

How Schools Can Effectively Plan to Meet the Goal of Improving Student Learning

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Constance Rae Grumdahl

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Karen Seashore, Adviser

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## DEDICATION

I dedicate this study to Christin, Asa and Tobi who remind me to play and smell the roses.

## ABSTRACT

*Purpose:* The purpose of the study was to identify the impact on achievement when schools implement a continuous improvement model using Total Quality Management (TQM) principles aligned to strategic planning and the culture of the school.

*Data collection and analysis:* The study combined qualitative and quantitative methods and was conducted in two phases. Three elementary schools within a suburban school district were the units of analysis in this case study. The district was chosen because of the stable commitment to training in TQM and because the researcher had access to data about the district, the schools and the initiative. The sampling intentionally selected schools representing varying levels of socioeconomic and cultural diversity.

Phase I involved the administration of the *University of Minnesota School Culture Survey*. The questionnaire addressed the implementation of TQM principles and was administered to a total of 65 teachers in three schools. The surveys were analyzed for descriptive data. Commonalities and differences from the survey were used to develop the interview questions.

Phase II involved fifteen teachers and three administrators from the three schools, drawing on the survey results and probing into the day to day experience of teachers and administrators facing the initiatives of school improvement planning.

The principals of these schools were interviewed again at the conclusion of the study to update the sustainability of the continuous improvement efforts. The

superintendent was also interviewed at this time to give a district perspective on student achievement over time.

*Findings:* First, TQM principles have successfully been implemented in all three schools with an emphasis on a systems approach to increase student learning. Second, principals have a critical role in holding and sharing the vision, implementing shared leadership, providing professional development and utilizing data to drive instructional decisions. Third, with the implementation of quality tools, all schools demonstrated improvement. Higher levels of achievement were attained in schools with consistent enrollment and minimal demographic changes. Fourth, the combination of TQM principles, strategic planning and supportive school culture positively impact the achievement gap. The findings of this study are useful to teachers and administrators whose main goal is improving student learning.

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## CHAPTER 1

### PROLOGUE

The genesis of this project was reform within a specific district using Total Quality Management (TQM), strategic planning and change theory. Five years later this district has implemented a revised strategic plan which drives the annual school improvement plan process within each of the district's seventeen schools. This reform has had a significant impact on how these schools currently identify goals, devise strategies to achieve those goals, and report student achievement progress.

I am currently an elementary school principal. It is the most challenging and rewarding role I have had in education. During my career I have been a classroom teacher, special education teacher in learning disabilities and emotional behavior disorders, school psychologist, district lead teacher in special education, assistant principal, and principal. During that time, the role of the principal has undergone a dramatic change which I had the luxury to observe while working as an assistant principal for one year while I was working on principal licensure. The principal's role that I observed that year and the role I assumed the next year were quite different. My observations of the former principal's primary roles and duties included maintaining a balanced budget, managing discipline in the building, maintaining relationships within the community, and once a year taking a group to Brainerd for the annual Minnesota Education Effectiveness Program (MEEP) conference to write a school improvement plan. At that time, many schools in the district were involved in MEEP and attended the same conference. A small group of staff members from each school decided the focus for

the coming year. This focus included identification of both staff development activities and evening events for families. Little time was spent on reviewing the goals from the previous year, including curriculum needs, and no time was given to data-based decision making. Another aspect of school change that wasn't being addressed was site-based-management which was emerging as a vehicle to involve parents and the community. As a result of this change, parents sometimes were being asked to participate in things other than the Parent Teacher Organization (PTO).

Classrooms at that time were self-contained teacher domains. Teachers primarily planned and taught in isolation. Decisions about students were based on teacher judgment and seldom questioned by parents. Major initiatives regarding curriculum, policies, and procedures in the school were top-down. Mandates came from the district office regarding what curriculum was to be taught, with little or no related staff development, and the principal was responsible for the day-to-day operations of the building. Monthly faculty meetings were of a "dump and disseminate" format where teachers listened, sat quietly for the most part, and then discussed the latest mandate in the lounge. It was obvious that teachers had little decision-making power other than in their own classrooms.

Interestingly, the road to change initially was difficult when TQM methods were introduced. While teachers undoubtedly gave their best efforts, given what they knew at the time, no accountability existed for quality teaching nor was any data collected to drive instruction. Lesson plans occasionally were reviewed by the principal. Systems were established for teachers to address concerns through union meetings and to get help

for student academic or behavior issues through the teacher assistant team (TAT) in their classrooms. This team of teachers helping teachers met weekly and participation was strictly voluntary for the team and the teachers seeking help. When teachers needed additional strategies or interventions for specific students, they sought help from the TAT team. The general procedure was to meet with the TAT team prior to taking the concerns to the building child study team. This team was well received in the building.

If a teacher had a student who experienced significant academic or behavior challenges and the teacher had exhausted interventions over time with limited or no success, then the teacher met with the building child study team. This team was comprised of the principal, psychologist, social worker, nurse, Title I teacher, and special education teachers. At that time, coming to this meeting basically meant asking for a special education evaluation. The experts would decide the fate of the request. When they had spoken, especially the psychologist, then the evaluation process would begin or the teacher was sent back to the classroom with more interventions. This process was adversarial at best, with the classroom teacher often feeling inadequate for asking for help and uncomfortable for being ultimately at mercy of the team for any assistance.

During my first year as a principal I implemented new communication tools, revamped the councils, and began to study Total Quality Management (TQM). The TQM methodologies we employed are described in greater depth in a later section of this dissertation, but their essence can be described as a systemic approach to continuous improvement within an organization. By the end of the first year we had, as a school, begun to make some changes. Because of the strong culture of experienced and talented

teachers, the initial emphasis was school culture. The goals for the first and second year were to develop open lines of communication with staff and families, to establish a framework for working together, and to agree to an expectation for respect within the organization. That included speaking up at meetings if a person disagreed, respecting all perspectives on issues, addressing concerns directly to the persons involved, understanding the individual contribution to the whole, and revitalizing respect for children.

Initially, staff wanted decision-making power but would ask for specific direction at the same time. After some time and deliberate conversations with staff and genuine decision-making in councils, the strength of teachers in this area blossomed.

Teachers reported that prior to my becoming principal, behavior was an issue in the building with student fights in the hallways and on the playground with teachers expected to manage the discipline for these incidents. Because this was a primary concern for teachers and students and was interrupting the learning environment, it was one initiative I addressed immediately. First, we hired an outstanding behavior specialist. During this time, I worked very closely with this specialist to establish a climate of respect and responsibility for students. Respect, high expectations, consistency, and consequences with dignity were values for discipline. Over time, the entire staff supported the discipline plan and the school became a safer, more pleasant place to be for staff and students. Parents, overall, supported the changes in discipline. Invitations to meet with parents, communication through the monthly newsletter, and conversations at PTO helped to strengthen the direction in which we were headed. Students have been told

repeatedly over the years that they are valued, deserve to be safe, and have a right to be in school and not be hurt by others. Staff members have received the same message. The outcome of that message was that the reverse of that concept was also understood – that it was not acceptable to hurt others.

With the school functioning well, it was time to move other initiatives forward. The entire district became involved with the Minnesota Academic Excellence Foundation (MAEF) which offered training opportunities in TQM to school personnel. Seven of seventeen schools in the district, including mine, were involved. The basic tools of quality seemed to connect solidly in the classroom and the overall concept of quality resonated with where we needed to be. I wrote a grant to implement quality strategies in the classroom. The grant addressed reading and writing with pre-testing, teaching, and post-testing involved. Beyond attaining our goals (which we did), we learned a process of monitoring student progress, developed accountability in and out of our school, and increased student achievement even though, out of 572 students, one-third of our students were living in poverty, and we had above-average percentages of ESL and special education students. As a school, we celebrated our success and knew that we were on the right track.

At the same time the district's seven schools were learning about TQM, a change in district administration took place. One of the principals who had completed part of the TQM training took a position as the assistant superintendent. In this new role, she was charged with revising the district strategic plan which was fifty-two pages long. This project was also her Bush Fellowship project, professional development supported by the

Bush Foundation. Principals were informed of the project and asked to apply to be on the team if interested. I applied and joined a team of district personnel to revise the strategic plan.

This process involved three overnight sessions at Cragun's Resort in Brainerd, in addition to meetings scheduled locally. At Cragun's, our team met along with other teams from around the state who were completing Bush projects in their school districts. As a team, we created processes for revising the document, piloting the new document, and planning its implementation in the schools. The process, as well as the document, addressed TQM principles, change theory, and the potential for the strategic plan actually to be employed, even helpful, in the district's schools. Through the revised plan, schools would be standardized within a common framework and given aligned reporting and accountability.

Concurrently, accountability in the district schools was emerging in a new way. The Minnesota Comprehensive Assessments (MCAs) were implemented along with state graduation standards. The scores on the MCAs began to be published in newspapers. As a result of these tests, some schools were marked as "needs improvement" schools with severe consequences if achievement did not increase. The Minnesota Department of Education (MDE) became involved with those schools and determined the needed rate of improvement over a two-year period. Staff members of those schools met with MDE to discuss their plan for improvement, implemented agreed-upon interventions, and then met again with MDE officials to report progress at the end of the first year. While additional money went to these schools to implement new teaching interventions, the

district had to inform parents of the “needs improvement” school designation and offer to send students from those schools to other schools in the district. Our school actually had a number of requests for students to attend from a district school in the “needs improvement” process. Schools that increased achievement and made it out of a “needs improvement” status were on a watch list for one year. In this particular suburban district, these were the schools with the highest poverty and mobility rates.

Within our school, we have made continuous improvement on the standardized measures mandated by the state and the district. With approximately one-third of the population in poverty, ten percent special education, and ten percent ESL, students were making progress due to several important factors: First, the district initiative to revise the strategic plan required that all schools work within a framework of established goals for the district. These six goals were set in stone, but schools could identify areas of need within those goals to create a school improvement plan that would be meaningful in that building. The driving force underlying each school improvement plan developed from the district strategic plan. Second, through TQM training, our staff began to better understand collection, interpretation, and use of data. This has been critical to moving our student achievement upward. Third, teacher training and release time to work in grade-level teams gave teachers the opportunity to thoughtfully plan, share ideas, analyze student data, and create a plan to meet the needs for their grade-level students. Teachers also were encouraged to seek out appropriate staff development opportunities. The MAEF grant enabled us to do this.

Fourth, the district teaching and learning team made the effort to align curriculum with testing. Expectations for each grade level were identified and the “fluff” was deleted from the curriculum. New math and reading series were implemented district-wide to strengthen basic skills. In addition, the supplemental programs of Accelerated Reader and Math were initiated at our school and then implemented district-wide. These supplemental programs helped to close the achievement gap by addressing the wide range of skills within one grade level. Last, we have recognized that our students are entering school with less readiness socially and academically and our rate of mobility has increased. In response to our new challenges, 95 percent of our staff members have attended the Ruby Payne workshop on poverty and all staff received professional development in Glen Singleton’s work on equity and diversity and have implemented many of the strategies identified by Singleton and Payne. All staff members have rallied to put into practice what we have learned regarding quality, data, staff development, curriculum, poverty, and equity.

Accepting accountability and dealing with the changes we have seen in our population have dramatically altered how I spend my time each day. Changes I have seen during my principalship include altered demographics and less academic readiness in children, increased mobility of families, and development of instructional changes to meet these challenges. These changes have forced us to study carefully how we do business and to clearly identify what is working and what we need to change. Being an educator today is different than even five years ago. Discipline has become a teaching of values and respect and responsibility. Helping children understand right and wrong and

not just about getting caught has changed the way I work with behavior. Working with families who are homeless and lacking knowledge of community support resources is more prevalent. To meet these types of challenges and move the school forward academically, our school improvement plan includes the use of data to drive instructional decisions, set realistic goals, and monitor student progress. Equally important components of our continuous improvement efforts include giving teachers time for meaningful collaboration and for staff development, learning to understand poverty and diversity, providing training that directly applies to these changes in our school setting, holding a vision, and keeping a sense of humor.

This study took place in a first-ring suburban school district. The district's attendance boundaries include sections of seven neighboring cities. With enrollment currently at nearly 13,000 students, the district has experienced a steady decline in student numbers over the years. At its peak enrollment in 1972, the district had more than 20,000 students. The result of an aging population and fewer births within the district has meant a decrease in student enrollment which consequently led to a decrease in state funds. Due to the resulting budget constraints caused by decreased state funds over the years, the district has been forced to close schools and consolidate some programs.

Based upon enrollment information obtained from the district for the school year 2007-2008, the total student population was 12,712 with 5,573 students enrolled in twelve elementary schools; 2,932 students enrolled at three middle schools; and 4,207 students enrolled at two high schools.

The focus of this project is on the elementary schools where TQM was embedded in the continuous improvement process by annual school data retreats, and ongoing monitoring of progress throughout the school year by classroom teachers and administrators. These elementary schools have made considerable progress in the use and implementation of data to drive instruction. In addition, elementary schools district-wide have established and sustained a systems approach and have implemented shared decision-making models unique to each school's individual needs.

Three elementary schools in the district were chosen for the study because of their participation in the TQM training, varying demographics, and fairly stable leadership. The successes and challenges of their efforts will be outlined in the following chapters.

This study will reveal how dramatically the role of the educator has changed in recent years. When I began my role as a principal, principles of accountability were just emerging. Instead summative assessments were common and individual teachers planned the curriculum for the year, including many activities that are now considered "fluff." Grade-level teams met for housekeeping purposes such as field trip planning and delegation of roles for copying materials. Seldom did the teams plan together using data, or share specific strategies for improving student achievement. A systems approach to instruction was rare, with vertical or cross-grade-level teams making little or no connection. Curriculum and assessments were not tied to state standards or testing. Teachers taught in isolation and principals maintained order, balanced the budget, and created policies and procedures for the school.

Today, this has changed. All schools face accountability through the No Child Left Behind (NCLB) mandate. Annual state assessments are published for parents and the community. Title I schools face sanctions for not making Adequate Yearly Progress according to a state statistical formula. The pressures are greater for school personnel to raise student achievement for all students. The challenges are greater, yet so are the benefits. District-wide teachers and administrators have been trained in best practices, interpretation and use of data, equity, and methods for meeting the challenges of families living in poverty.

My experience with the training in quality principles has been invaluable for understanding a continuous improvement model that includes systems thinking, effective use of data to inform instruction, and shared leadership with a common purpose. These tools, in combination with building a cohesive school culture and a sustainable school improvement plan, have served our students and staff well over time. We continue to make progress each year with student learning and we have overcome many of the challenges that accompany efforts to improve student achievement in the face of the same socioeconomic and cultural factors that have plagued other schools.

The purpose of this study is to identify the impact on achievement when schools implement a continuous improvement model using TQM principles aligned to strategic planning and the culture of the school. Chapter two reviews the literature of TQM, strategic planning, and organizational culture, concluding with the common themes found in the literature among educationally relevant concepts of TQM, strategic planning, and culture.

Chapter three reviews the design and methodology of the research with a qualitative approach chosen to gather the data. Addressed are the procedures for data collection and analysis, limitations of the study, and the role of the researcher. Three schools were selected for the study based on participation of TQM training, leadership stability, and continued use of the quality principles.

Included in chapter four are the findings and discussion of each mini-case study, concluding with a comparison of how each school addressed improvement of student achievement through TQM, strategic planning, and addressing the needs of the culture.

The last chapter provides conclusions and discussion of the study. Research questions are addressed, with implications for educators and recommendations for further inquiry.

## CHAPTER 2

### A REVIEW OF THE LITERATURE

#### How Schools Can Effectively Plan to Meet the Goal of Improving Student Learning

*We can, wherever and whenever we choose, successfully teach all children whose schooling is of interest to us. We already know more than we need to do that. Whether or not we do it must finally depend on how we feel about the fact that we haven't so far.*

— Ron Edmonds (1969)

It has been more than twenty years since *The Nation at Risk* was published. In the aftermath of that publication, every school faced the challenge of meeting the needs of all students regardless of demographic and societal changes. Educators had to take a hard look at student achievement relating to both class and ethnicity and think about how to close the achievement gap. This effort spawned the standards-based reform which put education outcomes front and center for the public and policy makers. Yet many years later, even with this heightened scrutiny of content and quality of education, the achievement gap still exists between students of different backgrounds and ethnicity. What is different is a new level of accountability, forcing school districts to look carefully at student learning and improvement efforts within their schools (Danielson, 2002). With this heightened demand for accountability, only time will judge whether it is yet sufficient to close the gap in achievement among students.

Closing the achievement gap is at the forefront of every school initiative. The dramatic change in this particular district's demographic profile in the past five years

created a sense of urgency for change related to staff training and instruction, establishing culture, and refining school improvement efforts. During the 2002 school year, 29.3 percent of students enrolled in the district were minority, 20 percent were living in poverty, 18.7 percent experienced excessive mobility, and 1,100 students received services for English Language Learners. Student enrollment for the 2007-2008 school year includes 44.2 percent minority students, 37 percent of students living in poverty, 21 percent of students experiencing excessive mobility, and 1,500 students enrolled as English Language Learners. The current ethnic profile of the student population includes 53.9 percent Caucasian; 26.6 percent African American; 10.1 percent Hispanic; 8.1 percent Asian; and 1.3 percent American Indian.

The suburban school district in this study attempted to address these changes through a revision of the two-year-old strategic plan. The original plan was a fifty-six page document that provided little relevant guidance to the schools. With the emergence of public accountability; mandated standards by the state; and a renewed effort to align curriculum, standards, and assessment; this district moved forward with the creation of a document that would have a direct impact on the school improvement process in each of its twenty schools. The hope was that the document would be substantial and meaningful enough to be used as a tool by individual schools in creating school improvement plans. These improvement plans, created by each school, would be the driving force in coordinating efforts to increase student achievement.

This literature review contains the research most relevant to the understanding of this district project of revising the strategic plan by emphasizing the school improvement

process. At the time of the strategic plan revision, important guiding research was used to create a process for the development and implementation of the new document for all schools within the district. The research focused on three central topics: 1) Total Quality Management (TQM), 2) strategic planning specific to school improvement, and 3) organizational change. Within those main topics, common critical components emerged. These components are inherent in the principles of TQM and will be discussed later in this section.

What further emerged throughout the literature and the process was the overall theme of accountability. Therefore, as each of the topics provided critical components to the overall project, the framework that served to organize the critical components for this project was accountability. Each component within the framework will be explored, the relationship to accountability defined, and the application of the components to an educational setting intertwined throughout. The literature emphasized in this study reflects the practitioner's perspective of research that is meaningful to the implementation of a change process within a school setting to improve student learning.

Prior to the revision of its strategic plan, this district had participated in a Minnesota Academic Excellence Foundation (MAEF) training of Total Quality Management principles in seven of the twenty schools. These principles primarily were influenced by the work of Deming and were instrumental in the revision of the strategic plan. The principles of continuous improvement, constancy of purpose, use of data in setting meaningful goals, and accountability to the public were critical in moving this effort forward. The purpose of the strategic plan revision was to bring about a major

systemic change within school operations that would impact how instructional decisions were made and how processes were implemented regarding student learning. For the first time, this district had consistency and clarity of focus regarding expectations in its schools.

### Total Quality Management (TQM)

*Schools, classrooms, and school systems can and do improve, and the factors facilitating improvement are neither so exotic, unusual, nor expensive that they are beyond the grasp of...ordinary schools.* — Clark, Lotto, and Astuto, 1984

My interest in TQM initially was stimulated by district-sponsored training that was provided to seven schools by the Minnesota Academic Excellence Foundation (MAEF). While I was intrigued from the outset, my interest was further motivated by the concurrent increasing emphasis on standardized testing and standards-based curriculum at the state and local levels. The principles of TQM became the foundation for this district to begin discussion of standards-based curriculum, assessment, and accountability. The task for the committee assigned to this project was to transform the TQM business-related experience and terminology to an educational setting. While the basic principles of Deming could be understood, the transition to the application and training within a school was complicated.

My professional development experiences with the district led to general familiarity with the TQM literature. In order to fully understand the application to educational practices, further exploration of the literature was required. The approaches to quality management are numerous. There are, however, several authors within the

quality movement who are considered the experts. One of those experts is W. Edward Deming who will be discussed at length. Others that were briefly explored include Philip B. Crosby and Joseph M. Juran. The author who has made a significant impact on integrating the principles of TQM into the educational setting is Mike Schmoker. Additionally, the work of Lee Jenkins in this area also will be cited because of his hands-on practical approach to TQM in schools. In this section of the literature review I will explore the contributions of the authors most prominent in TQM, the application of TQM in schools, and Deming's Fourteen Points.

#### *Deming and His Influence*

In the district where this study was implemented, the superintendent at that time had been trained by Deming. The superintendent's support of schools being trained in quality management tools through MAEF was rooted in his Deming training experience. Therefore, the reference to TQM for the purpose of this study relies heavily upon Deming's theories.

W. Edward Deming has been credited with starting the TQM movement. His career included training and work as a physicist and later as a statistician. His work in statistics led to the Statistical Process Control (SPC), which argued that every person in an organization should have working knowledge of basic problem-solving tools of quality. He also proposed eliminating common causes of problems that have to do with the whole system and eliminating special causes that may be a process or a single identifiable element of a part of the system. He also believed that 90 percent of problems are problems of the system and not of individuals. To maximize efficiency and

effectiveness of workers, these concepts of systems thinking, constancy of purpose, continuous improvement, training, and not blaming the workers are just as important in a school setting as in a business. Transforming an organization using TQM principles has been carried out in the business realm since the 1950's and more recently the training and principles have been applied to the educational setting.

Deming's work is best summarized by his fourteen points. This philosophy of how to get things done is "based on leadership through understanding, continuous improvement through personal growth and education, constancy of purpose, and the elimination of barriers to self fulfillment...it's built on understanding of theories of systems, variation, knowledge and psychology" (Schenkat, 1993). The points include:

- Create a constancy of purpose for the improvement of product and purpose
- Learn the new philosophy (one of TQM and continuous improvement)
- Cease dependence on mass inspection
- Don't buy on the price tag alone -- end the practice of awarding business on the basis of price alone
- Improve constantly every process
- Institute training and retraining for skills
- Institute leadership
- Drive out fear
- Break down the barriers between department or staff areas
- Eliminate slogans, exhortations and targets for the workforce
- Eliminate numerical goals and quotas

- Remove barriers to the joy in work, to the pride of education and retraining
- Institute education and self improvement
- Take action to accomplish the transformation

At the end of this section I will show how these fourteen points apply to education. Prior to that, however, the focus will be on important assumptions that exist in the work of Deming and his colleagues. Regarding Deming's fourteen points, Blankstein (1994) stated, "These principles are powerful axioms based on the assumption that individuals want to do their best and that it is the management's job to enable them to do so by constantly improving the system in which they work". That assumption sums up the basis of quality management.

Deming stressed that quality approaches required a change in thinking or belief systems. In conjunction with the guiding principles and the change in beliefs, Deming identified the underlying concept of profound knowledge. Within profound knowledge are the theories of systems, variation, knowledge, and psychology. These are the concepts most critical to this study.

### *Profound Knowledge*

Profound knowledge includes the appreciation of systems, theory of variation, theory of knowledge, and psychology. Each component contributes to the understanding and successful working of a system. "Deming's profound knowledge provides a way of understanding the connectedness of things, supporting individual human growth in work organizations, and framing the right questions on the road to restructuring schools"

(Rhodes, p.34). These components are inherent in school systems as well as businesses. Each one will be defined and applied to the school setting.

### *Systems*

Thinking and planning in terms of a system is the most critical component of profound knowledge and, because of that, will be explored in depth. A system, according to Deming, “is an interconnected complex of functionally related components that work together to try to accomplish the aim of the system” (1993, p.). The elements of the system are aim, supply, input, process, output, customer, and quality measurement. To be a successful system all elements must be present and working together. Deming called this successful system optimization (Jenkins, 1997). Sub-optimization, on the other hand is explained as one part of the system achieving improvement at the expense of other parts of the system (ibid.). Systems thinking can be compared to the performance of an orchestra. The music reflects the synthesis of the parts into the whole. The individual performers serve the total performance, not themselves.

Prior to Deming’s introduction of quality management systems, industry focused on the quantity of production using analysis. In the analysis, the parts are identified by examining and understanding each part, and then studied to determine how the parts fit into the whole. The emphasis is on the parts. Deming instead focused on the synthesis by putting the parts together and viewing them as one entity.

Deming introduced his ideas in Japan, teaching clients to draw flow charts to view all of the process and how the processes worked together. A process was considered to be any action that could be repeated. A system was the organization of two or more

processes to accomplish an aim. The aim of the system must be clear to all and consistent with the needs of the customers (Rankin, 1992, p.73). “Without an aim, there is no system. The components of a system are necessary but not sufficient of themselves to accomplish the aim. They must be managed” (Deming in Rhodes, p.34). The clarity, focus, and success of accomplishing the aim within the system depend upon the constancy of purpose and continuous monitoring of progress toward the aim.

To accomplish this aim, according to Rhodes (1990), every person within the system must understand the aim and how the aim is achieved. This understanding is as important as the mission itself. Each organization is a system of many processes, a network of interdependent parts created to accomplish the aim. Systems thinking require knowing the skills, motivation, and intelligence of people within an organization and how they work together. It requires a transformation of beliefs and methodology of how things are done.

### *Systems and Schools*

In a school setting, “a system is not merely pupils, teachers, school boards, boards of regents, and parents. It should be instead, a system of education in which pupils from toddlers on up take joy in learning, free from fear of grades and gold stars, and in which teachers take joy in their work, free from the fear of ranking”(Rhodes, 1990, pp. 104-9).

Because people were regarded by Deming as the greatest asset of any system, the common understanding of the aim of organization is paramount to making a system successful (Holt, 1995). Systems thinking in an elementary school can be understood with the following example. If a school identifies writing performance as an area needing

improvement, a concerted effort by every staff member—a plan, a goal, and a procedure for monitoring progress—would improve writing. All staff would be aware of the scope and sequence of skills needed and then accept the responsibility of imparting those skills in ways appropriate to the grade level. The purpose, or general intention, would be to build, in harmony, the complexity of the writing skills as the students moved through the grades. Schmoker (1999) would refer to this important component of systems thinking as teamwork.

Teamwork is a vital application of systems thinking in a school. Inherent in teaming are the constancy of purpose and a plan for monitoring progress. Schmoker (1999) emphasized the importance of teaming to get intended results. With goals, teaming, and data-driven decision making, school teams have the vital components to make a significant change in academic improvement. By teaming, teachers can see how their individual expertise contributes to the success of the whole school. Teachers no longer work in isolation but as part of a larger system.

The application of TQM principles by Schmoker (1999) in the educational setting provides an effective, useful, and meaningful approach. He translated Deming's fourteen points into three main concepts: teamwork, measurable goals, and use of performance data (1999). Utilizing TQM principles in his *Results Fieldbook* (2001) Schmoker outlined an eight-step process for teams to increase student learning, referring to Deming's method of monitoring progress through his "Plan, Do, Check, Act" procedure. This process has become respected by educators because it has been used successfully in many schools. The first seven steps provide a means of assessing performance, organizing and

improving instruction, and ultimately improving student performance. The last step is the role of the principal. This leadership role requires monitoring classrooms on a regular basis to ensure the quality and progress toward the identified goals.

In addition, Judith Warren Little's research (cited in Schmoker, 1999) suggests that effective teamwork leads to analysis and implementation of best practices. These best practices are the core components of TQM within a system and include goal setting, using data to determine strengths and weaknesses within the system, the acceptance and consistency of the effort, training if needed, and scheduled monitoring of progress. These are the key processes inherent in an effective school.

Also worth noting is that within any educational organization there is the presence of a broader focus around the definition of "system." A school is a system in its own right, and, one could argue, even a classroom within the school is a system; in addition both are part of the larger system of the district. Ultimately, major decisions regarding school improvement efforts encompass the goals of the organization as a whole, its mission and vision. So, while the school staff members are focused on the goals of the school, they must be, in essence, aligned and connected to those of the district as a whole.

### *Theory of Variation*

Understanding the theory of variation, that it exists in all things and that it can be measured, is important to the success of an organization. Variation can best be understood by considering the snowflake. No two snowflakes are exactly alike. Variation takes into account the combined inputs of people, materials, equipment, methods, and the environment to accomplish an outcome (Rankin, 1992). Variation acknowledges that not

any two people are exactly alike and no one functions exactly the same way every day. Even when the same person does the same job every day, the results will be slightly different when factoring in supplies, materials, machines, and methods (ibid).

Variation is critical to the system as a whole. If there is variation in even one part of the system, it affects the results of the system as a whole. Until this is understood and accounted for, the process is unstable. Variation “should be monitored, but not used to judge, blame, or grade. Rather, variations should be used to understand and determine one’s next actions” (Rhodes, 1990, p.34). Further, according to Deming, “Some understanding of variation, including appreciation of a stable system, and some understanding of special causes and common causes of variation, is essential for management of a system” (Ibid, p.34). Common causes are always present, while special causes of variation are not. Variation in stable systems should be limited to common causes (Rankin, 1992).

### *Theory of Variation and Schools*

In a school system, understanding and identifying variation is necessary to determine next actions and to guide future instructional decisions. Students enter with a wide range of acquired skills and knowledge along with variation in their rates of learning. The key to school improvement efforts lies in identifying variation and decreasing it. From an applied perspective, this would be the collection, interpretation, and use of appropriate performance data. This data, then, is used to identify instructional weaknesses and strengths. This information, in turn, drives the improvement efforts. Deming did not support reliance on mass inspection, but he was an advocate of ongoing

monitoring of progress. Current school systems do both. Senge (1990) referred to the information that would impact change as the greatest point of leverage where the efforts have the greatest benefit. These points of leverage are discovered through data analysis and interpretation.

### *Theory of Knowledge*

The theory of knowledge is not mere information but, according to Deming (1993) accountability, knowledge comes from theory. Deming referred to information as facts about the past and knowledge as theory about the future (Jenkins, 1997).

Knowledge includes prediction or basic assumptions, hunches, or ideas which can be tested by experiences and examples (Dobyns, p.60). Planning and prediction are components of the theory of knowledge. Further, planning and prediction are derived from a construct of experiences within individuals and provide their foundational theories and beliefs. To move an organization forward, however, each person in the organization needs the same understanding or theoretical roadmap (Rhodes, 1990, p.34).

Effective communication creates this clarity of understanding and focus. Rankin (1992) refers to this type of communication as precise language providing clear operational definitions and clear concepts. Communication, according to Rankin, also must be based on theory, knowledge, or experience, (Ibid). In addition, clear communication for organizational planning and prediction depends on the clarity of assumptions and beliefs associated with theory, knowledge, and experience (Dobyns, 1994).

Deming's theory of knowledge translates to a collective understanding of what an organization is trying to accomplish. It is communication, basic assumptions, and beliefs that will define the aim of the organization. This is critical.

With the aim identified, it is the clearly communicated goal, according to Schmoker (2001) that, in combination with teamwork and performance data, will get results. He established the following criteria for goals: measurable, annual, focused on student achievement, linked to an assessment or standards-based determination of level of performance, and written in simple direct language (Ibid). Schmoker's approach addresses Deming's reference to knowledge by saying that past information is acknowledged at the same time that future outcomes are planned and predicted using performance data.

#### *Theory of Knowledge and Schools*

While the aim of the system in schools is to improve student achievement through quality teaching, a common language and a shared understanding of the effort by every staff member is crucial to the outcome. Through these critical components, the aim of the system can be clearly identified. Currently, teachers come together with a wide knowledge base of experience and teaching expertise. This knowledge base includes experience, predictions based on that experience, and planning skills. Because students enter into the system with varying levels of skills and experience, the teachers' level of experience and knowledge base will greatly affect their learning.

Over the years, the district where the study took place has reported that student readiness upon entering school has been changing. Given that scenario, the variation is

greater and it will become even more critical for teachers to work together as a system, understand variation, use data for teaming, and be highly trained in a variety of teaching strategies to improve student achievement.

### *Theory of Psychology*

Psychology grows out of the theories of knowledge and variation. Put simply, it is that people are different, learn at different speeds and in different ways, and no one way is better or worse than another (Dobyns, 1994, p. 64). Attention to psychological needs is the attention to everyday people with everyday needs and concerns, such as fear, which can affect the output of people (Rankin, 1992). With this in mind, the theory of psychology considers what makes people do what they do, and how to bring out the best in people. “The most important things we need to manage can’t be measured; they take place in the interaction between the worker and the process” (Deming in Rhodes, 1990, p.34).

Motivation is a key factor. Most people respond to genuine intrinsic motivation of being valued and appreciated. Extrinsic motivation, according to Deming, “. . . is submission to external forces that neutralize intrinsic motivation. Intrinsic motivation is a person’s innate dignity and self-esteem; his natural esteem for other people. One is born with a natural inclination to learn and be innovative. One inherits the right to enjoy his work. Psychology helps us to nurture and preserve these positive attributes of people.” (Deming, in Rhodes, 1990, p.31) To do this effectively, the system and the parts need to be carefully understood.

### *Theory of Psychology and Schools*

In schools, this theory would be manifested through intrinsic motivation of staff and students. With intrinsic motivation present, a shared commitment to the goals would be evident while hope for the future would emerge. In a school where psychological needs are addressed, fear is diminished or eliminated and success is seen “as the consequence of effort rather than aptitude, luck, or ease of task” (Rankin, 1992, p.75). The interaction of people and their behavior would reflect the system as a whole to be a safe, productive environment where needs are met.

Another key point about psychology theory to consider in a school setting is, according to Deming, not to make it easy for the student to learn but to make it easy for the organization to teach (Dobyns, 1997). This concept allows for the variation in the rate of learning by students in the system.

Deming also addresses the issue of merit pay for teachers. This perennially is a critical issue to perceptions of fairness, equity, and justice in an educational system. Deming’s theory of systems states that individuals are not responsible for the outcome but rather that responsibility falls on the system. Therefore, it is not the individual who should be rewarded or punished if the outcome is successful or not. According to Dobyns (1997), Deming strongly supported the notion that anything resembling merit pay should be abolished. Instead of merit pay, he suggests that people want to be appreciated for the work they do and to feel good about their contribution to the whole. The balance of understanding people through the lens of intrinsic and extrinsic motivation is critical

within the context of remembering the need for appreciation and value to the organization.

### *Other TQM Perspectives*

Philip B. Crosby based his quality improvement process on the “Absolutes of Quality”:

- Conformance to requirements, not elegance
- The system for quality is prevention with statistical information considered helpful
- There is no such thing as the economics of quality; it is always cheaper to do the right thing the first time
- The only performance measure is the cost of quality
- The only performance standard is zero defects

Crosby’s emphasis was on determination, education, and implementation.

According to Evans (1993), he placed “...more emphasis on management and organizational processes for changing...culture and attitudes than on the use of statistical techniques as advocated by Deming and Juran.”

In addition, Crosby (1979) offered four objectives for establishing a quality program: establish a competent quality management program in every operation, both manufacturing and service; eliminate surprise nonconformance problems; reduce the cost of quality; and make this organization the standard for quality worldwide.

Joseph M. Juran began his career with Western Electric in the 1940’s and also was involved in the Japanese industry in the 1950’s. Accountability was Juran’s key

point. He identified three quality processes: quality control for evaluating performance and comparing data, quality improvement for management-mandated training and employee recognition programs, and quality planning for identifying customers and creating the processes to meet their needs. Juran's significant contribution to the education setting was the emphasis on the importance of measurement and planning.

The transformation of an organization using quality principles is called "Kaizen". The change is gradual and sustaining. The effort toward Kaizen involves a systems approach to improvement with each person in the organization a contributor.

Throughout the TQM literature, some common core elements exist that particularly apply to education. These elements are crucial to the overall understanding and implementation of a quality management program and include:

- Customer focus
- Continuous improvement and learning
- Data-based decision making
- Leadership
- A focus on studying and evaluating processes
- Systems thinking
- Training/employee participation and development

(Bonstingl, 1992, 3M, 1992, Brower, 1995, Leonard, 1989)

### *TQM and Accountability*

Accountability, from a practitioner's viewpoint, is both external and internal. The external accountability is the entitlement by the community and the public to be informed

of a school's performance. While this type of accountability is currently focused on annual achievement assessments, entitlement includes access to school policies and procedures such as discipline, safety, attendance, and finance. Each of these areas is open to public scrutiny. As state budgets face reductions, the public and legislators look to the schools to tighten their budgets as well, do more with less and raise test scores. The NCLB federal legislation, first promulgated by George W. Bush's administration, is an example of accountability for performance without a funding source to implement it. Often, as in this most recent legislative mandate, a quota determines those schools that are making adequate yearly progress and those schools that will face sanctions such as becoming a school needing improvement. Deming refuted this type of end-of-year mass inspection that is weighted so heavily by the state for important decision making. The quality emphasis would instead be on constancy of purpose and continual improvement.

Inherent in TQM are internal accountability components. Accountability is assumed to be the systematic assessment of school performance. At the heart of accountability in the TQM framework is the school system that aligns curriculum, standards, and assessment. While accountability can be mandated by the state, it is the processes and procedures in the schools that determine success. Of Deming's fourteen points, most address the accountability aspects of TQM. These include constancy of purpose, systems thinking, continuous improvement, training, shared leadership, driving out fear, teaming, and training. TQM does not, however, support numerical quotas and mass inspection. The standards-based state tests administered each spring – motivated by a desire to hold schools accountable -- run counter to Deming's practices. The ongoing

monitoring of progress that schools utilize to prepare for these tests would, however, be consistent with TQM thinking. Continuous improvement or incremental progress over time would support TQM principles.

In addition, the internal pressures are present and felt by teachers to raise test scores. In the face of published test scores, with legislation mandating numerical quotas with severe sanctions if these scores are not attained, teachers feel an overwhelming sense of responsibility to the students and the school. Schmoker (1999) and many others would suggest the use of TQM principles we have already outlined will be the roadmap to continuous improvement and a responsible answer to the public who want to know what schools are doing to improve student learning.

#### *Deming's Fourteen Points and Education*

Based on the writings of the authors cited previously in this section, we may reinterpret Deming's Fourteen Points as they are applicable to education. These fourteen points are intended for each person within an organization.

1. *Constancy of purpose.*

A common purpose or aim of the system moves efforts for achievement in a common direction. In an elementary school this means individual teachers and grade-level teams understand their roles within their grade level and the connections from grade to grade and to the school as a whole. Ongoing monitoring of this progress through discussion, teaming, and goal setting enables clarity of purpose.

2. *Adopt a new philosophy.*

The new philosophy affects what and how student learning is achieved.

Everyone in the building understands the aim and is accountable for contributing to student learning. This systems effort requires collaboration on what is done, how it is done, and how it is measured. Data-driven decision making replaces subjective judgment on how and what is taught. Teachers work in teams instead of in isolation.

3. *Cease dependence on mass inspection for the improvement of products and services.*

Standardized testing is an example of mass inspection. The Minnesota Comprehensive Assessments are given annually to students in grades three and five. The results of these tests are published in newspapers and determine which schools are placed on a “needs improvement” list. While these tests give one measure of how students are functioning academically on a given day, they do not provide answers on how to improve student achievement. These measures fail to recognize the variables of student achievement and tend to decrease morale of the schools facing the greatest challenges. In addition, mass inspection tends to judge teachers by their students’ performance. “Teachers are caught in a time warp between the old and the new. [They are asked to teach critical thinking skills] while they are still judged publicly and privately by standardized tests that emphasize isolated facts, rote learning, and content coverage” (David, 1991). A more

effective way of improving student learning is to monitor of student progress and alter teaching instruction accordingly. Consistency of effort and using data to inform teaching will get results.

4. *End the practice of awarding business on a price tag alone.*

In schools, this would end the practice of guiding school economic decisions on price tag alone. Costs are an ever present concern in public schools. Priorities and clarity of focus are needed to drive budget decisions. This is a systems challenge. The designation of funds to support the hiring of quality teachers, aligning quality educational curriculum materials throughout the system and providing adequate training for staff are critical. Just getting by, awarding the lowest bid or not designating funds appropriately, will not provide the quality needed to support student learning. In reality, difficult decisions emerge when costs are considered. For example, when schools are allocating compensatory funds, one highly experienced teacher is more expensive to a system yet years of experience aren't always allowed to outweigh the cost.

5. *Continually improve products, services, and processes.*

Continual improvement is the key to student learning. The underlying components of raising student achievement depend upon the process for determining instruction. With a common aim; alignment of curriculum and assessment; clarity of expectations for each person; and adequate training in data collection, interpretation and use, a system can successfully move

forward despite changes in demographics or funding allocations. When the variation within a school system changes, staff members must be provided with training on ways to improve what they are doing. This includes all staff, from teachers to bus drivers to custodians to office personnel.

6. *Institute training on the job.*

To improve student learning, a school must provide adequate training in systems thinking, best practices for instruction, data collection, interpretation and use, and teaming. These training components are critical to successful classroom instruction and to the success of the school as a whole. Without this critical component, teachers may appear to resist the change when simply they don't know how to enact it.

7. *Adopt and institute leadership.*

Leadership has two roles in a school. First, it is the role of the principal to provide the necessary training, resources, and support for teachers and staff to accomplish their roles. The leader must also hold the vision, systemically be aware of policies and procedures, and be the link to the district. Second, the staff members are responsible for understanding their roles in the classroom, the school, and how those roles fit into the system. Efforts by staff include genuine shared leadership opportunities.

8. *Drive out fear.*

In order for staff to be creative and take responsibility, they need to be in an environment that is safe for risk taking. This point is vital when planning or

implementing change. Risk taking for some staff could include a range of actions, from voicing an opinion, to offering suggestions, to disagreeing with a plan. An environment that is open to ideas and supportive of creative thinking promotes a systems approach and will promote student learning. According to Deming, fear is a negative motivator that doesn't lead to constructive ends for the organization.

9. *Break down barriers between departments or parts of the organization.*

This principle cannot be stressed enough. Without the collaboration of teams the systems perspective is lost. Open communication and authentic collaboration lead to creativity and a positive working climate. By reducing or eliminating competition among staff, ideas are more likely to be shared and appreciated and, ultimately, students will benefit.

10. *Eliminate management by slogans and exhortations.*

Student learning occurs because of teacher understanding of processes and techniques regarding instruction. The latest bandwagons or catchy slogans are short-lived and a diversion from the real business of student learning. Deming says, "Slogans never helped anyone do a good job; they generate frustration and judgment" (Deming in Siu-Runyan, 1992, p.25). The district studied has adopted numerous philosophies over time including TQM, the Outcome Based Education (OBE) phenomenon, whole language and site-based management. These efforts can confuse the efforts of constancy of purpose and eventually lead to staff resistance.

11. *Eliminate numerical quotas and goals.*

Deming discouraged numerical quotas and goals and suggested that “a system that fosters an atmosphere of receptivity and recognition is far preferable to the one that measures people by the numbers they turn out” (Ibid, p. 26). School systems are currently required to address published annual assessment results. These summative assessments create competition among schools and do not adequately address the real issues of monitoring individual student growth over time. Nevertheless, they are currently required and they negatively impact schools facing the greatest challenges. On a positive note, these assessments have forced districts to align curriculum, clarify grade-level expectations, and align curriculum with assessments. The challenge is to address the pressure teachers experience to raise test scores, to encourage teaching to the test, and to abandon enriching curriculum that is not included in the test. With a systems approach that is carefully planned and aligned, including realistic goals and monitoring of progress, students will learn.

12. *Eliminate barriers to joy in work.*

With a clear vision, a safe environment for risk taking, and the tools and training needed, staff can move forward and do their jobs creatively and enjoyably. Appreciation of and valuing each member’s contribution to the whole adds joy to the system. Without eliminating these barriers, Deming (in Siu-Runyan, 1992) suggests that mediocrity is the educator’s safest

response. The key to eliminating these barriers is to build trusting relationships. A cohesive staff is more likely to be evident when relationships are well established. It is the strength of these relationships that help to overcome barriers and create a positive climate.

13. *Institute a program of education and self-improvement for everyone.*

Deming says, “Education and retraining -- an investment in people -- are required for long-term planning” (Ibid, p.26). Everyone in the system needs to be encouraged to continue his or her learning. From custodians and cooks to teachers, counselors, and office staff, life-long learning must be clearly valued in the organization. New ideas to meet changing demographics, for example, can move the system forward proactively. Teacher release time is critical to grade-level improvement and to the whole school. Teachers need time to talk to each other, review student work samples, and understand what is needed to improve student learning. They need opportunities for professional development to add to their repertoire of instructional techniques and they need support to implement the quality strategies of systems thinking, profound knowledge and internal accountability in the classroom. The encouragement of staff to seek professional development demonstrates the value placed on continuous improvement within the organization. It is a positive thing for them to leave their classrooms periodically to build their skills.

14. *Put everyone to work on the transformation.*

Each individual contributes to the whole. It takes the commitment and the alignment of everyone's roles to successfully move forward. From cooks to bus drivers to teachers, it takes everyone to make a system function effectively. Managers are responsible for the process of organizational change as guides and models for the change process. Change within an effective school system is continual with ongoing monitoring and adjusting of processes.

#### Strategic Planning

*Organizational inquiry can proceed only by concerting inaccessible information, by clarifying obscure information, and by resolving the inadequacies in organizational theory of action (the mistakes, incongruities, and inconsistencies) which clarification reveals.* — Argyris & Schon, 1978, p.85.

The source of this project was, as noted in Chapter 1, a district commission to revise its strategic plan. The purpose of this new plan was two-fold: To identify district vision and goals and to guide each school through an improvement process that would align with the district's efforts. The previous strategic plan had been a 56-page document that sat on the proverbial shelf. School administrators referred to it once a year in writing the school improvement plan, but because of the size and overwhelming verbiage of the document, and its perceived irrelevance to the daily operation of schools, it was seldom used. The district plan for revision included the use of quality concepts and tools

throughout the process of revision and the creation of a document that would reflect the quality training completed by seven of the 20 schools in the district.

The larger plan of organizational change within the district was to provide a common framework for decision making and management of each school. District administrators were interested in the use of data for decision making and the alignment of each school's goals with the district through a common aim for the entire organization. Prior to the strategic plan revision, the school improvement process consisted of the creation of goals and professional development opportunities based upon needs of each school, but without alignment to a district focus and without consistently considering data relating to student learning. Goals were set by a small committee who seldom, if ever, relied on data for decision making.

The literature reviewed for this section on strategic planning focused on research contributions combining TQM and strategic planning, and contributions on strategic planning alone. In addition, research was chosen because of the relevance to the educational setting.

Strategic planning definitions have common elements and include a process for directing the improvement efforts. The common elements, the interrelationship of these elements, and the relationship to the school setting will be discussed in this section.

### *Strategic Planning Defined*

Strategic planning is, at best, a complex problem. One might consider the notion of strategic planning as a compass, a tool used for directing and charting a course for a school and a district. This compass has common elements throughout any organization.

Those elements will be addressed in depth. The definition of strategic planning, however, is presented first. The following definitions are from experts in the field and are helpful to the understanding of strategic planning.

Cook (1988) defines strategic planning as an “effective combination of both a process and a discipline which, if faithfully adhered to, produces a plan characterized by originality, vision, and realism. This discipline includes the vital ingredients of the plan itself; the process is the organizational dynamic through which the vital ingredients are derived” (p. 93).

McCune defines strategic planning as the “process for organizational renewal and transformation. The process provides a means of matching services and activities with changed and changing environmental conditions” (Conley, p.5).

Most relevant to the education setting is the following strategic planning definition by Herman and Kaufman (1991):

Strategic planning can express a clear vision of the future of your school system, reflected in every facet of school operations. Strategic planning helps school employees, students, and the community rally around the vision and set goals to achieve it. It creates a system to monitor the district’s progress toward that vision - and to review daily and yearly plans to achieve the strategic goals and objectives. It holds people accountable and judges progress on the basis of results. It gives school employees, students, and community members a greater knowledge and sense of ownership of their school system. It allows the school board and administration to identify, justify, and integrate the needs of the school organization with the needs of society (p. 24).

For the purposes of this paper, this definition by Herman and Kaufman is used when referring to strategic planning.

Also, it is important to address the *why* of strategic planning. Why do schools and businesses put so much effort into strategic planning? The answer, summed up by

Leithwood (2001), is because of increased accountability, sharpened priorities in times of fiscal concerns, commitment by stakeholders of a shared vision, and proactive adaptations to change.

### *Common Elements in Strategic Planning*

Regardless of the author or the purpose of the strategic planning—a business organization or a school district—common elements of strategic planning emerge throughout the literature. These elements include: participation by various groups of stakeholders, a future orientation, a vision statement established through clarity of beliefs and assumptions, a knowledge base using data about the status of the organization, a research link to best practices, accountability, and a process for connecting the elements and for unfolding the plan. Authors were selected for their contributions to strategic planning and education and, in the case of Kaufman, the focus on strategic planning and TQM. Primary authors and their frameworks include: Kaufman’s “Mega Planning,” which includes scoping, planning, implementation, and continuous improvement; Herman who collaborated with Kaufman on a number of occasions and added the SWOT element; Leithwood and Aitken a System for Monitoring; Danielson’s Four Circles Model; Marzano’s School, Teacher and Student Level Factors; Senge’s learning organization model, and Bolman and Deal’s four perspectives on reframing organizations. Highlights from these frameworks, introduced in what follows, will be used in explaining the common elements of strategic planning.

### *Participation by Stakeholders*

Common throughout the literature is the evidence of a strategic planning group consisting of stakeholders who represent various constituencies within the school system and the community. Typically this advisory group would include parents, board members, students, staff members, and community members (Dlugosh, 1993). Inherent in this arrangement would be the representation and ideas of groups of people most affected by any restructuring efforts. Their charge, based on their varying perspectives, would be to identify the relevant issues for planning.

While all experts revealed detailed information regarding strategic planning elements, only a few authors directly addressed the need to ensure a wide range of group representation. While referring to Deming and quality management techniques, Kaufman (1994) supported the need to involve all parts of the organization as participants in the defining and achieving a vision and a mission. Further, Drucker (1973) advises that the people most affected by the change need to be involved from the outset to ensure a transfer of ownership. This level of participation is regarded as essential to the organization in order to tap the wealth of knowledge from different perspectives and to optimize the conditions for buy-in.

### *Future Orientation — Client Identification*

While the emphasis on a future orientation for strategic planning may seem obvious, it is essential in the clarification and success of a strategic planning effort. Equally important is clarity about who the client is. Effective strategic planning includes simultaneous consideration of the future and of who will benefit. The future orientation

of the strategic plan defines a timeline. This timeline may include short-term and long-term outcomes. Kaufman focuses on the future (1991, 1994, & 1995) and is supported by Leithwood (2001). This future orientation is unique because it extends as many years forward as the planning committee desires. Kaufman, for example, referred to a planning group discussion about what would be desirable for the children and grandchildren of the group members—considerations for society in the distant future. By stretching the considerations to the future and to society, the importance of what happens in school currently becomes more relevant and significant because it will be providing the foundation on which the future will be built.

Next is the identification of the primary client or the “who” of this plan. To do this, Kaufman (1995) offers a three-level focus for strategic planning. It includes a Mega level, a Macro level, and a Micro level. These levels identify the primary client of the plan. According to Kaufman, the Mega level focuses on the community and society, the Macro level focuses on the organization itself, and the Micro level focus on individuals or small groups of people. Kaufman recommends the use of the Mega level because the main focus is the future and well-being of community and society. Leithwood (2001) agrees with the orientation to the future and society as the ultimate client for educational planning.

Kaufman’s recommended action of Mega-level planning is grounded in systems theory and focuses on the connections of internal processes to the larger environment. The strategic planning starts with society and moves to the individual school or organization (Kaufman, 1992, 1996). This approach connects what organizations do, use,

produce, and deliver with external consequences. According to Kaufman, this Mega-level of planning is the missing link to a successful strategic plan and without the use of the Mega-level plan Kaufman (1996) states “We tend to get reactive responses to the future rather than creating our future” (p. 61). Kaufman’s inclusion of society as primary client is congruent with quality management literature. Kaufman’s perspective differs, however, in that stakeholders are addressed in ways that are more expansive than Deming’s.

Kaufman’s plan “...provides the basis upon which to define and justify curriculum, delivery, and educational operations at all levels” (1996, p.260). It includes three major components of scoping, planning and implementation, and continuous improvement. Within his overall process of strategic planning is the awareness and use in planning of the mega-level (society), macro-level (the organization), and the micro-level (the individual level). The success of quality management, according to Kaufman (1991), is the balance of three clusters of Deming’s fourteen points: a passion for quality, everyone on one team, and data-based decision making.

#### *The Vision — Wants and Beliefs*

Once the primary client has been identified, the next step in strategic planning is to clarify the vision. It is the vision that creates the constancy of purpose for the organization. It is the vision that can be referred to throughout the planning and implementation to keep the system on track. The vision, if created effectively, drives the organization and provides a constant reminder of the task at hand. Danielson refers to the process of identifying the vision as the “What We Want” part of her Four Circles Model. Using her approach, the planning team would clarify what they would want in a school

for their children, for the staff, and for the community. This, according to Danielson, is the “blueprint for everything else it works to achieve” (2002, p.10).

In Kaufman’s work on strategic planning, constancy of purpose addresses the importance of creating and holding a vision. Within the literature of strategic planning, Kaufman (1996) stands out because he emphasizes a direct relationship of TQM with the quality approach of visioning, strategic planning, and quality management. Kaufman created the term “Ideal Vision.” He stated the importance of addressing “what should be” and “what could be” in the ideal society. The planning group would envision what kind of a world they want for their children and grandchildren. This approach defines the ends, not the means (1995, p.263).

“Visions set the overarching directions that are best shared by the organizational partners,” according to Kaufman (1996, p 60). In addition to the levels of focus already addressed, Kaufman contributes the following four points to make visioning successful: The vision needs to be stated in measurable terms; participants should include internal and external partners; they should use the vision to determine the mission objectives, which, in turn, define the commitment by the organization; and adopt a continuous improvement model to move toward attainment of the vision (1996, p. 60, 61).

Shared vision is exemplified, according to Kaufman, by the quality management system defined by Senge (1990) as a learning organization. In his book, *The Fifth Discipline*, Senge discusses the value of a shared vision within an organization as the source for focus and energy for learning within the organization (p. 206). Further, he states that the vision is the “what” of the organization and the mission is the “why”.

Within the organization, individuals have a personal vision or commitment as well as a shared vision, or common bond. The organization can then be bound together by a common aspiration. The personal vision for the organization becomes the collective vision. In strategic planning, it is this collective commitment that supports the systems thinking and moves the organization. This translates to a vision that is meaningful, realistic, and attainable.

An outcome approach to visioning also was advocated by Leithwood (2001) and was framed as “What Ought to Be Accomplished?” In the explanation of outcomes, Leithwood made the following distinctions: long- and short-term outcomes, individual and social purposes for education, and knowledge and more affective qualities such as attitudes and dispositions. Leithwood’s comments regarding outcomes were more specific than other authors. He addressed issues such as equity and equality, student participation rates, and dropout rates. He acknowledged the need for immediate and long term outcomes with a direct relationship between the success of those outcomes and the consequence to society.

#### *Knowledge Base for Planning*

To move an organization beyond the vision, a thorough knowledge base is needed. This knowledge base is an integration of the vision, the beliefs, the gaps in results and the current mission. The knowledge base is the planning component of Kaufman’s model. This component also addresses the examination of future trends. Herman (1993) recognizes the importance of the vision and beliefs and includes the pertinent information of strengths, weaknesses, opportunities, and threats (SWOT) in the

knowledge base. A SWOT needs assessment provides a comprehensive listing of factors that will affect school effectiveness and success with strategic planning. Identifying the needs is referred to by Kaufman as knowing “gaps in results” (1991, p.25). Further, the identification of the current results and the ideal will create a baseline for measuring progress toward the results (Ibid, p. 26).

Danielson refers to the What We Believe component of her Four Circles Model as a knowledge base. She refers to school beliefs as the filter for a school’s operations (2002, p.11). These are the beliefs held by school staff, the community, and parents that are...“arguably the most important determinant of the culture, policies, and practices of a school, providing the backlight for everything that goes on there” (2002, p. 20).

The monitoring system defined by Leithwood (2001) is a systematic collection of data about the current status of the school, identifying those elements that have the greatest impact on students. That information is compared to knowledge of best practices and can be used the basis for a course of action for the school. The monitoring system is designed to raise collective capacities of individuals and teams by strengthening and expanding their knowledge base.

#### *Research Link to Best Practices*

Research provides a critical overview of current practices in education. Danielson (2002) refers to this as a screen designed for educators to obtain knowledge about best practices and to gauge the effectiveness of their efforts. In addition, the use of research helps a school predict the likelihood of success when replicating a school practice or restructuring effort. The research on learning, the brain, meta-cognition, school

organization, leadership, and instruction, when incorporated into an educational system, could make a significant difference in student achievement.

Research guided the writing of *Monitoring System* by Leithwood (2002).

Research was reviewed in the following four areas: the nature of learning organizations, school and district effectiveness, restructuring organizations, and broad social trends. The literature was used as a model to identify the important aspects of an effective school that would be relevant now and in the future. The intent, by these authors, was to create a model that schools and districts could use as a comparison for monitoring progress.

Marzano (2003) addressed the research element in depth. The basis of his book is research related to school, teacher, and student-level factors; leadership; and implementation of restructuring techniques. Throughout each of these areas, research is cited to support action planning.

### *Structural Perspectives on Strategic Planning*

Different in approach and focus, Bolman and Deal (1990) provide a four-frame perspective that is applicable to the overall process of this district project. While their ideas address the process of change, they are cited here because of the lens they provide for strategic planning. By offering a multi-perspective approach to the strategic planning process, they allow many facets of the organization to be examined (Leithwood & Aitken, 1995). The four frames offered by Bolman and Deal are structural, human resource, political, and symbolic. The structural frame establishes tasks to be accomplished, goals selected, rules on working together, and responsibilities assigned. The human resources frame attends to the human needs of people in addition to the goal-

related tasks. The political frame assumes the inclusion of a variety of individuals and interest groups “vying for power and control of scarce resources to meet their needs. Political skill is essential to reduce conflict and make decisions for the good of individuals and interest groups, as well as for the organization” (Hipp, p.92). Finally, the symbolic frame creates meaning through developing shared values and a cohesive culture (Hipp, p. 94).

### *Strategic Planning Process*

Each author reviewed offered elements of a strategic planning process that have specific purposes. These elements were labeled to meet the needs of each author’s design. While many similarities were found among these elements, the actual process of strategic planning varied to some degree by author.

Danielson (2002) approached strategic planning from a practitioner’s point of view. The framework consists of three parts: The Four Circles Model, policies, and programs. The Four Circles Model is a strategic planning process that identifies what a school organization wants, believes, knows, and does. Within the policy component are school organization, policies and practices regarding students, policies and practices regarding staff, and linkages beyond school. The program component concentrates solely on instruction through the alignment of curriculum and assessment, team planning, and teaching. The Danielson framework is a systematic approach that aligns the school goals, beliefs, and current research.

The fundamental parts of strategic planning identified in Danielson’s framework are similar to Kaufman’s definition of Ideal Vision and Deming’s Plan, Do, Study, Act

model. The alignment and systemic approach to strategic planning of Danielson and Kaufman also support the work of Schmoker in his alignment of instruction and assessment with TQM principles. Marzano's approach included alignment and added action research throughout his discussion of planning.

Each of the researchers reviewed, including Leithwood, offered common elements of strategic planning, recommended a sequencing of steps, and stressed the integration of the parts. Leithwood's (2003) contribution was unique in that it offered an evaluation tool in the form of surveys for the monitoring of progress. The model was reminiscent of the Malcolm Baldrige Award with the five dimensions of inputs, district and school processes and long- and short-term outcomes.

#### *Strategic Planning, Accountability, and Schools*

In an era of internal and external accountability, effective strategic planning must have a vision agreed upon by all stakeholders, be future oriented, include data about the current status of the organization, and set realistic goals for the future with a monitoring system to measure progress. Because of the move to publish scores of individual schools in local newspapers, the public has become more aware of student achievement status in schools. The advent of *No Child Left Behind* legislation has contributed a new layer of accountability for schools.

Continuous progress in student achievement, qualified teachers and a positive, safe school environment are the critical concerns of parents and the public today. Parents compare schools and want to be informed about diversity, discipline, enrichment opportunities, and parent involvement. Today the school leader and the strategic planning

team must be prepared to address these issues and concerns. Through effective strategic planning, issues such as these will not only be addressed but drive the process of identifying what the school wants, believes, knows, and, ultimately, does.

A common theme in strategic plan literature is the element of change. Critical to promotion of change within an organization are new assumptions, perceptions, and change in how and what schools are doing. With this in mind, Dlugosh offers cautionary words for change: Honor the past, confront the present, embrace the future and avoid recipes” (1993, p. 64).

#### Organizational Change

*Education is the greatest gatekeeper of opportunity and a powerful distributor of life chances.*

— Andy Hargreaves

The district in this study was about to undergo significant changes. The revision and implementation of the strategic plan brought a new level of assessment and accountability into the classroom. The change simultaneously included a new level of communication to parents with published annual scores of student performance on the state Minnesota Comprehensive Assessment (MCA) and mailings to parents of district achievement level test results. Schools became accountable to the district and to the public in a different way. This change also filtered down into the classroom. No longer could teachers close their doors and decide their own curriculum or subjectively assess their students’ progress.

For the first time, the district had a tool with an identified common aim that included six goals that each school was required to use for each school’s improvement

plan. This mandated change required a common foundation, a process to follow, and a plan to sustain the change. In addition, this change was multi-layered, including the district level, the school, the classroom, and even the community through assessment information communicated to parents and published in local newspapers. This change required training in the areas of data-based decision making, curriculum alignment, best practices in instructional strategies, leadership skills, and recognition that demographic changes were evident throughout the district. Also required, but not developed, was a process needed to bring about the change within each building.

Michael Fullan's work is useful for reviewing and assessing this process. Fullen has made a significant contribution to the organizational change literature. Fullan's (1991) phase model proposes three common elements of change including initiation, implementation and continuation, and outcome. This framework is especially helpful to a new leader of organizational change. To a more experienced manager of change, a multi-perspective approach with consideration for simultaneous change activities is more helpful.

Current organizational change literature that is most relevant to this study addresses organizational change from a cultural perspective and acknowledges that inherent in the change process, there are simultaneously occurring events. These considerations are critical to the focus of this study.

While other contributions of experts in the field are acknowledged, primary authors cited in this document are those who attend specifically to the human aspect of change, the impact on relationships, trust, risk taking, coping, and finding meaning

individually and collectively in the organization. These issues are the heart of foundational conditions of the organizational culture, impacting the process of organizational change and the role of leadership as it relates to managing the change process.

Earlier in this document, the educational literature of TQM and strategic planning covered ideas, such as Kaufman's Ideal Vision, which relate and sometimes overlap with organizational change literature. While taking an organization through a strategic planning process involves change, the main focus is on determining an outcome or a goal for improvement. The change process, on the other hand, focuses on what happens to and with people within the organization on the way to the outcome. Therefore, while the elements may resonate as similar in nature, they are different in focus. This section of the study will concentrate on the literature specific to organizational change within a school organization.

### *Managing the Complexities of Change*

While the literature on organizational change is influential and provides a good overview to the process of change, it is most helpful to a new manager of change. The well-trained practitioner is aware of the steps or phases of change and instead focuses on the culture of the organization. The culture includes the climate, trusting relationships, personal and collective commitment to the change, and a plan. And, instead of concentrating on a linear notion of change, an experienced manager of change understands that many facets of change happen simultaneously.

Margaret Wheatley (2002) is known for her theoretical focus that acknowledges multiple aspects of an organization undergo change at the same time. In a recent article addressing change in our tumultuous times, she pointed out critical factors that strengthen organizational capabilities. The strength of her message was in the attention she gave to people within the organization. The factors she highlighted are creating meaning, caring for people, and building relationships. In fact, she believes the main method for building organizational capacity is through relationships. According to Wheatley, “People must be engaged in meaningful work together if they are to transcend individual concerns and develop new capacities” (2002, p.3). Finally, she predicts that those organizations that will be successful “are those that evoke our greatest human capacities -- our need to be in good relationships, and our desire to contribute to something beyond ourselves” (ibid, p.7).

The importance of relationships, trust, and meaning will be reoccurring themes throughout this section of the literature review. For the purposes of this paper, the chief authors of organizational change will be highlighted and discussed in the general context of the change process within an educational organization.

#### *Understanding Organizational Culture and Influences Affecting Change*

According to Leithwood (2001), organization’s culture is “...defined by the norms, values, and assumptions shared by its members: these are manifested in symbols, artifacts, rituals, ceremonies, overriding ideologies, and established patterns of behaviors” (p.34). Culture often can be used to predict the actions of organizational members as well as the nature and amount of organizational learning. Influences within

organizational cultures affect policy, decisions and behavior. These influences are critical to the understanding of organizational culture within the context of a change process.

According to Louis and Miles (1990), the influences on the change process within an organization are both external and internal. In their study of five urban high schools, they identified external and internal influences affecting change efforts within a school. While this study focused on urban high schools, the findings are relevant to any organizational change process. The external influences they identified include the community, the role of the state, and the relationship with the district. A school is affected externally by the stability, support, and socioeconomic status of the community. A community in turmoil is less likely to lend support and prioritize education as a value. On the other hand, strong support from the community aided and fostered growth in the schools studied. In addition, the role of the state influences the change process through mandated regulations and the amount of financial support it makes available to schools. The district influence on schools is more direct through establishment of goals, lines of communication, coordination and bureaucratization, and rules and regulations imposed on the schools by the district. (p.182)

Internal influences affecting the change process included the history of the school and the existing school structure. Within the history of the school, the “sagas” or stories about the school are generally centered on the concepts of staff cohesiveness, innovation history, and the “golden age” myth (ibid, p. 185). In their study, Louis and Miles (1990) reported staff cohesiveness through the impact of close relationships and commitment to children in two schools, staff using blaming as a way of dealing with conflict in two

others, and, finally, the negative effect of the district placing staff in buildings when the “fit” wasn’t quite right. The result: internal influences can be obstacles to change. Also affecting school change internally were the characteristics of the school structure. Louis and Miles (1990) found that the presence of clear lines of authority and responsibility, role definition, and school autonomy within the district were key structural features influencing change.

Fullan (1991) identified six factors that influence the characteristics of change at the school district level: (1) the district’s history of innovation; (2) the adoption process; (3) district administrative support; (4) staff development and participation; (5) time-line and information systems; and (6) community characteristics. The process of the strategic plan revision in the district studied addressed each of the areas above.

The district in this study had a history of jumping on the latest bandwagon, ranging from OBE to the latest fads in literacy acquisition through whole language learning. Staff who had witnessed these trend-chasing tendencies of the district had their skepticism reinforced because of the repeated surfacing and quiet deaths of the latest and greatest new ideas. The plan for rolling out and adopting the strategic plan included this background knowledge of the history of failed attempts. In fact, the creation of the previous strategic plan with its lofty language and irrelevant status was still fresh in the minds of many staff.

That document carried memories of many hours with eighty participants trying to hold a vision and collectively create a plan. The end result lacked accountability cohesiveness, relevance, or meaning to the classroom and student learning. While the

district administration had openly supported the effort with resources and communication to staff and the community, it was a failure. In addition, the previous plan didn't include adequate staff development training. The document was given to schools with the assumption it would drive school improvement efforts and, because the community was included in the participant stage, it was touted as a success in district communication and local newspapers. School staff who actually tried to work with this document perceived it differently. This history was ever-present as the committee gathered to yet again create a new district strategic plan. This scenario may not be uncommon.

### *Obstacles to Change*

Hargreaves (1998) suggests the following reasons why change is so difficult to accomplish:

- The reason for change is poorly conceptualized or not clearly demonstrated.
- The change is too broad or ambitious so that teachers have to work on too many fronts, or it is too limited and specific so that little real change occurs at all.
- The change is too fast for people to cope with, or too slow so that they become impatient or bored and move on to something else.
- The change is poorly resourced or resources are withdrawn once the first flush of innovation is over.
- There is no long-term commitment to the change that will carry people through the anxiety, frustration, and despair of early experimentation and unavoidable setbacks.

- Key staff who can contribute to the change, or might be affected by it, are not committed. Conversely, key staff might become over-involved as administrators or innovative elites, from which other teachers feel excluded. Resistance and resentment are the consequences in either case.
- Students are not involved in the change, and do not have it explained to them so they cling to ways of learning that are familiar to them and become the school's most powerful protector of the past.
- Parents oppose the change because they are kept at a distance from it.
- Leaders are too controlling, too ineffectual, or cash in on the early success of the innovation to move on to higher things.
- The change is pursued in isolation and gets undermined by other unchanged structures; conversely, the change may be poorly coordinated with and engulfed by a tidal wave of parallel changes that make it hard for teachers to focus their efforts. (p.281).

According to Hargreaves, (1998) these causes of failure in educational change are documented in research by well-known authors of educational change including Sarason, 1971, 1990; Berman and McLaughlin, 1977; Fullan, 1991,1993; Louis and Miles, 1990; Rudduck, 1991; Miles and Huberman, 1984; Stoll and Fink, 1996. From a practitioner's point of view one or many of these elements occur simultaneously to thwart change.

Further, Hargreaves (1998) points out that educational change includes a "...strategic process of proper planning, design and structural alignment, and a cultural process of building effective relationships of collaboration and consultation..." (p.282).

He states that educational change is a moral and political struggle. In addition, it cannot be accomplished in a lock-step, linear process. Add to that the multi-dimensional aspects of educational change including moral, political, and emotional issues and the challenge of educational change is even more obvious.

*Values, Beliefs and Assumptions of Change and TQM*

In building the foundation for organizational change, consideration must be given to the existing construct within the organization. The district where this project took place had already experienced a mandated change that has been problematic at best. What was overlooked was the identification and activation of the core of the organization, its beliefs and its routines of day-to-day operations.

In a study of implementation of TQM values in high schools, Detert, Louis and Schroeder (2001) discuss the relationship of values, beliefs, and underlying assumptions within the organizational culture to the understanding and successful implementation of TQM in an organization. While pointing out the controversies surrounding the implementation in the educational setting, they also clarify TQM practices and culture in schools by identifying the critical components of an organizational culture's readiness for and responsiveness to TQM. In addition, they explore the relationship of the cultural values of the organization with those values ideal to TQM. This study is of particular relevance to this project because of the interconnectedness of TQM and change within an organization.

Within this study, culture is understood to be the combination of values, beliefs and assumptions shared by members of that organization. Smircich (1993) refers to this

culture as the “social glue” that holds the organization together. According to Detert, Louis and Schroeder (2001), the following nine TQM cultural values are the core of TQM philosophy applied to the educational setting. These values include:

- A shared vision and shared goals among faculty, staff, and administrators are critical for school success. (Constancy of purpose.)
- Educational needs should be determined primarily by parents, community groups, students, and other stakeholders. (Customer-driven quality).
- Improving education requires a long-term commitment (Investment requires a long-term investment – continuous improvement).
- A school should strive to make continuous changes to improve education (Continuous improvement).
- Teachers should be active in improving the overall school operation (Shared decision-making).
- Collaboration is necessary for an effective school (Internal and external partnerships).
- Decision making should rely on factual information (Data-based decision making).
- Quality problems are caused by poor systems and processes, not by teachers (Driving out fear, 90 percent of problems are system related and not the fault of employees).
- Quality can be improved within existing resources (Design quality and prevention leads to better products and services).

### *Building the Foundation*

The cultural values listed above are the foundational conditions for beginning organizational change. The process for change, then, would require support for these values. Detert, Louis and Schroeder point out that before one can clearly focus on implementation, (2001) the gaps between the actual and desired values within the culture that must be addressed as an organization and also by individuals within the organization. Unique to this study is the identification of individual emotional well-being when trying to reconcile the individual and organizational values. Likewise, Mulford (1998) addressed the foundational conditions as common understandings of honesty, trust, sharing, and managing conflict. He pointed out the importance of external connections in developing shared values and a vision. Hargreaves (1998) also stressed the importance of attending to the emotional dimension of change when considering the foundational condition.

While attention to emotions can be found to some extent in organizational change literature, Hargreaves addressed it as a single focus of change. According to Hargreaves (1998), at the heart of the commitment and instructional focus by teachers is the emotional bond or relationship established with students and the perceived impact educational changes would have on students. Without considering that bond, Hargreaves believes we ignore the basic foundation of what teachers view as important. Attention to this component is significant. This could be considered to be the collective commitment, the meaningful approach that will foster systems thinking, and focus the energy for the organization to move forward with change.

### *From Knowledge to Action*

Five issues were identified by Miles and Louis (1990) to move an organization from knowledge to action, or from initiation to implementation:

- Clarity - What are you asking me to do?
- Relevance - Is it meaningful to what I am doing or need to know?
- Action images - What does it look like and what are the steps to get there?
- Will - Do I want to change?
- Skill - Do I know how to do what you're asking and if I don't, how will I acquire the training to get there?

Fullan (1991) approached these same issues in terms of relevance, readiness, and availability of resources. From an experienced practitioner's point of view, these are the critical questions. One would assume the first three would be a consideration for any organizational change in the initiation phase, yet they are seldom clarified or explored before moving on. Will and skill are sometimes assumed when mandates are given and teachers are left to figure it out. In the day-to-day operations of a school, these considerations are critical. What can easily be construed as resistance to change may in fact be uncertainty of the task or lack of skill. Seldom is the desire to change problematic in a school when the need is evident, the process is clear and relevant, and the belief is there that it will benefit students. In alignment with not mandating what matters, Miles and Louis (1990) suggest addressing the needs of will and skill through four areas of consideration: the context of the culture, vision building, resources, and problem coping.

These areas will provide the framework for discussing organizational change within a school.

### *Context of Change*

Context has been defined by Louis and Miles (1990) as geographical, social, and historical. Context will “deal with place and with what goes on in that place, conditioned by what has gone on before” (p. 171). The context of change previously has been discussed as part of the influences of change. External and internal influences dramatically affect the change efforts in schools. In brief, according to the study by Louis and Miles (1990), successful change efforts are significantly impacted by the relationships of schools with the community, the district, and the state. Internally, the history of the school and the basic structures in place affect the change efforts.

Leithwood (2001) addresses the concept of context through the identification of the assumptions of what schools should be like and the definition of a school’s purpose. He states that the “purposes, data collection and analysis procedures, roles of participants, and uses made of information all will vary depending on this assumption” (2001, p.19).

### *Vision Building*

Successful improvement efforts are directly connected to shared images of what a school should become (Louis and Miles 1990, p. 59). Block (1987, cited in Louis and Miles, 1990, p. 219) states that “a vision is both strategic and lofty; the best expression of what we want...it is a dream in our waking hours of how we would like the organization to be.” A vision provides a focus and brings people together for a common cause. A

vision can provide clarity of values and become the vehicle that integrates the many activities occurring simultaneously during change.

Three preconditions for creating a school vision are: a principal who can hold a vision and coach others in the development, ownership and use of the vision; staff cohesiveness; and school control of staff hiring (Louis and Miles, 1990). Within the key principles listed for vision building, the themes that stand out as most important to this literature review are the importance of an internal integrative process where the basic purpose is understood and aligned with activities in the organization, empowerment of staff with a collective effort in creating the vision, the evolution of the vision during the implementation process, and shared leadership as the role of the principal becomes that of building capacity and instructional leaders in others (ibid).

#### *Resources — The Day-to-Day Challenges*

Louis and Miles (1990) address the issues of sources and types of resources. Unique and helpful to the practitioner is their inclusion of information regarding resourcing processes. Schools are forever seeking and competing for resources such as monetary support, time, and personnel. Additional resource concerns they highlight include addressing the needs for the physical plant, obtaining appropriate curriculum materials, training for teachers, empowerment of schools and teachers, and a concerted effort by the district to support school efforts. While these issues are at the forefront of every school improvement effort, the method to obtain the resources is not often discussed. According to Louis and Miles (1990), processes for acquiring resources include scanning and matching, acquiring resources using an assertive “grabbing” stance

that includes negotiation skills, reworking existing resources, and building resource capacity within the school (p. 258). Scanning and matching refer to being vigilant about appropriate available resources and aligning them to the needs of the school. Acquiring resources requires negotiation skills, creativity, and careful planning. Reworking resources is taking available resources and creatively using them in different ways. Lastly, capacity building involves strengthening the skills internally such as a “train the trainers” model. Lessons learned from this study regarding resourcing include the following: resources are not exclusively about money; add-on resources are needed for improvement efforts; a proactive approach and ingenuity in working together have a significant impact; and finally, resourcing takes place through the building of relationships.

### *Problem Coping*

Change programs require strong, consistent coordination and orchestration to address the problems generated by the process (Louis and Miles, 1990). This coordination includes monitoring, communicating, linking, problem finding, and coping (ibid). The concept of effective coping was discussed using frames, styles, and strategies. Significant findings from this study were 1) that coping is the single most important influence on outcome, and 2) the depth of coping was directly related to improvement implementation success (Louis and Miles, 1990). According to Louis and Miles, dealing with problems as they arise, assessing the importance of the problem, and coping appropriately works. The depth in coping is going to the root of the problem and, if need be, building capacity. Good coping also happens when there is a clear vision of the

change, external assistance available, and when concerted energy is expended on managing the change. Also, good coping experience leads to better coping in the future.

### *Additional Change Strategies*

Fullan (1993) has proposed eight lessons regarding the ‘paradigm of change’:

- You can’t mandate what matters;
- Change is a journey not a blueprint;
- Problems are our friends – inevitable and needed for learning;
- Vision and strategic plan come later;
- Individualism and collectivism must have equal power;
- Neither centralization nor decentralization work;
- Connection with the wider environment is critical for success;
- Every person is a change agent – change cannot be left to the experts.

These eight lessons are influential to a beginning practitioner because they provide a good overview for the critical components in the process of organizational change. For an expert in the field who has experienced and led organizational change, the lessons serve as a frame of reference.

From an experienced leader’s perspective, change in a school happens when the foundation is laid. The bricks in this foundation are trust; assurance that the change is necessary and will benefit student achievement; adequate training in data collection, interpretation, and use; training in instructional techniques (taking into consideration demographic information); time for staff to work together; setting realistic goals; monitoring of progress; and holding the vision.

In *Finding Keys to School Change* (1998), Miles discusses ten school change strategies along with the variables essential to each strategy to drive the change. These ten strategies address the foundational stage of organizational change and include:

- Training for group skills
- Innovation diffusion and adoption
- Organizational self-renewal
- Knowledge transfer
- Creation of new schools
- Supported implementation
- Leading and managing local reform
- Training of change agents (train the trainer)
- Managing systemic reform on a large scale
- Restructuring schools

These strategies cover years of work on the part of Miles. Each strategy is important to the overall change process within an organization. Each provides a root for change.

“People forget that roots exist. But from sturdy roots flow a here and now trunk, main branches, leaves, flowers and fruit...effective school change efforts today need a conceptual base in work that’s gone before” (Miles, 1998, p.37.)

#### *Organizational Change and Accountability*

Accountability lies within the process of organizational change. As an organization goes through the stages of organizational change, the foundational

conditions already mentioned must be in place. First is trust within relationships in the organization. The need for the change must be apparent, the process communicated, and an ongoing monitoring of the process done to ensure success. Staff involvement, including the sharing of ideas and concerns, has to be an integral part of the change. Most importantly, in order for change to take root, a belief must exist that it will, in this case, benefit student achievement. Second, change must reflect best practices and be research-based to eliminate the assumption that it is another bandwagon to jump on. Third, it must be seen as doable. The process and the end result have to be seen as within reach. This may involve training, ongoing evaluation, and leadership opportunities. The individual and the collective beliefs, values, and assumptions have to come together to support the change, to allow participation in the process, and to acknowledgment and responsibility for the end result. The accountability of organizational change is within people: the individual or personal commitment, the commitment to others and to the organization, and, finally, the commitment to the goal or the aim of the system. How that commitment plays out determines the level of willingness to be involved in the change. The leader will guide the process of organizational change and is ultimately critical to its success.

### Leadership and Change Implementation

*Change throughout the system will not come about through a thousand points of light, but from the steadily increasing, concentrated light and heat of one sun.*— Donahoe

Because the topic of leadership has emerged throughout the literature review, it is important to touch upon the importance of leadership in moving a school forward. Sennett (1980, p. 197), approaches the topic of leadership through the concept of

authority and writes: “Authority is not a thing: it is a search for solidity and security in the strength of others which seems to be like a thing” (in Bolman and Deal, 1991, p. 404). According to Bolman and Deal, both concepts—solidity and security—exist in relationships and in the minds and perceptions of the people involved (p. 404).

For Bolman and Deal (1991), the question of defining leadership has four common responses. The definition of the word “leader” is derived from the Anglo Saxon root, *laedare*, which means to lead people on a journey (p. 404). Bolman and Deal point out the most prevalent concepts of leadership as: 1) The ability to get people to do what you want; 2) the ability to motivate others; 3) the ability to hold a vision adding meaning, purpose, and mission to the first two concepts; and 4) the ability to facilitate or the ability to empower others to do what they want (p. 405).

In recent years, the role of the leader in schools has changed dramatically. In the past, a leader, or principal, was accountable for balancing a budget, hiring teachers, keeping a lid on discipline, and maintaining positive relationships within the community. Leaders were not expected to have more than a working knowledge of curriculum, use of data, best practices, technological advances, school choice, effective teacher evaluations, or how to create a positive learning community. Leadership was maintaining a status quo. The leaders of today are expected to do all of the above and more. Internal and external accountability have changed the role of the leader and intensified the focus of schools. Leaders of today are expected to understand and implement best practices in instruction, hire the best of the best teachers, arrive at decisions through the analysis of data, balance a budget, be a visible and key player in the community, be prepared in emergency

planning, maintain respectful and responsible discipline policies, advance the use of technology, foster parent and community involvement, and, most importantly, increase achievement of all children in the face of challenging demographic and societal changes.

Leadership that recognizes the importance of a focused approach on student learning will successfully move through the change process. This, according to Schmoker (2001) is done through celebrations, recognition, reinforcement, and reward. Little (cited in Schmoker, 2001), supports the notion that in order for teachers to effectively work together, “the accomplishments of individuals and groups must be recognized” (p.112). Likewise, Lortie indicates the need for recognition and reinforcement has a direct result on the school’s ability to get results (ibid, p.112). Therefore, while the importance of using data for decision making, holding the vision and setting realistic goals cannot be minimized as primary responsibilities of a leader, the efforts to encourage and publicly or privately acknowledge quality improvement efforts also are critical.

According to Marzano (2003), leadership can be considered the most important component of school reform. What characteristics, then, are essential for school principals? Marzano cites a study by Friedkin and Slater which identifies effective versus ineffective principals. Included as effective characteristics are:

- Makes formal observations
- Is accessible to discuss ideas
- Seeks teacher input for key decisions
- Portrays confidence in teachers
- Monitors continuity of curriculum (ibid).

In addition, he points out three principles of leadership for change: 1) Leadership for change is most effective when carried out by a small group of educators with the principal functioning as a strong cohesive force; 2) The leadership team must operate in such a way as to provide strong guidance while demonstrating respect for those not on the team; and 3) Effective leadership for change is characterized by specific behaviors that enhance interpersonal relationships – optimism, honesty, and consideration.

Leadership can make the difference in the success of school improvement. Leadership includes the principal but is much bigger than that. Based upon the information presented throughout this literature review, leadership collectively involves the principal, teachers, parents, students, and the community. Leadership involves the effort and commitment of all stakeholders as well as school staff.

#### Common Themes Present in the Literature Review

*What we have learned about teaching and learning in the last 15 years is among the most exciting discoveries of our 200-year history.* — Peter Senge

The preceding literature review focused on the topics of quality management, strategic planning, and organizational change. Significant to this research is the emergence of common themes throughout the literature that are critical to the success of school improvement. Table 1 is a matrix of these common themes. They are organized by research topic and developed by beginning with the elements of TQM and identifying the commonalities included.

Table 1. Common themes present in the literature review

<i>TQM</i>	<i>Strategic Planning</i>	<i>Organizational Change</i>	<i>Common Themes</i>
Constancy of purpose	Vision, goals	Long-term commitment	Vision
Adopt a new philosophy	Future orientation	Context of change	Process, Systems, Data
Cease dependence on mass inspection	Monitoring of progress	Monitoring of progress/change	Monitoring of progress
End awarding on price tag alone	Accountability	Who will benefit	Accountability
Continually improve products, services, and processes	Benchmarks, monitoring of progress	Process and context for change	Continuous improvement
Training	Increase capacity	Will and skill	Training
Leadership	Shared leadership	Leadership defined	Leadership
Drive out fear	Motivation	Relationships/trust	Trust
Break down barriers between departments	Internal/external connections	Internal/external influences	Collaboration/teamwork
Eliminate management by slogan	Results oriented, outcome based	Clarity /relevance	Context of change/best practices
Eliminate numerical quotas and goals	Goals, objectives	Resources	Accountability
Eliminate barriers to joy in work	Knowledge base of the organization	Problem coping	Meaning/coping
Institute education and self-improvement	Professional development	Professional development	Professional development
Everyone is part of the transformation	Stakeholders	Culture of the organization	Systems thinking

Given the elements of TQM, strategic planning, and organizational change, an educator today is challenged with the integration of theory and practice to meet the goal of improving student learning. The common themes that emerged throughout the literature highlight similarity of concepts and illuminate a direction and focus for the application of theory for educators. Most importantly, TQM's multi-perspective lens on quality, the visioning process, and creation of change through strategic planning must include understanding and awareness of the impact of organizational change on people in a school.

The content of this literature review provides an in-depth exploration of TQM, strategic planning, and organizational change; identifies the commonalities among them; and suggests how the individual parts fit together as a whole. This information offers a relevant framework for implementation of change that could assist educators in managing multiple, simultaneous changes in the learning environment. But is this research relevant and important in the daily lives of educators?

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

It is the goal of every school to demonstrate ongoing improvement in student learning. With the federal mandate of NCLB creating demand for greater accountability, combined with the increased needs of students entering our schools, teachers and administrators are seeking solutions for closing the achievement gap. This study examines the significance of the combined emphasis on quality tools, strategic planning, and culture in school improvement efforts. This chapter presents the design of the study using the following research questions as a guide.

#### Research Questions

1. What happens when schools plan effectively to meet the goal of improving student learning?
2. What happens when principals organize staff around important objectives?
3. What happens when the focus of quality and change are maintained under the conditions of changing demographics?
4. Does the use of TQM and strategic planning help schools reduce the achievement gap?

#### Overview and Rationale

The basic feature of the design was the choice of a qualitative approach of gathering data from multiple sources within a single case study. A suburban school district was the context for the single case study, with three schools within that district

used as multiple sources for data gathering. The rationale for selecting the descriptive case study method and the procedures followed are covered in detail below.

This study took place in a district where the implementation of TQM principles occurred, along with a revision of the district strategic plan. These initiatives were implemented as federal and state mandates emerged that aimed at increasing accountability of schools. The combined result of these internal and external factors was a change in the instructional role of classroom teachers. The goal of this study was to document the overall impact of these changes on elementary classroom teachers and administrators. Various quantitative assessments of the impact of these changes, focused particularly on obvious variables of student performance, such as standardized test scores, are ongoing in most districts and political jurisdictions. Of primary interest in this study is the *qualitative impact* of these changes, particularly on the role of classroom teachers. This objective and the variables to be studied lend themselves to explanation and narrative reporting. A qualitative research design, therefore, was chosen for this study. Further, the research questions sought to explore, not quantify, the strategies or approaches teachers used to implement these changes. Miles and Huberman (1994) support the relevance of using qualitative methods for this type of research by suggesting that “qualitative data, with their emphasis on people’s lived experience, are fundamentally well suited for locating the meanings people place on the events, processes, and structures of their lives; their perceptions; assumptions; prejudices; presuppositions; and for connecting these meanings to the social world around them” (p.10).

The specific research questions of this study pertained to the daily instructional lives of teachers and the connections made to the culture of the school. The connection between instructional practice and research methodology was provided by Miles and Huberman's (1994) five reoccurring features of qualitative research:

1. Qualitative research is conducted through an intense and/or prolonged contact with a field or life situation. These situations are typically banal or normal ones, reflective of the everyday life of individuals, groups, societies, and organizations.
2. The researcher's role is to gain a holistic overview of the study: its logic, its arrangements, and its explicit and implicit rules.
3. The researcher attempts to capture data on the perceptions of local actors from the inside, through a process of deep attentiveness, of empathetic understanding and of suspending preconceptions.
4. The researcher may isolate certain themes and expressions that can be reviewed with informants.
5. A main task is to explicate the ways people in particular settings come to understand, account for, take action, and otherwise manage their day-to-day situations. (p. 6, 7).

Further, Merriam (1988) stated, "descriptive research is undertaken when description and explanation (rather than prediction based on cause and effect) are sought, when it is not possible or feasible to manipulate the potential causes of behavior, and when variables are not easily identified or are too embedded in the phenomenon to be

extracted for the study. The aim of the descriptive research is to examine events or phenomena.” (p.7). Noted in Chapter II, the number of rigorous studies in quality management in educational settings is very limited. Providing more detailed descriptive data to illuminate the study questions thus led to the selection of a qualitative, descriptive, case approach.

Selecting the unit of analysis was identified by Guba and Lincoln (1989) as “the nature of the problem to be investigated that provides a major means for setting boundaries” (p.89). Patton referred to the unit of analysis as “what it is you want to be able to say something about at the end of the study” (p.100). Given the research questions for this study, and simultaneous implementation of TQM, revision of the strategic plan, and change in the culture of the school, an in-depth analysis of those interactions through a single case study seemed relevant. Yin (1984) has pointed out that a single case may have sub-cases within. Embedded in this case study of one school district are mini-case studies of three elementary schools within that district.

#### Research Design and Procedures

Three elementary schools within a single suburban school district were the units of analysis in this case study. The district, as noted in previous chapters, was chosen as the site for the research because of its relative stable commitment to providing training in TQM for administrators and teachers, and because the researcher, an elementary principal in the district, had access to data about the district, the schools, and the initiative. The three schools were chosen because of participation in the training of TQM and relatively

stable leadership. The three schools, classroom teachers within those schools, and the principals involved constituted the “bounded system” examined.

The design of this study included two phases: Phase I, completed in June 2004, involved the administration of the *University of Minnesota School Culture Survey* to all classroom teachers in the three elementary schools. Phase II included interviews with five teachers and one administrator from each school. Although a mixed-method of linking quantitative (survey) and qualitative data (interviews) is evident, the emphasis will be on descriptive analysis of both the survey and the interview. Rossman and Wilson, (1984, 1991) in Miles and Huberman, (1994) offer three reasons for linking quantitative and qualitative data:

1. To enable confirmation or corroboration of each other via triangulation;
2. To elaborate or develop analysis, providing richer detail;
3. To initiate new lines of thinking through attention to surprises or paradoxes, “turning ideas around” providing fresh insight (p.41).

Further, Greene, Caracelli, and Graham (1989) stated that the use of mixed research approaches enhance studies sequentially by the first method informing and guiding the second (in Miles and Huberman, 1994).

A purposeful sampling method was used to select the schools. Merriam (1998) referred to purposive sampling as a research strategy based on the assumption that the researcher wishes to gain insight and understanding about the unit of analysis; hence, the sample that is chosen must provide the researcher with the most knowledge (Merriam, 1998). Sites were chosen because of participation in the TQM training offered through

the district by Minnesota Academic Excellence Foundation (MAEF) and relatively stable leadership. These schools and principals had at least three years of experience in implementation of the TQM principles. The sampling also intentionally selected schools representing important variations in the schools' contexts and student bodies, including varying levels of poverty and enrollment of students of color. This sampling allowed for an in-depth and representative look at how TQM was being implemented in this district. This district and these schools also were chosen because of accessibility.

#### Human Subjects Compliance

Authorization was received from the Institutional Review Board: Human Subjects Committee at the University of Minnesota and the school district for the survey and the administration of interviews. It was determined that the study was exempt from review under federal guidelines 45 CFR Part 46.101 (b) category #2. Permission was granted under code number 0405E60201. An amendment to include the interview schedule has been filed.

#### Data Collection Procedures

##### *Phase I*

Phase I involved the administration of the *University of Minnesota School Culture Survey* to classroom teachers and one administrator in each of three schools. The questionnaire addressed the implementation of TQM principles through multiple questions for each of the principles. Triangulation of the TQM concepts occurred through the questions (Jick, 1979). Questions involving organizational change also were included. The questionnaire contained 33 questions regarding teaching and learning practices, 17

questions on organizational culture, nine questions pertaining to leadership and change, and 14 questions regarding professional development. All questions use a Likert scales format. Also included in the survey was demographic information of the respondent including gender, racial/ethnic group, years of teaching experience, and primary affiliation with a content area of teaching. The instrument was developed and pre-tested in a previous study (Louis, et al).

Questionnaires were given to all classroom teachers in each site during a faculty meeting. All respondents were given a letter describing the expected procedures and details of the study, a questionnaire and pencil, and a token gift of a candy bar. The questionnaires were distributed on June 7, 2004. Because the implementation of TQM was reported as a school-wide approach to school improvement by all three schools, all classroom teachers were included. Teachers were given the option of participating and all teachers in attendance at each school agreed to complete the survey resulting in the following numbers: School 1 had 21 respondents, School 2 had 27 respondents, and School 3 had 17 respondents with 100 percent completion of surveys distributed.

### *Phase II*

Phase II involved interviewing respondents in the sampled schools. The interviews include five teachers from each school who were identified by the human resources department of the district as having taught in the target schools for five years and because of knowledge and application of TQM principles in their classrooms. The principal of each school also was interviewed. Teachers and principals at these sites had

participated in the ongoing implementation of the district initiatives. Again, purposive sampling was necessary to obtain the most pertinent knowledge required for the study.

Following the approval of an amendment to the previously filed request for research from the district and the University of Minnesota's Human Subject Committee, all persons interviewed were contacted in person or by phone to seek participation. All respondents received an overview of the study at the time of the survey and received a new consent form at the time of the interview. All interviews were conducted in a semi-structured, open-ended fashion. The rationale of the semi-structured interview, according to Patton (1990) is to allow the individual respondent the opportunity to describe and define the world. The purpose of the interview was "not to put things in someone's mind...but rather to access the perspective of the person being interviewed" (p. 196). Therefore, a basic interview framework with a planned introduction and list of discussion topics was developed instead of a scripted interview format.

Teachers and principals were interviewed on site and allowed to choose the day and time for the interviews. Before and after school or preparation times were offered. Every effort was given to conduct each interview in person with a telephone interview as a last resort. Interviews were recorded.

The same principals were interviewed again at the conclusion of this study to update information and assess the sustainability of the continuous improvement efforts. The superintendent also was interviewed at this time to give an overall district perspective on student achievement over time.

## Data Analysis

### *Survey Data*

Surveys were coded and analyzed for descriptive data. Using the Likert scale, the degree of each of the seven TQM principles implemented were determined by grouping responses pertaining to those principles. In addition, responses were coded, grouped and analyzed for comparisons between teacher and administrator perspectives, as well as between schools. Commonalities and differences from this survey were used to develop the interview questions for Phase II.

### *Interview Data*

During Phase II, five teachers from each of the three elementary schools were interviewed regarding practices of implementation of TQM principles while the district was in the midst of the revision of the strategic plan. The results of the questionnaire in Phase I were used as the foundation for the interview questions in Phase II. The purpose of this approach was to create an in-depth understanding of the data obtained regarding the implementation of TQM principles.

The collection and interpretation of research data for this project has taken several years. Due to this extended time frame, the researcher went back to the principals and the superintendent for a more recent perspective on how schools are meeting the challenges of increasing student achievement. Those interviews will be discussed in the final chapter.

## Methods: Phase II Data Analysis

Using raw correlations from the survey, commonalities were identified and the differences between schools noted. From this data, interview questions for the teachers and the administrators were constructed. Interview questions are included in the appendix.

Eighteen individual interviews were conducted from the three school sites and all were analyzed. Themes from each of the schools were identified along with a brief discussion of the commonalities across the schools.

The interview process will be analyzed through transcription and coding of emerging themes. The use of NUDIST (Non-numerical Unstructured Data-Indexing, Searching and Theorizing) software was considered but deemed to be unnecessary. Based upon the format of the questions and the ease of interview process, emerging themes were readily identified.

While NUDIST computer-based software may assist the researcher in gathering, storing, and analyzing data, the most important functions of NUDIST were maintained for this research, including:

1. creation of a document system to store unaltered documents,
2. creation of categories, codes, or questions for thinking about the data,
3. collation of passages of text and related ideas at a category for interpretation and analysis,
4. exploration of patterns in the data followed by related questions,

5. capture of emerging theories or explanations of the data in notes and memos, and
6. use of answers to questions and as a basis for further explorations of the data (Qualitative Solutions and Research, 1995).

Finally, research integrity for this study follows the guidelines set by Lincoln and Guba (1985) through the considerations of credibility, dependability, confirmability, fittingness, and transferability. Credibility is the internal validity gauge that guides the research and is accomplished through consistent engagement, triangulation, adviser debriefing, and member checks. Dependability and confirmability are addressed through the processes of collection and recording of data throughout the research. Lastly, fittingness and transferability are dependent upon each other. This study within a school district is a fit because it brings to light the current trends and pressures faced by all school districts. The outcome of the study is intended to be transferable to other school districts in that the findings generated from this study will be relevant, of interest to other districts, and replicable through the implementation processes identified.

### Limitations

Limitations of the study include the following:

- This study was limited to three elementary schools within one suburban school district.
- This study was both qualitative and quantitative in research methodology with inherent limitations to each. Surveys were useful for descriptive purposes but can be limited in scope. Interviews provided additional depth to the research

but may be influenced by the respondent's need to produce socially acceptable answers. Both are reliant upon the skill and the experience of the researcher to administer and interpret.

#### Role of the Researcher

The issue of the researcher as a principal in the district being studied is a factor to address. The intent of the qualitative researcher is to explore and describe, not to verify or test theories. The structural framework of this study, using surveys and interviews as the sources of data, provided objective criteria and protected against bias. At the same time, however, studying culture within an organization requires deeper knowledge of the values, artifacts, and assumptions of the organization. Because of familiarity with the district, the researcher had greater clarity and understanding of the responses to the interview questions.

The following figure captures the essence of the research by demonstrating the interrelationship of TQM, strategic planning, and culture on student achievement:

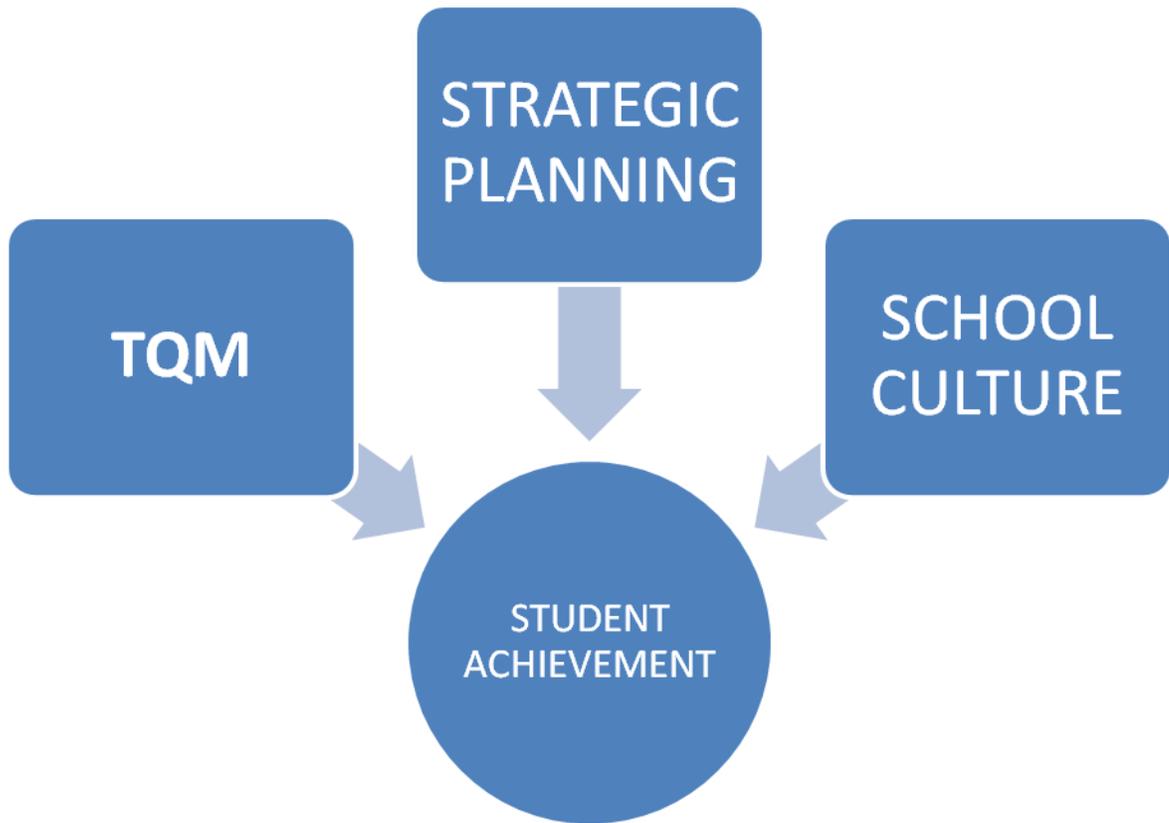


Figure 1. Interrelationship of TQM, Strategic Planning and Culture on Student Achievement

## CHAPTER 4

### FINDINGS AND DISCUSSION

#### Introduction

The findings for the research are presented in three parts. First, a description of the implementation of TQM within the district is presented. Second, each of three mini-case studies is discussed in relation to the development and implementation of TQM principles. Third, a summary of the findings completes the chapter.

The collection and interpretation of research data for this project has taken several years. Due to this extended time frame, the researcher went back to the principals and superintendent for a more recent perspective on how schools are meeting the challenges of increasing student achievement. Those interviews will be discussed in the final chapter.

#### *Implementation of TQM*

To address the challenges of change in this large district, several initiatives have been implemented using the quality principles. The district leadership team has provided ongoing training on data analysis, equity training, and professional development in the area of meeting the challenges of families living in poverty. This district participated in the Choice is Yours Program, the desegregation efforts of a large, urban, neighboring district. This program provides a choice for families living in the urban district to attend suburban schools. It has also provided the significant option for students whose families move from the suburbs into the city to stay in their suburban schools, maintaining the consistency of friendships, program, and instruction. Along with the ‘stay put’ option of

keeping students in the current school is a provision for transportation which has made the Choice is Yours Program a viable solution for many families.

Leadership in this district has changed four times in the past 10 years with two superintendents and two interim superintendents. The leadership changes at the top have brought changes in programming for students and multiple reorganizations of the district. Students have school choice options including a nationally recognized fine arts program; International Baccalaureate programs at the high school, middle school, and elementary levels; Spanish immersion through grade eight; advanced placement at middle school and high school; and numerous others. Parents and students have responded favorably to the effort made by the district to address the programmatic needs of all students.

The reorganizations haven't gone as smoothly. With a declining enrollment, an aging resident population, and resulting budget constraints, the district has taken three referenda to the taxpayers to raise additional monies. Two out of three times the vote was successful. While these additional monies helped to address financial woes, additional measures to cut costs over time have included closing five schools. With the closing of each school came reorganization of school attendance boundaries. The residents of this district are adamant about financial accountability and stability, but at the same time did not want their children moved to other schools. Within the past five years some families were assigned to as many as three different elementary schools due to attendance boundary changes.

The breakdown of trust and added confusion for the public appeared to have its roots in the decision-making process of district leadership. A case in point would be the

decision to close elementary schools. During the fall of this year, eight different scenarios were put out to the public as possibilities for closing specific schools. After numerous agonizing public meetings for the residents of the district, meetings with staff, public announcements by the board about which schools would likely be closed, and more meetings held with the staff and families of those schools named, the board voted to wait and study the matter further. By this time the residents and staff were confused. They had been on a roller coaster ride of emotions with the multitude of messages followed by eventual lack of decision from the district board.

In the midst of district changes, the schools within this district have, for the most part, remained stable in the day-to-day operations. The closing of schools required preparation and training for both staff and students. This was accomplished systematically and successfully due to the experience and commitment by school staff to create a welcoming learning environment for incoming students. Throughout the confusion, the focus of the schools remained on increasing student learning...

The three schools studied for this project weathered these changes well. With their training in quality principles, they persisted in the task at hand which was educating children to the best of their ability.

### Case Study I — Oakwood

#### *Background Summary*

Oakwood is a school of approximately 540 students and is located in one of the district's most affluent western neighborhoods. The school opened in 1969 with an open, ungraded classroom approach. Multi-aged spaces for primary and intermediate students

replaced grade-level traditional classrooms. In the center of this open space was the media center. The benefits of the open system, reported by teachers, were the frequent interaction of colleagues throughout the day because of staff visibility and proximity, and familiarity with individual student progress because teachers had the same students over several years. The results were strong teacher relationships and a sharing of ideas and activities. During those years the teachers were accustomed to many visitors observing this open multi-aged approach to learning.

Changes in the system began to emerge with the advent of mandated district-wide curriculum and assessments designed for specific grade levels. At Oakwood, this began one grade level at a time until all grades, kindergarten through grade five, were functioning as independent grade levels. Simultaneously, there was a district movement to align all elementary school improvement plans to the district strategic plan.

Seven years ago, the school underwent a complete remodel, changing the open space multi-aged design into self-contained classrooms and a well-defined media center. While this change met the increasing demand by the district to align specific grade-level curriculum and assessments, it was an adjustment for teachers and parents. Teachers no longer had the same easy accessibility to one another throughout the day and parents were faced with a single new teacher each year in a traditional classroom. Both have accepted the new plan due, in part, to Oakwood's ongoing success with increased student achievement and well-known status throughout the district as the top-achieving elementary school.

The school has experienced consistent academic excellence along with strong parent involvement, staff stability, and minimal demographic changes. Oakwood has built a reputation in the district of outstanding student achievement by traditionally outperforming other district schools on state assessments. The expectation of high student achievement is pervasive in the Oakwood community as well as the district. Staff members report the goal for MCA testing is always at the 90th percentile or better and that they strive to be the best. In general, parents support the efforts of teachers through frequent communication, volunteerism, and high academic expectations for their children. Parents are visible, vocal, and demanding of excellence. They request frequent communication regarding student progress, assessment results, and upcoming events at the school. Parents also are interested in how their children compare to others within the classroom and how Oakwood compares to the district regarding progress and performance. While the parent involvement is viewed by some staff as a benefit, it is viewed by others as a challenge. From one teacher's perspective, "Parents are very involved here; almost too much...parents will let you know if you are not doing enough." Another teacher reported, "If the parent feels informed they feel like they are on board." At Oakwood parents help other parents. Through a variety of parent initiatives, the PTO sponsors speakers, classes on parenting skills, and opportunities for new parents to become acquainted with other Oakwood parents.

Throughout the research on student learning, poverty has been linked to lower student achievement. The Minnesota Department of Education has addressed this issue on its Web site in conjunction with the reporting of the latest MCA-II scores for state

schools. With the reorganization of district attendance boundaries three years ago, Oakwood began to experience a slight impact of poverty and diversity relative to other elementary schools in the district. While the current rate of poverty at Oakwood has risen to 17 percent in recent years, the district average of poverty for all elementary schools is 47 percent. In comparison, schools on the eastern side of the district range between 50 and 75 percent poverty. Given these limited initial changes, Oakwood has not yet fully experienced the demographic changes faced by other district schools. In addition, because of low incidence of poverty, Oakwood receives the least amount of compensatory funds –additional monies allocated to schools by the government in proportion to the percentage of students in poverty – among the elementary schools. According to state mandates, these funds are earmarked for specific services. Because Oakwood receives so little compensatory funding, money is withheld from other district schools to fund support services at Oakwood such as a psychologist and social worker. While this procedure is legal and necessary with the current financial status of the district, it has created unrest with the schools that generate the funds and feel the challenges associated with higher poverty.

#### *Leadership and TQM*

The current principal was the assistant principal at the time of the TQM training. She assumed the principal leadership role nine years ago and has maintained the school-wide systems, processes, and procedures that were originally in place. The principal's background includes teaching in the Minneapolis Public Schools for 27 years, consulting

with school districts while at the Minnesota Department of Education for four years, and the assistant principal at Oakwood for two years.

The principal portrays a no-nonsense approach in doing business at Oakwood. For example, when the researcher arrived at the building, a schedule of the names and times of persons to be interviewed were presented and the principal assumed the responsibility of adhering to that schedule by keeping time, checking in, and moving teachers in and out of the room. The approach to task completion was “just get it done.” Predictable order and routine appear to be prevalent in the ongoing day-to-day operations. Communication with staff is frequent and well established in that staff receive daily and weekly schedules. Minutes from building councils are required to be distributed to staff within a day of meetings. The principal takes pride in her consistency. She feels the expectations for her are high from staff and parents. The multiple methods of communication and established procedures provide the consistency mentioned and result in addressing most staff and parent needs. She sees her role as a facilitator of the overall processes which includes holding the vision, overseeing the daily school operations, fostering community connections, and providing the link to the district.

Leadership is shared with staff. Oakwood leadership teams are made up of two primary councils, the Program Improvement Council (PIC) and the Quality Improvement Council (QIC). Both councils are decision-making bodies and align their goals and initiatives to the school improvement plan, including professional development options for staff. QIC doubles as the site council and includes parents and community members. Over time, the bulk of the decision-making has shifted to the PIC council where decisions

regarding curriculum, data analysis, and professional development are made. A unique feature of the decision-making process at Oakwood is that all major decisions are made through the councils, brought to a faculty meeting for discussion, and then presented to parents before implementation. The actual presentation to parents appears to be more informative than part of the actual decision-making but, nonetheless, an initiative moves forward only after parents have been informed. The stated goal by the principal and the staff is to have “everyone on board” before initiating change. Leadership at Oakwood includes the TQM principles of shared decision-making, accountability, ongoing communication, and systems thinking.

*TQM — Planning for Improvement*

Oakwood was one of seven district schools that participated in the TQM training offered by the Minnesota Department of Education (MDE). Even with a change in principal leadership since the onset of TQM, the original procedures and processes have received only minor changes. Oakwood addresses the school improvement process systemically and comprehensively. In the earlier days of TQM, individual teachers were the focus of data analysis, and the school analyzed strengths and weaknesses in students as a direct result of teacher instruction. At that time, individual teachers reviewed classroom data with the principal and, if weaknesses were identified, devised a plan for improving. Simultaneously, individual, classroom, and grade-level student progress were analyzed. The compilation of this data was used to create a plan of action to meet the goal of increased student achievement.

As the school improvement process has developed and refined over time, data analysis remains strong but the focus has shifted away from individual teacher instruction to student performance. Currently, grade-level performance is analyzed and teams plan strategies to both sustain the areas of strength and to improve the areas of weakness. According to teachers of the upper elementary grades, the goals have consistently focused on reading, writing, and math, with “kind of the same goals for the past five years.”

As mentioned previously, Oakwood School has two primary councils designed to share in decision making. Teachers are expected to participate in councils, committees, and special events. The consistent message from staff is that they are accountable and that they have a voice. Teachers report that “there have been things we voted up and we voted down because we did have a say. These councils have the responsibility to review data, present it to staff, and collectively create a plan with goals for the school.”

From all accounts, Oakwood has a welcoming, collegial environment where teacher teams continue to utilize TQM principles. The emphasis on a continuous improvement model is evident throughout the teaching staff with frequent planning and discussions regarding student performance. According to a veteran teacher, “The teamwork is daily, it is weekly, and it’s intentional work. We were part of a quality program several years ago and that has carried through the years. If we do cooperative groups, we’ll do a plus/delta activity where we will have the children tell what went well in their group. It brings it down to their level and their assessment of themselves.” They also are familiar with analysis of data with teachers reporting three to four staff meetings

a year set aside to review results of the MCA testing and monitor ongoing progress. “We are always evaluating where we need to improve. We have systems in place. We just have everything mapped out. The systems are in place and they are working.” Oakwood educators, along with all district staff, have received training each year in school improvement planning. This training hones data analysis at the district, school, and classroom levels.

Curriculum alignment at Oakwood is tied to school improvement efforts through shared focus on student achievement. “School goals are a little more general and we get more specific when looking at scores and what a group or individuals look like. While school-wide goals are more general, they coincide with the goals of the grade level.”

“I think as a new teacher it would be hard coming in because there is a pretty high standard of quality of teaching—you pull your own weight. You need to share and do your fair share of committee work and all that kind of stuff.” Sharing at Oakwood includes vertical team meetings where cross-grade-level meetings occur. These meetings focus on curriculum as well as specific needs of individual students. Staff also have a general sense that the success of the school is based on the contributions of everyone. As one teacher aptly explained, “Third, fourth, and fifth grade scores are not just the responsibility of third, fourth, and fifth grade teachers. I think everyone feels that responsibility for working with the child all the way along. You know how you are helping them in second grade is helping them down the road.”

In addition to the formative and summative assessments, Oakwood also conducts parent and student surveys. One teacher expressed the need for data and surveys by

stating, “Those are good to know because kids have feelings and so do parents and we want to know about what they are thinking. Look at how scores are going up or down or staying the same, and what can be done. We talk about that, how to work with that for improvements. Whatever data we have, we use it. We look at it.”

### *School/District Alignment*

In recent years, the district teaching and learning team created a new strategic planning model by reducing the traditional, more complex strategic plan to a list of three board goals. These identified areas of focus were adopted by the board in an attempt to simplify the school improvement process and align district schools with common goals for school improvement planning.

The board goals are:

- Enrich and accelerate learning for all students;
- Welcome and engage students, families, and community in education; and
- Provide, assess, and support quality programs, services, and instruction.

Relative to these goals, individual school teams then were given the tasks of identifying strengths and needs through data analysis, creating goals to address the needs and outlining steps for improvement. This planning process included active participation by staff at Oakwood in the alignment of curriculum, assessment, and instruction. In schools with more diversity and poverty, the change also included alignment of support staff such as Title I, English Language Learners, and Basic Skill Tutors. Special education teachers in every elementary school in the district began more comprehensive training in reading, writing, and math instruction.

Oakwood's response to this change has been a continued concentration on the basics of reading, math and writing with the emphasis on remaining in the 90th percentile on MCA scores. Unlike other schools, Oakwood places a greater emphasis on the top-performing students because they have a greater majority of students who rank near the top.

We have three to four staff meetings, either before school or during workshop week, whenever we have the data from the previous MCA's to determine where the children were, where they needed improvement, or the cells we needed to concentrate on. Those are devoted to what can we do to improve, to help these children, what programs can we offer in this school, which is challenging because we don't have a lot of federal funding.

While Oakwood plans for improvement across all ranks of students, other schools are required to allocate instructional time differently to address a more diverse learning population with a wide range of academic skills. Nevertheless, while the changes in demographics have been noticed at Oakwood, these changes have had little impact on adjusting goals or processes in place to achieve them. Teachers and parents maintain high expectations for student performance and Oakwood continues to do business as usual. School improvement goals continue to be data-based. Most teachers agree that "improvement goals are driven by testing and the results of the testing. We look at MCA data and CALT data."

One exception, however, was a teacher who did a master's thesis on testing. Given national, state, and district assessment requirements, his concern was that there is too much testing and too much emphasis placed on testing results. He shared that "teachers know more than these stupid tests. I get really frustrated with all these [tests]

because they have one test, maybe they had a bad day, and some kids can't test...but a teacher knows the ability of each student and I think one test would be sufficient."

### *Achievement Results*

Oakwood has maintained its rank as the top-performing school in the district since the MCAs began. There have been occasions when other schools have come close, but Oakwood takes the lead each year. Oakwood has just begun to feel the impact of change. Scores dropped for Oakwood by a few points last year but remained above the 90th percentile. In response to this decline in scores, Oakwood has identified as one of their concerns the district's self-contained emotional behavioral disorders (EBD) program for special education which is located in their building. Students enrolled in this program are from across the district. In addition to struggles with behavior, many of these students also experience significant academic achievement gaps. Also worth noting, most of the students in this program are minority. Oakwood's overall minority count is 20 percent. A teacher reported, "I had one of those students in my class. He was the only black student I have had." The sense of belonging for the students in this program was not evident. Instead, they were seen as district students who happened to be assigned to the building. The teacher of the students in this program reported a lack of welcome and inclusion. Based on teacher comments, one might conclude that the white non-EBD students from the neighborhood have one (welcoming, inclusive) experience in this school while the students who are not from this neighborhood school, have emotional or behavior problems, are in poverty, and/or are students of color might have a very different experience.

In more recent times, students with a wider range of skills and abilities are entering Oakwood. A teacher commented that “the assimilation of new students has been challenging. We used to have one or two that were needy and now I have one-third of my class needy.” Given that “teaching styles have not changed,” Oakwood is faced with a number of challenges: How to maintain a high-level standing in student performance to meet parent, district, and staff expectations; how to address the changing needs of students who are less prepared for school; how to organize staff and parents around the change; and how to deal with the attitude that “we always want to be on top. It’s something we take pride in and strive for. We always want to be the best.”

Oakwood is an elementary school with grades kindergarten through grade five located on the western edge of a suburban school district. While the district has experienced significant demographic changes over the past five years, Oakwood has remained fairly consistent with student enrollment numbers and overall makeup of the student body. Success is found in student achievement records over time and the school celebrates the ongoing status in the district as the highest-performing elementary school. Oakwood staff received training in quality principles and has continued to implement them over time. Increased awareness of the significance of data-driven decision making, systems thinking, and collaboration with staff are evident at Oakwood. One teacher who is active in councils and district committees, and is leader who understands the value of a data-driven system summed up her bottom line:

I guess it ultimately boils down to relationships. I think that’s the hugest part. It’s what drains you the most as a teacher, but it’s also what gives you the most reward. When you invest yourself in those kids, that is something testing data can’t show. It’s just not a measurable thing and whole Q comp thing—how do

you measure someone putting their own relationship into a child – being able to invest emotionally and intellectually in that child? That’s the part the public needs greater understanding of. You can test these kids to death. But if the teacher doesn’t care about them and kids aren’t buying into that, it doesn’t matter.

## Case Study II — Birchwood

### *Background Summary*

The history of Birchwood School dates back to 1868 when a settler by the name of David Bies staked claim to the land surrounding the current location of the school. Within this land claim, Bies donated a half an acre of land to what was then District 20 for the purpose of a school. The result was a one-room log cabin with materials brought in by ox-drawn carts near the current site of Birchwood. In 1881, a new school was built and then, in 1939, a one-room school was located on the actual site of Birchwood. The current building was constructed in 1960 when district schools were experiencing rapid growth in student population. For two decades this school flourished before the district enrollment began to decline. In 1983, Birchwood was closed to the home district and rented to a neighboring district for eleven years. Birchwood reopened to the home district in the fall of 1995.

The process of reopening Birchwood in 1995 was given to a veteran principal who had previously opened a Spanish immersion school in the district. This principal had served in a number of schools and was well acquainted with district administration and many of the district teaching staff. Teachers were hand-picked by this principal from across the district and the process of creating a new Birchwood began. To this day there has been little turn-over of staff with 90 percent of the original staff remaining. So, despite reorganizations and budget cuts within the district, Birchwood staff members

have remained consistent. With a planned student population of 538 students along with the combination of administrative experience and selected staff, the stage was set for success.

Throughout the first several years, however, Birchwood had difficulty becoming a cohesive entity. Grade-level teams appeared to function fairly well but the school as a whole lacked both a common vision and a willingness to collaborate between grade levels and with administration. The principal struggled with leadership style and had difficulty moving initiatives forward. The hand-picked teachers were strong in their own right and wanted more decision-making power. While the resistance within the school may have been voiced by a minority of teachers, the effects were felt throughout the school and known throughout the district. Eventually, a mediator was hired by the district and assisted in resolving issues between administration and the teaching staff. While the principal and staff were both driven to achieve academic excellence, they appeared to have difficulty aligning their vision and establishing a process to do so. Over time and with the help of district and outside intervention, the unrest subsided and the school began to show improvement in staff relations. In general, however, the grade-level team identity remains stronger than the whole school identity. Teachers attribute the success of the school to the strength of grade level teams.

The school is located on what is considered the boundary separating the east side and the west side of the district. The school's location separates what insiders consider the "have" and "have-nots" of schools. For years, staff members on the east side of the district have expressed a concern regarding a lack of equity with the west-

side schools experience affluence and generous donations by parents and the community, while the east side experiences higher poverty and fewer amenities in the schools. Currently at Birchwood, the student population represents a wider range of student diversity in both economic and cultural norms than the schools on the west and yet it does not reflect the extremes of the schools on the east. Birchwood falls somewhere in between. Currently, the school experiences some of the challenges of poverty and increased cultural diversity, but to a lesser extent than neighborhood schools just a few blocks away.

### *Leadership and TQM*

At the time of this study, the principal had twenty years experience as a district principal. Prior to her role as a principal she was a classroom teacher and a special education teacher in the area of emotional behavior disorders (EBD). The principal embraced the components of TQM and understood the value this initiative would have for Birchwood. She attended TQM meetings and slowly brought ideas and processes back to her staff through faculty meetings and professional development. Having a special education background led her to understand the components within the TQM model were similar to a special education process of developing an Individual Education Plan (IEP). Her approach of initiating the processes of monitoring progress, setting achievable goals, and supporting the work of teams would lay the groundwork for advancing TQM. So while staff members were beginning to learn about these principles and the relationship to student achievement, the principal had an underlying purpose of engaging staff and, ultimately, impacting student achievement.

Not every school in the district chose to participate in the TQM training, so at the time of implementation TQM was not a district mandate. Without a district mandate, the lack of social cohesion within Birchwood hampered the beginning efforts to move TQM initiatives forward throughout the whole school. Grade-level teams identified strong working relationships but many teachers reported that teaming across grade levels or the whole school was difficult and infrequent.

Grade-level teams became the natural way, then, to implement TQM training. The focus was on data analysis, progress monitoring, building consensus, systems thinking, and continuous improvement. Through these grade-level sessions, opportunities emerged to analyze academic progress in depth, monitor progress, and create a new process for school improvement planning. It was the first time at Birchwood that school improvement plans utilized comprehensive data analysis.

This new planning process was interpreted by some as simply a means to raise test scores. Not all teachers were on board. Several of the teachers interviewed understood the need for accountability and student progress, but expressed concern over the pressure and emphasis placed on the MCA's. They openly decided to teach differently, not in lock-step with other teachers, and not just for MCA preparation.

Teachers have always been concerned about children's progress and wanting children to learn more. The shift I've seen the most now is that we look more at the test scores rather than the child. We're looking at how to raise numbers, before we necessarily look at where does this fit in that child's developmental progress. Maybe they won't hit a particular number, but their progress has been phenomenal from where they started. And instead of celebrating that, we're saying the school didn't make enough – the child didn't make enough. And I think – according to whom? And now it's according to a standard that has been laid on us.

### *TQM – Planning for Improvement*

With the advent of the school board goals, Birchwood was forced to take a new look at school improvement processes and activities. Like most schools in the district, Birchwood staff developed a model for data analysis, team planning, and the alignment of curriculum and instruction to assessment and state standards. The core of this new movement was the shared leadership roles of the administration and Birchwood staff.

The decision-making process at Birchwood includes a number of processes and councils. Councils within the school included Teaching and Learning, Building Organization, Community Relations, and Human Relations/Staff Development. These councils were fashioned after district departments by the same name. Every council meets bi-weekly, represents grade-level staff, and has the responsibility of reporting back to the Birchwood community as a whole. Council members organize their agenda items into categories of accomplishments, current items, and future decisions. In addition to these structures, regularly scheduled grade-level team meetings are held where discussions about curriculum alignment and progress monitoring of student achievement are top priority. A result of these frequent grade-level team meetings includes the adjustment of teaching plans and collaboration on preparations for instruction. While Birchwood staff members focused on student achievement and genuinely wanted to see academics improve, the emphasis remained on grade-level teams and not on the school as a whole. The lack of true systems thinking weakened the overall effort and effectiveness of staff.

Meanwhile, there was a bright spot at Birchwood. One highly effective process was the weekly meeting of the Teacher-Student Advisory Team (TSAT). While all elementary schools in the district have adopted a version of this model, the principal of Birchwood was the first in the district to implement it. This team, comprised of the special education Child Study Team plus parents, was innovative because it addressed the needs of regular education students more quickly and included a problem-solving process for staff and parents. This process had specific guidelines including a twenty-minute time limit of identifying the problem, brainstorming ideas to address the concern, selecting interventions, and assigning these interventions to adults to implement. At the close of the meeting a follow-up was scheduled to monitor progress and plan additional interventions if needed. This model, or something very similar, is still used in every elementary building. With the change in demographics, all teachers interviewed reported that the needs of students were greater and the TSAT model was one way to assist them.

In addition, Birchwood staff wrote a grant to provide training for the implementation of the Six Traits Writing process. With mandatory participation throughout the building, this initiative worked well with the strength of grade-level teams. Each grade level was given specific vocabulary and skills to teach and included whole school assessment three times per year to monitor progress. While the entire staff supported this initiative, the emphasis and the strength of the program were found in the cohesiveness of grade-level teams. This continuous improvement program has continued to thrive at Birchwood.

During recent times a movement within the district arose to provide additional opportunities for students by creating an International Baccalaureate (IB) Primary Years Program (PYP) school. For several months the staff at Birchwood investigated the requirements and benefits of the program and chose to apply. The principal supported this effort with staff visits to nearby IB schools and providing time for staff to study the IB program. In the end, the IB program was granted to another school. However, the IB application process benefitted Birchwood staff in a number of ways. It brought them together on an initiative that more than 80 percent of the staff supported. Because this was a whole school effort, cross-grade-level teams met and time was given during staff development for discussions regarding IB information and questions. This cross- grade teaming and discussion format forced teachers to engage in conversations beyond their grade- level teams. In addition, because teachers supported the basic IB teaching philosophy, they decided to implement a number of the strategies they had learned. This effort represented a step toward cohesion for Birchwood.

Teachers are accountable as individuals as well. Teachers at Birchwood meet individually with the principal at the beginning of the year to identify professional goals for the school year and by what means they plan to achieve these goals. Throughout the course of the year, teachers are expected to converse with colleagues about their goals and document progress along the way. At the end of the year, the principal and the teacher meet again to determine success of the goal.

The most dramatic change in school improvement efforts at Birchwood is the commitment to a genuine continuous improvement model. Using the principles of TQM

which foster continuous improvement such as embedding data analysis, realistic goal setting, and monitoring of progress to drive decisions regarding instruction has made a significant difference in Birchwood's overall efforts to improve student achievement. Staff development opportunities are focused on the needs of the school based on the latest assessment data. Data is analyzed by individual student, by individual classroom, by grade level, and by whole school. Further, the alignment of curriculum and instruction to state standards addresses goals set by each grade level and guides the preparation for state testing. Teachers are working effectively together in grade-level teams and have begun the process of cross-grade discussions and an intentional whole-school effort for school improvement planning. Classroom teachers and the principal collaborate on what is taught, when it is taught, and the alignment to the standards. This shared leadership has enhanced staff and administration working relationships. It also has created a greater awareness of the contribution of each grade level to the larger effort of the whole school.

Along with the school efforts to increase student achievement, the district has stepped up its effort to provide timely assessment data, offer training in data analysis and support instructional efforts through district grade-level teacher meetings. Birchwood has begun the journey of systems thinking and planning.

The future for Birchwood includes awareness of and planning for changing demographics. All district schools have experienced some change. Some of the schools, including Birchwood, have responded with changes in instructional strategies, parent involvement, and school-wide welcoming and engagement activities. At this point,

Birchwood teachers are better prepared to meet the challenges of the change in demographics and the increased academic, social, and emotional needs of their students.

#### *School/District Alignment*

As mentioned in the previous case study, the emergence of the district board goals quickly became the driver for alignment between schools and the district. Birchwood's response to these mandated goals included a whole-school emphasis on writing, creation of activities designed to engage students and to welcome parents, and sustained and improvement of existing programs for students. Birchwood received a grant to improve student writing. The district leadership team supported and participated in this effort. The focus of the school was clear and systemic. Quality principles of monitoring progress, team planning, staff development, involving parents, and using data were common throughout the school. The district provided the training and necessary data analysis.

Alignment efforts also were seen in parent involvement. The principal is skilled in the ability to welcome and involve parents for input on decision making, volunteering, and working in her building. Relationships and trust within the community have been an accomplishment for this principal and this school.

Finally, the improvement of existing programs points to the problem-solving structures in place at Birchwood. The principal said this was the one thing of which she felt most proud. Due to her training and vision, processes are in place to address issues for behavior and learning for students. Staff members utilize other teachers for support and parents are involved immediately when a concern arises. The inclusion of decision-

making power within the councils has improved the overall culture of the building and strengthened the grade-level teams. The end result is an increase in student achievement.

*TQM and Student Achievement — Results*

Over time, Birchwood has made a steady increase in student achievement. With the Six Traits Writing grant and the emphasis placed on monitoring progress through data-driven decision making, Birchwood staff members have experienced progress in their efforts to increase student learning. As evidenced with their MCA results and district-mandated curriculum assessments, Birchwood's efforts in reading, math, and written language have benefited from the implementation of quality principles.

While grade-level teams remain strong and cohesive units, the school as a whole made an effort to come together with the IB application. The result has been more cross-grade-level conversations and a greater awareness of the contributions each grade level makes to the success of the whole school.

Several years ago, due to a district reorganization, the demographics at Birchwood changed, with an increase in both families living in poverty and an increase in minority students. The change was dramatic and temporarily created challenges for instruction and discipline. While these students were adjusting to their new school, teachers and support staff were adjusting to the change as well. Basic training needs for understanding families from other cultures and families who live in poverty were addressed. Closing the achievement gap became a district and school goal.

Based upon district testing and the state MCA's, Birchwood has maintained respectable progress over time. With intentional teaching, clear and realistic goals,

improved data analysis over time, and the strength of grade-level teams, Birchwood achievement results match or are higher than the state average.

### Case Study III — Maplewood

#### *Background Summary*

Maplewood opened in 1987 due to the persistence and vision of a superintendent who wanted alternative programming for students. The result was a Spanish language immersion school for elementary students along with a technology learning center for middle school students. An application and lottery system were created to select potential students for both. Because the language immersion school is one of the mini-case studies, the focus will be on that school.

A district executive committee prepared for the school's creation by conducting research and visits to other language immersion programs. With an elementary school site available for the program, planning moved forward. Initially, a principal assigned to another building was given the task of getting this program up and running in addition to handling his duties at his current school. Mid-year, the district leadership, along with this principal, realized that the program was struggling and a new principal was assigned to this building. The new principal had done her principal internship in the district and had previously worked in the district in regular education and special education. During her initial months she spent time on research, making connections with other local immersion programs, and attending conferences on the implementation of immersion programs. To better prepare herself for this position, she also spent the next summer in Costa Rica with a family who spoke Spanish. Her purpose for being immersed in Spanish was to increase

her own Spanish proficiency and to better understand the second- language issues of her students.

From the onset, the principal was faced with challenges regarding the budget, staffing, and curriculum. At the time of her assignment, no budget existed. Everything needed for the program was requisitioned through the district's finance department for approval. The expectation was that the discards of equipment of other schools including desks and curriculum could be used. In her words, she was "starting with a clean slate," and she described the district response to meeting the needs of this new program as an "afterthought."

Hiring of teachers and expectations of the teachers presented challenges of their own. Initially, the teachers were bi-lingual English speakers and two of the four teachers assigned to the building had taught Spanish in the high schools. None of the teachers were native Spanish speakers. According to the principal, these teachers had difficulty adjusting to teaching exclusively in Spanish, teaching in an elementary setting, and completing lesson plans. Supervision was another issue that resulted in union and district intervention. The principal reported that she covered the playground and lunch supervision the first year. Over time, as the program grew, native Spanish speakers were hired with clarity about expectations for instruction and supervision.

The school began with kindergarten classes only along with a plan to grow the program each year until students reached eighth grade. Following eighth grade, the intent was that all students would move on to one of the two high schools where they could continue their studies in Spanish. Parents of potential kindergarten students from around

the district who were aware of this opportunity applied for entrance to the program. A lottery was drawn in the spring and parents and the designated home schools for those parents' children were notified. At this juncture, parents had the choice to accept the placement or have their children attend the home school. At the same time, a plan for the future was created to address the entrance of fluent Spanish speakers. These students could gain access to the program through the passing of a Spanish proficiency test.

The opening of Maplewood was met with both apprehension and excitement within the community. With no track record, parents were skeptical at first about the quality of education and expertise of the staff. All staff members were required to be Spanish speakers, many of whom were on visas from Mexico after the first year. Extensive study and planning went into the program's foundation by the school administration and the district teaching and learning team. The assistant principal taught in Mexico before coming to Maplewood and reported that teaching the language immersion concept in Mexico was the opposite of the approach implemented at Maplewood. At Maplewood, "we look at native English speakers and teach them content areas through the vehicle of Spanish which is just the opposite of what native Spanish speakers do to teach English."

The Maplewood program is unique in several ways. From curriculum to parent involvement, Maplewood is a leader as a welcoming, high-achieving school. First, and most obvious, is the immersion in the Spanish language. At the kindergarten level, for example, all teaching occurs in Spanish. English instruction is introduced in grade two for thirty minutes each day and by grade five students are taught in English for 90

minutes per day. Also, unusual for this district, Maplewood's student enrollment has remained consistent over time. With very little student mobility, students experience consistency in programming and staff. Parents become well acquainted with school policies and procedures and play an active role in the school's site council, as well as filling many volunteer positions.

In 1995, at the time the program had grown to include grades kindergarten through grade five, the district leadership made a decision to move the school to a vacant high school. The challenges of this move were not immediately apparent to the principal or to the parents. Security was a major obstacle. Second, the district expected to house other district programs in the building, including a self-contained high school EBD program. Prior to repurposing the building as a school, the community used it as community resource center. One service provided was a food shelf that assisted many community members in need. This history created a security issue for the incoming elementary school. People who weren't aware that the center no longer was there came in off the street seeking assistance for food, clothing, and other resources, sometimes pushing shopping carts. The principal also reported that occasionally people who were homeless were found sleeping in the basement. This is a three-story building with many entrances and exits and no system for security. The placement of the special education program was another concern because of age differences, known behavior issues, and potential interaction in the hallways with elementary school children.

The parents were angry with the lack of security and rallied the district for a meeting. District leadership met with the parents and gave them the choice of moving

into this building or splitting the program. At this time the district had one elementary school building being rented to a neighboring school district. This school was the parents' preferred site but it was, according to district staff, off limits to Maplewood.

Parents opted to keep the program together and make the move. Parent involvement proved to be the bright spot in what otherwise would have been a difficult situation. They were eager to be of service to the school. When the building opened in 1995 at the present site, 300 parents volunteered to paint hallways, classrooms, and lockers. They also planted a garden in the front of the building and, through the parent organization, paid for a new marquee. Volunteerism by parents was wide-spread and felt throughout the Maplewood community. Parent efforts included council participation, writing the school newspaper, tutoring, and supervising hallways and playground. To further build school and family relationships, parents joined with staff and students to build a float and march in the city's annual Cinco de Mayo parade.

Currently, Maplewood has met the original design intent of a kindergarten through eighth-grade program with a total student population of 648. The school has flourished academically and parents continue to play a significant role.

#### *Leadership and TQM*

The program's second principal left after one year at its new site. The third principal had been an assistant principal at a nearby elementary school and she welcomed the challenge. Her credentials included time as an elementary school teacher and assistant principal. She took over the position with excitement and new ideas and approached the challenges by engaging staff in the training of quality principles. She immediately

addressed the issues of security. “We have had a whole organizational shift that, hopefully—we’re working on it—will better reflect on the values of the school.”

This principal served on the Board of Directors for the Minnesota Council for Quality and had ties with members in the business community who had used the quality principles. A consultant on quality did the Baldrige needs assessment for the building and this became the basis for identifying strengths and needs in the building. Coupled with the district board goals, Maplewood moved forward with plans for improvement. Councils were formed with staff and parent involvement. Customer-focus needs were addressed through surveys conducted three times per year to assess culture and achievement. District research and development staff also assisted with creating, implementing, and analyzing reading assessments. Staff meetings kept the movement current by discussing the progress of the school improvement efforts. To further support this movement for quality, a grant was written that allowed teachers time to focus on data, instructional strategies, and ways to sustain the Spanish culture.

#### *TQM — Planning for Improvement*

Currently, Maplewood has maintained quality principles of teamwork, data-driven decision making, professional development, customer focus, and shared decision making. While grade-level teams are strong, they also think systemically about student achievement due, in part, to the luxury of having the same students over time. Grade level teams meet weekly to share ideas regarding curriculum, struggling students, assessment results, and division of labor. Whole staff meetings occur monthly and include discussions of curriculum updates and academic progress.

Shared decision making is created through building committees. These committees meet monthly and every staff member is required to participate on at least one. The Steering Committee oversees all of the operations of the school and is “kind of the hub of the wheel for the whole school.” Parents, staff, and administration are represented on this committee. The other committees include the Academic Committee, the Climate Committee, and the Culture Committee. Each committee determines goals for the year based on a question relevant to the school and the purpose of the committee. For example, the question “How do I enjoy and succeed at speaking Spanish?” may drive the goals for the Culture Committee. Responsibilities for each committee are clearly defined. Each committee submits goals to the Steering Committee along with any requests they may have to enable them to meet their goals. The goals for each of the committees tie into the school improvement plan which is aligned with the district board goals. The board goals are:

- Enrich and accelerate learning for all students;
- Welcome and engage students, families and community in education; and
- Provide, assess and support quality programs, services and instruction.

The Academic Committee is responsible for curriculum, monitoring of student progress, and providing data results. Most recently with new district curriculum, the committee has had to make adjustments at the grade levels for what is taught in English and what is taught in Spanish. The Academic Committee has also moved forward with “academic choice.” Students are given a choice in two different areas, content and presentation. Differentiation of student ability and skill level is considered along with

academic choice, requiring teacher intervention when appropriate. Data-driven decision making is evident through implementation of academic goals that directly reflect strengths and weaknesses in state and district measures.

The Climate Committee is responsible for such things as implementation of a program called Responsive Classroom which is a vehicle for establishing how adults will work together and how they bring these agreements to the classroom to implement them at the student level. This program has proven effective in other district schools for engaging students through building relationships in the classroom and simultaneously creating a sense of belonging for each student. While Maplewood maintains the same overall student body, students are with new classmates at each grade level every year. As for staff, the following comment came from one teacher but resonates with comments by other teachers as well: “We have a wonderful staff, we’re very cohesive, and we have the same expectations, the same values.”

The Culture Committee has the task of maintaining the authenticity of the Spanish language and culture throughout the building. Teachers are from different backgrounds and most are native Spanish speakers. In some instances they overlap with the Academics Committee in that the Culture Committee strives to maintain the Spanish culture in the study of language arts, science, and social studies.

#### *School/District Alignment*

Due to the nature of this program, Maplewood has experienced alignment with the district through the school improvement plan process which is focused on the integration of the district board goals. The program has become respected within the

district and the community. The challenges previously mentioned have been addressed and continue to be monitored. Maplewood has the unique challenge of planning for English and Spanish instruction and assessment, sharing the building with a middle school, and finding and hiring quality teachers for the program.

#### *TQM and Student Achievement — Results*

Maplewood continues to demonstrate gains in student achievement. MCA scores and district assessment results consistently place Maplewood near or at the top of the elementary schools. The uniqueness of the program engenders academic benefits and challenges. The benefits are that the enrollment is consistent so that students who enter kindergarten in this program generally stay for the duration. This past year Maplewood had 1.1 percent mobility. In keeping the students over time, the school is able make the educational experience for them consistent which is generally reflected in greater student achievement.

The challenges of the program consist of assessment practices and the day-to-day operations of sharing the building with a middle school. Students at Maplewood are required by the district and state to monitor students by using the same assessment tools as other elementary schools. These tools are in English. The informal assessments, such as end-of- the-chapter math tests, are given in Spanish. As mentioned previously, students at Maplewood are not instructed in English until grade two. Given that fact, these students do remarkably well.

The other challenge that frequently was identified in interviews with Maplewood staff is sharing the building with a middle school. According to the assistant principal,

there are “a lot of issues around having 1400 students safe and co-mingling and getting along.” The co-mingling presents a challenge of safety and behavior for hallway transitions, cafeteria use, and busing. Another challenge: Maplewood has tried to establish a Spanish-only environment in certain parts of the building “because the native language is necessary to fall back on and that is what makes a deeper understanding of the Spanish language.” The difficulty arises when 800 English-speaking middle school students are in the hallways and cafeteria.

The focus of the study is the impact of interrelationship of TQM principles, strategic planning, and organizational change culture on student achievement. Survey results produced seven TQM principles relevant to daily educational practices. These seven principles were included in the interview protocol along with specific questions regarding strategic planning and culture of the building. Findings that emerged include the use of TQM as the driving force that moved school improvement efforts forward in a systematic, data-driven way. Prior to the TQM training, the district had a fifty-six-page strategic plan. This plan was a shelf document. With the advent of TQM and the timing of the new strategic planning document, district staff began to see school improvement efforts in a new way. Not only did these tools guide school improvement planning processes, but resulted in a new process of monitoring student learning. The TQM tools guided the transition, utilizing the strategic planning process and creating noticeable impact on school cultures. While teachers and administrators were facing new accountability at the federal, state, and local levels, they now had a road map.

This chapter will summarize the findings for each school by theme, including the following: background information, leadership, planning for improvement, district alignment, and achievement results. Utilizing the same themes used to describe each school, Table 2 compiles the results of the study:

Table 2. TQM, Strategic Planning, Culture and Student Achievement

	<i>Oakwood</i>	<i>Birchwood</i>	<i>Maplewood</i>
Background	Trained in TQM Whole-school use of quality principles Enrollment 540 Poverty 17% Mobility 15.2 % Minority 26.4 %	Trained in TQM Grade-level quality principles Enrollment 568 Poverty 38.3% Mobility 19% Minority 43.5 %	Trained in TQM Grade-level/whole-school quality principles Enrollment 648 Poverty 7.5% Mobility 1.1% Minority 18.7%
Leadership	Shared leadership Councils: Program Improvement Quality Improvement Strong parent involvement	Shared leadership Councils: Teaching & Learning Building Organization Community Relations Mediation-principal and staff	Shared leadership Site Council Academic Committee Climate Committee Culture Committee Strong parent involvement

*(cont.)*

	<i>Oakwood</i>	<i>Birchwood</i>	<i>Maplewood</i>
Planning for Improvement	Data retreats Identify goals at the start of school Expectation to be the best Whole-school focus Minor change in demographics Affluence Social skills curriculum-PATHS	Data retreats Six traits grant Monitoring progress throughout year Strong grade-level teams Change in student demographics Increase in poverty Responsive Classroom curriculum	Data retreats Assessments in English/Spanish Ongoing monitoring Grade-level/whole-school cohesiveness Consistent enrollment, minimal poverty, mobility Responsive Classroom curriculum
District Alignment	School improvement tied to board goals	School improvement tied to board goals	School improvement tied to board goals
Student Achievement	At or near the highest performing schools	Performance middle range of elementary schools	At or near the highest performing schools

Next, revealed in the study were common characteristics among the schools studied as well as significant differences. The schools selected for this study were chosen because of varying levels of the following: poverty, number of students of color, rates of mobility, and the relative stability of leadership. These factors also are critical to the design and implementation of school improvement efforts. Table 3 summarizes the commonalities and differences found in the three schools in their quest for raising student achievement:

Table 3. Summary of Findings — School Comparisons

	<i>Commonalities</i>	<i>Differences</i>
Background Information	<ul style="list-style-type: none"> <li>• Similar student enrollment numbers</li> <li>• District curriculum, assessment, reporting</li> <li>• State standards</li> <li>• Parent involvement</li> <li>• TQM training</li> <li>• Stability of staff</li> </ul>	<ul style="list-style-type: none"> <li>• Demographics: mobility, minority and poverty</li> <li>• Purpose/format: Maplewood – Spanish immersion Oakwood – Open, looping Birchwood – Standard self-contained classroom</li> <li>• Birchwood and Oakwood neighborhood schools; Maplewood-district</li> </ul>
Leadership	<ul style="list-style-type: none"> <li>• Shared leadership</li> <li>• Councils/committees</li> <li>• Fairly stable administration</li> <li>• Parent involvement</li> </ul>	<ul style="list-style-type: none"> <li>• Site council – Maplewood</li> <li>• Mediation – Birchwood</li> <li>• Grade-level/whole-school cohesiveness</li> </ul>
Planning for Improvement	<ul style="list-style-type: none"> <li>• Continued use of TQM</li> <li>• Shared decision making</li> <li>• Data-driven</li> <li>• Accountability</li> <li>• Grade-level meetings</li> <li>• Focused instructional interventions</li> <li>• Monitoring student progress</li> <li>• TSAT</li> <li>• Social skills curriculum</li> </ul>	<ul style="list-style-type: none"> <li>• Systems approach/grade-level approach</li> <li>• Funding – compensatory allocation</li> <li>• Oakwood – Enrichment focus</li> <li>• Maplewood– English/Spanish instruction and assessment</li> <li>• Additional resources available to Birchwood because of poverty</li> </ul>
District Alignment	<ul style="list-style-type: none"> <li>• Strategic Plan – Core Values</li> <li>• School improvement plan tied to board goals</li> <li>• Measurable goals</li> <li>• Curriculum/assessment</li> <li>• Customer focus</li> </ul>	<ul style="list-style-type: none"> <li>• Maplewood - language curriculum/assessment</li> </ul>

(cont.)

	<i>Commonalities</i>	<i>Differences</i>
Student Achievement	<ul style="list-style-type: none"> <li>• Data retreats</li> <li>• Monitoring of progress</li> <li>• District/state testing</li> <li>• NCLB mandates</li> <li>• Strong grade-level team planning</li> <li>• Team meeting times scheduled for data</li> </ul>	<ul style="list-style-type: none"> <li>• Maplewood and Oakwood have made AYP every year</li> <li>• Consistent high levels of student achievement for Maplewood and Oakwood</li> <li>• Birchwood struggles with achievement – mid-range of elementary schools</li> <li>• Poverty and mobility play a role in lower academic performance of Birchwood</li> </ul>

### *Discussion*

This study took place in a suburban school district where the introduction and implementation of TQM principles was accompanied by the revision of the district strategic plan. Emerging simultaneously were the federal and state mandates for increased accountability. Due to these initiatives, the instructional roles of the classroom teacher and the administrator changed, affecting school culture. Teachers and administrators are required to integrate theory and practice to increase student achievement. The purpose of this study was to document the impact of these initiatives on elementary classroom teachers and administrators and, as a result, on student achievement. The findings present a relevant framework to assist educators in managing multiple, simultaneous changes in the learning environment.

Specifically, the study focused on how interrelationship of TQM principles, strategic planning, and organizational culture affected student achievement. The research was designed to answer the following questions:

1. What happens when principals plan effectively to meet the goal of improving student learning?
2. What happens when principals organize staff around important objectives?
3. What happens when focus on quality and change are maintained under the conditions of changing demographics?
4. Does the use of TQM and strategic planning help schools reduce the achievement gap?

The study combined qualitative and quantitative research methods and was conducted in two phases. Three elementary schools within a suburban school district were the units of analysis. This district was chosen as the site for the research because of the relatively stable commitment to providing training in TQM for administrators and teachers, and because the researcher, an elementary principal in the district, had access to data about the district, the schools, and the initiative. The purposive sampling was selected because of participation in the TQM training and relatively stable leadership. The sampling also intentionally selected schools representing varying levels of poverty and enrollment of students of color.

Phase I involved the administration of the *University of Minnesota School Culture Survey*. The questionnaire addressed the implementation of TQM principles with multiple questions for each of the principles. The questionnaire was administered to a total of 65 teachers in three schools. The surveys were analyzed for descriptive data. Responses were coded, grouped and analyzed for comparisons between teacher and administrator

perspectives as well as between schools. Commonalities and differences from the survey were used to develop interview questions.

Phase II involved interviews of fifteen teachers and three administrators, drawing on survey results and probing into the day-to-day experience of teachers and administrators facing the initiatives of school improvement planning. The schools chosen for Phase II were the same schools as Phase I.

The significance of the research includes the relevancy and timeliness of the topic. Most importantly, however, is that the results of this study could be used to implement strategies for school improvement. The findings of this study are useful to teachers and administrators who face the daunting task of improving student learning. The demand for accountability and increased student achievement placed on teachers and administrators increased dramatically with the NCLB mandate. The NCLB mandate dictates that all children will perform at grade level by the year 2014. While the intent of the mandate is honorable, in that it seeks accountability for every child's learning, additional funds to meet the mandate are lacking, putting schools and educators in a difficult situation. In addition, NCLB labels schools as "needs improvement," which has added a layer of confusion and disagreement in the field of education and the community. For example, in Minnesota, where ACT scores are among the top in the nation, almost half of the schools are considered "needs improvement" schools.

Further, most elementary school teachers and administrators work tirelessly in search of variables that will make a difference in the quest to close the achievement gap. Recently, Response to Intervention (RTI) and Positive Behavior Intervention Supports

(PBIS) have emerged from the state level to assist schools in identifying instructional strategies that increase student learning and address the issues of school-wide climate and behavior.

The emphasis on data and results poses internal conflict for some. A veteran teacher who is highly skilled, according to her principal, voiced her opinion this way:

I'm kind of towards the end of my career and it gives me a funny feeling because I consider myself a teacher and if I'm not a teacher, what am I? I feel fortunate that I've been here (Oakwood) most of my career....The teaching job itself has become more difficult over the years with more paperwork, more expectations, more testing, the grind, the books. I keep looking at all these books and all these workbooks and I'm going – I don't want to do that all day, I don't want to read from a book and then do an assignment and a sheet and then a test. That's what's bothering me lately. I have to get grades, and I have expectations and so you make the best of it....Trust your own judgment. Some of these kids – their strengths aren't necessarily in that kind of learning and the creative end is very important in this world. I think successful people don't necessarily have all A's on their tests. Make room for those kind of people.

This study addressed the multiple, simultaneous, teaching-related components that interface within a given day in a school. To improve student learning, the building blocks of TQM/continuous improvement, strategic planning and the culture of a school are critical elements for consideration in moving a school forward. Collectively, the training in the basic quality tools, accompanied with a realistic, measurable plan and the support of staff can positively affect student learning. Any one of these in isolation is not enough.

The extensive review of the literature regarding TQM, strategic planning, and school culture included their application in the school setting. An update on the current literature includes research on professional learning communities. The concepts forming the basis of a professional learning community are congruent with this research and the authors cited are included in the bibliography.

## CHAPTER 5

### CONCLUSIONS AND IMPLICATIONS

#### Conclusions

The use of TQM, in combination with thoughtful planning and a positive school culture, promotes student learning. Schools are multi-faceted entities with many things going on simultaneously. With the NCLB mandate, the demand for accountability has increased the need of schools and districts to raise student achievement and close the achievement gap. Schools have responded with training in the subjects of quality principles, data analysis, alternative instructional strategies, equity, poverty, and school-wide approaches to building a positive climate. One of the schools in this study has experienced a change in demographics. The other two are less affected because of location and design of the program.

The conclusion of the study addresses the research questions:

*1.) What happens when schools plan effectively to meet the goal of improving student learning?* All three schools in this study have adopted a systems approach to increase student learning. The training in quality principles has been sustained in each of these schools to some degree. The tools of a school-wide approach, data-driven decision making, professional development, shared leadership, and customer focus are evident today in these schools. The planning done by school teams may look different—councils, committees, or grade-level teams—but the essence of quality principles is present. School teams have implemented formative assessments along with the mandated state and district measures for student progress. The ongoing monitoring of student progress has

aided these schools in providing an awareness of student performance and creating an action plan to respond to these results.

2.) *What happens when principals organize staff around important objectives?* In order to motivate staff during change or to implement any initiative, a principal has to be an effective leader. Effective leadership can positively affect the school, the teachers, and the students. Referring to the work of Marzano (2003), the role of the principal in effective leadership includes formal observations, accessibility, shared leadership, demonstrated confidence in staff, and curriculum monitoring. Principals are instructional leaders who have the responsibility to facilitate data-driven educational practices while simultaneously creating a school climate of trust and support.

McLeod (2008) developed a competency framework for teachers to be effective data-driven instructors. This framework indicates the responsibility of the principal is to build capacity in teachers by providing professional development opportunities to ensure understanding and application of data. Once teachers understand and are able to utilize data, they need time to collaborate in developing best practices for instructional strategies. This theme resonates with the research from the previously cited authors DuFours, Schmoker (1999), and Marzano (2003). When properly trained, teachers set measurable goals, monitor progress through formative and summative assessments, and respond to the data with specific instructional strategies. When principals hold and share the vision, encourage shared leadership, create a process for data driven student learning, provide professional development, and remember to think and plan with a systems approach, the result is increased student achievement.

3.) *What happens when the focus of quality and change are maintained under the conditions of changing demographics?* Two of the schools in this study have begun to see a change in demographics. The response to these changes has been gradual. Oakwood, which tended to approach instruction and change from a school-wide perspective, nevertheless viewed the change as an isolated challenge with only a specific portion of their population. They have since begun to adjust their teaching strategies to include students who learn differently and who do not have the knowledge base or life experiences to which Oakwood teachers are accustomed. Oakwood is a competitive school in an affluent suburb where students have traditionally outperformed other schools in the district. The influx of students with special needs has forced the staff to consider alternatives for instruction and building climate. This effort is a work in progress. Denial of the problem has shifted into an action plan to address the change.

Birchwood has seen a more dramatic change in demographics with an increase in families experiencing poverty, increased mobility, and an increase in minority students. Birchwood's initial response, according to staff, was to do nothing differently. Over time, Birchwood teachers have come to recognize that the same methods used over time are no longer working and they are in the process of adjusting their approach to instruction. Grade-level teams are strong and the building staff as a whole has become more cohesive in its efforts to improve student learning.

Maplewood has maintained a stable population over time and has not experienced a significant change in demographics. There is little poverty, increased mobility, or minority populations at Maplewood. The systems they have in place for increasing

student learning are working. The emphasis has been a continuous improvement model of studying their systems each year and continuing to improve what they are doing based on data. Of the three schools, Maplewood has been the most successful in sustaining quality principles and they have demonstrated a steady increase in student achievement over time.

4.) *Does the use of TQM and strategic planning help schools reduce the achievement gap?* Used consistently and purposefully, quality principles and school improvement planning can assist schools in efforts to reduce the achievement gap. The core elements of quality provide the information needed to address gaps in student learning. If teachers and administrators are data-driven and student progress is monitored carefully, teachers can respond with appropriate interventions to narrow or even close the achievement gap. In these three schools, however, students of color continue to score lower on achievement tests. Students in poverty who are also minority score even lower. Even though significant changes in demographics are relatively new to this district, the achievement gap is evident in data collected by the district. It is only recently, however, that the district has begun to intentionally address the gap and provide training in alternative instructional strategies to accommodate the needs of students with varying life experiences and cultures.

Through the researcher's experience as a principal, the quality tools of TQM do make a significant difference in reducing the achievement gap. TQM alone will improve student learning and address the needs of some students. TQM in combination with

training, discussions and planning for addressing gender, socioeconomic and cultural difference issues will more effectively meet the needs of all students.

### Implications

Based upon the experience of the researcher and the findings of this study, the implications for a district, its schools, and for principals is worth noting. This researcher experienced that the implementation of TQM principles, in combination with strategic planning and careful attention to culture could create marked improvement in student achievement in any school regardless of poverty levels or cultural differences. It is possible to close the achievement gap.

#### *Implications for Districts*

Through federal stimulus money, most school districts in Minnesota have received funding to close the achievement gap through new models for addressing learning and behavior needs. These dollars are designated for building teacher capacity through training and coaching. More specifically, the intent is to address differentiation of classroom instruction and to build a positive culture within the school. Most districts in Minnesota have implemented strategies related to the Response to Intervention (RTI) and the Positive Support Behavior Intervention (PBIS) initiatives. These are models or frameworks from which to create an improvement process that meets the needs of students while aligning with the vision of the school. The stimulus funds are meant to bring improvement to all schools, with each school having the opportunity to modify the initiative to fit its own needs and culture. Some districts have responded with district-wide training in differentiation for all staff; other districts hired coaches for teaching and

behavior interventions. The intent of the initiative is to acknowledge the need for instructional and cultural change in our schools.

This has gotten the attention of school districts and has provided the funding to move the initiatives forward, but the models are lacking the directions for achieving the stated goals. This study can help provide that.

### *Implications for Schools*

Schools with students who face the challenges of poverty and lack of readiness for school can make a difference using TQM. A case in point is a school in the district that is not part of this study. Almost 60 percent of the school's students live in poverty and more than 50 percent of the students are minority. Every year this school has beaten the odds with increased student achievement and has closed the achievement gap between Caucasian and African American, Hispanic, special education, and English Language Learners. This school also was part of the district TQM training and has maintained the quality tools over the years. The success of this school is due to the systems approach, the data-driven decision making, teaming and collaboration by staff, and release time for teachers to analyze data, formulate an action plan, and share strategies that work. It can and does work. The steps required to meet the needs of students today are straightforward and attainable.

Based on the research and actual practice, the following steps have the potential to increase student learning regardless of poverty, mobility, or culture:

- Begin with a continuous improvement model designed to frequently ask two questions: What evidence do we have that what we are doing is working?  
How will we respond when we find out that what we're doing is not working?
- Provide professional training for teachers and principals in data-driven decision making.
- Build teacher capacity by offering professional training in best practices to ensure effective instructional strategies that address the results of the data.  
Seek out the experts in the field.
- Monitor ongoing progress through formative and summative assessments.
- Emphasize teamwork involving whole-school, grade-level teams and cross-grade-level teams discussing vision, data, and strategies that work.
- Offer release time for teachers to collaborate, share strategies, discuss data, and plan an effective improvement plan.
- Share decision making between administration and teachers.
- Model constancy of purpose.
- Focus on results.
- Create professional learning communities in which teachers are motivated and emotionally safe to take risks to improve student learning.
- Celebrate success.

### *Implications for Principals*

Principals possess the greatest opportunity in the world to make a difference in the lives of children. While alignment with vision, mission, and strategic plan begin at the district level, it is at the school level the opportunity and the challenge become a reality.

This study began with a personal perspective the evolution of the principalship. The principal's role has changed from building management to instructional leadership. The principal holds the responsibility for creating a system conducive to teaching and learning that is welcoming and safe for students, and for relentlessly pursuing academic and administrative excellence.

If a principal is knowledgeable in data, skilled in collaboration, confident in the mission, and persistent in achieving the goal of increased student achievement, the foundation is solid. These attributes are vital to leading and implementing change in an organization. Previously mentioned steps to be taken in a successful school begin with a principal who is willing to lead.

The first task for the principal is to establish a culture where high expectations are clear; shared leadership is evident; instructional decisions are aligned to standards, curriculum, and assessment; assessment tools are relevant and timely; families are informed and involved; and, finally, teachers have scheduled time for collaboration. The principal must have a passion for making this happen. The result is a professional learning community that is results-driven.

The principal is ultimately responsible for what happens within her or his school. While each person in the school has a contribution to make to the system as a whole, it is

the principal who holds the vision, provides for staff, and maintains the link to the district and the community. From setting schedules that allow uninterrupted time for teaching, planning release days for collaboration, providing professional development opportunities for all staff, to securing needed resources, the principal must make it happen.

In summary, the principal's effectiveness is a pivotal element in a successful school. From creating culture, to building staff capacity, to establishing a realistic plan for continuous improvement, the principal is the driver. Integrating the tools of TQM, using what we know about building a culture that represents an authentic professional learning community, and implementing a continuous improvement model that is results-driven will provide any school with the foundation for success.

#### *District Update*

The year after initiating its new strategic plan the district in this study brought in a consulting firm to "right-size" the district. Eight scenarios were presented and resulted in the closing of two elementary schools and one middle school. This change brought significant upheaval among elementary school families who understood the financial situation of the district but did not understand the volume of families who would be affected by the decision. For some schools, this change meant major adjustments in student population with more than half of the population new to the school. For other schools there was not as much change. The end result increased the already significant poverty and equity differences between the east and the west sides of the district.

In addition, the preparation and planning for school personnel to accommodate these changes created another layer of responsibility and stress throughout the remainder of the school year. With the closing of three schools, staff within those buildings had to interview for positions in other district schools and the non-tenured and some tenured teachers were terminated to create enough positions for teachers with greater seniority.

Efforts were made to provide families with opportunities to visit their new schools and meet staff. Staff members new to the various schools were included in school functions, welcoming activities, and grade level team planning sessions.

The schools with strong cohesive cultures and processes in place for continuous improvement have weathered the changes well. The change has been dramatic for some schools whose student population changed as much as 50 percent, other schools experienced a fairly minimal change with little adjustment in student or staff.

Families also have adjusted to the new schools. While there are standards and expectations for every school to reach out to families, every school in the district is run differently, hosts different family involvement activities, and communicates through different venues. Schools have different personalities and families have adjusted well to efforts by staff to involve them and make them feel welcome.

#### *Superintendent Interview*

In the midst of the latest reorganization, the superintendent announced his resignation and the search began for a new superintendent to lead the charge of educating children and rebuilding trust in the community. The researcher had the opportunity to

meet with the superintendent before his departure to ascertain his perspective of student achievement during his tenure.

The superintendent's comments addressed the need to support our children who are facing multiple challenges, including poverty, mobility, learning the English language, and special needs. He stressed the gallant yet difficult effort of the American educational system that is striving to educate and stabilize all children, unlike school systems in other countries.

One change he noted that took place during his term was the process of educating the district students. The district, according to the superintendent, had moved from schools teaching in isolation to teaching within district systems and with principals moving from managers to leaders handling the direction and function of learning. While his comments included the issue of excessive testing of students, he supported the continued efforts of the use of data, monitoring progress, and aligning standards, instruction, and assessment with TQM or quality principles. During his term, data retreats for staff were implemented. Workshops and training for staff included analysis and interpretation of data, instructional strategies to address needs that emerged from data, and guidelines to transform this information into a school improvement plan. During his tenure, he believes, the school improvement process became a meaningful and effective way to move forward with learning.

He was proud of his involvement with the community effort to revise the district strategic plan and that a referendum had passed, alleviating some of the financial strain. His promises to the public for lower class sizes and additional teachers had been

achieved. He believed one of his finest moments and memories was building a new school in an area of higher-than-district-average poverty and minority concentration. His connections with legislators appeared to be one of his greatest strengths and helped to support district progress.

Relative to this study, the continuous improvement model in the district was strengthened and refined. Expectations for administrators and teachers were clarified, expanded, and accountability increased. As the demographics of the district have changed dramatically, the roles of school leaders and teachers have changed as well. The superintendent was not responsible for the day-to-day effort given by many. He was, however, committed to change, holding a vision, and preparing the district's children for the future.

*Principal — Birchwood*

When approached with the task of reflecting back over the years of her tenure at Birchwood, the principal spoke proudly of her efforts to move achievement forward. She shared her sense of accomplishment for the following efforts: creating a TSAT model to better serve students who were struggling; winning the school-wide Six Traits Writing grant; building strong parent involvement at school; and surviving the conflict with staff.

Given the numerous successes that this principal could have highlighted during our follow-up interview, the issues with staff were still forefront on her mind. During the time her leadership was challenged in moving initiatives forward, a mediator was brought in. She and her staff had a common purpose to increase student achievement at the time but they lacked a cohesive approach for attainment. She shared her feelings about lack of

support from the district and the devastation she experienced as a leader. In retrospect, along with the hurt she expressed, her overall outlook on these events included a sense of pride in her response and participation in addressing the issues with strength, kindness, and honesty.

Quality principles implemented during her term as principal included shared leadership, data-driven decision making, a system for problem solving, cohesive grade-level-teams and successful school-wide initiatives such as the Six Traits. She welcomed parents and built a strong relationship with the community. She worked with the district teaching and learning team to align standards, curriculum, and assessments. When she encountered difficulty she used systems thinking to address the problem instead of blame, and she used the resources available to her. In her mind, the needs of the children were always her priority.

Over time, Birchwood has demonstrated growth in student achievement and has initiated instructional strategies appropriate to its changing demographics. The culture of the building has retained some of the same characteristics over time with strong grade-level teams working in harmony that attend to the needs of their students. The system as a whole is showing improvement.

*Principal — Oakwood*

The discussion in the follow up interview with the principal of Oakwood highlighted the school's successes and the sustainability of the processes and programs in place. According to the principal, the continuous improvement model at Oakwood has

been strengthened through shared leadership, data-decision making, professional development for teachers, and active parent involvement.

Comments regarding the cohesiveness of staff frequently surfaced, followed by remarks that staff members were always supported by administration. Teachers have continued to experience clarity of purpose and expectations, and remain confident in the backing of the principal. Culture continues to be an important focus with a committee to address challenges and concerns for the daily operations of the school. The principal commented, “I was trying to be fair with staff and parents, set high expectations for learning, and high standards for teaching.” She said she felt “strongly about where we were” with the implementation of the quality principles and the sustainability of the tools they have implemented. The building runs smoothly with consistency of staff and students. While there has been some change in demographics, Oakwood is one of only two schools in the district that has maintained consistency of student population and has experienced little change in diversity.

“Things are good,” according to this principal. It is a strong staff with viable systems in place, a positive culture, and a leader with experience and confidence.

*Principal — Maplewood*

An outstanding feature of Maplewood is the frequent changes in leadership over the years. Seven principals have led the school and, most recently, the individual who served as the third principal has been reassigned to the school. With the reorganization of the district boundaries, two elementary schools were closed and one of the schools was reopened to house Maplewood. The principal was faced with leaving the school where

she had implemented systems for continuous improvement, received grants to fund a special reading project, and created a school-wide positive behavior support program. It was not her choice to make the move and that added to the stress of the change.

Once she accepted the challenge of the reassignment, she spent considerable time over the summer assigning space, securing materials, and hiring new staff. The school is located on a busy suburban street so the move also involved work with transportation systems to ensure safety during the arrival and departure of students. This move required long hours, careful planning, and a systems approach to opening a school in a new location. Aside from the numerous teacher requests for furniture, materials, and space preferences, her focus was on becoming knowledgeable about the procedures in place and the sustainability of the quality principles she had implemented during her previous leadership experience there.

Following a model for building a professional learning community, she reviewed schedules, addressed the issue of meeting the needs of diverse learners, and immediately began the task of building community with Maplewood families.

The transition has been difficult and labor-intensive for the principal. She said that inadequate staffing and lack of support from the district during the move were areas that created the greatest challenges. Once the move was completed and school was in session, many of the challenges have subsided.

She has created a new model of student placement for Maplewood. With a stable population including little diversity or mobility, the school has demonstrated consistent high results in achievement. Newly implemented at Maplewood is a total-school

clustering of students resulting in placement of students at each grade level according to their achievement abilities. According to the principal, this new plan is working well and the Maplewood staff members have responded favorably to the change.

The original quality principles have been sustained and school improvement efforts have been refined each year. The school councils are receptive to innovation and they are active participants in leadership decisions. Parent involvement remains strong through volunteerism, participation on the site council, and fund raising. Despite the challenges during the move, the school is focused and energized to move on.

#### In My Perspective

TQM is a valuable tool when used in combination with creating a culture in which staff and students experience a sense of belonging, where differences and creativity are valued and celebrated, and where the pursuit of excellence in learning applies to all. In the school where I have been the principal for the last fourteen years, we have demonstrated that regardless of socioeconomic, cultural or gender differences all students can achieve at the same level. Our grade three MCA scores and our District Writing Assessment revealed no statistical significance in results based on gender or varying socioeconomic and cultural backgrounds. The results of these assessments were not by chance. Our students achieved success through a shift in staff perceptions and actions including deliberate conversations and training on quality principles, equity and poverty. As our demographics changed we recognized that what we had been doing for years would no longer meet the needs of all of our students. We had an obligation to all

students and immediately began recreating an environment where the expectations and instruction were geared to the success of every child whatever that would take.

School-wide staff members were trained in Responsive Classroom to ensure a sense of belonging and to build community within classrooms and the school. Staff received additional training in data analysis and release time to collaborate on differentiation of instruction and interventions for learning and positive behavior.

Teachers were equipped to do their jobs and children were welcomed in a new way. The training, honest discussions at faculty meetings and the new accountability of staff to do things differently created the shift in perception. The actions that followed erased the fear of not knowing what to do and replaced the old methods of instruction with new tools and a plan. The result has been greater success for all children. It's hard work and my experience is that it is successful when the using quality principles, identifying and responding to the needs of the culture, and having a plan of action coincide.

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## APPENDIX A

### UNIVERSITY OF MINNESOTA SCHOOL CULTURE SURVEY

## The University of Minnesota School Culture Survey

This questionnaire is part of a study of school culture being conducted by the University of Minnesota with funding from the National Science Foundation. Your answers will be aggregated and provide useful feedback for continuous improvement of schools.

The questionnaire will take about 15 minutes to complete. You are assured of complete confidentiality.

### Demographics:

**A. Please indicate your gender**

- Female
- Male

**B. Racial/ethnic group**

- Asian
- American Indian or Alaskan Native
- Black
- Hispanic
- White
- Other \_\_\_\_\_

**C. Prior to this year, how many years of teaching experience have you had in total?**

- Teaching for 0 - 2 years
- Teaching for 3 - 5 years
- Teaching for 6 - 10 years
- Teaching for 11 - 15 years
- Teaching for 16 - 20 years
- Teaching for more than 20 years

**D. What is your primary affiliation with a content area or department? (Mark only one)**

- Math
- Social Studies/History
- English/Reading

- Foreign Language
- Science
- Art or Music
- Special Education
- Health/Physical Education
- Business/Technical Education
- Other \_\_\_\_\_

**I. Please indicate the extent to which you agree or disagree with each of the following statements about teaching and learning in your school.**

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
A. In setting classroom goals, I consider the overall vision and goals of our school.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
B. I often allow student responses to shift the direction and content of my lessons.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
C. The school's overall vision and goals guide my day-to-day work with students.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
D. I not only teach my classes, but constantly improve them.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
E. I use data from surveys to assess teaching and learning.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
F. It is important that students study real life problems that they are likely to encounter outside the classroom.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
G. My sense of student learning plays a larger role in course improvement than data.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
H. My approach to educating students has been improved without increasing the budget.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

I. My success or failure in teaching students is due primarily to factors beyond my control rather than to my own efforts and ability.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
J. I understand our school mission as it applies to my work.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
K. I am certain I am making a difference in the lives of my students.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
L. When improving my course I directly consult assessments of student performance.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
M. The attitudes and habits my students bring to class greatly reduces their chances for academic success.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
N. Teachers should design lessons that provide students with choices.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
O. I use student feedback from the previous year to improve my courses.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
P. In order to learn complex material, students need information presented to them in several different ways.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
Q. If I try really hard, I can get through to even the most difficult or unmotivated student.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
R. I regularly incorporate students' interests into lessons.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
S. Most teachers feel that their courses and teaching are about as good as they can be.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
T. The first thing we examine when student performance is low is the teacher's competence.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

U. Our school has improved student learning without significant new funds.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
V. In this school I am encouraged to try out new teaching strategies.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
W We have improved education in our school without significant increases in personnel.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
X. Teachers should prompt students to explain and justify their ideas to others.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
Y. I have successfully provided the type of education that my students need.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
Z. I use data about student learning to evaluate my teaching.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
AA Many of the students that I teach are capable of learning material I am supposed to teach them.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
AB Students should establish criteria on which their work will be assessed.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
AC We have access to high-quality curriculum materials that foster teaching improvement.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
AD If students have an audience besides their classroom teacher, they will often work harder and more.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
AE I use data to verify my assumptions about the causes of student behavior and performance.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

AF By trying different teaching methods, I can significantly affect my students' achievement levels.

1 2 3 4 5 6 7

AG Most students are not sophisticated enough to evaluate the strengths and weaknesses of their work.

1 2 3 4 5 6 7

**II. Please indicate the extent to which you agree or disagree with each of the following statements about your school as a workplace.**

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
A. Part of my job includes working on projects that ultimately are used for school-wide improvement.	1	2	3	4	5	6	7
B. We do a good job of talking through view, opinions, and values in operating the school.	1	2	3	4	5	6	7
C. When there is a problem in my classroom, I identify where the systems need to be improved to keep the problem from happening again.	1	2	3	4	5	6	7
D. Teachers in this school are continuously seeking new ideas.	1	2	3	4	5	6	7
E. There is a strong process for teacher input into school decision making.	1	2	3	4	5	6	7
F. There is ongoing collaborative work across subject areas in this school.	1	2	3	4	5	6	7
G. I feel some personal responsibility when our school improvement goals are not met.	1	2	3	4	5	6	7
H. Our teachers work hard to coordinate work across subject areas in this school.	1	2	3	4	5	6	7

I. When a student is performing poorly, I try to identify where the system is failing him or her.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
J. Most teachers are working as hard as they can at meeting high educational standards.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
K. All teachers are working as hard as they can at meeting high educational standards.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
L. Teacher ideas are listened to in this school.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
M. At this school, we know best our students should learn.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
N. The school's vision is not useful in guiding my classroom activities.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
O. Many teachers in this school regularly discuss assumptions about teaching and learning.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
P. I am responsible for improving things within the school, even when they do not directly involve my own classroom.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
Q. Faculty meeting are often used to solve educational problems.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

## School Leadership and Change

**III. Please indicate the extent to which you agree or disagree with each of the following statements about leadership and change in your school.**

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree Nor Disagree	Slightly Agree	Agree	Strongly Agree
A. The principal makes clear to the staff his or her expectations for meeting instructional goals.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7
B. State curriculum guidelines provide more equitable learning opportunities for all groups of students.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7

C. The school's long-term objectives change quite frequently.	<input type="radio"/>						
	1	2	3	4	5	6	7
D. Standards for student performance are largely determined by the state and district.	<input type="radio"/>						
	1	2	3	4	5	6	7
E. All leaders in the school accept their responsibility for continuous improvement.	<input type="radio"/>						
	1	2	3	4	5	6	7
F. Public awareness about school performance provides incentives to improve teaching.	<input type="radio"/>						
	1	2	3	4	5	6	7
G. Every time we get a new administrator, the long-term objectives seem to change.	<input type="radio"/>						
	1	2	3	4	5	6	7
H. If I propose a change, I bring data to support my proposal.	<input type="radio"/>						
	1	2	3	4	5	6	7
I. Our state and district have more influence on what students learn than the teachers of our school.	<input type="radio"/>						
	1	2	3	4	5	6	7
J. Leadership for continuous improvement is lacking in our school.	<input type="radio"/>						
	1	2	3	4	5	6	7
K. Administrators use teacher's input in making important school decisions.	<input type="radio"/>						
	1	2	3	4	5	6	7
L. Educational standards are best determined locally.	<input type="radio"/>						
	1	2	3	4	5	6	7
M. Educational professionals make decisions about curriculum content for our school.	<input type="radio"/>						
	1	2	3	4	5	6	7
N. When we introduce a major school improvement program, we give it time to show results.	<input type="radio"/>						
	1	2	3	4	5	6	7
O. State standards will cause teachers to teach to the state levels.	<input type="radio"/>						
	1	2	3	4	5	6	7

- P. By changing educational strategies our school's results have improved without increasing the budget.  1  2  3  4  5  6  7
- Q. Curriculum content is determined with significant input from the state.  1  2  3  4  5  6  7
- R. Our school board often looks beyond the current year when making decisions about the school.  1  2  3  4  5  6  7
- S. State standards increase public confidence in education.  1  2  3  4  5  6  7
- T. Leaders urge teachers to implement what they have learned in professional development.  1  2  3  4  5  6  7
- U. Persistently low performing schools need outside intervention to improve.  1  2  3  4  5  6  7
- V. Goals are relatively stable in our school over the long-run.  1  2  3  4  5  6  7
- W. Administrators provide a clear and consistent message that improvement of instruction is a primary expectation for teachers.  1  2  3  4  5  6  7
- X. State standards result in better schools and more learning.  1  2  3  4  5  6  7

## Teacher Professional Development

### IV. Please indicate the extent to which you perform the following professional development activities.

- A. The principal makes clear to the staff his or her expectations for meeting instructional goals.  1  2  3  4
- Not at all                      Very Little                      Some                      A lot

- B. This school year, how often have you had conversations with colleagues about the development of a new curriculum?  1  2  3  4
- C. This school year, how often have you had conversations with colleagues about what helps students learn best?  1  2  3  4
- D. Staff development usually focuses on student learning and teaching techniques.  1  2  3  4
- E. I work with other teachers for improvement of our teaching.  1  2  3  4
- F. My professional development experiences have led me to make changes in my teaching.  1  2  3  4
- G. This school year, how often have you had conversations with colleagues about managing classroom behavior?  1  2  3  4
- H. My professional development has been sustained and coherently focused on school goals.  1  2  3  4
- I. Work time is structured to provide me with opportunities to work with other teachers.  1  2  3  4
- J. The professional development has been sustained and coherently focused on school goals.  1  2  3  4
- K. My professional development has given me the skills to examine my own practices systematically.  1  2  3  4
- L. Most of what I learn in professional development addresses the needs of the students in my classroom.  1  2  3  4

M. I frequently have conversations about my teaching practices with teachers from other subject areas/departments.

  
1  
2  
3  
4

N. We have access to resources to facilitate our professional learning.

  
1  
2  
3  
4

APPENDIX B  
CONSENT FORM

School Quality Culture in a First Ring Suburb

You are invited to be in a research study examining the implementation and effects of quality management cultures and practices in the Robbinsdale School District. You were selected as a possible participant because your school participated in the quality training through the Minnesota Academic Excellence Foundation (MAEF). We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Connie Grumdahl, doctoral student at the University of Minnesota, Department of Educational Administration and Policy.

**Background Information**

The purpose of this study is to explore what happens when schools plan effectively to meet the goals of improving student learning. Further, the study attempts to understand the effects of the interface of quality management, strategic planning and organizational change.

**Procedures**

If you agree to be in this study, we would ask you to do the following things:  
Complete a ten minute survey at a regularly scheduled faculty meeting. We recognize and expect that schools as well as individuals are at different levels of implementation. All of the questions ask for your own perception. Commonalities and differences between schools will be noted not individual responses.

**Risks and Benefits of being in the Study**

The study has no risk to you because your responses are anonymous. Furthermore, there is no risk to your school or the district because information from the survey will not affect any evaluation, funding or other resource allocation.

The benefits to participation are: Possible benefits include a greater understanding of the relationship of quality cultures and student achievement.

**Confidentiality**

The records of this study will be kept private. In any sort of report that might be published will not include any information that will make it possible to identify a subject. Research records will be stored securely and only researchers will have access to the records.

**Voluntary Nature of the Study**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota or with the Robbinsdale School District. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

## Contacts and Questions

The researcher conducting this study is: Connie Grumdahl. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at Forest Elementary School, 763-504-7901, connie\_grumdahl@rdale.k12.mn.us. You may also contact her advisor at the University of Minnesota: Karen Seashore, 612-626-8971, klouis@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

*You will be given a copy of this information to keep for your records.*

## Statement of Consent

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

## APPENDIX C

### TEACHER/ADMINISTRATOR INTERVIEW GUIDE

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**School:** 1 2 3 **Teacher:** 1 2 3 4 5

#### **Introduction of myself and the purpose of the study.**

#### **Key points of the study:**

1. The study focuses on the interrelationship of the impact of training and application of TQM principles in the classroom, a change in strategic planning, and how these factors have changed the organizational culture of the school.
2. The study is not designed to assess the merit of these initiatives, but rather focuses on the issues of school practices in relation to these initiatives.
3. The entire interview is confidential. The interview will be recorded for note-taking purposes. The tapes will be available only to the researcher and the university advisor.

#### **Background Question**

Please give me a brief overview of your background: education, teaching responsibilities, and length of experience, including time at this school.

#### **Instructional Practices**

Each school in this district has an annual school improvement plan tied to the strategic plan or goals established by the board. How does your school determine the goals for the year? What is your role in achieving these goals?

- Probing for information on continuous improvement methods such as use of data, goal setting, monitoring of progress and systems thinking. What meaning do these principles have for your classroom(s)?
- What training have you received in school improvement practices?
- Address evidence of teamwork – for what purpose, how often, what is accomplished?
- How have teaching practices changed?
- Have instructional practices changed with the change in demographics?

### **Accountability**

Schools have been faced with increased accountability. Along with this accountability, many districts, including this one, have experienced changes in demographics. Please share with me how these changes in accountability and demographics have affected your school. How have you addressed these changes in the classroom?

This district uses the Northwest Education Assessment (NWEA) and the Minnesota Comprehensive Assessment (MCA) assessments in all elementary schools. Other than these required assessments, what student assessments do you conduct? How do you use the data?

- How do you assess student learning in your classroom? What tools do you use for assessment? How is the data from these assessments used?
- How do you use the MCA data to evaluate student learning, if at all? Give examples.

- If there was one thing you could do to improve assessment of student learning, and data available to you, what would it be, assuming you had the time, resources, and support?
- Have you changed evaluation practices? Has the change in demographics affected your assessment practices?
- Has increased accountability changed your communication with parents/community? If so, how?

## **Culture**

I am interested in the culture of your school. (What are the values and expectations of working with others?) What would you tell a new teacher who had just arrived about how to get along in this school? What are the strengths and needs of your school culture?

Here are some statements that may or may not characterize your school's culture. Which of these are important shared values and beliefs in your school? (Handout was given to the respondent.)

### **School Culture — Shared Beliefs and Values**

- A common vision and goals exists among faculty, staff, and administrators.
- Educational needs should be determined primarily by parents, community groups, students, and other outside stakeholders.
- Improving education requires a long-term commitment.
- A school should strive to make continuous changes to improve education.

- Teachers should be active in improving the overall school operations.
- Collaboration is necessary for an effective school.
- Decision making should rely on data.
- Quality problems are caused by poor systems and processes, not by teachers.
- Quality can be improved within existing resources.

Is there anything else that you would like to tell me about your school or your teaching practices?

*Thank you for their time and ideas. Remind the teacher that all responses are confidential.*