important to undertake scholarly work that expands the understanding of business-school relations from a district perspective.

Study Design

Merriam (1988) notes that there are three criteria that guide the choice of research, including “(a) the kind of research questions being asked; (b) the research’s level of control over the variables involved; and (c) what the researcher sees as the desired final product” (p. 48). Qualitative research techniques associated with case study methods are preferred research tools when examining contemporary events and are appropriate for addressing the objectives of this proposed study (Yin, 1994). The purpose of the study is to understand how TMMK management and leadership ideas that were present in TMMK influenced management and leadership practices adopted by SCPS. This study will be guided by several research objectives, including:

1. Preparing a descriptive narrative (case study) of events based on semi-structured, informal, and focus group interviews, and documents (written reports, memoranda, and meeting notes) that describe leadership and management techniques for SCPS during the bounded period of 2002-2011;
2. Reviewing pertinent literature on organizational change;
3. Generating from descriptive narrative, a set of naturalistic generalizations (Stake, 1995); and
4. Expanding naturalistic generalizations into a grounded theoretical explanation (Glaser & Strauss, 1967) of the migration and adoption of TMMK leadership and managerial ideas by SCPS.

Data Collection

During the “bounded period” 2002-2011 (Stake, 1995), the case study will be situated at two locations in Georgetown, Kentucky: the TMMK and the SCPS district. Individuals associated with TMMK and SCPS during this period who have knowledge of the relationship between these two entities will be identified and invited to participate in the study. Data will be collected using participant observer methods, semi-structured interviews with individuals and focus groups, as well as document review and analysis techniques of these primary sources (Creswell, 2003). Semi-structured interviews allow the researcher a tool to elicit the point of view of the participants, which is further enhanced as the researcher builds rapport with the participants. A *Data Analysis Spiral* will be implemented, which includes “moving from reading and memoing loop into the spiral to describing, classifying, and interpreting loop to analyze the data of the study” (Creswell, 2007, p. 151). Participant observer methods (Jorgensen, 1989) are used to inform data collection processes when the researcher is immersed in case study events. Immersion benefits the researcher and helps to understand and explain people’s everyday behavior (Bernard, 2009).

Data Analysis

Data analysis is an ongoing, constant, comparative process involving collection, analysis, reflection, and refinement of questions (Creswell, 2003). It is not a “pick-and-choose” proposition; rather, the data analysis process is custom-built for each study; then it is revised and “choreographed” (Miles & Huberman, 1994). While some would argue that qualitative research is largely “insight, intuition and impression” (Dey, 1995, p. 78), data management and data analysis are key for success. For a case study, data analysis consists of making a detailed description of the case and setting (Creswell, 2003). This description included the school district

and the economic development efforts that contributed to TMMK building in Georgetown, Kentucky and the relationship between TMMK and SCPS.

Potential Weaknesses

When the researcher employs a participant observer model, the researcher must take measures to limit the effects of personal bias. The researcher must continuously question whether his/her personal disposition and experiences are influencing interpretations of study data (Glesne, 1999; Mason, 2002; Woods, 1992; Yin, 2002). The researcher must also take into account the uncertainties that surround this memory or recollection of events. These uncertainties could lead to the possibility of distortion (Lummis, 1987; Iggers, 1997) due to time that elapsed between events and writing a descriptive narrative, scope, and complexity of case events, as well as inherent limitations of experiences with events by the observer. If unfavorable data is recorded, it might negatively affect the organization. Peshkin and Glesne (1991) discuss unfavorable data as “dangerous knowledge” which is political and risky for the “inside” investigator when a researcher works in his or her own “backyard” (p. 46). This “dangerous knowledge” can impact the comments and data that are collected from the participants.

CHAPTER TWO: REVIEW OF LITERATURE

The literature review was prepared to assist the researcher in understanding educational change and organizational change processes that appear to be related to this study. The review also relates to the larger, ongoing dialogue in the field about the importance of filling gaps in the literature and extending scholarly work into areas less well understood (Cooper, 1984; Marshall & Rossman, 1999). Additionally, the review can enhance the understanding of how external and internal factors might influence the structure of educational organizations. The researcher has organized this chapter to discuss four broad areas, including need for change, educational reforms, organizational ecology, and problems of purpose. In addition, the researcher will review a theoretical framework for the study based on *Theory Z* (Ouchi, 1981). These broad areas are used to provide a framework for presenting an extensive review of the review of literature (Table 2.1).

Table 2.1. Literature Review

Concept	Definition	Selected Authors
	Need for Change	
Educational Change	It is intended to alter the goals of education and improve what students are expected to learn.	D. L. Duke, M. Fullan, S. B Sarason,
Meaningful Change	Change must occur at all levels; more specifically, individuals within the system must change.	D. L. Duke, J. Walters
Approach to Examine Change	Change can be viewed from many perspectives.	R. Kanter, B. Stein, T. Jick
Factors that Allow Change	Individuals must internalize change; it must become who they are.	J. Kottler
Types of Change	The effects of change might be expected or unexpected, temporary or more enduring, desirable or undesirable.	G. E. Hall, S. M. Hord
Change is Multidimensional	The first example of change is to reduce or eliminate a problem and the second type is to create something new.	J. E. Barrott, R. Raybould, S. Sarason
Element of Management	When personnel are selected based on reliability and accountability, organizational structure can be reproducible.	M. T. Hannan, J. H. Freeman
Nature of Change	If the goal is to change people, behavior modification, training, and professional development is necessary.	G. Zaltman, R. Duncan, R. L. Daft
Magnitude of Change	Small scale changes are more likely to be accomplished, but less likely to produce significant differences in performance or outcomes.	F. Chambers
Extent of Change	Change has a complicated nature. Change is seldom rapid. Change occurs on its own. Groups resist change. Some groups do not have the ability or capacity to change.	S. B. Sarason, D. L. Duke, R. H. Hall
Duration of Change	Some change is cyclical lasting 10 to 15 years.	F. Chambers

Table 2.1 (Continued)

Public Ideas of Educational Change	Ideas that do not soon disappear from public discourse. These ideas are derived from pressures outside education.	D. L. Duke, M. Sadker, M. Sadker
Educational Reforms		
Educational Excellence	All students must receive rigorous academic instruction, expectations must be raised significantly.	T. Toch, L. Bjork
Accountability	School administrators and teachers alike are responsible for their performance and the performance of their students.	L. M. Lessinger, P. M. Timpane
Choice	Some Americans believe that the highest level of accountability is school choice.	J. R. Henig, J. Nathan
Professionalization	Some argue that teachers do not receive the same level of influence as other professions, such as doctors or lawyers.	L. Darling-Hammond
Organizational Ecology		
Organizational Ecology	The three-stage process includes variation, selection and retention. Organizations that adapt play a more central role.	H. Aldrich, G. Carroll, M. T. Hannon, J. Freeman, B. McKelvey, C. Darwin
Critics of Organizational Ecology	For reasons of social, control some organizations (like schools and governments) rarely die.	C. Perrow
Theoretical Framework	Involved workers are the key to increased productivity.	W. G. Ouchi, P. S. George, W. E. Deming
Japanese/Toyota Business Culture	Employment for life, investment in people, refinement of processes, reflection and continuous improvement are features of this concept.	J. Liker, M. Hoseus. E. Deming, S. Toyoda
Quality Circles	A small group of workers who voluntarily meet regularly to identify, analyze, and resolve work related problems are features of this concept.	K. Ishikawa, J. E. Ross, W. C. Ross

Table 2.1 (Continued)

Problems of Purpose		
Problems of Purpose	Constant change gives rise to the argument as to whether educational goals should be based on current or anticipated conditions.	D. L. Duke, R. Marshall, M. Tucker, M. B. McCaskey
Organizational Problems	The range of organizational problems is staggering, so a narrowing process was created.	G. Zaltman, R. Duncan, D. A. Schon
Problems of Professional Practice	Lack of accountability, ineffectiveness, and inefficiency can be attributed to professional practice.	A.E. Wise

Need for Educational Change

The need for change is a recurring theme in the literature and includes a discussion of several related elements involving educational change, meaningful change, approach to change, factors that allow change, types of change, multidimensional change, element of management, nature of change, magnitude of change, extend of change, and duration of change. Each of these elements will be discussed separately in order to better understand the breadth and depth of the extent literature.

Many understand the history of civilization by examining the circumstances under which people have decided to initiate or inhibit change (Duke, 2004). People see change from different perspectives; however, some would argue that change is not needed, or at least not needed now. Change can be intensely personal. It has been said that one person's need is another person's nightmare. "Change is a journey, not a blueprint. . . . Change is nonlinear, unpredictable, and exciting" (Fullan, 1993, p. 21). Fullan's observation certainly has validity, but the fact remains that most people who engage in purposeful change proceed in a reasonably orderly manner. The caution here is that those seeking change should remain flexible enough to make adjustments as they encounter the unexpected (Fullan, 1993). Fritz (1989) further noted:

There is a profound difference between problem solving and creating. Problem solving is taking action to have something go away—a problem. Creating is taking action to have something come into being—the creation. . . . The problem solvers proposed elaborate schemes to define the problem, generate alternative solutions, and put the best solution into practice. If this process is successful, you might eliminate the problem. Then what you have is the absence of the problem you are solving. What you do not have is the presence of the result you want to create. (p. 31)

Ellsworth (2000) described change differently. He noted that a change agent who wishes to communicate an innovation to an intended adopter would accomplish this by using the *change process* that establishes a channel through the change environment. However, this environment also contains resistance to the change, which can disrupt and distort how the innovation appears to the intended adopter. Ellsworth thought that by uniting these tactics, a systemic strategy could improve the chances in affecting a lasting change.

The literature on change is as extensive as is the body of research addressing problem *identification* and problem solving. Horton and Leslie (1965) define a social problem as "a condition affecting a significant number of people in ways considered undesirable, without which it is felt something can be done through collective social action" (p. 45). From their definition, the genesis of a problem is viewed as a *condition*. People must agree that the condition should be corrected, or it remains a condition. Best (1995) offered the following illustration:

Suppose that no one noticed the declining ozone levels, or that politicians and the press refused to take the issue seriously. The objective condition (diminishing ozone) still would have had effects (more cancer, etc.) Nevertheless, it would not be on anyone's list of social problems. The condition is not a social problem until someone considers it a social problem. (p. 5)

In the workplace, problems are not immediately evident to the practitioner. The practitioner must understand conditions as well as combine and construct issues that can often be puzzling, troubling, and uncertain. These efforts enable the practitioner to create and identify the problem. The practitioner can then articulate the problem in a succinct way that others might not ever have identified (Schon, 1983). Educational change tends to take place in organized social

settings. These settings have various conditions and locations, but they do have some things in common. To be successful, change agents need the support of people inside and outside the school. They must also make efficient use of available labor and resources. Educational change agents are often cautioned to avoid potential problems that may arise if they disregard the wishes of parents or the expectations of policymakers.

There is a need for change in collaborative organizations. One example might be illuminated with the following typology: *first-order problems, difficulties, impasses*, and *second-order problems*. First-order problems relate to deviations from the norm. The solution to first-order problems is to return things to the original state. In other words, first-order problems are resolvable without altering the fundamental system structure. Difficulties arise when there are no known solutions to a problem. We must be able to live with difficulties. Impasses occur when people are stuck coping with situations in the same manner on a repetitive basis. Persistence of this kind can actually contribute to worsening circumstances. Second-order problems are closely related to impasses. These are created from the solutions to second-order problems that actually become problems in their own right (Barott & Raybould, 1998).

“Educational change is the change intended to alter the goals of education and/or to improve what students are expected to learn, how students are instructed and assessed, and how educational functions are organized, regulated, governed, and financed” (Duke, 2004, p. 3). Researchers see a dilemma regarding the philosophy of change. There is a relationship with time, location, and environment. Individuals who are also changing must balance this relationship. “Change means movement. Movement means friction. Only in the frictionless vacuum of a nonexistent abstract world can movement or change occur without that abrasive friction of conflict” (Alinsky & Sanders, 1970, p. 21).

Meaningful Change

Although educational change is widespread, researchers and educators worldwide still do not discuss educational change systematically. Particularly in countries undergoing political and economic transition, educational change remains a political agenda rather than a well-designed engine for social reform. At both the individual and community levels, the heart of successful educational change is learning. For individuals to understand educational change, analysis and reflection are required. In fact, there can be no meaningful change to schools, groups, organizations, or any system unless the individuals within the systems themselves change (Duke, 2003). Thus educational change in most cases may be circuitous, slow, and frustrating.

Questions also remain about how to achieve and maintain meaningful change beyond the immediate context. Richardson and Placier (2001) suggested that although both organizational, individual, and small group change have been studied separately, change at all levels is necessary if systemic change is to be successful. If an organization has shared values and intentions among members of the group, the organization can then define the actions and ways of thinking the group is willing to explore and implement. This cohesion can provide crucial support and encouragement to an organization as its practice and implementation evolves.

The will to bring about meaningful change requires courage, resolution, conviction in belief that stands against self-interest, and a commitment to act regardless of consequences. It is ultimately a battle of individual rights against forces committed to the destruction of those rights (Cook, 2009). Walters (2002) considered meaningful change to be positive and life-supporting in its implementation. Meaningful change includes public participation, in decision-making process that fosters ethical, inspired leadership and civic integrity at all levels of the organization and the community. Inspirational and ethical leaders or visionaries committed to the public engagement

and collaboration helps to transcend negative sentiment and provide hope that something else, something more positive and prosperous, is possible (Walters, 2002).

Approach to Examine Change

There are times when change is virtually forced upon unwilling organizations, and there are other times when organizations seek change and openly embrace it. Change can be either beneficial or detrimental to organizations. Change can bring growth, decline, or a totally new structure within an organization. It can lead to greater efficiency, efficacy, or even chaos.

Organizational change can be viewed from many perspectives, as well. It can be seen from an internal political perspective, with constantly shifting coalitions and factions (Kanter, Stein, & Jick, 1992). It can also be viewed from a historical or developmental perspective, with markets entered and controlled and ownership shifting over time (Kochan & Useem, 1992).

Schools and communities are sometimes subject to the influence of corporations. The notion that corporations can improve the efficiency of the public sector is not new. In fact, near the turn of the 20th century the Carnegie Foundation worked toward the advancement of teaching methodology. In 1906, William Wirt the Superintendent of Schools in Gary, Indiana combined his rural values of hard work and the manufacturing efficacies of U.S. Steel to produce a vision to advance school organizations. His vision became known as the *Gary Plan*. This plan included standards for teachers, a lengthened school day and an efficient use of school facilities. The *Gary Plan* was later adopted by several other cities across the United States (O'Hara, 2007). Corporate influence on communities continued in the 1930s, the Kellogg and Ford Foundations took an interest in Public Health and Public School policy. During the 1960s and 1970s Community-Based Organizations (CBO) grew out of the civil rights movement these organizations worked to improve the public sector. In 2002, Corporations and Foundations contributed over \$5.8 Million

to CBOs of which \$751,000 came from the Ford Foundation (Domhoff, 2006). Corporate partners are still in the business of improvement and influence in public schools today. The Mercedes-Benz Plant and Shelton State Community College now share an integrated program that teaches mechanics, electronics and computer science in the manufacturing of products known as *Mechatronics* (<http://abo.alabama.gov/content/media/press/BN.aspx?ID+5709>). This program accepted the first students in January 2012. These partnerships can have positive or negative effects on schools. It depends on the individual program, the corporation, the relationship and the perspective of the observer.

Factors That Allow Change

Several factors can allow change to be institutionalized. Individuals must internalize the change and it must become a part of who they are. It must be a monumental change; it must shift their perception and individual behavior. The change must be embedded in their lives. The change itself must create a stable effect over time until that change is no longer needed (Kottler, 2001). While any change is multi-dimensional, the elemental focus of change is on the individual. This requires individuals to change their attitudes and behaviors, as well as the context in which they work. Because change is so complicated, some observers prefer to think of a streamlined three-part framework for change. Wirt and Kirst (2001) offer a model of organizational change. The systems model depicts a dynamic relationship between *inputs*, *throughputs*, and *outputs* and continuous adjustment through formative and summative feedback that seeks entropy (i.e.) a balance between the organization and its external environment. Outputs are the remedies proposed by the organizations. To achieve these outcomes, organizations must secure resources or (i.e.) inputs. Throughputs are what the organization does with these resources or information (i.e.) deliberative processes (Wirt & Kirst, 2001; Hall & Hord, 2001). To redress

the imbalance and achieve its goals, formative and summative feedback become new inputs that allow the organization to assess its objective in solving the problem. This model is often used to simplify complex change processes.

Types of Change

Kotler (2001) characterized three types of change. For example, a brief burst of progress followed by a return to previous pattern is known as an *interrupted change*. A modest gain that happens after an initial resistance is a *minimal change*. A stable, but progressive and permanent change is considered a *consistent change*. Kotler (2001) further noted that interrupted change is not necessarily bad (p. 45), as it could spark a change and lead to a more positive future.

The word *change* can refer to the differentiation or the departure from status quo. Change that results from intentional effort to alter existing conditions or circumstances will be the primary focus of attention of the change that is introduced. Some scholars prefer to use the term *innovation* when regarding change, but that term can be misleading (Hall & Hord, 2001). There are times when change might not necessarily be innovative. The effects of change might be expected or unexpected, temporary or more enduring, desirable or undesirable. This is why the term *innovation* might not always be suitable.

In their book *Permanently Failing Organizations*, Meyer and Zucker (1989) discussed how co-workers, customers, and communities fight to keep an organization going in the face of evidence that the organization is about to die. Examples included employees buying out a failing business, church members fighting an archdiocese and keeping the parish church open, and communities fighting to prevent manufacturing plant closings. All of these failures were clear to the outside observer that the organization could not be revived. Kimberly and Quinn (1984)

noted that:

A transition is a major change in organizational strategy, structure, or process.

Transitions can be precipitated by a variety of factors, such as declines in performance, perceptions of new opportunities, changes in legislation, or the development of new technologies. They may take a variety of forms, such as increasing formalization of structure, read the founding principal operation units, broadening or narrowing market definitions, or engineering a shift in culture. (p. 1)

These transitions can take the form of restructuring, repositioning, or revitalizing slipping organizations. Kimberly and Quinn (1984) asserted that an organization must be able to take action that is not directly required by environmental pressures.

Change is Multidimensional

“If there is no meaning in it, it saves a world of trouble, you know, as we needn't try to find any” (Carroll, 1898, p.185). The King of Hearts from *Alice in Wonderland* says this after reading the White Rabbit's nonsensical poem. The general purpose of virtually all intentional change is to improve current conditions. It does not seem logical to implement a change that would lead to similar circumstances or a worsening of a situation. First-order change is intended to improve the existing system or to change the system. Improving the existing system requires two types of alterations: changes designed to return the system to a prior, desired state and changes intended to improve performance for conditions without altering the basic nature of the system. Second-order change, on the other hand, involves altering a fundamental aspect of the system, including its goals, underlying assumptions, and relationship patterns (Barott & Raybould, 1998). Intentional change can be determined in another way. Some change efforts are designed to address specific problems, such as inefficiency, ineffectiveness, retrenchment, or

unmet needs. Other times, change efforts are intended to respond to opportunities that present themselves. The first example of change is to reduce or eliminate a problem and the second type is to create something new.

It is one thing to create a new organization and quite another to improve on an existing organization. Both of these situations are major undertakings. Sarason (1972) appreciated these differences when he noticed the problems faced by educators who try to emulate John Dewey's famous model of progressive education:

John Dewey had the luxury of creating a new school at the University of Chicago [that] it embodied the principles he advocated. He was able to create a litmus test for those who wanted to work at his school. Those who admired Dewey's school, however, typically faced the necessity of transforming an existing school with existing programs, policies and staff accustomed to conventional pedagogy. This task requires more subtleties and extremes than starting from scratch (Sarason, 1972, pp. 212-213). Change is complex, multilevel and multidimensional and as such requires a wide range of models that may inform this transformative process.

The Element of Management

The element of management is sometimes missing in the discussion of change. Managers play a role as they monitor and interpret the environment. Organizations that are doing poorly often change their management teams. Management teams bring strategies with them and thus contribute to organizational change (Boeker, 1997). Management teams, however, must understand that the balance of the environment is only one part of organizational change. Two leading population economists, Carroll and Hannan (1989), have recognized this point by noting that environments differ in degree of density. In highly dense and competitive situations,

pressure is at the greatest. Carroll and Hannan's (1989) research on breweries, for example, shed additional light on the issue of density (Carroll & Wade, 1990). At one point in time, most breweries were likely to be found in dense urban areas. With the development of refrigeration, however, breweries could be developed in rural areas, which ultimately led to the demise of urban breweries. Another aspect of change related to management is their circumstances, the embedment of larger organizational personnel systems and corporate social networks. These circumstances contribute to both the content of change decisions and the orientation of managers toward change itself (Bacharach, Bamberger, & Sonnenstuhl, 1996; Fligstein, 1995; Palmer, Barber, Zhou, & Soysal, 1995). However, organizational personnel may be a potential source of organizational inertia. When personnel are selected based on reliability and accountability, organizational structures become reproducible. This means that the same organizational structures remain in place because there is no differentiation among personnel. This tendency toward organizational inertia due to commonalities of personnel is more likely to occur in smaller, simpler organizations than more complex organizations (Hannan & Freeman, 1984).

There is one final element of the transformation process: organizational change can happen by accident (March, 1981). Sometimes situations occur that happen by accident, disaster, or opportunity, which creates organizational change. While it is very useful to "focus on environmental pressures as a source of change, it is impossible to ignore internal sources of organizational change. . . . Organizations have a varying potential for change" (Hall, 1977, p. 177). Organizations with new leadership have a potential for a greater range of change than an organization with a structured induction protocol in place. An induction protocol allows organizations to transfer consistent practices that may inhibit change.

Nature of Change

“To observe a specific team, department, or organization targeted for change is to locate change, but this is not to offer any details about the kind of change involved” (Daft, 1983, p. 191). According to Daft (1983), there are four general kinds of change: *Technological changes* in the production process; *product changes* in output, including goods and services; *administrative changes* in supervision and management; and *people changes* in attitudes, skills, expectations, and behaviors of specific individuals (pp. 266-267). If we consider Daft’s scheme, it might be impossible to imagine an initiative aimed at changing what an organization produces. To accomplish such a change might require people to change in all departments. However, the skills necessary to change can vary from one department to another. This is just another example of the complex nature of organizational change. If the goal is to change people, behavior modification, in-service training, learning, on-the-job training, professional development, or staff development might be appropriate. If it comes to changing people, we must focus on attitudes, behaviors, or both (Zaltman & Duncan, 1977). Some theorists might also add values and beliefs to the inventory. Zaltman and Duncan noted (1977) that changing human beings often necessitates change in the context in which they function, as well as the efforts to change their attitudes and behavior. Due to the overwhelming interests in these relationships, new fields of study, such as *organizational design* and *organizational development*, have emerged. If the goal is to change system structures, organizational design, organizational development, reengineering, reinventing, or restructuring might be implemented.

Magnitude of Change

Magnitude refers to the scope of the change. Terms such as *comprehensive*, *systematic*, and *large-scale* change are often used to characterize big change efforts. In the area of

educational change, the Chicago School Reform Act of 1985, Great Britain's Educational Reform Act of 1988, and the Kentucky Educational Reform Act of 1990 represent such efforts. Each of the acts included significant extended change mandates and accountability measures that included provisions for restructuring and retraining of professional staff. Chambers (1997) observed that the "preference of some change experts differ on the matter of magnitude" (pp. 192-193). Small-scale changes are more likely to be accomplished, but less likely to produce significant differences in performance and outcomes. On the other hand, large-scale change is more risky, but more likely to achieve impressive outcomes if it succeeds. Chambers concluded that any decision of magnitude of intended change must be contingent on a clear understanding of context and conditions.

Extent of Change

Intended change is seldom rapid. In fact, Sarason (1971) noted that "some changes are never implemented at all" (pp. 219-220). There are several reasons change is not accomplished quickly, including the complicated nature of the proposed change, the enormous magnitude of the change, or the possibility of intense resistance to the change. Another obstacle to full implementation of change is a possible extended period required to complete the change. This type of massive change that might not ever be fully implemented is exemplified by Brown versus the Board of Education case in 1954, was the Supreme Court decision that mandated desegregation in the United States. It is also important to mention that there is sometimes a deviation of what type of change was intended. Again, the Brown case was a prime example of the deviation of the intended change. This case may have set out to allow minority children access to the better schools. However, its far reaching outcome overturned the 1896 Supreme Court case Plessey versus Ferguson, which was the basis for separate facilities in the United

States, and thereby laying the foundation for segregation. Brown versus the Board of Education made an impact and it is obvious that this example of educational change in the United States was another massive change movement where pundits may or may not agree. Of course, opinions vary regarding the extent of the movement and success of desegregation in the United States (Marshall & Tucker, 1992).

According to Duke (2004), four basic positions regarding change can be identified. Position 1 holds that the only constant in education is that of education changes. Schools are subject to a continuous parade of adjustments, alterations, and modifications. Ideas come and go, and new mandates flow endlessly over local schools. Issues can range from open classrooms to radon testing, to increased accountability. "The most logical fact about organizations, including schools, and colleges, is that they change. You can count on it—if you leave an organization for a few years and return, it would be different" (Baldrige & Deal, 1983, p. 3).

Keiser (2001) described the constancy of educational change:

Whenever our society changes, or wishes to change, schools and teachers are enlisted in the cause. If we decide that cyberspace is the right place to go, we start by sending second graders. . . . The teacher cannot hear the phrase "launching a new initiative" without knowing that the launching pads are to be located right on top of his or her desk.

(p. 43)

Position 1 treats change descriptively. The value judgment is implicit in Keiser (2001) aforementioned statement.

Position 2 also recognizes the ubiquitous nature of educational change, but this quality is regarded as a basic flaw, a manifestation of uncertainty or even gullibility on the part of educators and those responsible for education policy. Children are often portrayed as the victims

of mindless reform. Hirsch (1996) is an influential proponent of this hypothesis. While reflecting on the impact of potential change in the wake of the national commission on excellence in education, Hirsch (1996) noted, "Despite much activity, American school reform has not improved the nation's K-12 education during the decade before or since the publication of *A Nation at Risk: The Imperative of Educational Reform* (1983)" (pp. 2-3).

The most common characteristics of Position 3, however, argue that education, especially public education, has an absence of change. Public education is in fact quite resistant to change. Educators are portrayed as highly resistant to any new ideas to improve practice. Position 2 and Position 3 are at opposite ends of the spectrum. However, both positions provide useful perspectives from the educational establishment. Maeroff (2000) conveyed the essence of Position 3:

The world has been upended outside the schoolhouse; but, in fact, education seems most mired in 1965. Knowledge transactions continue to consist largely of teachers who stand, front and center, talking at students. The Socratic Method is as elusive as ever. In most classrooms the computer, for all its promise, tends to be little more than a cybernetic artifact that figures only tangentially in the core program. (pp. 9-10)

Position 4 is quite popular among many scholars who study educational change. This can be retold with the French idiom "the more things change in school the more they remain the same" (Sarason, 1971, p. 29). Many theorists agree that change has occurred, but it has had no effect. Sarason (1971) contended that there is a reason for the failure of most educational change initiatives and that the failure comes from not addressing "existing regularities" in schools (p. 86). Schools, districts, and organizations are contextually unique. Thus before any change is even initiated, the change agent must have as complete information as possible. They must know

about their internal methods and procedures, which must be adjusted prior to any successful change. Public education receives criticism for its responsiveness to the needs of change. Private industry, on the other hand, is lauded for embracing continuous change (Brown & Eisenhardt, 1997). Schools are attacked for a similar position and they are criticized for attempting to change. Perhaps this is a mixed message—schools have problems, but they should not change. Duke (2004) likened this irony and the public response of educational change to that of a Broadway play. Instead of, "I love you, you're perfect, now change," Duke viewed its equivalent in education to be, "I'm worried about you, you're flawed, but stay the same" (p. 35). Groups resist change for the benefit of the stability of the organization. Sometimes their motives are altruistic and sometimes their motives are selfish. In addition, some groups simply do not have the ability, the capacity, or the components for change (Hall, 1977).

Duration of Change

The length of time that the particular change remains in effect is also important to this discussion. Many historians and others who study change place a premium on the longevity of change. However, the length that the change is maintained should not determine the success of an intended change. Some people would characterize short-lived changes as fads. However, it is important to note that some changes are not meant to be long term. For example, shortly after Hurricane Katrina hit New Orleans in 2005, martial law was enacted and the National Guard mobilized to restore order at the disaster site. Martial law was not intended to be a long term change.

Consider Kottler's (2001) change classification system that he used with his clients in short-term therapy. What he described as interrupted change, minimal change, and consistent change can be adapted with some minor adjustments and can be applied to changes involving

organizations. One possible controversy, however, is concerned with the rationale for considering any change in organizations or individuals as a permanent change (Duke, 2004). Some research and innovation suggested change actually might be cyclical, with the cycle lasting between 10 and 15 years (Chambers, 1997, p. 191). The cycle commences with some sort of *dysfunctional stress*, which leads to the adoption of a relatively large-scale change (Kottler, 2001, p. 125). Changing circumstances cause large-scale change to be amended, refined, or resuscitated over time. Eventually these counseled patients are unable to provide the necessary corrective action, and a new large-scale change is required. This begins a new cycle.

Educational Reform

Education reform raised the awareness of the scope and the needs for the future. It is a persistent theme in the literature and includes a discussion of several related elements involving public ideas of educational change, educational excellence, accountability, choice, and professionalization. Each of these elements will be discussed separately in order to better understand the breadth and depth of the extent literature.

Public Ideas of Educational Change

Recent history can describe potential change, at least in the United States, to be traced to six ideas: equality of educational opportunity, educational excellence, accountability, choice, school safety (discipline), and professionalism (Duke, 2004). Many people can make appeals to approximate their needs to these ideas. There is no debate that people can influence policy and practice. Tyack and Cuban (1995) contended that Americans “have spent more energy talking about public ideas in education than actually doing anything about them” (p. 40).

These ideas are derived from the pressures outside of education. While some might argue that some of these changes cancel out other changes, very few would dispute the fact that educational change is a restless and relentless process.

The desires of the public are frequently captured by ideas. Ideas, of course, are always floating around; they drift with pundits, professors, and politicians. The vast majority of these ideas soon sink from sight. A few, however, refused to disappear. They gather density, like islands building around coral reefs. We call these ideas “public ideas,” terms that capture the concern and the mood of a large number of citizens at any given point in time. (Duke, 2000, p. 17)

Again, it is important to note the overwhelming change brought about by the 1954 decision in *Brown versus the Board of Education of Topeka*. This case struck down the notion that separate schools for races could be separate as well as equal. After the *Brown* decision, change could be measured in inches, not miles. Some states, like Virginia, even refused to comply with the desegregation ruling. President Eisenhower sent federal troops to Little Rock, Arkansas to force the issue of desegregation, and President Kennedy continued to maintain President Eisenhower's resolve when he came into office. In the days after Kennedy's assassination in 1963, the task of changing the educational community was left up to President Johnson. His administration was responsible for two landmark pieces of legislation: the Civil Rights Act of 1964 and the Elementary and Secondary Education Act (ESEA) in 1965.

The Civil Rights Act of 1964 included two provisions that directly affected public education. Title IV authorized the Attorney General of the United States to initiate lawsuits to compel school districts to desegregate and Title VI contained language that could withhold federal funds from schools with racially discriminatory programs. The following year, the

Elementary and Secondary Education Act (ESEA) was passed. To date, this was most comprehensive education bill initiated by the federal government. This bill included Title I, which addressed at-risk students, as well as Operation Head Start, which addressed preschool programs for poor and at-risk children. The ESEA ushered in many reforms to address poor and disadvantaged children.

In 1999, Congress reauthorized the ESEA, calling this new legislation the Improving America's Schools Act. Federal funds continue to be earmarked for poor students in the form of Title I, teacher training, special pullout programs, teacher aides, school-wide instructional improvement projects, and extended learning time opportunities. As of 1997, the Title I portion of the new act affected over 11 million students (Duke, 2004).

In the discussion of expanded quality of educational opportunities, it is also important to mention Title IX of the Education Amendments Act: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance" (Sadker, Sadker, & Klein, 1991, p. 463). Title IX led many schools, school districts, and parents to take a very hard look at athletic programs and vocational education. Parents, educators, and advocates wanted to know if males and females were receiving equitable resources.

The needs of non-English speaking students surfaced in the form of the 1974 court decision of *Lau versus Nichols*. At the time, the San Francisco school system was proving to be incapable of providing equal educational opportunity to non-English speaking students of Chinese ancestry. While the US Supreme Court did not mandate a correction, it did validate the fact that student needs were not being addressed appropriately. It nudged school systems toward bilingual education, where English might be used as a second language. Critics argued that

bilingual education comprised a form of segregation and it did not appear to result in higher achievement rates (Sadker, Sadker, & Klein, 1991, p. 446). The centerpiece for addressing educational equality was Public Law 94-42, Education for All Handicapped Children Act of 1975. This act guaranteed procedural due process for all children identified as having special needs based on physical, cognitive, or emotional handicaps. As of 2001, special education mandates affected 6.1 million students at an annual cost of \$41.5 billion (Bolick & Berstein, 2001). Although some scholars observe the absence of substantive change, others recognized that significant change takes time and that it is a continuous process. Most scholars acknowledge that while these acts have helped to alter practices in education, much work remains to be done to achieve intended goals of a just society (Sarason, 1972).

Educational Excellence

The measurement of educational excellence is a much more imprecise science. Revenues, expectations, neighborhoods, and genetics all have effects on success. Excellence by its very nature is open-ended. It is much easier to define and measure ignorance than excellence (Duke, 1985). Beginning in the 1980s, educational excellence was associated with two basic beliefs: (a) all students need to receive rigorous academic instruction and (b) regardless of plans and standards, academic expectations must be raised significantly (Toch, 1991, p .3).

From the 1950s forward, educational excellence saw a mad rush in U.S. science to catch up with the Soviet Union after the Sputnik satellite was launched. The National Science Foundation (NSF) increased its funding so that gifted students could work together in small groups. The NSF also funded a variety of new curricula. There was an initiative to increased funding across the U.S. so that public schools could not only compete with the Soviets, but could win the Cold War.

In 1976, Congress mandated that “Provisions Related to Gifted and Talented Children” be added to the ESEA reallocation of 1969. Educational excellence continued to be associated with gifted education until President Reagan's Secretary of Education, Terrell H. Bell, created the National Commission on Excellence in Education in 1981. Shortly after that, concern that the U.S. economy was being surpassed by Japan and Germany increased. In 1983, the National Commission issued its report, *A Nation at Risk: The Imperative for Educational Reform*. This report stimulated a protracted national debate on quality of the nation's schools and sustained one of the most significant education reform initiatives focused on achieving educational excellence in American history (Bjork, 2005).

Accountability

Some observers credit President Richard M. Nixon with popularizing the idea of educational accountability. In his 1970 education message, he stated:

From these considerations we derive another new concept: Accountability. School administrators and school teachers alike are responsible for their performance, and it is in their interest as well as in the interest of their peoples that they be held accountable.

(Lessinger, 1971, pp. 62-63)

By 1978, “every state but two [has] a statewide assessment system in operation or in the planning phase, and many other states and school systems [have] new comprehensive planning schemes designed in one way or another to assure that local education programs measure up to some standard of performance” (Timpane, 1978, pp.181-182). This was the beginning of formalized teacher evaluation systems. Improvements to student achievement presumably depended on teachers being held accountable for using proven teaching methods. Many states have introduced sanctions for schools with school systems that fail to produce prescribed passing

rates on standardized tests. Few dispute the fact that statewide accountability initiatives have made an impact at the school classroom level. In one series of studies of Virginia's accountability plan, researchers (Duke, Grogan, Tucker, & Heinecke, 2003) submitted that teachers now discuss curriculum content and share ideas more than they did previously. Principals have also made an effort to ensure that teachers now review student test data, analyzing scoring patterns on state tests. It remains to be seen whether these changes will result in cost savings as well as an increase in student test scores. Some observers fear the possibility that overemphasizing performance on state tests dilutes creativity and subjugates students to a much more narrow focus of curriculum (Toch, 1991).

Choice

Some Americans believe the highest form of accountability is school choice. School choice creates a market economy where parents can select the school that best fits their needs. School choice is not a new idea; families have long been able to pick private schools, charter schools, and private tutors to ensure that their children get the best education possible. In the 1960s, for example, many parents were critical of public schools and began to create alternative schools for their children (Duke, 1992). During the 1980s and 1990s, magnet schools were created to expand educational opportunities.

Another choice in educational opportunities began with political pressure culminating in school vouchers. The federal government supported a voucher experiment of sorts in the early 1970s in California's Alum Rock school district, but interest in the idea did not garner widespread attention until it received vocal support from President Reagan (Henig, 1994). Reagan regarded vouchers as a way to support private and parochial schools, as well as to reflect his strong belief in free market economics. While voucher plans failed to take hold in more than

a handful of school districts, another form of educational choice—charter schools—fared better. Nathan (1996) offered the following characterization of charter schools:

Charter schools are public schools, financed by the same per-pupil funds as traditional public schools receive. Unlike traditional public schools, however, they are held accountable for achieving educational results. In return, they receive waivers that exempt them from many of the restrictions and the bureaucratic rules that shoulder traditional public schools. (p. 1)

Within the discussion of school choice, it is also prudent to discuss the increase in home schooling. Homeschoolers, for various reasons, decide to educate their children at home. Many parents' express religious justifications for educating their children at home; others note academic reasons and concerns for their children's safety and well-being (Nathan, 1996).

Professionalization

Professionalization deals directly with competent, professional educators. This is an area where there can be many differing opinions. One can argue that teachers do not enjoy the same autonomy, rigorous training, prestige, compensation, and influence as other professions, such as doctors and lawyers. This notion is what gave rise to the ultimate professionalization of teaching. The National Education (NEA) and the American Federation of Teachers (AFT) have been instrumental in advocating the need for a professional teacher organization. While not all states allow for collective bargaining, the ascendancy of teacher organizations have given voice a to classroom teachers who have been traditionally ignored. Teachers seeking change in schools are now being heard. Darling-Hammond (2000) offered the following observation:

The nation has paid little attention to developing its human resources for education.

Recruitment is ad hoc; much of teacher preparation is insufficiently aligned with needs of

contemporary classrooms and diverse learners. Selection and hiring are too often disconnected either to specific school system goals or to a clear vision of quality teaching; mentoring and professional development are frequently scattershot, and opportunities for teacher learning are likely to be the first programs eliminated when districts cut their budgets. (p. 359)

Progress has indeed been made. There is a rich body of research regarding instructional effectiveness. Several states have raised teacher standards regarding licensure that reflects leadership and scholarship. State licensure boards controlled by classroom teachers require examinations for educational specialties. The achievement of national board certification is considered one of the highest honors a teacher can receive. Several states require a formal mentoring of first-year teachers. The Kentucky Teacher Internship Program (KTIP) is one effective example of a state's response to professional educators to create a formal professional mentoring apparatus (Resource Information Center, 1999).

Organizational Ecology

The lowest level in organization ecology involves a study of the demographic events and lifecycle processes across individual organizations. This type of study is called *organizational demography* and is typically used in a developmental approach to study evolution. The discussion of organizational ecology will also include critics of organizational ecology, theoretical framework, Japanese/Toyota business culture, and Quality Circles.

In the study of populations, organizations constitute a second level of ecological analysis. Research on this level, defined as *population ecology*, concentrates on population growth and decline as well as interactions between multiple populations. Evolutionary theory is integrated with ecology at this level with the *selection approach*, the third level of analysis, which studies

community ecology, defined as a collection of whole populations (Carroll, 1984). Aldrich (1979) brought the selection approach to the general literature on organizational theory and fleshed out the evolutionary logic of population ecology.

Using Campbell's (1969) conceptual scheme, Aldrich (1979) characterized evolution as a three-stage process consisting of *variation*, *selection*, and *retention*. Organizational variation is an essential precondition of selection; however it can be assumed exogenously (as in most of Hannan & Freeman's work) or it can be explicitly taken into account attempts to explain the rise in organizational form. (Carroll, 1984, p. 4)

The second stage, selection, posits a mechanism for the elimination of certain types of organizations. Elimination can occur through any type of organizational mortality: the solution could be abortion, merger, or radical transformation. The mechanism of elimination is usually an environmental condition; thus, the key predictor of organizational survival is an interaction variable composed of organizational form and environmental condition (Hannan & Freeman, 1984).

The final stage is retention. For organizations, retention is not (as in biological organisms) a generational problem because theory can be immortal (Aldrich, 1979). Instead, retention is a structural problem: organizations with advantageous traits must not lose them through a critical change. Hannan and Freeman (1984) argued that the evolutionary role of inertia is to reproduce the organizational structure to ensure accountability and reliability. Therefore, characterized second and third generation organizations are more adaptive than in the original segment of population. In fact, organizational inertia now plays a more central role in organizational evolution than it did previously by providing the basis for selection.

“Organizations are born, grow, and decline. Sometimes they reawakened, and sometimes they disappear” (Kimberly & Miles, 1980, IX). This perspective is viewed as the *life cycle* of organizations. In some cases, *foundings* take place through legislative action. Recently the term *foundings* has been replaced by *birth* when discussing ecological theory. After the organization is born, the most likely change to occur is then death. The first basic premise of ecological theory is that organizations die. The second basic premise of ecological theory is that organizations adapt to the environment (McKelvey & Aldrich, 1983). The third basic premise is that the organization must adapt and make changes in order to survive in its own environment. This is a common analogy with any biological system, with a heavy emphasis on evolution and natural selection. McKelvey and Aldrich (1983) suggested four principles that operate in the ecological process. The first principle is that of variation. Any sort of change is a variation and variations can be purposeful or blind. “Purposeful variations occur as an intentional response, when environmental pressures caused selection of adaptations. Blind variations are those that occur independent of environmental or selective pressures; they are not the result of an intentional response to adaptation instead rather occur by accidental change” (McKelvey & Aldrich, 1983, p. 114). Some types of variations in organizations prove to be more beneficial. They are more adept in acquiring needed resources from the environment. These variations contribute to the survival of the organization. In an ecological community, a population whose member organization holds variations guard against competition from other populations and increase their likelihood of survival (Aldrich & Mueller, 1983).

The second principle is that of natural selection. Useless or harmful variations are likely to bring fewer resources and thus reduce chances of survival. If an organization survives for a substantial amount of time it is thought to have a beneficial variation enacted. Competence

elements, or *comps*, are defined as elements of knowledge and skill that, in total, constitute the dominant competence of an organization (McKelvey & Aldrich 1982). These types of variations give organizations another key to success and prosperity, at least for a time.

The third principle is that of retention and diffusion. This involves passing down information and technical skills to subsequent generations. Competencies are retained by the information flowing within the organization, which can involve formal or informal training. In their study of the microcomputer, cement, and airline industries, Tushman and Anderson (1986) found that technological breakthroughs could enhance or destroy organizational competence. Knowledge and skills can become highly able or obsolete based on technological change.

This third principle explains the retention of beneficial variations over generations of employees as well as the diffusion of beneficial variations throughout a population. Unlike biological organisms, organizations do not have offspring, though some have suggested that “spin off” organizations may be analogous. Actually, the image of a physical body impedes clear thinking about the retention of favorable genes. Mayr (1969) discussed bodies as temporary vessels, holding parts of the gene pool of the population. It is most important to preserve the gene pool itself than what actually happens in the passage of some genes from a parent to offspring. Therefore, organizational scientists concern is rightly over the preservation of the pool of the *comps* (elements of knowledge and skill) of the population (McKelvey & Aldrich 1983).

As employees hold *comps* (competence elements), the concern is then how *comps* are passed through time and across successive generations of employees. How are they passed from an employee in the organizational population, and then interchanged among organizations within the population? Aldrich (1979) demonstrated that organizational persistence truly shows that retention and diffusion principles propel organizations.

According to McKelvey and Aldridge (1983), the final principle is the struggle for existence. This is where organizations compete with other organizations, even using scarce resources. The earlier principles explain the process of natural selection (Campbell, 1969), but Lewontin (1978) observed that a fourth principle is necessary one clearly recognized by Darwin mandates the “struggle for life.” (1859, p. 61). This literature offers ample evidence of the competitive struggle among organizations. An example of this “struggle for life” can be found in solar energy companies prior to the Reagan administration. These organizations received tax credits and government subsidies to the extent that almost any organization could enter the field and survive. However, after the Reagan administration cutbacks, these firms experienced a greatly increased mortality rate (Carroll & Wade, 1990).

Critics of Organizational Ecology

There are, of course, those who criticize organizational ecology. For example, Perrow (1979) argued that for reasons of social control, large organizations are the most important to study and that they rarely die. The implication of this argument is that the selection approach only applies to small organizations. While small organizations have a higher failure rate, larger and older organizations also fail.

Perrow (1979) also argued that the selection approach is limited to competitive, market-based industries because “we simply do not let schools and garbage collectors go out of business” (p. 242). However, it seems schools were even more unstable in the early 1970s. As a result of consolidations, the number of school districts in the United States declined from 127,108 in 1930 to 15,174 in 1974 (U.S. Census Bureau, 1975). Aldrich (1979) argued the

following:

Organizational science could be applied more widely if the field were more concerned with the conditions under which research findings are valid. Papers in the field generalized about organizations as if they were all alike, or refrain from generalizing at all, as if they were all unique. The population perspectives presented the de-emphasize the all-alike and the all-unique approaches, placing emphasis instead on research methods that improve the description and classification of organizational forms, define more homogeneous grouping, and specify the limited conditions under which predictions may be expected to hold true. (p. 1)

Theoretical Framework

The theoretical framework is a vital element when discussing a partnership such as a school district and a major automotive manufacturer. During this section of discussion, two related elements involving Japanese/Toyota Business Culture and Quality Circles. Each of these elements will be discussed separately in order to better understand the literature.

In the 25-plus years since the founding of *American Sociology Quarterly* (ASQ), Ouchi's (1981) *Theory Z* is the only book about organizational structural reform to attain "bestseller" status (George, 1984). Quite simply, Ouchi suggests that involved workers are the key to increased productivity.

Decisions made by a "Theory Z company" ultimately become the responsibility of one person, but is based on input from others. American Theory Z companies most always manifest what Ouchi calls a "holistic orientation similar to the Japanese firm" (Ouchi, 1981, p. 5) there are, however, important differences. Such companies tend to display "broad concern for the welfare of subordinates and coworkers as a natural part of the working relationship" (Ouchi,

1981, p. 5). Interpersonal relationships tend to be informal and egalitarian and people work together. People hired with this mindset tend to excel. Open discussion of direction, trust, and commitment to the company is crucial. These companies depend on long-term thinking and participatory decision making, which requires members to have constant input into the organization (George, 1984).

The influence of Theory Z-type management systems cannot be discussed without first looking back to the 1930s in the United States (Ouchi, 1981). W. Edwards Deming, a physicist at the time, provided a template for continuous improvement. His overarching body of principles promotes intelligent action toward improving schools. What distinguished Deming's philosophy from other educational fads was its adaptability and a capacity to embrace and refine much of what was already working. It was not a rigid philosophy. He asked the question, "What is quality?" This philosophy united people and created quality control engineers out of all team members (Deming, 1982, p. 168). Deming wanted to move individuals past "cutthroat" competition and get to a "win-win" situation for both companies and competing countries (Schmoker & Wilson, 1993).

Anthropologist Edward T. Hall (1969) distinguished this as a "West versus East" tendency, calling it a *low context* versus *high context* society. In the low context Western culture, people are all separate individuals—separate from each other and separate from any particular social group. At different times, people might participate in some group or even say they belong to a group, but they are all separate. In high-context Eastern cultures, such as Japan, individuals are not defined apart from their memberships in groups and institutions. Leaders are not just doing jobs; they are personally responsible for the actions of everyone in the organization who report up to them (Liker & Meier, 2007).

Japanese/Toyota Business Culture

For centuries, the Japanese have believed that the most valuable natural resource is its people. Consequently, they understand that cooperation, trust, and harmony are keys to the success of their society and organization. While Japanese civilization has been thriving with few natural resources, they have always made the most of what they have. They emphasize trust, subtlety, and intimacy in ways the United States might not understand. The history of the United States is very different, from colonization and a frontier mentality with wide-open spaces. To understand Japanese corporate style of management and leadership one must first understand the Japanese culture. In Japan, employment is for life; thus their well-being is directly tied to that of the organization in which they work. Employees rise from within the company. Japanese employers practice the concept of *Hansei*, or reflection on their work, as a way to ensure success. This concept is important in the procedures of Toyota globally. For example, individuals must recognize that there is a problem when there is a gap between expectations and achievement. They must take responsibility and feel deep regret. They must, on their own, commit to a specific course of action to improve (Liker, 2004).

Quality Circles

Quality Circles were first introduced in Japan in 1962. Kaoru Ishikawa has been credited with their creation (Ishikawa, 1985). Toyota Motor Manufacturing brought the concept to the United States in the early 1980s. Quality Circle can be defined as a small group of employees who work in same work area or do a similar type of work, who voluntarily meet regularly for about an hour every week to identify, analyze, and resolve work related problems, which then leads to improvement in their total performance and ultimately enrich their work life. The circle is a relatively autonomous unit, ideally made up of 10 workers, usually led by a supervisor or a

senior worker, and organized as a work unit (Ross & Ross, 1982). This concept and practice is still an important foundation to TMMK.

Problems of Purpose

Organizations exist to serve the purpose spelled out by the mission of the organization. This purpose will lead to the discussion of several related elements involving problems of purpose, problems of professional practice, and organizational problems. Each of these elements will be discussed separately in order to better understand the breadth and depth of the extent literature.

Schools and school districts are no exception to any other organization. Under certain circumstances, the need for educational change might be associated with problems of purpose. Among these problems are the following: unclear educational goals, overly ambitious educational goals, incompatible goals, and outdated educational goals (Duke, 2004). It is difficult for individuals to be effective if they are unclear about what they are supposed to accomplish. Should schools focus on the disadvantaged students? On the other hand, should they focus on curriculum? Some might consider it impossible under such circumstances to establish meaningful priorities and allocate scarce resources intelligently. Where some theorists accept ambiguity of purpose as part of the organizational landscape, those responsible for current education policy have worked hard to clarify the mission of public schools (McCaskey, 1982, p. 3). The recent accountability movement is an example where state and federal governments have attempted to clarify educational goals.

Of course, the charge can be made that public schools have tried to accomplish too much. Over the past few decades, schools have been asked to address racism, drug and alcohol abuse, teen pregnancy, AIDS education, gun safety, diversity, moral decline, changes in the family,

poverty, threats to the economy, suicide prevention, and more. Schools are regarded as the first line of defense against low self-esteem, infectious disease, and child abuse—as well as ignorance. Critics claim that educators are less likely to provide sound academic preparation when they assume responsibility for non-academic goals. This long list of responsibilities is a good example of overly ambitious educational goals (Duke, 2004).

One example with the problem of purpose is that some goals that are identified are incompatible with society views. Schools exist within political, legal, cultural, social, and economic context. The Brown versus Board of Education decision is a clear example of an incompatible goal. School systems that continued to insist they could address the educational needs of black and white students separately found themselves in an actual violation of law. Thirty years after the Brown decision, educators were told they must raise academic standards for *all* students so that the U.S. could compete in the global economy (Marshall & Tucker, 1992). These incompatible goals are also evident with the reauthorization of the Individuals with Disabilities Education Act (IDEA, 2004)) and No Child Left Behind (NCLB, 2002) to redefine practices, policies, and programs (Marshall & Tucker, 1992).

In a complex society, existing conditions change on a regular basis. This can lead to the increase of outdated goals. Political priorities shift. The economy rises and falls. Society moves from one area to another, causing school counts to fluctuate. This constant change gives rise to the argument as to whether educational goals should be based on current or anticipated conditions. Creating goals with today's conditions increases the likelihood that tomorrow will look a lot like today. However, history points out the foolishness of expecting tomorrow to look exactly like today. The survival of public schools in the past could largely be taken for granted. In fact, 60 years ago, it was difficult to judge schools on their performance at all. Today, more

data can be compared thanks to the national accountability movement. Times have changed drastically. Society and NCLB associate school success and/or survival with school performance on state or national assessments (Darling-Hammond, 2000).

Problems of Professional Practice

The accountability model that has come into the discussion with legislation like NCLB addresses current perceived problems. Lack of accountability, ineffectiveness, and inefficiency can all be problems related to professional practice:

That model postulates that schools operate by setting goals, implementing programs to achieve these goals, and evaluating the extent to which the goals are attained. Policies emanating from a belief in rational model are designed to improve the operation of a goal-oriented process. Schemes which promised to increase accountability, efficiency, and effectiveness are imposed on the existing bureaucratic structure of the school in anticipation that they will improve the school. (Wise, 1983, p. 104)

Accountability is a complex idea with many definitions. To teachers, it can mean failure to use best practice or the refusal to follow district policies and procedures. It can also mean failure to address specific struggling students. For the community or the district, accountability could mean failure to communicate effectively with parents. In most cases, ineffectiveness means a failure to meet performance goals. Effectiveness, as well as accountability, is nebulous and difficult to quantify. It must be determined whether students put forth legitimate effort on tests and whether students were present for the instruction in the first place. While it is typical to find that a few teachers have difficulty keeping students on task, it is quite unusual for the entire faculty to lack the confidence or expertise in certain instructional essentials. Another example of this complexity can be in determining whether affected teachers are able to demonstrate a

mastery of their subject. Are teachers willing to work closely with colleagues? Do they understand how to diagnose learning problems? Will they work with administrators to implement change (Wise, 1983)?

The third problem relating to professional practice is inefficiency. Unlike ineffectiveness, inefficiency takes into account the costs of trying to accomplish performance goals (Duke, 2004). Even if teachers achieve professional success, they can be inefficient with the time or resources needed to reach that achievement. School systems certainly do not have unlimited resources. With scarce resources, choice is a constant. Reducing class size, for example, is ineffective if teachers continue to teach the same way they do to 30 or even 40 students. This reduction in class size fails to take advantage of individualized instruction.

Unethical behavior is also a problem of practice and is perceived as being a detriment in education. When teachers mistreat their students, they risk the wrath of the school or the entire community. This is a detriment to the school and a detractor from any school wide gain. Teachers also lose support when they use their position for personal gain. Recently, with the accountability efforts, situations occur where teachers and administrators focus so sharply on testing that they lose respect within the educational community. The most important lesson teachers learn is that they must model behavior for young people. If this is violated, and teachers behave unethically, the damage done to students can last a lifetime (Wise, 1983).

Organizational Problems

The range of organizational problems at first seems staggering. In an effort to narrow the options of problems to a manageable number, Zaltman and Duncan (1977) identified six basic types of problems organizations experience: “policy problems, organizational structure problems, person problems, production process problems, channel problems, product problems”

(p. 53). Policy problems are problems related to policy goals or the means to achieving these goals. Organizational structure problems are related to trouble with individual formal roles and the configuration of roles, groups, and organizations. Person problems refer to issues with individuals performing their designated roles. Production process problems refer to issues with the process in which products are created and services are provided. Channel problems are related to difficulties with the means used to distribute products and services. Product problems are related to the quality of the product or service and to unanticipated consequences related to the product or service.

With a few adjustments, Zaltman and Duncan (1977) created a way to categorize educational concerns. This categorization allows the researcher to identify and compare problems within organizations. The characterization of a problem can be influenced by many factors. However, there are some problems with such an oversimplification. Republicans are known for framing problems in terms of too much government, whereas Democrats propose new government to solve problems. Another problem can be articulated in how training of the staff occurred, as well as the expertise of those defining the problem. This oversimplification highlights the plethora of models to examine change. Schon (1983) warned of the dangers that can result when trying to force problems to fit an available expertise (pp. 44-45). Due to their size and intricacy, complex enterprises such as education inevitably have problems.

This chapter reviewed literature on educational and organizational change in four broad areas, including the need for change, educational reform, organizational ecology, and problems of purpose. This body of literature provided a framework for understanding and explaining case study events as well as identifying opportunities in which the study may contribute to the literature by filling gaps and elucidating ideas that may not be as adequately developed.

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CHAPTER THREE: RESEARCH METHODS AND PROCEDURES

Qualitative research methods were introduced into research of education from the fields of sociology and anthropology. These methods enable the researcher to examine complex education issues and organizational systems in the context of which they occur (Viditch & Lyman, 1994) and from the perspective of those experiencing events (Stake, 1995). Early efforts of interpretive inquiry were centered on economics and field-oriented methods for social research in the field of education. Qualitative studies embrace the notion that reality is constructed based on individuals' personal experiences and perspectives of phenomena. Further, epistemological assumptions of alternative theory rely on the researcher's professional judgments, understanding, and descriptions of events rather than the objective truths of experimental research. Interpretive inquiry recognizes that an individual's realities are complex, contextual, and ever-changing social constructs (Glesne, 1999). Establishment of shared meanings between researcher and the participants (Glesne, 1999; Lincoln & Guba, 1985; Merriam, 1988) enables the researcher to understand and describe events from a known perspective of those who lived the experience (Stake, 1995). Therefore, a qualitative approach was appropriate for use in this study case because it involves critical analysis of unique, contextual events associated with the influence of corporate leadership-management practices on those of a local school district.

This case study will focus on the relationship between Scott County Public Schools (SCPS) and Toyota Motors Manufacturing Kentucky (TMMK) during the bounded period (Stake, 1995) of time from January 2002 through June 2011. When TMMK opened a new auto assembly plant, SCPS built a new elementary and high school and hired new principals and staff. These hiring decisions were based in part on district administrator's understanding of Toyota

principles. During this period, the Superintendent, Dr. Dallas Blankenship, laid the groundwork for a relationship between SCPS and TMMK. These circumstances provided a unique opportunity to study the possible influence of corporate management and leadership practices on a public school district.

This chapter will be organized by discussing key aspects of case study inquiry, including a description of how data were gathered and analyzed, reported, and contributed to the generation of a grounded theoretical explanation of events. In addition, a discussion of research methods will include the study design, participant observer methods, researcher as instrument, descriptive narrative, data collection, data analysis, generation of grounded theory, generalizability, as well as delimitations, and limitations of the study.

Study Design

Merriam (1988) noted that there are three criteria that guide the choice of research, including: “(a) the kind of research questions being asked; (b) the research’s level of control over the variables involved; and (c) what the researcher sees as the desired final product” (p. 48).

Qualitative research techniques associated with case study methods (Yin, 1994) are preferred research tools when examining contemporary events and are appropriate for accomplishing the proposed objectives. The objective of this case study (Yin, 1994) was to understand how TMMK management and leadership practices were adopted by SCPS.

This study was guided by several research objectives, including:

1. Preparing a descriptive narrative (case study) of events using semi-structured, informal, and focus group interviews, and documents (written reports, memoranda, and meeting notes) that describe leadership and management techniques used by TMMK and SCPS during the bounded period of 2002-2011;
2. Reviewing pertinent literature on organizational change;
3. Generating from descriptive narrative, a set of naturalistic generalizations (Stake, 1995); and

4. Expanding naturalistic generalizations into a grounded theoretical explanation (Glaser & Strauss, 1967) of the migration and adoption of TMMK leadership and managerial ideas by SCPS.

The researcher found Merriam's definition (1988) of case study as a useful guide. She noted that case study research is "an examination of a specific phenomenon such as a program, an event, a person, a process, an institution, or a social group" (p. 9). Case studies are "concerned with understanding and describing process more than behavioral outcomes" (Merriam, 1988, p. 31). According to Noblit and Collins (1978), case studies best capture situations and settings related to policy and offer a better assessment of social change, often the object of policy. Furthermore, case studies are useful in examining complex social units (Merriam, 1988) and provide insights and expanded meanings within a holistic account to help structure future research. The case study's strength is its capacity for managing a variety of evidence, including documents, artifacts, and interviews (Yin, 1994).

According to Gillham (2000), a case study is "a unit of human activity embedded in the real world; which can only be studied or understood in context; which exists in the here and now;" (p. 1). The researcher chose to conduct a case study because this method contributed to gaining a more complete understanding of a complex social issue or phenomenon while retaining a complete, realistic picture of the actual events from the perspective of those who experienced the events (Yin, 2003). Merriam (1989) defined an ethnographic case study as "a social cultural analysis of a unit of study," going on to note that "concern with cultural context is what sets this type of study apart from other qualitative research" (p. 24). Yin (2003) also notes that case studies can enhance observations of groups, organizations, social individuals, and phenomena related to specific issues. These data must be woven into a descriptive narrative account of events supported by a *chain of evidence*, (i.e.) each link of the narrative should be supported by

or related to evidence (Yin, 2008). The case study was the most appropriate for this study and generated an in-depth, information-rich, descriptive narrative.

Participate Observer Methods

In Symbolic Interaction Theory, the researcher plays an important role within the study. Blumer (1986) described Symbolic Interactionism in three simple ways: “(a) humans act toward things on the basis of the meaning that the things have for them, (b) the extra meaning of the things come from interaction with one's own contemporaries, and (c) these meanings are filtered in and modified through an interpretive process” (p. 156).

Scholars who study social interaction often use participation and observation research methods rather than surveys and interviews. Symbolic Interactionists argue that close contact and immersion in everyday lives of participants is necessary for the understanding of the meaning of the actions that come from the definition of the situation itself, and the process by which actors construct the situation throughout the interaction. Given his close contact, Blumer (1986) acknowledged that researchers hardly remain free of value commitments and in fact, researchers make explicit use of their values in choosing what to study, but strive to be objective in the conduct of their research (Blumer, 1986).

Researcher as Instrument

Qualitative research is interpretive, with the inquirer typically involved in a sustained, intensive experience with participants. This introduces a full range of strategic, ethical, and personal issues into the qualitative research process (Locke, 2000). With these concerns in mind, researchers must explicitly identify their biases, values, and personal interest about their research topic they are undertaking per the discussion of Participate Observer Methods.

In this study, the researcher will use participant observation and interview techniques. There are significant advantages with participate observation. The researcher worked in this district for 14 years. This allows unprecedented access. This provides the researcher ability to participate with the group, be a member of the group, and during principal leadership and board meetings, in fact there are times when administrators will confide directly in the researcher, for example, sharing their private reactions while meetings are in progress. During these years the researcher developed many close relationships, this sense of trust gave participants an outlet to reveal personal thoughts and ideas. This privileged information allowed the researcher access to Quest training, meetings with TMMK managers and insight while working as a principal in the district. This principal tenure gave the researcher a perspective from school leadership as well as a collection of colleagues to call on to gather data. While the advantages greatly outweighs the disadvantages of participant observation, the researcher would be remiss not to mention the possibility for participants to distort facts in an effort to support a friend they have know for many years. Participants could also feel that their opinions were exposed in this writing making them vulnerable to leadership, community and personal trust.

To resolve the issue of bias, the researcher maintained self-awareness to ensure that voices reflected in the descriptive narrative (case study) and conclusions drawn were separated from those of the researcher. Consequently, the researcher identified his own innate bias regarding the subject prior to the interaction with the participants. In the manner the researcher controlled for and reduced bias, however because the researcher is employed in the organization, admittedly bias was not eliminated completely.

The researcher's professional experience as an educator, including teacher, assistant principal, principal, and multiple functions as a central office administrator, make it difficult to

remove the lens through which case study events were viewed; however, concerted and continuous efforts were made to minimize its effects. It was important to remain open-minded and look deeply at the situation before reaching a conclusion or interpretation, or as Woods (1992) cautioned, to look beyond the obvious.

The researcher endeavored to limit the influence of his experience as a middle school principal during a time when SCPS was undertaking joint training processes with TMMK by stating his experience that may contribute to bias. The researcher began his public school teaching career in 1988, became a middle school assistant principal in 1996, and a middle school principal in 1998. He moved onto a central office position three years later, where he served as director of human resources, director of secondary schools, director of Title I and pupil transportation supervisor. Through these experiences, he was fully aware of events occurring in the state and the school district. Although he was the research instrument, he maintained his education beliefs and values and remained an employee of the school district studied. In these circumstances, Woods, (1992) advises the researcher explain his background and experiences that may influence the interpretation of the data.

Being the research instrument, (i.e.) a participant observer helped the researcher in several ways. Because he worked closely with principals, teachers, and employees of TMMK, the researcher developed relationships with school employees, administrators, and other educators that were knowledgeable about training conducted in Quest for Useful Employment Skills for Tomorrow (QUEST) in 1999. In addition, many of these employees participated in the QUEST organizing committee adopted the TMMK Quality Circle facilitation and problem-solving techniques in 2000.

These experiences provided the researcher access and a level of trust by key informants that contributed to understanding the background and context in which the study was conducted. The researcher was careful to understand and control for how these experiences might bias his perception of events during the conduct of the study. Gaining entry to the research site also required the researcher to handle ethical issues associated with his role as a researcher (Creswell, 2007). The researcher must remain aware that a conflict of interest can arise and create a potential problem. Moreover, the researcher must make a conscious effort to ensure preconceived notions and opinions do not affect research findings or influence data collection, interpretations, findings, or data reporting (Denzin & Lincoln, 2003). Sharing the descriptive drafts to study participants might reduce the chance of undue influence (McMillan & Schumacher, 2001).

Gaining Access

The researcher sent a letter to the superintendent, school administrators, and key individuals to explain the study and to request access to pertinent public documents necessary for study completion, as well as invite their participation in individual and focus group interviews. This contact letter contained a description of the study, a study timeline, and the purpose of the study. This letter also explained the benefits to the school and district, the reason for site selection and the method for reporting the results (Stake, 1995). For an example of a subject recruitment letter see Appendix E.

After sending the letter, the researcher made contact with each individual to discuss the study process and the procedures to ascertain his access to the site. This contact helped to; (a) initiate a positive working relationship with school administration and community members; (b)

to establish the best times and places to conduct interviews with potential key informants; and (c) allow the researcher to gain familiarity with the research environment (Seidman, 1998).

Data Collection

The data collection steps include setting the boundaries for the study, collecting information through unstructured (or semi-structured) interviews, observations and, reviewing documents and visual materials that established the protocol for recording information (Creswell, 2003). This recorded information helped the researcher. Qualitative research does not always follow a single line of inquiry. According to Miles and Huberman (1994), researchers must consider four aspects of the study: the setting in which the research will take place, the actors who will be observed and interviewed, the events that the actors will be observed doing or be interviewed about, and the process involving the nature of events by the actors undertake within the setting.

In qualitative studies, researchers collect multiple forms of data and spend considerable amounts of time in a natural setting. Yin (2003) recommended that five types of information be collected, including documents (archival records), interviews, direct observations, participant observations, and physical artifacts. Participant interviews served as one of the primary data sources for this study. The researcher used two types of interviews that Creswell (2003) viewed as acceptable in conducting qualitative research studies: individual or one-on-one interviews and focus group interviews. The researcher recorded digital voice files for focus group and individual interviews, and made handwritten notes during the interview sessions. A data-gathering process was developed to ensure that the complete record of data was maintained. Interviews were transcribed as soon as practical after the interview session and placed in study files. The researcher estimates that each interview lasted approximately one hour. During

January to October of 2011 the researcher reviewed information including documents, websites and audiovisual materials. While this gave the researcher three more sources of data, individual and focus group interviews, (collected in the summer of 2011) oral histories captured in the interviews were the principal source of data collected. This method allowed for interpretation of data were confirmed or unconfirmed during this process (Merriam, 1988; Stake, 1995; Yin, 2003).

The researcher selected several data collection methods that together enhanced the validity of the study and inferences drawn. These methods include (a) focus group interviews; (b) individual interviews; (c) on-site, participant observations; (d) document analysis; and (e) participant review and comment on the draft research reports. The researcher, at all times, maintained a chain of evidence to help confirm or deny the accuracy of the information collected, as well as enhance opportunities to identify those interviewed for additional sources of pertinent data. A descriptive narrative was prepared that chronicled these events. The researcher requested that key informants read the manuscript and comment on the accuracy of events. This not only provided more information but also ensured its accuracy (Creswell, 2003; Yin, 2003).

Using multiple sources of data allowed the researcher to provide more opportunities to examine the phenomenon under investigation from a variety of perspectives (Mason, 2002). This process also tested the validity of data collected and supported events reported. The study used TMMK and SCPS documents, interview transcripts and field notes to prepare comprehensive report of events (Creswell, 2003; Merriam, 1988; Yin, 2003).

In mid November 2010 the researcher initiated multiple communications with both SCPS and TMMK inviting their participation in the study; by early January 2011, SCPS had consented

and by April of 2011, TMMK had consented as well. The researcher send out recruitment letters to about 50 selected individuals, based on their connection to QUEST and their knowledge of the relationship between SCPS and TMMK. From this group, 20 individuals were selected and interviewed during June and July of 2011. Of these individual interviews, 15 were conducted in a face-to-face format and one interview was conducted in a focus group format, this focus group consisted of five current SCPS employees. Of this total group interviewed 10 individuals were current SCPS employees, five individuals were former TMMK employees and five individuals were community members. Interviews of 15 individuals were conducted on the SCPS campus, due to availability and distance from the site, three were conducted telephonically, one was conducted in a community organizational office and one was conducted at a local residence. After the interviews were concluded there were no follow up interviews. Additional data was collected during 2011 by reviewing documents, including SCPS board policy, SCPS board minutes, SCPS curricular materials, QUEST materials, CQPO materials, teacher produced materials and TMMK publications, see Appendix F. These materials further illuminated SCPS link to global partners as well as timelines and data for the implementation of QUEST. All of this data was analyzed, interpreted, triangulated and structured into a descriptive narrative and shared with key informants for comment in October 2011. This process of sharing data with key informants allowed outside review for data checking, researcher bias and accuracy of data.

Interview Design

According to Creswell (2003), interviews can take several forms, including face-to-face interviews with participants, telephone interviews, or focus group interviews with five to eight interviewees in each group. These types of interviews included unstructured and generally open-ended questions that are few in number and intended to elicit views and opinions from the

participants. The questions are intended to narrow the focus of data collection (Creswell, 2007). Participants were selected from groups of teachers, administrators, Site Based Council members or Toyota team members who participated in the QUEST model in 1999 or thereafter and were connected to the school district during this “bounded period” (Stake,1995) of time from January 2002 through June 2011. Individuals who worked for both TMMK and SCPS were given selection priority as individual and focus group interviewees. The questions were developed prior to the beginning of the study and are included in Appendix A.

The objective of this case study was to understand how TMMK management and leadership ideas influenced management and leadership practices adopted by SCPS. The nature of this study determined that individual and focus group interviews would be productive and relevant way to collect data. The researcher selected interviewees from a group of Scott County School administrators and Toyota management members who were originally trained in the QUEST model in 1999 or thereafter. The researcher conducted individual interviews with five current or former TMMK employees. The researcher asked semi-structured interview questions (see Appendix A), in an attempt to discover links between SCPS and the Toyota management philosophy as well as management and leadership practices. In addition, the researcher asked the same questions of five current SCPS employees. Furthermore, the researcher interviewed five community citizens were former employees of either SCPS or TMMK, three of whom served as part of their upper level management level of TMMK or SCPS. For the individual interviews, the researcher sought employees or the former employer individuals who were candid and not hesitant to speak and share their perceptions of events (Creswell, 2007). Additional interviewees were identified through response from individuals’ participation in the initial stages of the interview process. This snowball process (Holstein & Gubrium 1995; Spradley 1979) enabled

the researcher to identify additional study participants or purposeful sampling procedures (Miles & Huberman, 1994). The researcher selected individuals carefully to elicit information and to ensure those interviewed would be able to help explain possible influence patterns between TMMK to SCPS. The researcher asked all individual and focus group participants the same questions in the same order. Exact wording and sequence of questions was predetermined (Appendix A). Participant interviews were designed to last about one hour. The researcher observed and recorded participant body language during the individual interviews. In addition, a tape recorder was used to record all proceedings. Interview records (see table 3.1 and 3.2) included field notes and tape recorded transcripts (Miles & Huberman, 1994).

Table 3.1. Scott County Public Schools Pseudonyms

Teacher	Administrator
Regina Henry ¹	Roberta Cave, Superintendent
John Johnson ²	Steve Coleman, Director
Stephen Max ³	Duane Cox**, Chamber Director
Tammy Naylor ¹	Timothy Estes*, Superintendent
Tina Pennington ¹	John Gooch*, Director
Regina Tillett ²	David Lawson, Director
Leslie Coulter ³	Timothy Patterson, Director
	Timothy Williams*, Superintendent
	Ronald Wilkerson*, Director

*Note. Names with * indicate community member as well as former SCPS employee. Names with ** indicate community member only. Names with ¹ indicate high school teacher, ² middle school teacher, ³ K-12 teacher.*

Table 3.2. Toyota Motor Manufacturing Kentucky Pseudonym

Pseudonym	Position
Dana Brown	TMMK/SCPS Administrative Assistant
Monty Carter	TMMK Manager
Jim Cox	SCPS/CQPO Quality Advisor
Jacky Gundy	TMMK Team Member/SCPS Teacher
Connie Story	SCPS Teacher/TMMK Trainer
John White	TMMK Manager/CQPO Consultant
Hideki Mito	TMMK President 1988-1994

Document Review

It is typical in case study research to use multiple methods and multiple sources of information, including individual and focus group interviews, documents, and on-site observations. Using a variety of sources assisted the researcher in understanding the context, triangulate information from interviews and observations. This method enhanced the validity of research (Glesne, 1999; Merriam, 1988; Stake, 1995). The researcher reviewed documents pertaining to leadership and management structures including public documents such as meeting minutes and newspapers, as well as e-mails, leadership outlines, memorandums of agreement, quality circle curriculum, and training materials and literature based on material published by the Center for Quality People and Organizations (CQPO).

Research Validity

The connection between the researcher and the study participants enabled the researcher with the opportunity to conduct this unique study, however, his relationship to the site and study participants may have contributed to bias. “Backyard” research (Glesne & Peshkin, 1992) involves studying the researcher's own organization, or friends, or immediate work setting. This often leads to compromises in the researcher's ability to disclose information and raises difficult power issues. Although data collection might be more convenient, however, these circumstances may also contribute to reporting data in an incomplete or compromised manner. Since the study was in the researcher's “backyard” he employed multiple strategies to ensure validity to enhance reader confidence in the accuracy of findings.

Validity and reliability in qualitative research does not carry the same connotations as it does for quantitative research studies (Creswell, 2003). In fact, validity plays a minor role. In qualitative research, a study can generalize some facets in a multi-case analysis (Yin, 1994) to other cases. On the other hand, Creswell and Miller (2000) saw validity “as a strength in a qualitative study but is used to determine whether the findings are accurate from the standpoint of the researcher, the participant, or the readers of an account” (p. 195). They discussed validity of data in terms of trustworthiness, authenticity, and credibility (Creswell & Miller, 2000).

Creswell (2003) also suggested that there are eight primary strategies used to ensure validated qualitative research, including: (a) triangulating different data sources; (b) member-checking; (c) using rich, thick descriptions to convey the findings; (d) clarifying the bias; (e) presenting negative or discrepant information; (f) spending prolonged time in the field; (g) using peer debriefing; and (h) using an external auditor to review the entire project. The external auditor is similar to a fiscal auditor (Lincoln & Guba, 1985) who can review the entire project.

External auditors can work outside the field education and they can judge the accuracy of the transcription and review the appropriateness of the questions as they relate to the research. The external auditor is a way the researcher may obtain objective feedback that contributes to enhancing the validity of the study.

Throughout the study, the researcher conducted and transcribed interviews and filed field notes and documents, which served as the data base. From interview transcripts, the researcher identified relevant comments that conveyed participants' perspectives and meaning that contributed to study validity. The researcher conveyed precise descriptions from field notes and communicate important terms used and understood by the participants. In addition, the researcher employed a digital recorder to provide accurate and reasonably complete records of interviews which were transcribed and added to the data base. The researcher remained impartial, objective, and detached throughout the data collection and analysis process. Human subjectivity was monitored during the research process by maintaining a field log and a reaction journal. These tools aided the researcher in auditing his work and enhanced the reflexivity of the study (Bjork, 2008). The researcher also engaged a peer debriefer as strategy to assess objectively, accuracy and obtain feedback regarding researcher bias (McMillan & Schumacher, 2006).

Triangulation of Data

It is generally accepted in a case study research that researchers should not rely on any single source of data (Mills, 2003). In this study, there were three main sources of data including observation, interview, and documents. The researcher reviewed the primary documents that related to management systems for both SCPS and TMMK, and then aligned interviews and observational data so as to confirm or disconfirm events. This approach enabled the researcher to

portray events reported in the case study in an accurate and unbiased fashion. The triangulation of data helped to ensure and enabled the researcher to reconnect events from a variety of perspectives, adding to the accuracy of the description narrative (Yin, 2003), and the trustworthiness of the results of the study (Golafshani, 2003).

Descriptive Narrative: A Case Study

There are three types of case studies categorized by their intent: the single study, the collective or multiple case studies, and the intrinsic case study. A single case study (Stake, 1995) uses one “bounded” (Yin, 2003) case to illustrate this issue. In a collective case study, one issue or concern is selected, but the inquirer selects multiple case studies to illustrate the issue. An intrinsic case study (also a study of a single case) is done to learn about a unique phenomenon. For example, an intrinsic case study may be used to evaluate a program or describe a setting where a student is having difficulty (Stake, 1995). The researcher used an intrinsic case study design to examine the phenomena that provides a detailed description of the context and events of the case (Stake, 1995), including the history of the case, chronology of events, and detailed descriptions of activities of the case. The descriptive narrative not only reports events from the perspective of those experiencing them, but also captures meaning attributed to events, issues, and relationships (Lincoln & Guba, 1985). The descriptive narrative is the heart of the case study and these data are analyzed and interpreted at later stages of the research process.

The first part of the descriptive narrative was an historical overview that is organized chronologically and the second part that is organized thematically. These themes emerged from the data and were supported by a preponderance of evidence. The data were reduced to capture the themes and avoid redundancy. The reduction of data may have left out some perspectives however; “oppositional voices” were captured and reported. Perspectives of participants were

reported accurately and were reviewed by selected participants to ensure accuracy. The researcher safeguarded the confidentiality of participants by assigning pseudonyms to individuals prior to the release of the descriptive narrative. Each participant was referenced by this pseudonym on written data for this research project. A master list of pseudonyms and corresponding names will be kept in a safe location. After two years, the researcher will shred the list of pseudonyms and data used for this research project. Every effort was taken to protect participants' anonymity and actual names do not appear in the descriptive narrative.

Data Analysis

According to Creswell (2003), data analysis is an ongoing process involving continual reflection regarding the data, asking analytic questions, and writing memos throughout the study. It is not sharply divided from the other activities in the process such as formulating questions, collecting data and, writing the descriptive narrative. It is a constant comparative process (Stake, 1995) that occurs throughout the research study.

Case study and ethnographic research involve a detailed description of the setting or individuals this is, followed by analysis of the data using themes or issues (Stake, 1995; Wolcott, 1999). *Reflexivity* is a term used to describe how the researcher becomes engaged in the research study (Glesne, 1999). The heart of a researcher is inseparable from the study in which he or she is engaged. Both Wolcott (1999) and Glesne (1999) concur, that it is uncommonly difficult to alter the lens through which the researcher understands the data. However, a concerted effort can minimize the effect of inherent bias. Researchers must maintain open-mindedness and take a deep look before they engage in an analysis or interpretation of data. Researchers must recognize that they are the primary research instruments and must be cognizant of their own beliefs and values (Woods, 1992) that might provide background and experience that might

influence the data interpretation. Scholars advise that researchers should continuously question whether their personal disposition and experiences are influencing interpretations of study data and control for bias (Glesne, 1999; Mason, 2002; Woods, 1992; Yin, 2002).

Case study, data analysis consists of making a detailed description of the case and setting (Asmussen & Creswell, 1995) that helps the reader situate case events. In addition, Stake (1995) suggested that other forms of data analysis and interpretation be used to analyze case study data. For example, researchers may elect to use collection of incidents from the data that may reveal relevant meanings. On the other hand, a direct interpretation approach requires that the researcher look at a single incident and then draw meaning from it without looking at multiple incidents.

As Stake (1995) suggested, data analysis continues through the examination of examples and non-examples until something could be determined about the situation. It is through this research process where patterns and themes are identified while maintaining continual focus on the research questions crosschecking between them and pieces of data. Designing figures, tables and diagrams of themes and categories also may help manage and organize large amounts of data as well as illustrate relationships between pieces of data for continuous study (Mason, 2002).

In sum analysis, it is a process of pulling the data apart and putting them back together in a more meaningful way to enable the researcher to explain events. In addition, the researcher may look for patterns in the data by looking for correspondence between two or more categories. Some researchers may develop naturalistic generalizations based on an analysis of the data that summarize what was learned and allow generalizations to the case itself or a population of similar cases (Creswell, 2007).

Ethical Considerations

Regardless of the approach to qualitative inquiry, a researcher faces many ethical concerns that can surface during data collection. Qualitative research by its very nature tends to be more personally intrusive than quantitative research. This makes ethical considerations paramount. This issue including informed consent, deception, confidentiality, anonymity, privacy, and caring must be carefully considered. According to McMillan and Schumacher (2006), field researchers must adopt these principles in complex situations. For example, to gain support from participants, a qualitative researcher should convey to participants that they are invited to participate in a study and he does not hide the nature or the purpose of the study. This issue of disclosure of the researcher is widely exhibited in cultural anthropology (Hammersley & Atkinson, 1995). Researchers often assure participants that only general information or nonspecific information will be presented in the descriptive narrative and that their identities will be masked to protect anonymity (Stake, 1995).

Giving back to participants for their time and effort to projects is important to the researcher. The researcher must disclose how the participants will benefit from the study and any adverse affects their may result from their participation. The researcher should leave the scene of research study slowly. The withdrawal should contain information about the researcher's departure so the participants do not feel abandoned (Creswell, 2007). When working with the individuals, the researcher must demonstrate respect, participants must be treated as individuals not as a member of a stereotypical group. While the researcher used participant's actual language a pseudonym replaced their name to protect their identity. The researcher will follow the guidelines found in the publication manual of American Psychological Association (APA, 2001)

to ensure nondiscriminatory language. At some point, the researcher must ask, if he or she got the story right? (Stake, 1995), meaning, did it reflect the lived experiences of participants?

Generation of Grounded Theory

The intent of grounded theory is to move beyond the rich descriptions and interactions of qualitative research and generate an abstract analytical schema or theory (Strauss & Corbin, 1998). Grounded theory begins with wide-ranging questions that focus on what happened to people, why they believe it happened, and what does the event mean to them collectively (McMillan & Schumacher, 2006). This theory development does not come off the shelf, but rather it is generated or grounded in participant experiences (Strauss & Corbin, 1998). In many case studies, grounded theory is developed or generated in the process of qualitative research (Strauss & Corbin, 1998). “However when combining methods like case study and grounded theory, utmost care must be exercised to ensure that the canons of case study research do not distort true emergence for theory generation” (Glaser, 1998, p. 40-41). The researcher used a single, bounded (Stake, 1995) case study method, but concluded the analysis with a grounded theoretical statement.

Generalizability

One of the criticisms to the case study is that case studies have little ability for scientific generalization. The case study purpose is to generalize to theoretical propositions, not to add population to statistical research. Critics also agree that case studies take too long and sometimes end up with unreadable documents, and that time limits and writing formula depends on the investigator’s choice of style (Yin, 2003). One of the greatest limitations to the case study for many qualitative studies is that findings can be subject to other interpretations (Yin, 2009).

Case studies that involve single cases might not be representative of the larger general population. In the social sciences, case studies offer descriptive information provided by different people, which leaves room for important details to be omitted. In addition, much of the information collected is retrospective data, recollections of past events, and is therefore subject to the problems inherent to memory. One of the strengths of a case study to research a complex phenomenon is having an investigator with great knowledge of the phenomena. This allows the phenomenon to become less than routine (Yin, 2003). The greatest strength of case study research is enabling the researcher to ask how and why questions (Yin, 2003).

The idea of generalizability may hold different meanings for qualitative researchers (Glesne & Peshkin, 1992). In quantitative research, the cases are usually generalizable to other similar cases. However, in qualitative research findings are generalizable to the case itself. McMillan and Schumacher (2006) argued that although qualitative research is generally weak in generalizability, it is true to real life. Nonetheless, the quality of the study might lend some understanding of other cases in similar contexts and thus hold modest levels of generalizability. In fact, the study may be relevant to other school districts situated in small communities in which large multinational corporate auto manufacturing corporations may relocate.

Delimitations and Limitations of the Study

When a study is conducted in a researcher's workplace, it could raise issues of risk for the researcher. Glesne and Peshkin (1992) caution the researcher about the potential for biased data collection, an imbalance between the researcher and individuals on site, and unfavorable data negatively affected the organization. Glesne and Peshkin (1992) also discussed this "dangerous knowledge" as being politically risky for the "inside" investigator. This case study, like most case studies, makes it difficult to determine any causal relationship. While the study

reported rich details, descriptions, and events the researcher was not able to definitively explain why the events occurred. The study described individual behavior of participants but was unable to explain such behavior. Interviews included questions regarding events that occurred previously, in some cases several years previously, thus relying on the participant's recollection; details could have simply been forgotten, distorted, or inaccurate. This study was a snapshot of a narrow band of data, a specific case study relating to an automobile manufacturer and a public school district. These circumstances made it difficult to allow extensive generalization to other school districts.

CHAPTER FOUR: DESCRIPTIVE NARRATIVE

The purpose of this case study is to understand how Toyota Motor Manufacturing Kentucky (TMMK) management and leadership ideas influenced management and leadership practices adopted by Scott County Public Schools (SCPS). When the TMMK automobile assembly plant began operations in the late 1980s, SCPS experienced a significant growth in student enrollment over the next two decades. This growth prompted SCPS to build new elementary, middle, and career and technical schools, and these additional facilities prompted the hiring of new principals and other administrative staff. During this time, the superintendent of schools had laid groundwork for the relationship between SCPS and TMMK including agreeing to add a TMMK quality advisor to his district office staff. Although the superintendent was in his last six years of his tenure (2002-2008), he envisioned that TMMK and SCPS would have an enduring relationship.

This case study is complex and makes reporting events using a simple chronology somewhat difficult. The researcher elected to structure the descriptive narrative in a manner to enhance understanding. Data in the descriptive narrative are organized and reported under headings that reflect phases of implementation, and then under headings that reflect key aspects of TMMK philosophy that influenced SCPS management and leadership practices. The researcher organized data in this manner to enhance the voice of participants and reflect their perspective on events associated with the development of the SCPS and TMMK relationship. The researcher presents the first part of the descriptive narrative under several headings, including QUEST/Center for Quality People and Organizations (CQPO), an increase in STEM programming, international perspective, special funding. The second part of the descriptive narrative is presented under headings that reflect major dimensions of the TMMK philosophy,

including improvement plan for TMMK, SCPS, and the community; high expectations; and kaizen.

QUEST/Center for Quality People and Organizations (CQPO)

According to SCPS leadership, TMMK had been a partner since they announced building in Kentucky; they have been very open and honest. Dr. Timothy Estes, superintendent of SCPS and Hideki Mito, president of TMMK (1988-1994) (currently Toyota president World Corporation) worked together closely. They even attended the annual American Association of School Administrators (AASA) together in California, Dr. Estes invited President Mito and he graciously accepted. President Mito went on to conduct a leadership seminar at the conference.

He notes that TMMK was always supportive, in those types of leadership opportunities (T. Williams, personal communication, June 30, 2011). Dr. Timothy Williams was appointed superintendent of SCPS in 1992, during that time the relationship continued to evolve and strengthen. Since the relationship between the superintendent of SCPS and the president of TMMK was on sound footing the focus shifted on to export Toyota skill-sets and tools for the betterment of the community (S. Coleman, personal communication, June 9, 2011). This was clearly seen as not only a way to build a relationship between TMMK and the community, but a way to improve day-to-day operations for organization who were interested in improvement during the late 1990s (T. Williams, personal communication, June 30, 2011).

The Underpinnings of Center for Quality People and Organizations

In 1997, Dr. Williams saw the opportunity to install problem solving and meeting facilitation practices into his organization. He understood that TMMK was open to partnerships, and with their cooperation, he created an organizational structure that would be called the Center

for Quality People and Organizations (CQPO) only one year later. He collaborated with individuals from TMMK, individuals within SCPS, as well as other local partners.

The Creation of QUEST

Beginning in 1999, TMMK trained several SCPS administrators (including two teachers) with trainers from the Toyota plant in Georgetown, Kentucky. The TMMK site training was actually created for the SCPS leadership team. It was deemed important at that time to determine if this specific industry training was transferable to administrators in public schools (J. Gooch, personal communication, June 7, 2011). As problem solving and meeting facilitation concepts evolved and gathered momentum. A quality advisor was hired jointly between TMMK and SCPS to encourage the use of teamwork and problem solving as teaching techniques. This collection of tools became known as the Quest for Useful Employment Skills for Tomorrow (QUEST). This was the most significant partnership between TMMKs and the SCPS (J. Cox, personal communication, July 22, 2011). TMMK's involvement flirted with the organizational efforts of school system, idea that addressed two pressing issues for both organizations: to improve and increase the number of quality applicants for TMMK job skills including teamwork and problem solving, and to create a leadership and quality platform for SCPS.

In 1999, Dr. Williams, with the support of TMMK, presented these concepts to the SCPS Board of Education. With the collective support of district leadership and current TMMK leadership the resources were dedicated to train administrators, staff, and teachers specifically in the area problem solving (J. Gooch, personal communication, July 7, 2011). This quality advisor, Mr. Jim Cox became a part-time SCPS employee, he focused on the facilitation of this program, and as well he addressed potential problems that occurred in management as the program went

forward. SCPS agreed to allow space in the schools for the CQPO facility, keeping the resources close philosophy kept this expertise close to leadership.

Philosophically, some individuals in TMMK upper management view QUEST skills more in terms of life-skills and competencies. “From a Toyota point of view, they define that as problem-solving and teamwork as it relates to Toyota, but obviously everybody can benefit and every organization can benefit from knowing problem solving and teamwork” (D. Cox, personal communication, June 30, 2011). The foundation of the vision of QUEST was a broad life-skill competency from which everybody can benefit. For example, training gave SCPS principals and staff members an effective tool to conduct meetings. It created an environment where individuals were more likely to remain on task. If the tool was used properly, meetings took less time and were more productive. In some cases it caused more individuals to have positive attitudes due to shorter meetings. Some staff members were appreciative of how the meetings were conducted and that they seldom went past an hour. This simple tool was viewed as one of the better advances in leadership.

The QUEST process taught leaders to seek the problem before they attempt to solve the problem.

Whereas in the past, most of us in leadership roles, tried to fix it pretty quickly if we could, most of the time we were just throwing a blanket over it until it pops up again. If you really find the problem, then address it, and then you can fix it. Then you don’t have that problem again...It helps you down the road with other things that you deal with (former SCPS administrator R. Wilkerson, personal communication, June 7, 2011).

After these initial trainings in SCPS, key district people were invited to participate whenever there was a necessity to understand the problem solving concept. During this time,

training was on a volunteer basis. Experienced people were also invited so the process could be modeled. During these trainings, TMMK instructors modeled a problem with a moon roof scratch. This was an actual problem at the plant where a scratch appeared on the tops of the Toyota Camry during their assembly. While TMMK team members corrected the scratch, the resolution created a new problem, so the “lesson learned” was to find the “root cause,” not just a cause. While this was an effective example for TMMK team members, the example did not translate well to education. One seventh grade teacher noted, “You know, kids are different than cars,” (C. Story, personal communication, June 8, 2011). Comments like these led to the curriculum being revised and refined many times, finally leading to effective educational samples. This training involved continuous improvement (*kaizen*) and plan-do-check-act, even to develop a curriculum.

One of the original SCPS teachers recounted that she received an access badge and could come and go in the plant at her convenience. She was encouraged to walk through the plant and join a Quality Circle. Quality Circles are an important part of the Toyota culture; they are present throughout the plant and they are a way to facilitate meetings, brainstorm, and serve as a methodology to solve a problem. She remained with this Quality Circle from the initial formation all the way through the end of the process. She was then charged to implement the Quality Circle process in her high school math class. Since the process has been revamped for education, it is now called QUEST.

Leadership is an absolute necessity in order to make any successful situation work. Needless to say, it was critical in the implementation. At the beginning of the implementation, the superintendent, gave it his full support and encouraged activities throughout the system. In many schools, some principals (but not all) began to recruit more staff in the QUEST process.

Principals at some schools, for example used QUEST to create school facility plans to address the need for air conditioning their gyms, and so forth. Steve Coleman, for example noted that air conditioning was installed in that particular gym in 2009.

From the beginning in 1999, the QUEST process always used volunteers. It was not a top-down, forced curriculum. The concept from district staff encourages schools to use the techniques as they were applicable to a particular curriculum. “You didn’t have to do a whole problem-solving process to learn how to think your way through the process or to begin to use meeting facilitation techniques” (J. Cox, personal communication, July 22, 2011)

As with any major change, some individuals at SCPS did not support this concept. “Some voiced concerns, such as the following: things that work in business do not necessarily work in schools; Toyota is attempting to manipulate our schools; we are just fine; and these ideas are plain un-American” (J. Gundy, personal communication, July 7, 2011). For some, QUEST changed the historical line of authority from superintendent, principal, and teachers, to a process of consensus building. Some resisted, saying that their principals were not supportive or that their teachers were not on board. “When you are trying to change a culture from lecture to involvement, then you are talking about a slow, delicate process, and that was the difficulty in getting some staff involved” (J. Cox, personal communication, July 22, 2011). While some endorsed the SCPS volunteer approach, others argued for leadership to take a direct role. In places where people attempted to use the QUEST process, both teachers and administrators ultimately viewed it as a highly successful tool (T. Naylor, personal communication, June 2, 2011).

The community viewed QUEST as a way to improve student learning, teaching methods, and create a more qualified workforce. However, they also saw the significance of the bellwether

TMMK. Some saw this relationship as a natural progression for SCPS, as they have “TMMK, a world-class organization in their own backyard and they want to tap into this company’s success” (D. Cox, personal communication, June 30, 2011). This partnership would be the most effective way to improve SCPS organization. While maybe anyone could have seen this partnership as a possibility, Dr. Williams saw it as an opportunity.

QUEST Expansion into the Schools

From the point of view of many in the community, TMMK, and even SCPS, “the foremost goal of QUEST was to teach students how to be problem-solvers, how to work in groups, and be effective members of a team” (D. Cox, personal communication, June 30, 2011). However, the quality advisor, Jim Cox expressed that QUEST “was never originally intended for the classroom”. However, it did make it into the classroom and it was seen as a success for teachers and students. Teachers diligently attempted to incorporate some of the QUEST practices into the classroom both from a group-learning, and a problem-solving avenue. These ideas were expanded by another Toyota practice called “plan-do-check-act” (J. Gooch, personal communication, June 7, 2011). This allowed teachers to execute rapid, assessment-type skills for improvement.

The lesson (plan) was implemented in my sixth grade math classrooms to deliver (do) the material and then provide a weekly quiz (check). At this point an assessment was conducted and then the entire group would conduct problem-solving sessions (act) to expose any gaps in learning. This process would be repeated throughout the semester. (J. Gundy, personal communication July 7, 2011)

These types of activities were present when direct partnership and support was provided by principals. While some of that direct partnership has been reduced, according to Jackie Gundy

there are still some teachers and people utilizing the process today. In fact, this evolution of QUEST has generated a collection of jargon for SCPS that has spread throughout the education community (J. Cox, personal communication, July 22, 2011).

Some students were highly motivated using QUEST in their classroom. One of the greatest expansions was when a teacher would present a situation, and students would say, “Well, let’s QUEST it.” That became a widely used term meaning: “let us work together as a team, and come up with an answer”. When that happened, it became much more valuable than when leaders were forcing teachers to use it. This was a point, around 2001 a banner was created for the entire district that said, “All of us are smarter than one of us” (S. Coleman, personal communication, June 9, 2011). Credit for this statement was given to a middle school special needs student who had been quite successful with the process.

Another success story comes from the elementary level. Students were encouraged to display excellent work (exemplars) in the classroom and on hallway walls. This encouraged students to only do high-quality work. Students were also expected to conduct a traditional parent/teacher conference (without teachers) with their own parents. This labeled the students as experts and they were much more likely to take ownership in their learning. At the elementary level, teachers had more time with fewer students. So that they could, build stronger relationships with their students. “Teachers are indoctrinated that the content should be taught rather than learning is developed” (J. Cox, personal communication, July 22, 2011). Like every organization, the process varied depending upon the individuals, leadership, timing, and the people involved in it. CQPO conducted QUEST training for other school districts, but SCPS teachers were always a vital part of that training.

The Waning of QUEST

SCPS, like most school districts, have seen many educational ideas come and go. In fact, QUEST was one of those ideas that seemed to have a force of its own. However, around the summer of 2011, some administrators observed that QUEST was no longer a district focus.

QUEST has given us a different way to think, a different way to solve problems. We now think through solutions before we start to act. QUEST was very strong in our school system, with turnover; we don't concentrate on problem-solving methods as much as we once did. It tends to get lost, and I think over the last few years, that it has kind of faded away with some of our younger staff. It was not placed in the forefront of the district plan. There was also a silent if not subtle decision to rehire the retiring SCPS/TMMK quality advisor to continue work with CQPO. (T. Patterson, personal communication, June 13, 2011)

Teachers that were trained in QUEST at the outset were often asked why it was not continuing. While some of those processes were still in place, the training sessions were discontinued. This did not allow for a new infusion of ideas or energy. Administrators no longer (formally) used the problem-solving process, and because of that, the process tends to be lost. People seem to work hard with new, exciting ideas. Much of that has been lost over the last few years. Some schools continued the process, but it was very artificial and somewhat forced. "Some teachers continued to use the problem-solving methods that were not organic to SCPS," (R. Cave, personal communication, July 20, 2011). "Some teachers thought we can do some form of meeting facilitation, and that would be enough" (T. Naylor, personal communication, June 2, 2011). SCPS would not be losing everything. However, when this process is not practiced on a regular basis, it could be lost. "I'm concerned that's kind of where we are today"

(T. Patterson, personal communication, June 13, 2011). Philosophies of some leaders encouraged the use and exposure to QUEST while others thought the district could not implement the program that was not linked to curriculum.

Personally, I find myself all the time using those problem-solving techniques, it is part of my tool box. I don't say that's a Toyota technique. It is something that that makes me a more effective leader. I won't stop and announce that this is Toyota problem solving, I just naturally do it that way. Hopefully, I think that's what many of us do that have been around here for a while. I just don't know if we'll continue this with new administrators and new staff. (T. Patterson, personal communication, June, 13 2011)

QUEST is not completely gone; Mrs. Roberta Cave, SCPS superintendent, is still the president of CQPO in 2011. "This organization has continued to grow primarily under the influence of Toyota. We also look at them as an efficient way to conduct business, facilitate meetings, and master problem solving. We have been the beneficiary of that organization" (R. Cave, personal communication, July 20, 2011). While QUEST may not be in the classroom anymore, we now call it "21st century skills". These skills still follow the original QUEST concepts.

The Enduring Impact of QUEST

Administrators and teachers are still seen conducting meetings, brain storming, and problem solving with the QUEST methods. However, they seldom use the terms they were taught years earlier. There are several QUEST-trained teachers that still implement a problem-solving method. In fact, some have used their skills to help the community and the local government. For example, Leslie Coulter, a SCPS administrator, organized and used the QUEST problem-solving process to prepare the Georgetown area tourism industry for the preparation of

the World Equestrian Games in 2010. She also offered her services to facilitate meetings for the Woodford Water Company during public forums. There are teachers who use the process every year in their classrooms. They still see that every child should have a voice in how the class should unfold. Seventh grade teacher Jackie Gundy felt like students are more committed when they have a voice toward the consensus of the class decision. One of the teachers who worked for SCPS resigned to work at TMMK for five years and then returned to teaching. She sees that this process is embedded within the school system. “While no one really gives it (problem solving) a name, and I hate to see it lose its logo. It is the same thing that team members use at TMMK” (J. Gundy, personal communication, July 21, 2011). The tools became much more education-friendly and they allowed “students in the classroom to see the validity in similar processes many of their parents used in the real workforce” (J. Gundy, personal communication, July 21, 2011). These processes allow students to watch their grades improve and understand the relationship with life a little bit better, and become critical thinkers. According to Leslie Coulter, (SCPS Administrator), many current students use these types of skills to present year long research projects to a panel of TMMK-inspired committees on a regular basis at Elkhorn Crossing School, SCPS’s new career and technical school. This school also organizes their teams to compete against other teams from around the world in robotics and problem solving (R. Henry, personal communication, June 9, 2011).

An Increase in Science Technology Engineering and Math (STEM)

Prior to the creation of QUEST in 1999, and prior to the planning of Elkhorn Crossing School in 2006, Dr. Timothy Estes, superintendent of SCPS, had a vision to build a technical school. That was a different time: student enrollment was flat, the district had budget constraints, there was only one land-locked high school campus, and the central office leadership

team consisted of four people. The district bused nearly 100 students to a neighboring school district to attend a vocational school (T. Estes, personal communication, June 14, 2011). This all began to evolve after TMMK arrived in the late 1980s. The need for a more rigorous math and science curriculum became apparent from new state and federal standards. SCPS made this a priority. Over the next decade, SCPS increased their offerings of Science Technology Engineering and Math (STEM) courses.

In 2006, Scott County students began to participate in Project Lead the Way's (PLTW) project-based STEM programs. PLTW began in Scott County at the elementary level, where school counselors who attended PLTW Counselor Conferences prepared students for participation in PLTW's Gateway Summer Academy between fifth and sixth grade. Seventh and eighth grade students take PLTW's Gateway to Technology (GTT) program as part of the required curriculum at one of the three middle schools. Following that, Scott County's ninth grade students could opt to take PLTW's Pathways to Technology (PTE) or the Biomedical Sciences (BMS) program, extending a learning approach that fueled imaginative thinking, creative problem solving, and innovative solutions. In tenth and eleventh grade, students entered the villages (three teacher teams consisting of math, science, and one career course such as biomedical science, health services, media arts, or engineering) at Elkhorn Crossing School and returned to Scott County High School full-time as seniors, where they completed PLTW's PTE or BMS program (T. Patterson, personal communication, June 13, 2011).

PLTW was recognized for its benefit to get students excited about STEM concepts and allow general education students a chance to see the tools used in these type careers. During this time, Bluegrass Community and Technical College (BCTS) teamed with TMMK to offer manufacturing equipment such as power-lathes and punch-presses, which were housed at the

recently opened Royal Spring Middle School in Scott County. This equipment was available for SCPS, the community, and even current TMMK workers. Today this equipment is back at TMMK.

After the implementation of STEM into the middle schools, PLTW soon followed at the high school level. PLTW offered curriculum for engineering and biomedical sciences for students who wanted to continue STEM courses at the high school level. “Women in Engineering Day” also became an important way to recruit students to STEM courses. The day consists of dozens of female students who visit local industry, where they interact with female engineers and scientists at work. The day includes hands-on projects and inspirational speakers to promote STEM to young women (T. Patterson, personal communication, June 13, 2011).

The PLTW content addressed the need for more engineers in the workplace, whether they work at Toyota or anywhere in the world. In fact, many business and education pundits believed that the United States was lagging behind the rest of the world in the production of engineers. So this was good timing for another partnership with Toyota. A group of SCPS administrators working closely with CQPO helped to identify these important STEM and QUEST initiatives and allocated resources to incorporate them into the middle schools, high school, and the new Career and Technical School. In fact, according to SCPS board minutes, dated June 10, 2008, CQPO and TMMK combined to donate \$100,000 to this project.

In 2010, Elkhorn Crossings School state-of-the-art Career and Technical school, was opened in SCPS. This new school would be built in three phases. This first phase would offer engineering, media arts, health science, and biomedical science. The second phase would add a cafeteria and additional curriculum. The third phase would create a fully functioning, comprehensive second high school. While this new school concept was 25 years in the making,

one former SCPS administrator stated, “I just think there needs to be a strong automotive family there, and it needs to have Toyota’s leadership helping them, and not just working on cars” (T. Estes, personal communication, June 14, 2011). This was not the only person to echo this sentiment.

This community support was one reason TMMK came to Kentucky. The concept of new employee assessment was another reason they continue. TMMK required a continued stream of applicants that could demonstrate their ability rather than claim it on a paper application. This concept was one of the foundations of Elkhorn Crossings School. Students at the new school are required to apply what they have learned. Student presentation skills, scientific problem-solving, teamwork, and technical knowledge were all critical components to the schools’ success. All of these themes led to a project-based education. For example, each semester, students pick a project they want to create or a problem they want to solve. The students present a completed project to a panel that includes teachers, administrators, TMMK engineers, CQPO members, and even business owners from the community. This program incorporates components of a holistic presentation of their cumulative learning (S. Coleman, personal communication, July 30, 2011).

Many SCPS administrators think this curricular concept has already benefited SCPS students only after one year. “We see more and more students going into science, math, and engineering fields. From what I see, it is really helping most of our kids who don't have those same opportunities as the traditional college bound student” (J. Cox, personal communication, July 22, 2011). These students now have access to opportunities that they have not had in the past. One of the opportunities at Elkhorn Crossings School, as well as the Scott County High School, is to be a member of the Vex Robotics team. One of these teams was highlighted at the SCPS Board of Education Meeting in early 2011. The coach (a TMMK engineering volunteer)

told the audience that formulas, software, and principles applied by the student robotics team were the same principles he used every day at TMMK. This team traveled to Florida where they competed in a world competition and finished in fifth place out of forty six 46 teams.

Additionally, TMMK recently offered a scholarship opportunity for students who qualify, but might not have an opportunity to go to post-secondary school. This scholarship is directed toward capable math and science students, who want to work with their hands in the area of manufacturing plant maintenance. They hire the young men and women and offer them on-the-job training and college courses through BCTC. These young people spend part of their day in a practical college world and the other applying these skills at TMMK plant. All of these activities are observed and recognized by many people within Total Quality Management (TQM), Toyota Production Systems (TPS), and the quality movement worldwide. SCPS had many visits from the local plant engineers, plant presidents, as well as the Toyota North America president. SCPS has also had visits from the Kentucky Commissioner of Education, the governor of Kentucky, and personnel from various schools and universities around the world. However, some would recognize a visit from the University of Toyota, the University of Japan, and W. Edwards Deming's own daughter, Diana Deming Cahill, as the proudest moments of all. Many people would call Deming the "father of the quality movement", and Japan the "laboratory" that spawned the movement worldwide (S. Coleman, personal communication, July 30, 2011).

An International Perspective

In 1993, Dr. Williams was made aware of a student conference in India that focused on how *lean manufacturing* and *quality* ideas can be implemented into an education environment. Dr. Williams traveled with TMMK manager Monty Carter, who was the individual charged with training the entire TMMK plant in the area of problem solving. This conference was held for

educators, students, and quality-minded people in the city of Lucknow, India. SCPS had a delegation that attended subsequent conferences. In fact, students were slated to attend the 1999 conference also in India, but with escalations in the Iraq crisis, administrators worried that instability of the environment was too great a risk for students. However, the superintendent, along with a board member, attended.

Subsequently, Dr. Williams was appointed to the board of directors of the International Convention on Students' Quality Control Circles (ICSQCC), sponsored by the World Council for Total Quality and Excellence in Education (WCTQEE), headquartered in Lucknow, India. ICSQCC directors requested that the United States consider hosting the international conference in the future.

The fifth Annual ICSQCC conference was held from June 11-13, 2002, in Georgetown Kentucky. SCPS, Toyota, WCTQEE, and a Goals 2000 grant were strong supporters of the conference. SCPS hosted more than 1,000 people for a period of anywhere from three days to two weeks during the conference. There were several international speakers. Sixteen countries and 27 states were represented at that conference, along with seven student teams that competed in a problem-solving exhibition. This opportunity brought diversity to students, teachers, and the Georgetown community. SCPS teachers even participated in professional development during the conference. "It was interesting to hear and view ideas from a truly international perspective," said a teacher attendee (A. Stephenson, personal communication, September 6, 2006). After a seven-day hosting of a group from City Montessori School in Lucknow, one administrator remarked, "This was the only time I have ever been kissed on the feet by appreciative students" (S. Coleman, personal communication, July 30, 2011).

Toyota has made the entire community more open to the diversity of students, educators, and manufacturers from foreign countries. “We have a lot more people that have moved into this community as the result of Toyota's presence. I think it actually caused us to reevaluate where we are and where we want to go. In fact, it raised the bar of expectations for the entire school system,” (R. Cave, personal communication, July, 20, 2011). These new residents brought fresh ideas to the community. While TMMK has not been directly involved in the exchanges with educators and the students from around the world they are very supportive. This global awareness became more of a focus of SCPS.

Influence from the Community

People in the community who have lived there all of their lives have noticed that the money (in lieu of taxes, local city and county tax, utility tax, net profits tax) is available to the SCPS from Toyota, and this money has raised expectations toward SCPS. “I think the local people, as well as the *implants* (people who moved to Scott County) give the school system more of a global perspective” (R. Cave, personal communication, July 20, 2011). The local people thought this growth in population and investment would occur immediately, one of the things that surprised them was this progress took up to 10 years.

The school and community became accustomed to cultural exchange programs. SCPS students have traveled to China, Hong Kong, and Japan, creating a worldwide school district. The district has become more affluent, more interested in global issues. The world has been opened for not only the students but for the staff and community, as well (R. Henry, personal communication, June 9, 2011). In fact, people in the community see a group of delegates from China, Hong Kong, or Japan and accept it as commonplace. There are many students who might not have been exposed to other cultures in any other way. “I think that is unique for a school

system. I think a lot of that came through the presence of Toyota” (R. Cave, personal communication, July 20, 2011). The International Alliance for Invitational Education (IAIE) has also played an important role in the global perspective of SCPS. The district hosted an IAIE Leadership Institute from October 10-13, 2007 (<http://www.invitationaleducation.net/forums/v28n1.pdf>). This conference included several countries, including South Africa, China, Nepal, Hong Kong, Ireland, England, and Australia.

The impact of a city with a global perspective is having a sister city in Japan, an annual Kite Festival, and drawing an international population. In addition, teachers have come to Georgetown because of Toyota. In fact, there are several teachers who have taught in Japan and then moved to SCPS. The Hispanic population has also increased due to the many manufacturing opportunities TMMK has to offer. All of these factors have changed the dynamic of SCPS. Some community members not in favor of money spent on student and staff travel have expressed opinions that the funds could have been more effective in other allocations. “Now, reflecting back, that’s really what set us apart from other school systems, and gave us a niche. We are an international school system, an international school community; it is what helped us move forward fast” (S. Max, personal communication, June 9, 2011). While these ideas were shared by several staff and community members, the dichotomy of this philosophy remained.

Maybe this investment in travel and global partners is paying off more than we realized. Just the publicity SCPS receives because Toyota and SCPS are linked. It gave [SCPS] a whole global focus. I don’t think we had ever seen anything like this in education before. It brought in a different mindset on the way to do things, and I’ve taught a long time, 25-plus years. People don’t want to change very easily. (R. Henry, personal communication, June 9, 2011)

The previous statement was in regard to a recent graduate of SCPS and Vanderbilt University who had just accepted his first job in Beijing, China.

Special Funding

The relationship between SCPS and Toyota began even before the plant was established in Georgetown, Kentucky. People around the community were surprised that SCPS Superintendent Estes was included in these conversations. However, this was a typical arrangement in Japan. In many school districts in Japan, the mayor is also the superintendent of schools. Dr. Estes met with Dr. Shoichiro Toyoda, the president of Toyota in Japan, on several occasions as early as 1984. The conversations included building relationships about education, summer workshops, training sessions, and how SCPS was going to train individuals for the workforce. It was important for TMMK to support the infrastructure of SCPS. This support grew as the relationship grew (T. Estes, personal communication, June 14, 2011).

Toyota is very active with the Chamber of Commerce, Scott County Education Foundation, and other organizations that lend support to SCPS. One of the most significant partnerships began in 1993. Toyota met over 20 times with school officials, school board members, and the SCPS superintendent to work out an arrangement where TMMK would prepay taxes so that the Scott County School District could build a state-of-the-art-high school. The school system at that time had about \$15 million bonding capacity. That was not enough to build the kind of school that a progressive community needed for high school students. SCPS needed to replace a high school that at that time was operating with 32 portable classrooms (learning cottages, formerly known as trailers). Overcrowding was a serious issue. This in lieu of a tax agreement with the school system, allowed TMMK to prepay \$8 million of taxes; which was an incredible act of support for SCPS and the community. This was a critical time. The Scott

County community had just voted down a \$20 million special building fund tax that would have funded a new site to construct a new high school. SCPS invested \$22 million dollars (\$8 million from TMMK) to build a new high school however; it was not enough to build it on a new site. The current site is confined in a residential area and it is now overcrowded again, with 10 learning cottages. Therefore, with TMMK's help, SCPS was able to build a high school that has served well over the last 18 years. "This is one of the reasons I called TMMK the ultimate community partner" (D. Lawson, personal communication, June 8, 2011).

Other Revenue from TMMK

TMMK remains the largest employer in Scott County. SCPS benefits from this in several ways. TMMK increases the local SCPS revenues in terms of occupational tax, utility tax, and now even property tax due to the in lieu tax agreement revenue ending in 2008 and 2009 (D. Lawson, personal communication, June 8, 2011). The net profits tax has also been a windfall for SCPS. This one-time money tax has helped the district purchase several parcels of land. One such purchase became a farm lab for the agriculture students and several others have been (and will continue to be) building sites for new schools. Of course, the net profits tax only comes from TMMK profits so each year the national economy plays a vital role in the amount received. Several superintendents noted that TMMK is always ready to assist or advise, not just in manufacturing, but any area, however "they are not heavy-handed in any way" (T. Williams, personal communication, June 30, 2011).

Currently, TMMK support is not just financial; this relationship includes discussions about morale and ways to continue collaborating with one another.

Larry Brent (chief communications officer) is exceptional. Mr. Brent typically communicates TMMK's plans and major changes before the public is privy. This helps

SCPS prepare for any type of financial consequence, such as changes in net profits or if a large group of workers will be transferred to the area. (R. Cave, personal communication, July 20, 2011)

Toyota has given grants and scholarships to students and faculty members. Each year, one Scott County High School student receives a full scholarship to college. Quite often, the school is Georgetown College, but every year, Toyota gives that kind of support to SCPS students. In fact, one of those scholarships went to a young man, who finished a Bachelor of Arts with a triple major and two Masters Degrees--all within four years. He went on to complete another Masters degree at Harvard, as well as a Juris Doctorate from the University of Kentucky. He currently is a Kentucky State Representative. There are many other partnerships that Toyota has provided over the years.

I've never seen a company that was as willing to work hand-in-hand with a community; I've never seen one that was more effective than Toyota. They treat the school system as a supplier, and therefore are always open to ideas for helping students and teachers. We have most recently seen some of our students trained at the high school level to enter into maintenance apprenticeship programs at Toyota that will provide potential of a life-long employment with a first class organization. (T. Estes, personal communication, June 14, 2011)

When Elkhorn Crossing School was built, TMMK donated \$100,000 to help establish the performance lab. This donation was due primarily the company's belief in the philosophy behind Elkhorn Crossing School and its integration of content and career technology. TMMK continues to support student's interests in math, science, and engineering. The performance lab

is available students, staff, TMMK, and the community alike (T. Williams, personal communication, June 30, 2011).

A Change in Relationship

Currently, TMMK is still a key contributor and sponsor of SCPS. While SCPS might not receive as much financial support as they have in the past, this is in no way a negative statement because as they restructure and continued to grow in the United States, they are no longer TMMK just in Scott County or Toyota Kentucky, a regional corporation. They may see themselves as Toyota North America, encompasses in several states. Therefore, even though this is a local plant and “the bread and butter” for North American enterprise, they no longer look at revenue and net profits just from Toyota and just give it back to SCPS or just Kentucky. They now look at all the plants across the United States and the net profits are determined as North America. This has had a major impact on SCPS, more communities, other than just Georgetown, share in the revenue (T. Estes, personal communication, June 14, 2011). Since the expiration of the in lieu of tax (agreement to pay taxes prior to them being due) and subsequently placing the TMMK property on the tax rolls, allowing more local taxes returned to the state through the equalization of the Support Excellence in Kentucky (SEEK) formula. The economy, less net profit from TMMK, along with cuts to the Support Excellence in Kentucky (SEEK) funding have made a huge financial impact to SCPS.

Moreover, I think Toyota did step up to the plate (in 1995) when they provided the initial funding to help build the new high school. I think that was a positive first step in building a positive relationship between the school system and Toyota. However, that was no more than they should have done; all this growth was due to them building here. (R. Wilkerson, personal communication, June 7, 2011)

Improvement Plan for TMMK, SCPS and the Community

Due to the complexity of the second part of the descriptive narrative, the researcher will begin with a simple chronology (Table 4.1) to enhance the understanding of the three dimensions of the TMMK philosophy, including improvement plan for TMMK, SCPS, and the community; high expectations; and kaizen (continuous improvement).

Table 4.1. Chronology of Events

Event	Source
1986 Toyota agreed to construct a plant in Georgetown, Kentucky	J. Buckner, 1991, p. 454
1988 Hideki Mito named President of TMMK	T. Estes
1990 Dr. Estes, superintendent of SCPS expresses need for a Career and Technical School	T. Estes
1990 Dr. Estes attended Kentucky Derby with TMMK leadership	T. Estes
1990 Kentucky Education Reform Act enacted	Kentucky, 1991
1992 Dr. Williams appointed superintendent of SCPS	S. Coleman
1995 TMMK donates \$ 8 million in lieu of taxes to help construct SCHS	McCarty, 1996, p. A1
1997 10-12 student enrolled in Advanced Placement course at SCHS	T. Patterson
1997 TMMK HR team identifies a shortage of qualified workers	J. Cox
1998 Selected SCPS administrators are granted “all access pass” to TMMK	J. Gooch
1999 CQPO established as a non-profit organization	http://www.leanfrontiers.com/events.html
2000 Quality Advisor hired part-time for SCPS.	J. Cox
2002 ICSQCC introduced to SCBOE	SCBOE Minutes
2002 Quest Training conducted at Stamping Ground Elementary School	SCBOE Minutes
2003 Anne Mason Elementary established	SCBOE Minutes
2004 APL Associates contracted with SCBOE	SCBOE Minutes

Table 4.1 (Continued)

	Event	Source
2004	International Association of Invitational Education discussed at SCBOE	SCBOE Minutes
2004	Career Technical School Exploratory Committee established	SCBOE Minutes
2004	Quest Training conducted at Anne Mason Elementary	SCBOE Minutes
2004	Recommendation to SCBOE to train all 8 th grade students in the district in QUEST	SCBOE Minutes
2005	Royal Spring Middle School established	SCBOE Minutes
2005	President of TMMK and Toyota North America visit SCHS and Anne Mason Elementary School	SCBOE Minutes
2005	Approved contract with the Schlechty Center in Louisville, Kentucky	SCBOE Minutes
2006	SCPS Staff and students visit Hong Kong on cultural exchange trip	SCBOE Minutes
2006	Project Lead the Way presented to SCBOE, with primary goal to grow the nation's technology workforce and provide real-world engineering	SCBOE Minutes
2006	The <i>Toyota Way</i> book is presented to all board members	SCBOE Minutes
2007	<i>Scott County Way Principles</i> were adopted by SCBOE	SCBOE Minutes
2007	IAIE Leadership Institute hosted by SCPS in Georgetown, Kentucky	http://www.invitationaleducation.net/forums/v28n1.pdf
2007	Quest training is conducted at Marshall University in West Virginia.	SCBOE Minutes
2008	CPQPO donated \$100,000 to SCPS to help equip the Presentation Lab at Elkhorn Crossing School	SCBOE Minutes
2008	80/20 principle presented to SCBOE	SCBOE Minutes
2008	School groups from Singapore and Hong Kong visit SCPS	SCBOE Minutes
2008	TMMK High School Environment Education Curriculum is presented to SCBOE	SCBOE Minutes
2008	Roberta Cave appointed as Superintendent of SCPS	SCBOE Minutes
2010	Elkhorn Crossing School is established	SCBOE Minutes
2010	SCHS is recognized by Exxon Oil as the high school with the largest increase in Advanced Placement students in the United States	SCBOE Minutes
2011	SCPS partners with Bluegrass Community and Technical College to create Early College at ECS	SCBOE Minutes

In 1997, the human resources team at TMMK was searching for a recruitment tool for qualified applicants. There were many tools, but they were designed as short-term, immediate placement tools. TMMK, like many Japanese-based companies, assigned more emphasis on long-term planning rather than short-term planning. “The goal was never to make an individual a Toyota applicant. It was to make them a better applicant for any workplace, any career, wherever they wanted to go. We believe that teamwork and problem-solving were two job skills that were necessary in the changing marketplace, regardless of whether you wanted to become a doctor, lawyer, or an Indian chief” (J. Cox, personal communication, July 22, 2011). The team searched other industries as well and found no other tool that suited their needs.

In the assessment process at TMMK, it was evident that 80% of the applicants were failing placement tests because of their lack of teamwork and problem-solving skills. Therefore, one of the ways to improve that failure rate was to discover a way to encourage students in schools to develop those skills while learning their curriculum. TMMK was never interested in trying to change the curriculum in SCPS. The goal was for instructors to teach and practice teamwork and problem solving skills within whatever curriculum was appropriate. The human resources department at TMMK asked employees. “What was the greatest development tool that you had learned while you were at Toyota” (J. Cox, personal communication, July 22, 2011). Many people responded that it was “Quality Circles.” Quality Circles taught employees how to work as a team and gave them a process by which to resolve problems. Many employees said they used it in their church and with their families. After these discussions, the human resources department recommended Quality Circle training at local school districts. Quality Circles would teach students, teachers, and administrators the same skill set as team leaders received at TMMK.

Another CQPO consultant described it this way: “If Scott County Schools was going to supply Toyota with a labor force, then we needed to train that labor force” (J. White, personal communication, July 23, 2011). So those kinds of conversations began to start in terms of kaizen, in terms of teamwork, in terms of hiring practices.

As I teach my classes in leadership, I say that Toyota spends six months hiring a person to build a car, and often times public schools spend 15 minutes hiring a person to work on kid’s brains. Maybe we need to take some of TMMK inventories to the schools, TMMK philosophy in terms of teaming, responsibility, and accountability for the community. (J. White, personal communication, July 23, 2011)

Improvement Plan for SCPS

Superintendent Dr. Estes saw an opportunity for the students of SCPS; this opportunity involved higher expectations for his organization, a move away from status quo.

We can’t have a goal just to be better than someone else. If Kentucky is 37 out of 50 in terms of education; and you are one of the poorest states; Even though you’re better than someone else in Appalachia, what does that mean? The career and technical school should have been in place 15 years ago. It is here now and we need to wrap our arms around it. However, all you hear is we don’t have money. We have the largest motor manufacturing company in the world 10 miles down the road. That new career and technical school should be named for Dr. Toyoda; or at least one of the wings. TMMK donated \$100,000 for the new school, we should use that money wisely; we need to pump it back into that school. (T. Estes, personal communication, June 14, 2011)

“We should act with intention. We should offer a career path starting from kindergarten, to give students the opportunity to work in a major automotive plant” (T. Estes, personal

communication, June 14, 2011). SCPS could have more than 200 plus students going to work there with great jobs. The employment opportunities within a 200-mile radius, shows Toyota plants in Georgetown, Kentucky; Layette, Indiana and Princeton Indiana; General Motors plants in Bowling Green, Kentucky and Wentzville, Missouri; a Ford plant in Louisville, Kentucky; Honda plants in Marysville, Ohio and Greensburg Indiana; a Mitsubishi plant in Normal, Illinois; Nissan and Suzuki plants in Smyrna, Tennessee; Subaru plants in Lafayette Indiana, and Acura in East Liberty, Ohio. These are just the manufacturers; there are many more satellite businesses that are associated, as well. There are many automotive opportunities in and around Kentucky (T. Estes, personal communication, June 14, 2011).

“They (TMMK) understand and appreciate that this (SCPS students) is a big portion of their employee pool” (J. White, personal communication, July 23, 2011). In fact, SCPS would accept more expertise at the new Career and Technical School from TMMK. “We did make a promise to TMMK that we would open a manufacturing village. We have yet to do that primarily because there is not [yet] a curriculum designed for high school students” (R. Cave, personal communication, July 20, 2011).

TMMK and SCPS seem pleased with the implementation of Early College, a partnership with Bluegrass Community and Technical College (BCTC) to offer college courses for high school juniors and seniors. It gives greater support to their workforce and it better prepares the students for the future. This partnership has challenged SCPS to think about education through different eyes, and TMMK challenged SCPS to think in different terms of not only academics for the sake of academics, but how students can apply academics in an ever-changing world.

TMMK certainly has high expectations for technology. As a school system, SCPS has not been

able to keep up with those technological advances that in turn have an impact on expectations in some coursework. Ultimately, it is due to financial restraints.

Improvement Plan for the Community

When Toyota came to Georgetown, they brought with them the Toyota Production System. It later became known in the community as a manufacturing circle, or a Quality Circle.

We have always been aware of this crying need for skilled labor. I literally mean people who are ready for the workforce. I thought SCPS had a pretty good vision to meet that goal in terms of the skilled component, which was the maintenance mechanics, electricians, etc. That is at critical level at this time. (D. Cox, personal communication, July 30, 2011)

Almost all of the skilled labor that was initially hired has gone or has retired; it has been over 20 years. SCPS saw this vision as well and began to address the need.

The community invested money in SCPS back in the late 1980s, for a vocational/technical school concept. This money was allocated for the high school to establish an industrial area with welding and metal fabrication. Community members wanted another option, they wanted these skills taught locally, and wanted an end to the travel to Central Kentucky Vocational and Technical School, that being the only option at that time.

Why was QUEST so important? Why does it need to be implemented along with meeting facilitation and problem solving? I think we are catching on to those concepts now; maybe we didn't go far enough. TPS is about the Toyota Production System. What's the word in the middle? It's called *production*, so you produce something. So what are we producing? I am a manufacturing guy, from a town that has a very successful diesel engine plant"; forty four percent of the employment relates to manufacturing in this

community. This is a manufacturing town whether you like or you don't. (D. Cox, personal communication, July 30, 2011)

This concept of QUEST was implemented in Scott County, while there were still issues with a lower than expected graduation rate. Community leaders need to determine the future of Scott County for the next 10 to 15 years. SCPS needs to produce qualified, work-eligible students. There remains a community conviction to create a skilled labor force. Scott County area has several TMMK satellite companies. For example, Aichi Forge USA, Inc and International Crankshaft are very large employers in this area.

Politicians don't get this. I've heard it from mayors and judges: Man, this is the greatest plan. Our quality of life is wonderful. Businesses don't locate because you've got a nice pool, because you got a nice golf course, those things come after the deal is cut. They locate because of infrastructure costs, labor costs, access to interstate and rail transport, low taxes, water, electric rates. (D. Cox, personal communication, July 30, 2011)

Scott County has a growing diverse population. It has historically had a lower percentage of unemployment. Many people with automotive backgrounds migrated here. People came from Michigan cities like Detroit, Lansing, and Flint; some had expertise with Ford Motor Company production skills (J. Gooch, personal communication, June 7, 2011). This expertise includes hard skills, or skills that were teachable, measurable, and reproducible. These skills had fueled the automotive engine of the past. There were also people who moved to the Scott County area from progressive communities such as Columbus, Indiana, where other early car pioneer companies were located in the early 20th century. There were also people who came to Scott County that have a quality mentality. They want to work together; they think any process can be improved,

that products should have zero defects (D. Cox, personal communication, June 30, 2011). Many of these individuals went on to work for TMMK, local government, as well as SCPS.

High Expectations

Change occurred in the district and in the community, but most importantly it occurred in the attitudes and perceptions of administrators. These perceptions were influenced by TMMK. “We really learned to be first class. I would say that brought me from the 18th to the 21st century” (T. Estes, personal communications, June 6, 2011). TMMK’s expectations for quality control and attention to detail are world class. In fact, even during the 1990s, they used deliberate, reproducible hiring practices. TMMK identified skill sets in positions and then tested to find the right person for the job. While that might not seem novel now, it was for this area 20 years ago. For example, one administrator was invited to join Toyota leadership and attend the Kentucky Derby. This excursion included a limousine to Louisville, a luxury hotel stay, a box on “millionaire row” for the race, and “insight into how to lead the most successful company in the world. They taught us intentionality; I certainly became a better administrator and a better leader because of the influences of this first-class experience” (T. Estes, personal communications, June 6, 2011). Most leaders at SCPS during that time were white and lower to middle-class. TMMK introduced administrators into the upper echelon of first-class in terms of quality. When asked about this experience later, the administrator remarked, “As I reflect back, those things you can’t put a price tag on” (T. Estes, personal communications, June 6, 2011). This elevation in expectation is another example of diversity of thinking that TMMK imported into Scott County. “It caused us to reevaluate where we wanted to go. It raised the bar for the entire school system” (R. Cave, personal communications, July 20, 2011).

Another administrator with a TMMK “all-access pass” noticed that TMMK “would plan forever.” There is a cultural difference in thinking, planning, and implementing ideas. “Some of the Eastern business thought actually soaked into SCPS as a result of the association” (S. Coleman, personal communications, June 9, 2011). This statement is unique in the fact that this transfer came mostly through the perspective of Americans who, early on, were trained by the Japanese at Toyota. There was a distinct difference. People who worked on the line at TMMK embraced problem solving and quality circles. In fact, they routinely used these skills to improve their work environment. This philosophy of continuous improvement was deemed highly valuable by SCPS leadership. One administrator said, “If we do better, if we train others to do better, we all do better” (S. Coleman, personal communications, June 9, 2011). A former administrator reacted to this by saying, “Oh, I know that I'm successful wherever I am because of what [Toyota] taught me” (T. Estes, personal communications, June 14, 2011). Surrounding school districts viewed SCPS as a leader due in part by the success and confidence that this philosophy encompassed.

It is evident that TMMK made a dramatic change to the community these changes include, “Everything from roads to budgets, government, the attitude of the citizens, the openness to diversity, and probably more important than anything else, the idea of ties to continuous improvement, always trying to get better, not settling for less” (D. Cox, personal communications, June 30, 2011). Current teachers, current and former administrators, and community members expressed that it would be to the “advantage of the administration of SCPS at all levels, including the (SCPS) board, to become more involved with QUEST and CQPO as it relates to benchmarking how to become more effective and efficient” (D. Cox, personal communications, June 30, 2011). This would be a crucial time to make changes since the

economic downturn remains. Japanese business models suggest that these transitional periods are an effective time to outpace the competition.

High Expectations Lead to Changes in Schools

According to a presentation slide by Duane Cox, chairman of Scott County United, Scott County had a population of 21,898 in 1980; in 2010 the population of Scott County was 46,851. According to Infinite Campus, a central data system managed by SCPS, as of January 2009, SCPS had a student enrollment of 8,134, grades preschool through twelfth grade; in January 2012 student enrollment was 8,599, an increase of 465 students or 5%. SCPS has grown in many ways. Back then, people seemed content with education; they seemed complacent with the schools. Secondary schools were not viewed as outstanding. SCPS was just a country school system, similar to others across the state or across Appalachia. Mrs. Roberta Cave, SCPS superintendent, pointed out that this was “pre-KERA (Kentucky Education Reform Act) and there were many traditional classes. There were traditional instructional practices” (R. Cave, personal communication, July 20, 2011). SCPS was a typical school system for the time and the largest employer in the county. The school board had more influence and authority, and they were “permitted to place their hands in personnel and seemed more inclined to do so.” It was also a time before nepotism laws were enacted in Kentucky. You hired people that you knew. “I am not saying they were bad, but the number-one characteristic in hiring people was: do I know them” (R. Cave, personal communications, July 20, 2011). It was traditional thinking. The community’s expectation was that children should be taught the same way that they were taught when they went to school, though in truth, expectations for students and schools were not explicit.

“First of all, I believe that the school system, at least partly through the aligning of our philosophy with the ideals and philosophy of Toyota, changed that course completely” (S. Coleman, personal communication, June 9, 2011). From this philosophy of continuous improvement, SCPS reached out to partners that could improve learning for all students. For example, SCPS aligned themselves with three highly respected organizations: The International Association for Invitational Education (IAIE), APL Associates, and the Schlechty Center. IAIE is an association that invited students, staff, and community into the schools to enhance the human side of learning and improved a sense of belonging. APL Associates is headed by Dr. Jean Anastasio, David Perry, and John Zalonis. This group designed and implemented professional development for teachers to create a specific process to implement classroom instruction. The Schlechty Center, headed by Dr. Phil Schlechty, provided writings and professional development for SCPS staff. His group emphasized the work created by teachers to enhance the engagement of students. Dr. Schlechty’s group believed that students were volunteers in the learning process (J. Gooch, personal communication, June 7, 2011). If the student was not engaged, no learning could be expected. These partnerships were a step toward *standardization of work* and another link to the association with TMMK (J. Cox, personal communication, June 22, 2011).

These influences led the community, but especially parents who worked at TMMK, to expect things to be done in a certain way. Those parents who worked at TMMK had been taught to process and evaluate systems in a standardized way. SCPS has many parents with this type of training, who are volunteering in schools, serving on our school site based decision making councils and some that have served on our local school board. A current administrator observed, “This certainly holds us to a higher standard. We responded [with] the implementation of a more

rigorous curriculum, and I don't know if that's directly related to Toyota or is it due to overall changes and improvement in education in Kentucky” (T. Patterson, personal communication, June 13, 2011). A further comparison can be made with the number of advanced placement courses offered. In 1997, SCPS had only 10 to 12 students enrolled in an advanced placement US History course. Today there are 18 separate courses with over 180 students enrolled. In fact, in 2010, SCPS was recognized with the school that had the largest increase in the country for students who had successful completion of an advanced placement course test. Successful students are granted three hours college credit for each course. This accomplishment was the highlight of an Exxon Oil television advertisement during the 2010 Masters Golf tournament. It featured a high school teacher from SCPS.

Even middle schools have been affected by a more rigorous curriculum, Algebra I is now offered in seventh grade, and Geometry offered in the eighth grade. These courses are typically offered in ninth and tenth grade. These math courses are but one example. “Rigorous curriculum is what these kids are expecting now more than ever. Is that all Toyota? No, it's all a lot of things, but the educational system has become much more rigorous since they've been here” (T. Patterson, personal communication, June 13, 2011).

High Expectations of the Community Push SCPS

Communication among SCPS, TMMK, and the community was present from the beginnings of the partnership; in fact, it was valued. As the plant's size increased in the number of workers and the local population increased, so did the student population for SCPS.

I think that we find more and more of the Toyota parents involved in the SCPS. We saw more concrete effort to identify problems and issues, and work through them together in a team concept. I think that we saw a greater appreciation for SCPS and what they were

accomplishing as more information was shared with them within the community. (D. Cox, personal communications, June 30, 2011)

As leadership of the Chamber of Commerce and other groups became more involved in SCPS they saw many more successes. This developed a greater sense of pride in the community. There is a reason for this success, “it is the combination of Toyota’s willingness to participate, and the school system’s willingness to listen, and to try to participate” (D. Cox, personal communication, June 30, 2011). This partnership is constant to this day. Currently, the SCPS superintendent is the President of the CQPO Board. CQPO continues to work with businesses, communities, and education organizations to promote the concept of continuous improvement through teamwork, and problem-solving. SCPS and TMMK formed CQPO, which was a non-profit organization it was “a genuine agreement that the concepts had value, and were valuable to education, and the community, and to businesses as a whole” (D. Cox, personal communication, June 30, 2011).

TMMK and SCPS are obviously different; if TMMK did not sell enough cars they would go out of business. They are predisposed by supply, demand, recall, the economy, and so on. On the other hand, public schools are resuscitated with more funding each year. Funding is a function of state government. A former administrator opined, “While I am a proponent of Public Education, our schools must get competitive structurally within themselves to continuously improve” (J. Gooch, personal communication, June 7, 2011). SCPS must improve however; school improvement is not like refining a process that places a scratch on the roof of a car school improvement is complex. It is an uphill climb. Sometimes individuals have not noticed the world has changed. “The sad part of that is, referring to the book, *Who Moved My Cheese* (Johnson, 1998). School systems are still going to the same hole, the same place, for the same cheese.

They really don't know the cheese is somewhere else" (J. Gooch, personal communication, June 7, 2011).

These high expectations do not stop; local groups and organizations are also demanding, "TPS [Toyota Production System] has become the epitome of how to make something work successfully. We are a manufacturing community; we are strong proponents in putting TPS in the public sector; and I don't just mean school systems" (D. Cox, personal communication, June 30, 2011). SCPS internal expectations have definitely risen with the community's expectation. "You've got a lot of engineering-type jobs, things that go into play out there even to the environmental issue, things that were not always necessarily there when it was more of a farming community" (J. Gundy, personal communication, July 21, 2011). Parents expect SCPS to meet the needs of children, to prepare them for those specific jobs that became visible to people in that community when TMMK arrived, jobs that were not typical to a rural area of Kentucky.

Kaizen

Questioning the way individuals do things and why they do them is at the heart of TMMK. Questioning is a vital component of the goal of SCPS (J. Cox, personal communication, July 22, 2011). Therefore, anybody from SCPS that was trained in the QUEST model tended to immediately stop and reflect on their life. The importance of reflection filtered its way to students. This is the first step in *kaizen*, the Japanese word for continuous improvement. This was the foundation of *lean management*. Some people or organizations might use *lean management* interchangeably with *soft skills*. CQPO consultant said, "Sometimes organizations have *soft skill* training to teach... [To teach those to] communicate nicer, and [to be] more respectful. That's good, but in the terms of *lean* in an organization; [it] is interpersonal skills, teamwork skills, leadership skills" (J. White, personal communication, June 23, 2011). The

purpose of *lean* is to solve problems better as people, as teams, and as an organization. The goal is not just to be nicer; it is to be more effective in solving problems. “Yea, and again, I've been in organizations where people are real nice and respectful to each other, but they're not real effective” (J. White, personal communication, June 23, 2011).

Lean management grew out of the Toyota Production System (TPS) with a generic name. The Quality Circle is a component of *lean*. Unfortunately, some people have generated the concept of *lean* to mean cut back, reduce employees, and cut costs. However, with *lean* worker try to be highly effective and efficient in order to reduce waste. The worker only removes items that are not useful to the operation. The TPS concept is that if the employee's work time is not paced with activity and responsibility, that employee is wasted. Some people at TMMK viewed the American concept of work like this, if the employee can get out of work, do nothing, then must they have a great job. The employee can relax and still draw pay. Japanese employees must work and contribute or he will feel a sense of shame. This difference in cultural perspective is striking. In America, individuals have been conditioned that a rise to management and the ability to tell employees what to do is a sure sign of success. In Japan, the leader is thought to be a success only after everyone in the group is a success. When workers rise to management positions they become a coach and a supporter. When workers are not supported or successful, overhead is cost ineffective and the company may fail (Ouchi, 1985).

As this Japanese concept is applied to schools, the principal is to be considered as a person of lesser status than teachers and staff members. However, this is not what many Americans base their success on; they base it on the *Taylor Efficiency Movement* of the 1930s. At TMMK, these Japanese concepts are successful because employees believe in them.

However, many other companies implemented Quality Circles and then reverted back to their status quo. They thought Quality Circles were designed to save money. However, Quality Circles were designed by Toyota to develop the abilities of employees. Saving money was the by-product. One principle of American educational leadership was for supervisors to tell those that do not know what is right to do. Accomplishment in education will always be limited with that philosophy. When *lean* thinking is added to that equation, students are working with the teachers to determine what they will learn. If the teacher cannot convince students that what they are learning is important to them, they will never learn it. Dr. Schlechty (2008) said, “There is a 0% chance that children will learn from work they do not do.” That statement fits nicely with *lean*. “If you put the emphasis on saving money, then there’s a limit to where you can go. However, if you put it on development of the process, then you never stop saving money” (J. Cox, personal communication, July 22, 2011).

School administrators are professional problem solvers. “TMMK taught me [that] there is a reason you are in charge; stop and fix the problem, give others the authority to stop the process and fix the problem” (T. Estes, personal communication, June 14, 2011). This is no time to assess blame; it is time to analyze the problem and the processes so it is fixed permanently. Individuals must get to the root cause of the problem and then work their way back through the process to see what caused the problem. Dr. Schlechty (2008) also said, “Given wisdom, leaders stop trying to control everything and stop taking charge of everyone and see themselves as one part of a complex operation”.

The Ability to Change

Another current administrator viewed *kaizen* as a way “we self-evaluate and use continuous improvement, we do not call it *kaizen*, but we did take that concept from TMMK” (R.

Cave, personal communication, July 20, 2011). TMMK even pays out a stipend for an idea that saves time and money. While SCPS does not give financial rewards, the superintendent does appreciate those ideas. In fact, “It is very much alive and well in our school system” (R. Cave, personal communication, July 20, 2011). On the other hand, some administrators see this positive influence and growth as overall statewide improvement in education. Leaders in SCPS want to look at data to make decisions. “While you may not see Quality Circles as much as before, the concept is still there. We must know the core of the problem, otherwise we continue to work on the symptoms, just putting Band-Aids on problems” (R. Wilkerson, personal communication, June 7, 2011).

Another change that came from TMMK was, “The A3 (the largest size of paper typically in a copier, synonymous with a one page intricate plan used at TMMK) form really forces you to do that you drill down and look at things more deeply” (R. Cave, personal communication, July 20, 2011). People with proper training do this do very well. “I think that is something that I do wish we could look at again” (R. Cave, personal communication, July 20, 2011). Continuous improvement is a planned, systematic approach. It is a way to narrow standards, hone them, and make them measurable. “I’d say we were five years ahead of other districts when we implemented A3s. It was like we were too far ahead for people to appreciate it” (J. Gooch, personal communication, June 7, 2011). By 2007, SCPS had done this narrowing process with the concept of *80/20* for some time. This *80/20* concept purported that if an individual narrowed their focus to the critical 20% of the curriculum students would have more success. However, “we were held back because the state assessment was still based on the same concepts curriculum a mile wide and an inch deep. We were looking at world-class standards, rather than our own little state’s perspective, [We] were chastised to announce that it was impossible for

teachers to teach everything” (J. Gooch, personal communication, June 7, 2011). All they had to do was ask a teacher. Everybody else in the state was just afraid to say anything. During that time teachers and administrators could talk about change in SCPS without repercussion.

The leadership did become much more adept at change, however from an education standpoint, SCPS would narrow and focus standards, TMMK would set tolerances. Setting a tolerance on a machine or a computer was quite effective; it raised a flag when the process was outside the set parameter (J. Gooch, personal communication, June 7, 2011). Quality is the point where improvement is made. Machines can check that but humans have a more difficult time. People (and more importantly students) make that a much more fluid process. However, this fluid process takes practice and practice leads to improvement. SCPS used this type of process to develop school and district consolidated plans and budget development. A former administrator described it this way:

I think you can do collaboration until you are blue in the face, but you really have to have systematic way of people doing it together, learning together, and cooperating. The best tip, which took forever for me to realize, is the idea that you must have that extra step of continuous improvement to be successful. Plan-do-check-act: you plan it, do it, check it, act on it, but the last step is the kicker. When you are envisioning a [Quality] Circle, like a little space right there, you look at it, and then start all over again. (J. Gooch, personal communication, June 7, 2011)

There is a sense of leveling of people in that process. “TMMK did not care who solved the problem or made the improvement. It was a team concept and be it manager or team leader; you were a team member first. In fact, there was no problem those guys could not solve” (J. Gooch, personal communication, June 7, 2011). This type of confidence made this process

intriguing for SCPS. The major difference was schools build students and students all have different needs, but the lesson learned by SCPS was they all need be held to the same standards. While SCPS might not get to a final resolution, they would move through a continuous improvement model that would improve the lives of students.

The value in the ability to change is in the leadership and the process of QUEST. Some people could not see the value in this model, “What does he [the quality advisor] know about education, because he is not certified [teacher]. His opinions and offerings reflect the whole picture in a way no one else could, he viewed education with outside eyes. He would ask us again and again why are you doing that. Is there a better way” (J. Johnson, personal communication, June 9, 2011)? Several staff members could not comprehend where this CQPO consultant plugged into the picture of education in SCPS. However, “from my point of view his ideas worked in all aspects” (J. Johnson, personal communication, June 9, 2011). This could be attributed to the leadership; the superintendent “had a good way of bringing everyone together to offer something” (S. Max, personal communication, June 9, 2011).

Summary

The descriptive narrative is based on lived experiences of those interviewed, as well as documents, memoranda, and training materials. Taken together, they provide insight into the relationship between SCPS and TMMK. Data suggests that this relationship grew and evolved over time and its nature was influenced by SCPS-TMMK leadership and had a perceptible influence on SCPS management and leadership practices.

CHAPTER FIVE: DATA ANALYSIS

Scott County Public Schools (SCPS) is a semi-rural public school district located in Central Kentucky. It is located 10 miles north of Lexington, Kentucky and about 70 miles south of Cincinnati, Ohio. SCPS has a yearly budget of about \$48 million. According to Infinite Campus, a central data system managed by SCPS, as of January 2009, 8,134 students were enrolled in SCPS from preschool to twelfth grade. According to Municipal Information Systems (MUNIS), a data system managed by SCPS, the district employs 490 certified employees (professional staff) and 500 classified employees. Two major interstate highways pass through Central Kentucky: the east-west Interstate 64 and the north-south Interstate 75. Both intersect in Scott County. That, along with its rail access and proximity to Lexington Bluegrass Airport, contributed to Toyota Motor Manufacturing Kentucky (TMMK) selection of Georgetown, Kentucky as the location of its automotive manufacturing plant in 1986.

As noted previously, the TMMK plant was located in Georgetown at the invitation of Governor Collins in 1986. TMMK is one of the largest automobile manufacturers in the United States and had a significant economic impact on the region and the school district. TMMK is an automobile plant that employs about 8,000 employees in Georgetown, Kentucky. Several satellite companies that supply parts for TMMK are located in close proximity to Scott County. During the mid-1980s, before TMMK opened, Scott County had the lowest unemployment rate in the state at 4% (Truman, 1985, p. A1). After the opening of Toyota, Scott County was regarded as one of the fastest growing districts in terms of student enrollment in Kentucky, and was viewed as a financially rich district that benefits from Toyota's contributions in lieu of taxes (Baniak, 2001).

Purpose of the Study

The purpose of this case study is to understand how Toyota Motor Manufacturing Kentucky (TMMK) management and leadership ideas that were present at TMMK influenced management and leadership practices adopted by Scott County Public Schools (SCPS). When the TMMK automobile assembly plant began operations in the late 1980s in Georgetown, Kentucky, SCPS was half its present size is two decades later, and it was the largest employer in the county. Over those three decades, significant changes occurred in SCPS and the Scott County community. Much of this growth was accompanied by efforts to improve school and district-wide academic performance, emergence of a more global perspective on education and employment opportunities, as well as shifts in leadership and management perspectives.

According to Bosman (1999), “Toyota is the largest Japanese transplant in North America; TMMK occupies a key position in the debate over the impact of Japan's production management. . . . Yet there is surprisingly little research on TMMK, with the exception of the few company-sponsored studies” (p. 331). There are very few studies of school districts that are adjacent to large manufacturing sites that examine influence patterns of corporate management practices on school district management and leadership. This study presents data that added to the knowledge base, providing an enhanced understanding of the effects relationships between school districts and businesses. This study also provided insight to community perceptions of TMMK, which illuminated their influence on school district decisions. Although many in Kentucky anticipated that recruiting TMMK could bring benefits to the Commonwealth, (including jobs, tax revenue, and additional businesses) study findings provide insight into secondary effects on local public schools.

This study is timely in that it comes at the end of KERA and the implementation of Senate Bill 1, the most recent reform in Kentucky. On the other hand, it might only be part of the reform cycle. “The most logical fact about organizations, including schools, and colleges, is that they change. You can count on it—if you leave an organization for a few years and return, it would be different” (Baldrige & Deal, 1983, p. 3). In spite of the argument that everything is in constant flux, this scholarly work expands understanding of business school relations from a district and community perspective.

Preview of Chapter Five

Chapter Five is divided into several sections. The first part identifies and summarizes themes that emerged from the data, reviews appropriate literature to analyze and explain events, and summarizes what was learned, and formulates a grounded theory. Themes that emerged from the data includes: (a) the need to establish a continuous improvement model; (b) the creation and implementation of a continuous improvement model; (c) global perspectives; and (d) the pivotal role of school district leadership in developing corporate relationships and changing management and leadership practices. Each of these four themes are discussed by: (a) briefly recapping pertinent events; (b) summarizing the related literature; and (c) analyzing data using concepts from the literature. After all four themes are analyzed, what was learned from the study is presented in a grounded theoretical explanation of the influence of corporate leadership and management practices on a public schools district. The author then discusses implications for practice recommendations for future research and a concluding statement.

Theme 1: Need to Establish a Continuous Improvement Model

Subsequent to the passage of the Kentucky Education Reform Act (KERA), high expectations were communicated through the axiom, “all students can learn at high levels”

(Jones & Whitford, 1997, p. 1). This axiom encompassed the basic tenet that change in learning and teaching must occur to ensure that all children are adequately served and are academically successful. For the Commonwealth of Kentucky, as well as SCPS, this axiom created a problem not immediately evident to school and district administrators. Several district-level administrators and school principals expressed concern that expectations for student academic performance were elevated enough to ensure student success after graduation. Data suggest that school and district-level administrators were compelled to understand expectations and current conditions as well as combine and construct initiatives to ensure success. To several, this proved to be puzzling, troubling, and challenging. However, the superintendent helped administrators to identify the problems and identify solutions. The SCPS superintendent's appraisal of the district's current situation, after being exposed to TMMK's successful improvement model, proved helpful. He believed in continuous improvement and noted, "You can always get better" and called for adoption of a specific district improvement model. SCPS and TMMK joined forces to increase the number of quality applicants for TMMK, to improve job skills such as teamwork, problem solving, as well as create a leadership and quality platform that created a continuous improvement model for SCPS. Philosophically, many managers in SCPS and TMMK viewed these QUEST skills as meaningful change. QUEST curriculum contained applications that improved life-skill competencies. "From a Toyota point of view, they define [QUEST] as problem-solving and teamwork as it relates to Toyota, but obviously everybody can benefit and every organization can benefit from knowing problem solving and teamwork" (D. Cox, personal communication, June 30, 2011). These skills were viewed by the community, TMMK, and SCPS, as the primary method to teach students how to be problem-solvers, how to

work in groups, and how to be effective members of a team. The SCPS superintendent believed these competencies contributed to students being more engaged in their own learning.

When TMMK came to Georgetown, the company had a need to ensure quality applicants would be available for the future. According to Duane Cox:

We have always been aware of this crying need for skilled labor. I literally mean people who are ready for the workforce. I thought SCPS had a pretty good vision to meet that goal in terms of the skilled component. That is at critical [need] level at this time. (D. Cox, personal communication, July 30, 2011)

Since TMMK was established in the late 1980s, almost all of the skilled labor that was initially hired has left or retired. SCPS accepted its role to address the school district's future need. A member of the Center for Quality People and Organizations (CQPO) believed a continuous improvement model would address this need. As Jim Cox noted:

The goal was never to make individuals a Toyota applicant. It was to make them a better applicant for any workplace, any career, wherever they wanted to go. We believe that teamwork and problem-solving were two job skills that were necessary in the changing marketplace regardless of whether you wanted to become a doctor, lawyer, or an Indian chief. (J. Cox, personal communication, July 22, 2011)

A continuous improvement model was adopted by SCPS and was viewed as being directly linked to improvements in student learning and success after graduation.

Review of Relevant Literature

We cannot dispute the fact that educational change is a restless and relentless process--one that includes ideas from business and the community. As Duke (2000) observed:

The desires of the public are frequently captured by ideas. Ideas, of course, are always floating around; they drift with pundits, professors, and politicians. The vast majority of these ideas soon sink from sight. A few, however, refused to disappear. They gather density, like islands building around coral reefs. We call these ideas “public ideas,” terms that capture the concern and the mood of a large number of citizens at any given point in time. (p. 17)

Change process includes the emergence of public concern for its collective well being that precedes action and provides an environment conducive to altering status quo.

Ecological theory provides a framework for understanding and explaining why SCPS, as an organization adapts to changes in the external environment. McKelvey & Aldrich (1983) posited that the organizations must adapt to changes in the external environment to survive. While these changes may have occurred for the survival of the organization, they are juxtaposed to a time that included national and state educational reforms creating an environment ripe for meaningful change. Walters (2002) considered meaningful change to be positive and life-supporting in its implementation. Meaningful change includes public participation and decisive decision-making; it fosters ethical, inspired leadership and civic integrity at all levels of the organization and the community. For individuals to understand educational change, they must reflect on the action required. For example, many scholars believe that there can be no meaningful change to schools, groups, organizations, or any system unless the individuals within the systems themselves change (Duke, 2003). Inspirational and ethical leaders committed to the public engagement and collaboration helps transcend negative sentiment and provide hope that something more prosperous is possible (Walters, 2002).

Analysis

Dr. William's appraisal that SCPS needed a continuous improvement model was developed over time and linked to efforts by Governor Collins and others to improve the Commonwealth's economy, as well as his close working relationship with managers at TMMK. Data indicated that TMMK was the "ultimate community partner." Data also suggested that SCPS "has benefited immeasurably with that [continuous improvement] philosophy." Dr. Williams was able to articulate the need for a continuous improvement model in a succinct way that others might not ever have identified (Schon, 1983). He and his team of administrators saw an opportunity to embed a continuous improvement model (QUEST) into SCPS and implemented it over a period of several years. It was also evident that he and others believed that this model would ultimately make education more relevant for the students in Scott County, thus giving important meaning (Walters, 2002) to this change effort that resonated with SCPS teachers and administrators.

This impetus for change can come from any direction, at any time, and from any given source (Hall & Hord, 2001). When change is embraced by school and corporate leadership the change is more likely to gain momentum throughout the community. Individuals who seek change by improvements in quality are linked by more than occupation, education and personal motivations, and thus contribute to "public ideas" and support for change (Duke, 2003). In this regard, these individuals are change agents and are more likely to join with leadership to make changes that are fundamental to the focal organization (SCPS). Change is seldom quick. Sarason (1971) noted that "some changes are never implemented at all" (pp. 219-220). While there are several obstacles to change that include: the complicated nature of the proposed change, the enormous magnitude of the change, or the possibility of intense resistance to the change. It was

evident that external support for attracting TMMK to Scott County, positive public support for school improvement, and internal commitment of staff and administrators laid a foundation for the establishment of a continuous improvement model.

Theme 2: Creation and Implementation of a Continuous Improvement Model

SCPS worked in partnership with TMMK to create a continuous improvement model. However, some argue that TMMK purposefully worked themselves into SCPS to create a model that would satisfy their need for a greater number of highly skilled workers. Evidence suggested that SCPS sought out a continuous improvement model and adapted it to improve leadership and student engagement out of a need to meet expectations for “all students to learn at high levels,” which was established by KERA (1990). In this regard, it may be described as being mutually beneficial circumstances. The idea of adopting a continuous improvement model was endorsed by the SCPS Board of Education. It should be noted that a former board member who remained influential was also a trained TMMK manager. Several SCPS superintendents concurred with the correctness of this decision. One noted that, “TMMK is always ready to assist or advise, not just in manufacturing, but any area, however they are not heavy handed in any way” (T. Williams, personal communication, June 30, 2011). In 1999, Dr. Williams, with the support of TMMK, presented these concepts to the SCPS Board of Education. The SCPS Board of Education adopted these concepts the same year. With the collective support of district leadership and current TMMK leadership, resources were dedicated to train administrators, staff, and teachers specifically in the area problem solving (J. Gooch, personal communication, July 7, 2011).

The superintendent collaborated with individuals from TMMK, individuals within SCPS, as well as other local partners to create the CQPO. CQPO is housed on the SCPS campus and is funded in part by TMMK. This joint organization was a key factor in SCPS staff training. A

group of SCPS administrators working closely with CQPO helped to identify these important QUEST initiatives and allocated resources to incorporate them into the middle schools, high school, and the new Career and Technical School. In fact, according to SCPS board minutes from June 10, 2008, CQPO and TMMK combined to donate \$100,000 to this project.

Today, CQPO is an established non-profit organization that has conducted many leadership, problem solving, and time management trainings in hundreds of organizations, including school systems in Mississippi, Florida, Texas, West Virginia, and most specifically, Central Kentucky. The relationship between SCPS and TMMK not only includes discussions about QUEST and CQPO, but SCPS and TMMK also continue to find ways to collaborate with one another.

Review of Relevant Literature

The pros and cons of school-business partnerships have been discussed for several decades; however most do not involve direct collaboration but rather are limited to corporate donating of funds, expertise, and other resources. In fact, corporate and business support for public schools has fallen dramatically since the 1970s. “Despite the considerable publicity that surrounds these partnerships, the fact is that in the 1980s only 1.5% of corporate giving was given to public primary and secondary public schools” (Reich, 1991, p. 43). School-business partnerships have attracted considerable media attention. However, there is little evidence that school-business partnerships will address the fundamental problems facing American education (Cookson, Sadovnik, & Semel, 1992). On the other hand, a 2008 survey conducted by the Council for Corporate and School Partnerships found that 95% of schools had a partnership or conducted some activity with business. Although Kohn (2002) and Hann (2008), critics of school partnerships, believe that the dominant corporate focus on producing competent workers

overshadows the teaching of critical thinking skills and democratic ideas (Hann, 2008). Trotter (2007) asserted that the intent of such partnerships is to educate the future workforce, add relevance, and improve education as a whole.

According to Duke (2003), there can be no meaningful change to schools, groups, organizations, or any system unless the individuals within the systems themselves change. The will to bring about meaningful change requires courage, resolution, conviction in a belief that stands against self-interest, and a commitment to act regardless of consequences. It is ultimately a battle of individual rights against forces committed to the destruction of those rights (Cook, 2009). This struggle for change within an organization or an individual may be lessened by what Ouchi (1981) called a “holistic orientation similar to the Japanese firm” (p. 5): He continued saying that such companies tend to display “broad concern for the welfare of subordinates and coworkers as a natural part of the working relationship” (p. 5). Interpersonal relationships tend to be informal and egalitarian. People hired with this mindset tend to excel in these new organizational environments. In these circumstances, an open discussion of direction, trust among workers, and commitment to the company is crucial. These companies depend on long-term thinking and participatory decision making, which requires members to have constant input into the organization (George, 1984).

Analysis

To further the likelihood of successful implementation of a continuous improvement model, a quality advisor was hired jointly between TMMK and SCPS to encourage the use of teamwork and problem solving as teaching techniques. TMMK called these *Quality Circles*. This concept was first introduced into Japan in 1962 (Ishikawa, 1985). *Quality Circles* can be defined as a small group of employees who work in same work area or do a similar type of work, who

voluntarily meet regularly for about an hour every week to identify, analyze, and resolve work-related problems. These efforts then lead to improvement in their total performance and ultimately enrich their work life. The circle is a relatively autonomous unit, ideally made up of 10 workers usually led by a supervisor or a senior worker, and organized as a work unit (Ross & Ross, 1982). Quality Circles were modified by SCPS and CQPO and subsequently refashioned into an educational model. This model became known as the Quest for Useful Employment Skills for Tomorrow (QUEST). The QUEST model taught leaders to seek the root cause of problems prior to the attempt to solve them, whereas in the past, individuals in leadership roles resolved the problem as quickly as possible. However, many times these resolutions only addressed one of the symptoms, which led to the problem reoccurring.

Taking enough time, and finding the root cause of the problem, and selecting the appropriate countermeasures will allow the problem to be resolved permanently. A former SCPS administrator noted,

Whereas in the past, most of us in leadership roles, tried to fix it pretty quickly if we could, most of the time we were just throwing a blanket over it until it pops up again. If you really find the problem, then address it, and then you can fix it. Then you don't have that problem again. It helps you down the road with other things that you deal with.

(former SCPS administrator R. Wilkerson, personal communication, June 7, 2011)

These organizational efforts of the school system addressed two pressing issues for both organizations: a) to improve leadership in SCPS by employing teamwork, meeting facilitation, and problem solving skills based on methods derived from TMMK; and b) to increase the number of quality applicants for TMMK. A SCPS administrator viewed this model as vital course correction toward excellence. "First of all, I believe that the school system, at least partly

through the aligning of our philosophy with the ideals and philosophy of Toyota, changed that course completely” (S. Coleman, personal communication, June 9, 2011).

QUEST created a change model that enhanced the professional practice of SCPS. According to Wise (1983), “Schemes [models] which promised to increase accountability, efficiency, and effectiveness are imposed on the existing bureaucratic structure of the school in anticipation that they will improve the school” (p. 104). When these efforts involved engaging workers in groups to solve problems (Duke, 2003; Ouchi, 1981) as was the case in SCPS, that with the adoption of a proposed change, (i.e.) a continuous change model, then individual and the organization benefited. In addition, it is evident that SCPS as an organization shared values and intentions among members of the group, (i.e.) teachers and administrators, and helped to define the actions and ways of thinking the group as well as showed a willingness to explore and adopt innovative practices in teaching, learning and leadership. This cohesion provided crucial support and encouragement to an organization as its practice and implementation evolved.

Theme 3: Global Perspective

In 1993, Dr. Williams was invited to Lucknow, India to attend a conference that explored the implementation of *manufacturing* and *quality* ideas into a K-12 environment. He was accompanied by Monty Carter, a TMMK manager who firmly grasped the concept of problem solving and Quality Circles, and was the lead problem solving trainer at the plant. This conference included educators, students, and quality-minded people. This event was integral in the development of student problem solving. The superintendent, as well as board members, attended the International Convention on Students’ Quality Control Circles (ICSQCC) annually. Subsequently, the superintendent was appointed to the board of directors of the council that sponsored the event, the World Council for Total Quality and Excellence in Education

(WCTQEE). ICSQCC directors suggested that the United States consider hosting the international conference in the future. SCPS canvassed the community to determine the interest in hosting an international conference.

After several meetings, it was determined that support and funds were obtainable from the local community as well as SCPS. The fifth Annual ICSQCC conference was held from June 11-13, 2002, in Georgetown Kentucky. SCPS, Toyota, WCTQEE, and a Goals 2000 grant were strong supporters of the conference. SCPS hosted more than 1,000 people as long as two weeks during the world conference. According to Dr. Williams, there were several international speakers, 16 countries and 27 states were represented at that conference, along with seven student teams that competed in a problem-solving exhibition. This opportunity brought diversity to the Georgetown/Scott County community. The SCPS Board of Education even approved the school calendar so SCPS teachers were able to participate by way of professional development. "It was interesting to hear and view ideas from a truly international perspective," said a teacher attendee (A. Stephenson, personal communication, September 6, 2006). Following the conference, one administrator remarked, "This was the only time I have ever been kissed on the feet by appreciative students" (Coleman, personal communication, July 30, 2011).

With the success of the 2002 international conference, SCPS hosted the International Alliance for Invitational Education (IAIE) Leadership Institute from October 10-13, 2007. The International Alliance is dedicated to democratic principles. Its mission is to enhance life-long learning, promote positive change in organizations, cultivate the personal and professional growth and satisfaction of educators and allied professionals, and enrich the lives of human beings personally and professionally. The 2007 conference was represented by South Africa,

China, Nepal, Hong Kong, Ireland, England, Australia, and the United States. This international partnership travel, ideas and, cultural influence began to shape decisions in SCPS.

TMMK, community expectation, and global partnerships were not the only ideas that brought improvement to SCPS. SCPS aligned itself with three highly respected organizations. The aforementioned International Alliance for Invitational Education (IAIE) is an association that invited students, staff, and community into the schools to enhance the human side of learning and improved a sense of belonging, cooperation and diversity. SCPS aligned themselves with APL Associates. APL Associates is headed by Dr. Jean Anastasio, David Perry, and John Zalonis. This group conducted professional development for teachers to create a specific process to implement classroom instruction. The third organization, Schlechty Center, is headed by Dr. Phil Schlechty. Schlechty Center provided writings and professional development for SCPS staff and emphasized the work created by teachers to enhance the engagement of students. Dr. Schlechty's group believes that students are volunteers in the learning process. If the student is not engaged, no learning can be expected. These partnerships were a step toward *standardization of work* and another link to the association with TMMK.

Review of Relevant Literature

Potential change in the United States, to be traced to six ideas: equality of educational opportunity, educational excellence, accountability, choice, school safety (discipline), and professionalism (Duke, 2004). Of these ideas, professionalization deals directly with competent, professional educators. This is an area where there can be many differing opinions. One can argue that teachers do not enjoy the same autonomy, rigorous training, prestige, compensation and influence as other professions. However, teachers seeking change in schools are now being heard. Darling-Hammond (2000) offered the following observation:

The nation has paid little attention to developing its human resources for education. Recruitment is ad hoc; much of teacher preparation is insufficiently aligned with needs of contemporary classrooms and diverse learners. Selection and hiring are too often disconnected either to specific school system goals or to a clear vision of quality teaching; mentoring and professional development are frequently scattershot, and opportunities for teacher learning are likely to be the first programs eliminated when districts cut their budgets. (p. 359)

Tyack and Cuban (1995) contend that throughout history individuals have had the ability to influence public policy. This influence can be articulated globally as various reforms in education, global partnerships and the transfer of new ideas. This influence can bring change to large organizations well as individual schools. However, some schools may or may not be receptive to change. Maeroff (2000) viewed many schools and teachers and as frozen in time, mired in 1965 and that “educational change has been excruciatingly slow” (p. 10). While educational change may be slow there is always a potential for it, hiding near the surface and when the time is right and when public ideas are popular they may spring into the national discussion. The potential for change is kinetic force always present.

Analysis

Tyack and Cuban (1995) contended that people can influence policy and practice. In this case study, it was evident that Dr. Williams following his first trip to India influenced the emergence of thinking globally in SCPS. This trip was one of the pivotal events that lead SCPS to implement problems solving for staff and students. This trip also began a policy of world travel for students, staff and community members lead by SCPS that expanded understanding of the importance of a global economy. Teachers and administrators understood its importance and

assist students in expanding their global perspectives and that many of the jobs for which SCPS was preparing them for were no longer vital. Dr. Williams and other staff members saw these global perspectives as a way for students to gain an edge in a competitive, global job market. While basic change position 3, that public education has had an absence of change and posited by Maeroff (2000) as current schools are stalled in 1965, where teachers continue to stand and deliver information and classrooms remain free of innovation. Evidence suggests that this was not the case in SCPS. Students and staff expanded their classroom to include global exploration and cultural exchange.

The schools and community became accustomed to these cultural exchange programs. SCPS students have traveled to China, Hong Kong, and Japan, creating a worldwide school district due the affiliation with these organizations. This global perspective has not only affected students, but staff and community, as well. SCPS has been conscious in the effort to enhance a global school connection. One SCPS administrator said, "I think that is unique for a school system. I think a lot of that came through the presence of Toyota" (R. Cave, personal communication, July 20, 2011). There are many students who might not have been exposed to other cultures in any other way. This is the impact of a school district with a global perspective, as it benefits staff and students with the exchange of ideas. "I think the local people, as well as the *implants* (people who moved here), view the school system with more of a global perspective" (R. Cave, personal communication, July 20, 2011). All of these factors have changed the dynamics of SCPS. This was a progression in the thinking of Scott County residents. TMMK has made the entire community more open to the diversity of students, educators, and manufacturers from foreign countries. "We have a lot more people that have moved into this community as the result of Toyota's presence. I think it actually caused us to reevaluate where

we are and where we want to go. In fact, it raised the bar of expectations for the entire school system” (R. Cave, personal communication, July, 20, 2011). These new residents brought fresh ideas to the community. While some organizations struggle with problems of purpose, these fresh ideas led to educational change that addressed these problems of purpose for SCPS by clarifying and articulating goals that were compatible with their local environments (Duke, 2004). While TMMK has not been directly involved in these educational exchanges, they are very supportive of them. TMMK’s international presence gave SCPS a buffer that allowed SCPS to focus on a global partnership without the weight-crushing effects or a community with a backlash of money spent. That is not to say that all community members were in favor of money spent on student and staff travel; they expressed opinions that the funds could have been more effective in other allocations. However, the positive effects outweigh the negative. “Now, reflecting back, that’s really what set us apart from other school systems, and gave us a niche. We are an international school system, an international school community; it is what helped us move forward fast” (S. Max, personal communication, June 9, 2011).

While theorists debate if schools should focus attention on present conditions of practice or future conditions of practice (McCaskey, 1982), SCPS determined to focus on the needs of students and future employment, understanding a changing workforce with global connections. For example, a recent graduate of SCPS and Vanderbilt University, who had just accepted his first job in Beijing, China, noted that, while these ideas were shared by several staff and community members, the dichotomy of this philosophy remained:

This investment in travel and global partners is paying off more than we realized. It gave [SCPS] a whole global focus; it opened the minds of our students. It is a different mindset; and I’ve taught a long time, 25-plus years. People don’t want to change very

easily; you have to prepare students for jobs that are not even in existence today, showing them the world gives them an advantage. (R. Henry, personal communication, October 16, 2011)

Hosting ICSQCC in Georgetown, Kentucky in 2002 and IAIE in 2007 reinforced this global partnership it also created networks for students and staff to expand and recreate these cultural exchanges that were so valuable for students and staff.

Theme 4: District Leadership

According to Dr. Estes, “they [TMMK] have been supportive [of leadership opportunities] all along”. When the next superintendent, Dr. Williams, came on board in 2002, the relationship continued to evolve and strengthen. Since the relationship between the superintendent of SCPS and the president of TMMK was on sound footing, the discussion shifted to the importance of individual skill sets and tools for the betterment of the community. This was clearly seen as not only a way to build a relationship between TMMK and the community, but a way to improve day-to-day operations for an organization that was interested in improvement. SCPS and TMMK conducted egalitarian conversations; TMMK did not “flex its business muscles.” Rather, all superintendents interviewed noted that TMMK was always ready to assist or advise, not just in manufacturing, but any area: “They are not heavy handed in any way” (T. Williams, personal communication, June 30, 2011). This relationship between SCPS and TMMK developed a greater sense of pride in the community. There was a reason for this success of these organizations. According to Duane Cox, a prominent community leader, “it is the combination of Toyota’s willingness to participate, and the school system’s willingness to listen, and to try to participate” (personal communication, June 30, 2011). Data suggest that over

the years, TMMK's president tenure became shorter and Japanese-born presidents were replaced by presidents born in the United States.

For at least two decades, the superintendents of SCPS and the presidents of TMMK worked together to nurture a strong personal and professional relationship. This was evidenced by the attendance of national educational leadership conferences, manufacturing conferences, and leisure activities. In fact, at one time, Dr. Williams and President Mito each owned a residence on the same street in Georgetown. This personal exposure had a great influence. As Toyota was considering building in Kentucky, Dr. Estes met with Dr. Shoichiro Toyoda on several occasions. He was the president of Toyota in Japan and worldwide, and a direct descendent of Sakichi Toyoda, founder of Toyoda Industries. He was also known as the "the king of Japanese inventors." The conversations between Williams and Mito included building relationships with education and discussion about how SCPS was going to train individuals for the workforce. The SCPS superintendent said that he gained "insight into how to lead the most successful company in the world. They taught us intentionality; I certainly became a better administrator and a better leader because of the influences of this first-class experience" (T. Estes, personal communications, June 6, 2011). Toyota and the Japanese business model saw value in education especially the infrastructure of SCPS. TMMK's support grew as the SCPS relationship with TMMK grew.

While QUEST and CQPO are still a part of SCPS, as described by data, their influence and daily use has declined. Patterson, a SCPS administrator explained several reasons for this decline:

QUEST has given us a different way to think, a different way to solve problems. We now think through solutions before we start to act. QUEST was very strong in our school

system, with turnover; we don't concentrate on problem solving methods as much as we once did. It tends to get lost, and I think over the last few years, that it has kind of faded away with some of our younger staff. It was not placed in the forefront of the district plan. There was also a silent, if not subtle, decision not to rehire the retiring SCPS quality advisor or to continue to work with CQPO. (T. Patterson, personal communication, June 13, 2011)

When this process is no longer practiced on a regular basis, it will fade away. Patterson noted, "I'm concerned that's kind of where we are today" (personal communication, June 13, 2011). In fact, two groups emerged; some encouraged the use and exposure to QUEST while others felt the district should focus on assessments, testing, and curricular endeavors. The latter group even believed that QUEST was too aligned with TMMK and not appropriate for schools. Individuals that were originally trained in QUEST have incorporated the skill, however, new staff may not receive problem solving training.

Personally, I find myself all the time using those problem solving techniques, it is part of my tool box. I don't say that's a Toyota technique. It is something that makes me a more effective leader. I won't stop and announce that this is Toyota problem solving, I just naturally do it that way. Hopefully, I think that's what many of us do that have been around here for a while. I just don't know if we'll continue this with new administrators and new staff. (T. Patterson, personal communication, June, 13 2011)

QUEST is not completely gone; the SCPS superintendent is still the president of CQPO. SCPS has been positively influenced by TMMK, regardless of the names of the terms or trainings offered. "This organization has continued to grow primarily under the influence of Toyota. We also look at them as an efficient way to conduct business, facilitate meetings and

master problem solving. We have been the beneficiary of that organization” (R. Cave, personal communication, July 20, 2011). While QUEST may not be practiced in the classroom anymore, we now incorporate all of this into “21st century skills.” These skills still follow some of the original QUEST concepts.

Review of Relevant Literature

Many understand the history of civilization by examining the circumstances under which people have decided to initiate or inhibit change (Duke, 2004). “Change is a journey, not a blueprint. . . . Change is nonlinear, unpredictable, and exciting” (Fullan, 1993, p. 21). People see change from different perspectives; however, some would argue that change is not needed, or at least not needed now. However, change is difficult and slow. It is one thing to create a new organization and quite another to improve an existing one. While both of these initiatives are major undertakings, Sarason (1972) observed the differences when he noticed the problems faced by educators who try to emulate John Dewey's famous model of progressive education:

John Dewey had the luxury of creating a new school at the University of Chicago [that] embodied the principles he advocated. He was able to create a litmus test for those who wanted to work at his school. Those who admired Dewey's school, however, typically faced the necessity of transforming an existing school with existing programs, policies and staff accustomed to conventional pedagogy. This task requires more subtleties and extremes than starting from scratch. (Sarason, 1972, pp. 212-213)

Bolman and Deal (1997) noted that the “three powerful levers of organizational change are restructuring, recruiting, and retraining” (p. 320). The first lever focuses on modifying the context in which people work; the second and the third levers require new employees to have increased knowledge and skill of existing staff members.

Ouchi's (1981) *Theory Z* is a book about organizational structural reform through the eyes of an American company that wants to implement Japanese business traits. In the 1980s, this was a trend of (mostly automotive) companies in the United States who saw the success of Japanese companies. One of Ouchi's major themes suggested that involved workers are the key to increased productivity. He noted that this implementation could occur by enlisting volunteers, creating environments of trust, encouraging staff to go and see, implementing focused training, and most importantly listening to the ideas of individuals. This leadership practice also encouraged ideas and change through a continuous improvement model. According to Ouchi, decisions made by a "Theory Z company" ultimately become the responsibility of one person, but these decisions are based on input from others. American Theory Z companies most always manifest what Ouchi calls a "holistic orientation similar to the Japanese firm." There are, however, important differences. Such companies tend to display "broad concern for the welfare of subordinates and coworkers as a natural part of the working relationship" (Ouchi, 1981, p. 5). Interpersonal relationships tend to be informal and egalitarian and people work together. People hired with this mindset tend to excel. Open discussion of direction, trust, and commitment to the company is crucial. These companies depend on long-term thinking and participatory decision making, which requires members to have constant input into the organization (George, 1984). Liker and Meier (2007) posited that leaders are not just doing their jobs; leaders are personally responsible for the actions of everyone in the organization who report to them.

The influence of Theory Z-type management systems cannot be discussed without first looking back to the 1930s in the United States. W. Edwards Deming, a physicist, provided a template for continuous improvement. His overarching body of principles promotes intelligent action toward improving schools. What distinguished Deming's philosophy from other

educational philosophies at the time was its adaptability and a capacity to embrace and refine much of what was already working. It was not a rigid philosophy. He asked the question, “What is quality?” This philosophy united people and created quality control engineers out of all team members (Deming, 1982, p. 168). This management system also included the theme of *gembutsu* or literally “go and see.”

Analysis

Superintendent Dr. Estes, saw value in the leaderships and management practices that were established at TMMK. His advocacy was well known and he continued to call for these practices long after his retirement. These TMMK practices, this problem solving model, was implemented by Dr. Williams over his tenure with SCPS. He made deliberate decisions to improve SCPS, TMMK and the community. In the process of implementing these practices, SCPS developed a close relationship with TMMK that lasted past his tenure. During this time, he appointed leaders trained in the QUEST model to district leadership positions and appointed principals to schools constructed after 2003. These newly developed management teams had to discuss and understand change in their surroundings and bring with them new strategies to contribute to organizational change in SCPS (Boeker, 1997). Dr. Williams’ influence on SCPS and the community is still felt in his methods of listening to staff, communicating with community experts and bringing all stakeholders to the decision making table.

SCPS found itself in a similar position, Elkhorn Crossing School, Royal Spring Middle School, and Anne Mason Elementary School, all of which were opened in 2003 or later, had a litmus test of sorts when hiring original staff. Since these schools were under construction, the staff could be selected and assigned by district administrators. According to SCPS administrator Patterson, “they were very successful when compared to other schools in Kentucky.” These

schools' organizational leadership teams were a source of organizational inertia due to commonalities and training. Hannan and Freeman (1984) noted that this inertia could inhibit the change process. These second order changes altered the fundamental aspect of the system, including underlying assumptions, and relationship patterns (Barott & Raybould, 1998). Consequently, school district superintendents placed considerable emphasis on training and professional development to ensure success and the development of the QUEST model.

SCPS was exposed to these world-class standards, and this influence might not have been held in balance by Kentucky's education perspective at this point. "[We] were chastised to announce that it was impossible for teachers to teach everything" (J. Gooch, personal communication, June 7, 2011). The curriculum was just too broad for the timeline allotted. In SCPS, during that time, individuals could talk about change without repercussion. These open discussions regarding direction, trust, and commitment to SCPS were crucial. SCPS depended on long-term thinking and participatory decision making. While this was unique to many school districts, it was not unique to *Theory Z*-type organizations (George, 1984). There was a growing sense of trust all among teachers and administrators that all opinions were valued.

The community viewed QUEST as a way to improve student learning and teaching methods and create a more qualified workforce. They also saw the significance of the bellwether TMMK. Some saw this relationship as a natural progression for SCPS, as they have TMMK (a world-class organization) in their backyard and they want to tap into this company's success. Duane Cox noted, "It was only natural for him [Dr. Williams] to grab onto that [QUEST] because I think it leads one to become better." While some viewed this partnership as a possibility, the superintendent saw this as a way to profoundly improve education in SCPS. In fact, after the defeat of a tax increase to build a new high school, Dr. Williams approached

TMMK for help. The SCPS superintendent and school officials, with the blessings of the SCPS Board of Education, met with TMMK more than 20 times to work out an arrangement where TMMK would prepay taxes so that the Scott County School District could build a new high school. This partnership would be the most effective way to improve the SCPS organization. This aspect of change related to management is the circumstance in which leaders find themselves, the embedment of a larger organizational personnel system and corporate social network. These individuals managing their current circumstances contributed to both the content of change decisions and the orientation of leaders toward change itself (Bacharach, Bamberger, & Sonnenstuhl, 1996; Fligstein, 1995; Palmer, Barber, Zhou, & Soysal, 1995). Moreover, after these leaders created this model, the model could be reproduced at other locations.

The superintendent saw this as a success and as another opportunity for improvement. He aimed to install problem solving and meeting facilitation practices into SCPS. It was already established that TMMK valued partnerships and cooperation. They jointly created an organizational structure that would later be called the Center for Quality People and Organizations (CQPO). Dr. Williams, the superintendent of SCPS, with the support of TMMK, presented this concept to the SCPS Board of Education. With the collective support of district leadership and TMMK leadership, resources were dedicated to train administrators, staff, and teachers specifically in the area of problem solving. Jim Cox, a quality advisor, was hired as a part-time SCPS employee/part-time TMMK contractor. Jim Cox focused on the facilitation of this program and addressed problems that occurred in management as the program went forward. SCPS provided space in the schools for the CQPO facility. Keeping the resources close kept this expertise close to leadership. This quality advisor was highly recognized in the area of the Toyota Production System (TPS), lean management, and continuous improvement. Mr. Cox, the

advisor, was devoted to improving systems, whether; he was at work, at home, or on vacation. He was the right choice for this position. During his time with SCPS, he encouraged the use of teamwork and problem solving as teaching techniques. “When we ran our first training session, we started with all the administrators” (J. Cox, personal communication July 22, 2011). This collection of tools became known as the QUEST. The superintendent gave full support and encouraged activities throughout the system. SCPS principals began to recruit staff who might be interested in the QUEST process. The superintendent built authentic relationships with TMMK managers, SCPS administrators, and community members that were respectful and encouraging toward personal and professional growth. His undaunted optimistic outlook inspired administrators to do better for others, as well as aspire toward more lofty individual goals. These changes created a stable effect over time that was embedded in individual lives (Kottler, 2001).

SCPS’s use of the QUEST model led to a “sense of leveling people,” during the process, managers who worked at “TMMK did not care who solved the problem or who made the improvement. [Solving problems] was a team concept, and be it a manager or team leader, you were a team member first. In fact, there was no problem those guys could not solve” (J. Gooch, personal communication, June 7, 2011). This type of confidence made this process intriguing for SCPS. This leveling released authority, responsibility and accountability to all staff. TMMK taught managers to stop and fix problems and gave their subordinates the authority to stop the process and fix the problem as well. The superintendent modeled this, he expected all principals and administrators to do the same, this was no time to assess blame; philosophy, in fact, the superintendent thought it was time to further analyze the problem and the processes so they could be fixed permanently. The superintendent understood that SCPS was too large and complex to retain control over every detail. He gave managers the authority do their jobs without

micromanaging each department or school. He subscribed to this philosophy. “Given wisdom, leaders stop trying to control everything and stop taking charge of everyone and see themselves as one part of a complex operation” (Schlechty, 1990, p. 23).

The superintendent worked to bring people on board, build consensus, illustrate the worth of the model, and use a continuous improvement model to implement QUEST. In fact, a banner was created for the entire district that said, “All of us are smarter than one of us.” Credit for this statement was given to a middle school special needs student who had been quite successful with the QUEST process. The growth in individual schools using the process could be attributed to his leadership, Administrator Max noted that the superintendent “had a good way of bringing everyone together to offer something [to improve the system]” (personal communication, June 9, 2011). This continuous improvement model or any model being successfully implemented in public schools comes down to the leadership of the SCPS Board of Education, district office staff, principals, and teachers-- but most importantly, the superintendent. “Success or failure of public schools has been directly linked to the influence of the district superintendent” (Bjork, 1993, p. 249).

Grounded Theory

Grounded theory begins with wide-ranging questions that focus on what happened to people, why they believe it happened, and what the event meant to them collectively (McMillan & Schumacher, 2006). In the case of SCPS, a confluence of social, economic and political events contributed to situating a major, multinational corporation in a small Kentucky community that espoused a singular organizational and leadership philosophy. The superintendent encouraged school district administrators and staff to join with the leadership team to create a continuous improvement model based on leadership and management practices of TMMK. Staff members

who chose to participate in the creation and implementation of this model (QUEST) believed it would improve SCPS in many ways, including problem solving, meeting facilitation, and, in some degree, even student learning. Participants believed that the SCPS superintendent, staff and key individuals from a corporate partner worked together to make changes to SCPS, TMMK, and the local community moved the school district forward in a positive way with a new global focus. It is evident that this process was enhanced by superintendents' support for changes, as well as individual change in their own leadership and management practices for SCPS, as well as for them personally. Evidence support a grounded theoretical statement that summarizes study findings: External environmental forces influenced changes in superintendents' perception of leadership and how it should be enacted in the school district in support of continuous academic improvement. This explanation or grounded theory of participant experiences (Strauss & Corbin, 1998) adds to our understanding of the role of school district superintendents, in how the influence of corporate leadership and management practices is mediated to advance the interest of teachers, administrators, and students. This theory could be relevant to schools districts situated in small communities in which a large multinational corporate auto manufacturing corporation may relocate.

Implications for Practice

SCPS partnership with TMMK has brought change and improvement to the district. Elements of this partnership may inform other school districts and organizations about the nature and direction of collaboration. With a more thorough understanding of the potential to improve school district leadership and management practices, efforts may be made to assess how, where, and when collaboration may prove beneficial. However, on the other hand, one must also caution against engaging in relationships that may be superficial or have an indeterminate purpose of

education. As was the case with TMMK and SCPS, their efforts led to innovative ways for administrators to meet the needs of their constituents. This is the best case scenario for school district-corporate collaboration. Furthermore, energy that is focused on analyzing the critical yet complex roles among leadership, education, problem-solving, improvement, student success, high-paying jobs, and links to local industry is vital to creating a successful plan for public schools. These analytical skills, if accompanied by effective professional development, training and district leadership, support transfer from district to district. Partnerships and expanded relationships that are more broadly envisioned may also have a profound effect on public schools districts. Corporate partnership such as TMMK is only one example, however other partnerships with different types of corporations, agencies and institutions may also offer a wide array of innovative ideas and practices that may include organizations, such as the Schlechty Center, APL Associates, International Convention on Students' Quality Control Circles (ICSQCC), and the International Alliance for Invitational Education (IAIE). These groups may nudge school districts toward improvement as well as allow staff members to gain a better understanding of future educational opportunities. These partnerships also allow staff members a broader range of opportunities to grow professionally.

Recommendations for Future Research

While this study only focused on one public school district in Kentucky, it may be useful for education practitioners to identify where similar continuous improvement models exist and analyze the contributions made by the public schools in the promotion of the initiative. Studies may be conducted in other public schools districts that have engaged in district-business partnerships in Kentucky, the region and nationally. Since this study only explored the perceptions of SCPS employees, TMMK employees, and community members, these

participants do not represent the view of other schools, businesses, and communities in Kentucky. The perception of selected participants in this study generally reported positive interactions within the community. It might be equally revealing to seek out individuals with contrarian beliefs regarding of the TMMK-SCPS partnership. In addition, other studies may be conducted to determine the perceived success of the SCPS/TMMK partnership, particularly with regards to whether the continuous improvement model contributed to lasting changes in the nature of leadership and management of SCPS. There could also be opportunities to better understand the dynamic relationship between changes in the macro environment and education organizations of like school districts, as well as the influence of large corporations on local school districts in terms of curriculum, teaching, learning, evaluation practices, and philosophy. More importantly, it may be beneficial to understand the role these relationships play in student achievement, staff satisfaction, and community perceptions of efficacy local of schools.

Concluding Statement

Continuous improvement is a mindset that individuals embrace in varying degrees. It is independent and personal. To implement such a continuous improvement model requires time, as well as training and hiring individuals with a propensity for team work, problem-solving, and culture building. When an organization chooses this path, it may make great strides toward improvement, however, it may never come to fruition, as the change cycle continues circuitously back to the beginning where new circumstances demand further improvements or new solutions. With hindsight being a great teacher, it appears that study participants as a group were energetic, motivated, and forward looking, individuals who were dedicated to the improvement of educational practices of SCPS as well as a profound commitment to the next generation of student success. While there were a limited number of participants who had an oppositional

view, these contrarian opinions were captured and recorded but were not of a magnitude that supported a separate category in reporting and analyzing data. There is a possibility that these contrarian views might be born out with a more exhaustive sampling procedure. In sum, the continuous change model may begin, fade, refocus, and continue, or be discarded in favor of a new strategy that offers greater benefits. As recently as October 11, 2011, the SCPS Board of Education reestablished the phrase *continuous improvement* as a concept in the revised district mission statement. The only other option for a continuous improvement model is for it to be modified to serve a local school district rather than an industrial context. The study chronicled the QUEST process of problem solving, meeting facilitation, and brainstorming may have been institutionalized in SCPS, while it may go by another name, and may not have been fully implemented it was a part of school district culture. SCPS had many advantages to implement such a model with support from TMMK and the community and appears to have been pleased with its continued benefit to the district.

APPENDIX A: SAMPLE INTERVIEW QUESTIONS

Sample Pre-established School Interview Questions

1. Tell me about your connection with Scott County Public Schools (SCPS).
2. How have the SCPS schools changed since the arrival of Toyota Motor Manufacturing Kentucky (TMMK)?
3. Can you talk about the partnership with SCPS and TMMK (Yes or No)?
4. Can you talk about changes that have occurred in the leadership, management and organization since SCPS established a relationship with TMMK?
5. Can you talk about changes that have occurred in the community since SCPS established a relationship with TMMK?
6. Can you tell me about SCPS management before TMMK moved to Georgetown?
7. Can you tell me about SCPS management since TMMK moved to Georgetown?
8. Whom else could I talk to who could give me more information on the relationship between Scott County schools and Toyota?

Sample Pre-established TMMK Interview Questions

1. Tell me about your connection with Scott County Public Schools (SCPS).
2. How have the SCPS schools changed since the arrival of Toyota Motor Manufacturing Kentucky (TMMK)?
3. Can you talk about the partnership with SCPS and TMMK (Yes or No)?
4. Can you talk about changes that have occurred in the leadership, management and organization since SCPS established a relationship with TMMK?

5. Can you talk about changes that have occurred in the community since SCPS established a relationship with TMMK?
6. Can you tell me about SCPS management before TMMK moved to Georgetown?
7. Can you tell me about SCPS management since TMMK moved to Georgetown?
8. Whom else could I talk to who could give me more information on the relationship between Scott County schools and Toyota?

Sample Pre-established Community Interview Questions

1. Tell me about your connection with Scott County Public Schools (SCPS).
2. How have the SCPS schools changed since the arrival of Toyota Motor Manufacturing Kentucky (TMMK)?
3. Can you talk about the partnership with SCPS and TMMK (Yes or No)?
4. Can you talk about changes that have occurred in the leadership, management and organization since SCPS established a relationship with TMMK?
5. Can you talk about changes that have occurred in the community since SCPS established a relationship with TMMK?
6. Can you tell me about SCPS management before TMMK moved to Georgetown?
7. Can you tell me about SCPS management since TMMK moved to Georgetown?
8. Whom else could I talk to who could give me more information on the relationship between Scott County schools and Toyota?

APPENDIX B: INSTITUTIONAL REVIEW BOARD EXEMPTION CERTIFICATE



Office of Research Integrity
IRB, IACUC, RDRG
315 Kinkead Hall
Lexington, KY 40506-0057

859 257-9428
fax 859 257-8995

www.research.uky.edu/ori/

EXEMPTION CERTIFICATION

MEMO: Randy Napier,
Education Leadership
308 General John Payne Blvd.
Georgetown, KY. 40324
PI phone #: (502)863-3663

FROM: Institutional Review Board
c/o Office of Research Integrity

SUBJECT: Exemption Certification for Protocol No. 11-0043-X4B

DATE: April 26, 2011

On April 25, 2011, it was determined that your project entitled, *The Influence of Corporate Leadership and Management Practices on Public Schools*, meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance and Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance/htm#PIresp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori/>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

APPENDIX C: TOYOTA CONSENT LETTER

TOYOTA

April 15, 2011

Toyota Motor Manufacturing,
Kentucky, Inc.
1001 Cherry Blossom Way
Georgetown, KY 40324
502-868-2000

Re: Mr. Randy Napier Research Study

To Whom It May Concern,

Toyota Motor Manufacturing, Kentucky, Inc. (TMMK) is pleased to support and give consent to allow Principal Investigator Randy Napier, Director of Human Resources with Scott County Public Schools the opportunity to conduct leadership research. We are aware of his study, The Influence of Corporate Leadership and Management Practices on Public Schools. His study will be conducted on the property of Scott County Schools and not TMMK. While we understand that the bulk of the individuals that will be interviewed will be from Scott County Public Schools. We are aware that he will need to interview 5 to 10 current or former TMMK employees. These interviews will be at the convenience of the individual. We are also aware that he will conduct a document review of materials jointly created by Scott County Public Schools and TMMK. We understand that his research procedures will be reviewed and approved by the Institutional Review Board at the University of Kentucky prior to any interviews.

Warmest Regards,



Kim Menke

Manager Community/Government Relations



APPENDIX D: SCOTT COUNTY SCHOOLS CONSENT LETTER

**SCOTT COUNTY SCHOOLS
P.O. Box 578
Georgetown, Kentucky 40324**

PATRICIA PUTTY
Superintendent

(502) 863-3663
FAX (502) 863-5367

ROBERT H. CONWAY
Member

REBECCA W. SAMS
Chair

LUTHER MASON
Member

PHYLLIS YOUNG
Vice-Chair

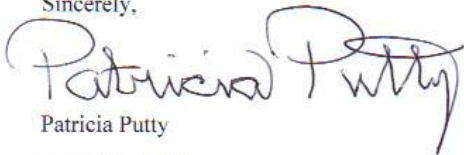
DR ROGER WARD
Member

January 10, 2011

To Whom It May Concern:

I give my consent to allow Principal Investigator Randy Napier the opportunity to conduct research on the property of Scott County Public Schools. I am aware of his study, The Influence of Corporate Leadership and Management Practices on Public Schools. I believe that his study is appropriate for its human subject population I believe that our school personnel have the appropriate expertise to carry out the research procedures as reviewed and approved by the IRB.

Sincerely,



Patricia Putty
Superintendent
Scott County Schools

"Together We Are"

Equal Education and Employment Opportunities

APPENDIX E: SUBJECT RECRUITMENT LETTER

May 30, 2011

Re: The Influence of Corporate Leadership and Management Practices on a Public School District, Randy Napier, Principal Investigator

Dear

I am writing to let you know about an opportunity to participate in a research study concerning management and leadership practices in public schools. This study is being conducted by Randy Napier, a doctoral candidate at the University of Kentucky. As a social science researcher, finding participants is critical to the success of any study. For that reason, I ask that you please consider participating in this study. If you have any questions that are not answered on this invitation letter or the attached Consent Form, please feel free to contact me and ask any questions that you may have. This study will attempt to understand how Toyota Motor Manufacturing of Kentucky (TMMK) management and leadership practices were adopted by Scott County Public Schools (SCPS).

I understand that you may have some insights or opinions that might be useful to my study. Your name came from my recollection or information shared by colleagues who thought that you might have an interest in this subject. I am contacting you about this approved study because you may also have an understanding of the relationship between SCPS and TMMK. I understand that you may have previously participated in QUEST (Quest for Useful Employment Skills for Tomorrow) or other type of leadership training conducted by SCPS or TMMK.

If you are interested in learning more, please review the enclosed information, complete the enclosed form, and send it back to me in the "district pony mail". You can also call me at (502) 316 4117. Even though you may have an interest in this study, it does not mean you are enrolled. You have the right to opt out at any time. Please give this project your full consideration. If we are able to identify effective leadership and management practices in schools we may be able to improve the interaction with administrator, teachers and students. This understanding could ultimately further student success.

Thank you again for considering this research opportunity.

Randy Napier
Principal Investigator

APPENDIX F: LIST OF DOCUMENTS

The 4th Annual Teacher Leader Academy (Program Guide)

The Business and Principles of the Scott County Way (created by the Teacher Academy)

The History of Quest (Gene W. Childers)

Interview and Focus Group Field Notes

Interview and Focus Group Transcripts

Learning Teamwork through Meeting Facilitation

Scott County Board of Education Minutes 2002-2011

SCPS Board Policy Manual (update 2011)

The Scott County School District Way

QUEST Basic Leadership

QUEST in the School Framework

QUEST Leadership Training Guide 2002

QUEST Plan-Do-Check-Action Problem Solving Process

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- 2002-2002 Adjunct Professor Eastern Kentucky University
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Honors

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