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An Action Plan for Improving Mediocre or Stagnant Student Achievement

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COLLEGE OF EDUCATION

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2013

Abstract

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MA, Austin College, 1992

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Although all of the schools in the target school system adhere to a school improvement process, achievement scores remain mediocre or stagnant within the overseas school in Italy that serves children of United States armed service members. To address this problem, this study explored the target school's improvement process to discover how different stakeholder groups viewed that process. The aim of these investigations was to determine if different stakeholder groups' competing values hindered the school's improvement efforts. The conceptual framework of this study was Schein's organizational culture theory along with recent findings by Creemers and Kyriakides that show that school culture must be addressed in order for a school to improve. The research design was a single case study. Four different stakeholder groups were interviewed, two school improvement committee meetings were observed, and seven school-improvement related documents were examined. *ATLASti* qualitative analysis software was used following Hatch's typological analysis method. Two major themes, *Teachers versus Technocrats* and *Pre-Fourth Way*, revealed the importance of school culture. The recommended project, a Networked Learning Community (NLC), was designed to build a positive culture by promoting collective responsibility, empowering innovation, and building capacity. This study will promote positive social change by demonstrating how school improvement occurs and by providing a research-based plan for a NLC that can help shift the trajectory of the static moderate achievement levels in the case study school and the target school system.

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Dedication

To Patrick –

Even after all of this effort my listening and observation skills are still not as keen as yours. I will think of you as I continue to work at it.

Acknowledgments

I would like to wholeheartedly acknowledge the following people who substantially helped me complete this study.

To the case study school stakeholders who generously gave of their time to participate in the interviews and observations required for this study.

To Dr. Derek Schroll, my Project Study Chair, who provided constructive feedback and personal encouragement throughout this process.

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Section 1: The Problem

Introduction

Encouraging states to inform teachers and principals as to how they can improve their practices and subsequently increase students' knowledge and skills is a focus of the United States Department of Education contest, Race to the Top (Branigin, 2009). The purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process. The target school was an overseas school with mediocre or stagnant achievement scores in a school system that serves children of United States armed service members. This study can contribute toward a better understanding of how school improvement can be done more effectively to help meet the Race to the Top goal. This study is important because it strives to find solutions to the problem of mediocre or stagnant student achievement in schools that serve the children of United States armed service members. In this opening section, I will define the problem (mediocre or stagnant student achievement) and provide evidence of it in this school system along with evidence about this problem in a broader context. This section also includes a critical review of the literature that gives details about various factors related to school improvement and explains the substantive framework of the study to justify it as a worthwhile scholarly endeavor. Finally, this section includes descriptions of relevant interventions found in the current literature.

Definition of the Problem

According to the Organization for Economic Cooperation and Development (OECD, 2011), in the current global economy, workers must now compete for jobs not

just locally or even nationally; workers must compete for jobs internationally. Workers in wealthier countries like the United States must compete for jobs directly with workers in lower-wage countries. In this flat world, the most knowledgeable workers, regardless of where in the world they are located, get the highest paid jobs. As Friedman (2012) reiterated in his recent New York Times editorial, "In the past, workers with average skills, doing an average job, could earn an average lifestyle. But, today, average is officially over" (p. A29). American workers must be more knowledgeable and skilled than workers from lower-wage countries in order to compete for the highest paid jobs because workers from lower-wage countries require less compensation (OECD, 2011). The implication is that average academic achievement is no longer sufficient. American students must be among the most knowledgeable and skilled in the world or they will not be able to compete for the highest paid jobs.

In 2009, when United States President Barack Obama launched the United States Department of Education contest, Race to the Top, President Obama said (as cited in Branigin, 2009):

> America will not succeed in the 21st century unless we do a far better job of educating our sons and daughters. Countries that out-educate us today will out-compete us tomorrow. The future belongs to the nation that best educates its people.

Amongst several other emphases, Race to the Top encourages states to inform teachers and principals as to how they can improve their practices and subsequently increase students' knowledge and skills (Branigin, 2009). As the name implies, the Race

to the Top initiative strives for American schools and their students to be the best in the world; mediocre or stagnant scores are not adequate.

Research on school effectiveness has not yet informed practitioners as to how to improve while school improvement research has not examined the consequences of the processes it requires (Creemers & Kyriakides, 2010). Although school effectiveness research provides a list of characteristics of effective schools, it does not provide guidance about how the characteristics can be acquired if they are absent or strengthened if they are present (Coe, 2009). System-prescribed school improvement models usually establish a process and keep it going, but they do not evaluate the process or acknowledge that the interventions they are promoting might not be working (Creemers & Kyriakides, 2010).

The school system selected for this study employs approximately 8,700 educators who serve more than 86,000 children of United States armed service members in 194 schools in 14 districts in 12 foreign countries, seven states, Guam, and Puerto Rico (DoDEA, 2012). All 194 schools adhere to a system-prescribed school improvement process that includes an external evaluation (Quality Assurance Review [QAR] every 5 years as well as annual comprehensive School Self-Assessments (SSAs). However, student achievement scores on average across the system remain mediocre or stagnant.

Rationale

Evidence of the Problem

The system-wide, district, and school-level data reports published online and updated annually by the school system include scores from three sources: the system-

mandated Terra Nova (TN) 3rd Edition standardized achievement test, the National Assessment of Educational Progress (NAEP) data, and the Scholastic Aptitude Test (SAT) data (DoDEA, 2012). Although the mobility rate of students across the system is about 30% a year, the demographic characteristics of the population have not changed over time. Moderate, yet static or declining scores are found when examining the TN achievement test scores for all students in grades 3rd through 11th. Average TN scores on all subject areas ranged from 56 -76% in 2011, from 57-75% in 2010, and from 55-76% in 2009--the first year the newly normed test was administered. Moderate yet static or declining scores are found when comparing the system's 2009 and 2007 NAEP scores; 4th and 8th graders' average scores dropped one point in reading while 4th graders remained the same in math, and 8th graders' average math scores increased by two points. Finally, the average SAT scores for students in the system remain moderate but are declining (see Table 1). These trend data suggest that current school improvement practices are only maintaining student achievement and not promoting it to a higher level.

Table 1.

Average SAT Scores for Students Across School System

Year	Verbal	Math	Writing
011	503	495	489
2007	512	501	495

Note. From "DoDEA Data Center," by Department of Defense Education Association (DoDEA), 2012. Retrieved from http://www.dodea.edu/datacenter/testdata.cfm

(table continues)

In Table 2, the aggregated Terra Nova trend data (detailed Terra Nova data are found in Appendix B), show that only 1 out of the 13 schools in the district has had more

students' Terra Nova scores increase in all areas instead of remaining the same or decreasing, while in 12 out of 13 schools in the district, more students' scores have remained the same or decreased in one or more areas (DoDEA, 2012). Again, this trend data suggest that current school improvement practices are only maintaining student achievement and not promoting it.

Table 2.

Aggregated Terra Nova Trend Data for 13 Schools in the District

School	Reading	Language Arts	Math	Science	Social Studies
School 1	↑	↑	↓	↑	↑
School 2	↑	↑	↑	↑	↑
School 3	↓	↓	↓	↓	↓
School 4	↑	↓	↓	↓	↓
School 5	↑	↑	↑	↑	↓
School 6	↓	↑	↑	↑	↓
School 7	↑	↑	↓	↓	↑
School 8	↓	↑	↓	↓	↓
School 9	↓	↓	↓	↓	↓
School 10	↑	↓	↑	↑	↑
School 11	↑	↓	↑	↑	↑
School 12	↑	↑	↓	↓	↑
School 13	↑	↑	↓	↑	↑

Note. Green arrow indicates that frequency of scores went up (even if by narrow margin) and red arrow indicates that frequency of scores went down or stayed the same. From "DoDEA Data Center," by Department of Defense Education Association (DoDEA), 2012. Retrieved from http://www.dodea.edu/datacenter/testdata.cfm

(table continues)

The trend data of achievement scores outlined in Table 2 suggests that 12 out of 13 schools in the district are what the Ontario Ministry of Education (2011) refers to as *schools in the middle,* because 51-74% of students are achieving in the top two quartiles on standardized achievement tests, but based on 3-year trends, the results have been stagnant or even declining. The Ontario Budget specified that Ontario's future economic success depended on having the strongest possible public education system; like President Obama, the government and people of Ontario believed that student achievement that was mediocre was a problem (Duncan, 2011). Therefore, the Ontario Ministry of Education designed its Schools in the Middle initiative to focus on building capacity to improve mediocre student achievement. To support this Schools in the Middle initiative, the Ontario Ministry of Education provided additional funding to over 1,400 eligible Ontario schools (Duncan, 2011). Through its renewed school improvement efforts since 2002, Canadian students are no longer in the middle; since 2006 Canadian students are near the top in the world (OECD, 2011).

Other countries have also introduced innovative school improvement programs because they recognize the problem of mediocre but stagnant student achievement levels. Germany, a country that historically had a highly effective educational system, was shocked in 2000 when its students' mean scores were slightly below average on the

OECD (2011) Programme for International Student Assessment (PISA). The PISA test was developed collaboratively by more than 70 countries and has been given annual to random samples of 15-year olds in those countries to measure mathematics and science knowledge, literacy skills, and the application of that knowledge and skill. After the PISA shock, the German government sprung in to action, investing billions in redesigning its educational standards, developing both formative and summative assessment structures, and supporting educational research. Ten years later, Germany has substantially improved its students' PISA scores; they are now above average in all areas (OECD, 2011).

In 2000, Poland's students also had mean scores on the PISA that were below average; by 2006, Poland's students' mean PISA results were at or above average (OECD, 2011). This remarkably rapid improvement is believed to be the result of (a) a new, rigorous academic curriculum for all students through age 15 and (b) new external examinations to measure progress (OECD, 2011).

Mediocre or stagnant student achievement is also a problem for the United States. As discussed above, PISA is a test that was developed collaboratively by more than 70 countries; it is given annually to random samples of 15-year olds in those countries to measure mathematics and science knowledge, literacy skills, and the application of that knowledge and skill (OECD, 2011). On the 2009 PISA, American students ranked 14th in reading among the 34 OECD wealthy countries; American students' average score was around the PISA average for reading. American students ranked 17th in science and 25th in mathematics among the 34 OECD wealthy countries; American students' average

score was around the PISA average for science but below the PISA average for mathematics (OECD, 2011).

According to the long-term trend analysis (1971–2008) by the NAEP (United States Department of Education, 2008), 9-year old students' average reading scores increased 12 points; but 13-year old students' average reading scores increased only 4 points, and 17-year old students' average reading scores did not increase at all during this almost 40-year period. In mathematics, the trend was similar, especially for older students. Nine-year old students' average math scores increased 24 points and 13-year old students' average math scores increased 15 points; however, 17-year old students' average math scores did not increase. School systems across America and around the world are looking for ways to improve schools; citizens everywhere have acknowledged the importance of increased student knowledge and skills for students' future individual well-being as well as for economic progress and societal success (Campbell & Fullan, 2006).

Evidence of the Problem from the Professional Literature

AdvancED (2012), the largest school accreditation agency in the world and the agency that accredits the schools in the target system, believes that its accreditation process provides both the guiding framework as well as the information about effective practices that schools need to improve student achievement. AdvancED describes its accreditation process on the company overview section of its website as "a protocol embraced around the world that provides a clear and comprehensive program of evaluation and external review, supported by research-based standards, and dedicated to

helping schools, districts and education providers continuously improve" (para. 3). To earn AdvancED accreditation, schools and districts must meet or exceed the specified performance levels for indicators within its required five standards: purpose and direction, governance and leadership, teaching and assessing for learning, resources and support systems, and using results for continuous improvement. To earn AdvancED accreditation, schools or districts must also participate in a QAR by a team of external evaluators every 5 years and schools or districts must complete an annual comprehensive SSA (AdvancED, 2012). Throughout its website, AdvancED equates its accreditation process with a formalized school improvement process; however, I could not find any school improvement process evaluation data or peer-reviewed research anywhere on the AdvancED Website. When I emailed the operations manager of AdvancED and specifically requested peer-reviewed research evaluating the impact of the process, I was informed that they did not have any peer-reviewed research available (A. Horton, personal communication, July 16, 2012).

From his review of school-improvement research, Coe (2009) concluded that due to inadequate school-improvement-process evaluation, "many claims of school improvement are illusory" (p. 363). Part of the reason for inadequate school-improvement-process evaluation is a view of the school-improvement process as an adaptive process that suggests, "What works in one school may well not work in another" (p. 371). This adaptive-process view also includes the belief that neither school-improvement interventions nor outcomes can be prespecified so school-improvement-process evaluation is practically impossible. Moreover, Coe explained that opponents of

school-improvement-process evaluation claim that each school context is unique so attempts to find generalizations are doomed to fail. Nonetheless, Coe argued that any prescribed school improvement process must be rigorously evaluated in order to understand the strategies and conditions under which real school improvement occurs.

> To say that all schools are unique so one cannot generalize about what works, but at the same time giving specific advice or implementing a particular policy with the intention of helping them to improve is tantamount to saying, I have no basis for believing this will do more good than harm in your case, but do it anyway. (Coe, 2009, p. 372)

Coe (2009) stated that even flexible school-improvement programs contain a level of specification. For example, the AdvancED (2011) accreditation process does not specify what kinds of strategies a participating school must adopt--this is very much left to participating schools to decide--but AdvancED does specify standards for quality schools, a set of principles and broad operational constraints within which decisions should be made. According to Coe, to the extent that principles and constraints are specified they can, therefore, be evaluated. Coe emphasized that the need for improvement processes to be sensitive to unique environments is perfectly compatible with rigorous process evaluation.

The two most common system-prescribed school improvement interventions are external evaluations or QARs and school self-evaluations or SSAs (Ehren & Visscher, 2008). Since school-improvement-process evaluation is lacking, there are very few studies available about the effects of QARs or SSAs on student achievement; those

studies that are available show a mixed picture (Hofman et al., 2009). Some studies have shown increased achievement in the very lowest performing schools as a result of QARs and SSAs; other studies have shown no improvements from these common school-improvement interventions, and still other studies have actually shown that achievement declines as a result of QARs and SSAs (Hofman et al., 2009). To meet a goal of Race to the Top--to inform teachers and principals as to how they can improve their practices and subsequently increase student academic achievement--educational researchers and leaders should understand the nature of the school improvement process.

Significance

This study is important because it examined if different stakeholder groups have different espoused values and shared assumptions, and if those competing values hinder the improvement efforts at the case study school. This study is also important because it focused on understanding the problem of mediocre or stagnant student achievement in schools that serve the children of United States armed service members. This qualitative case study is expected to promote positive social change by providing recommendations that can help shift the trajectory of the static, moderate achievement levels in the school system and ultimately improve students' knowledge and skills. In addition, it contributes to a better understanding of how real school improvement occurs and thus contributes to meeting a goal of Race to the Top.

Guiding Question

Coe's (2009) review of the literature on school improvement showed that most claims of successful school improvement programs are based on administrators' and/or

teachers' perceptions and argued that these claims suffered from a "dissonance reduction problem" (p. 366). Coe explained that people who believe they have freely invested effort in a particular course of action are more likely to see it as successful. So when participants perceive that a program has succeeded, this "probably tells us more about the motivational and inspirational skills of those recruiting and persuading participants than it does about the real impact of the program" (p. 366). Therefore, in this qualitative case study, I explored the perceptions of different school stakeholder groups including parents and key military members--not just the school administration and teachers.

The guiding question for this qualitative case study was: What is the nature of the school improvement process for different stakeholder groups at the case study school, an overseas school with mediocre or stagnant achievement in a system that serves children of United States armed service members? To answer this question, I analyzed data collected from administrators, teachers, parents, and key military members who were interviewed about the school improvement process at the school and uncovered patterns, relationships, and themes. Griffore et al. (2010) concluded that school artifacts can identify the important factors of a school's improvement model. Therefore, in this qualitative case study, I also reviewed school documents related to improvement, such as the school's QAR rating report, SSA report, and a few other plans and/or reports. Additionally, I observed two school improvement committee meetings to try to see things that the participants took for granted, to see if the participants did what they say they do, and to develop a better understanding of the culture of the school. Triangulation occurred because interview data were collected from both individual and focus group interviews

with four different stakeholder subgroups that have different perspectives; two school improvement committee meetings were observed and various relevant documents were analyzed (Merriam, 2009).

Definitions

21st Century Career and College Readiness--"To succeed in college and career, students must be able to learn, apply, and adapt in all subjects. This can be accomplished by fusing core content knowledge in the major subjects with 21st century skills focused around critical thinking and problem solving, communication, collaboration, and creativity and innovation" (Partnership for 21st Century Skills, 2012, p.1).

Accountability--"Means that staff engage in systematic, continuous improvement and that they measure their success by how well each student progresses" (Ontario Ministry of Education, 2010, p. 3).

Accreditation--"A voluntary method of quality assurance designed primarily to distinguish whether or not schools adhere to specified educational standards" (AdvancED, 2012, para. 1).

AdvancED--"The world's largest education accrediting agency, serving more than 30,000 public and private schools and districts across the United States and in more than 70 countries that educate over 16 million students" (AdvancED, 2012, para. 1).

Capacity Building--"Enabling conditions that allow process to affect product. Enabling conditions include staff development, enquiry and reflection on progress, involvement of students in the teaching and learning process, distributed leadership,

collaborative planning and coordinated school-wide activity that establishes coherence" (Stringer, 2009, p. 165).

Flat world--"The global market has become a level playing field" (Friedman, 2005, p. ii).

Formative Assessment--"The ongoing process of teachers collecting and examining evidence of student learning to provide feedback and appropriately adjust instruction" (Ontario Ministry of Education, 2010, para. 8).

National Assessment of Educational Progress (NAEP)--"The only nationally representative assessment of what American students know and can do in various subject areas" (Institute of Education Sciences, 2012, para. 1).

Organization for Economic Cooperation and Development (OECD)--an international organization whose mission is "to promote policies that will improve the economic and social well-being of people around the world" (OECD, 2012, para. 1).

Programme for International Student Assessment (PISA)--"A collaborative effort among OECD member countries, assesses youth outcomes in reading literacy, mathematical literacy, and scientific literacy through common international tests" (OECD, 2011, para. 1).

Professional Learning Communities--a group of people that focus on "improving learning and teaching, collective responsibility for the learning of all students, reflective professional inquiry to deepen practice, collaboration and teamwork, and group and collective learning, as well as individual learning" (Ontario Ministry of Education, 2010, p. 45).

Quality Assurance Reviews (QARs)--External inspections of schools that "aim to improve current provision and outcomes, to raise aspirations and to contribute to a longer term vision for achieving ambitious standards" (Ehren & Visscher, 2008, p. 206).

Race to the Top--"A competition for $4.35 billion in federal education funds, urging states to ease restrictions on charter schools, link teacher pay to student achievement and adopt common national academic standards" (Branigin, 2009, para. 1).

School Effectiveness Research --"Distinguishes factors that are characteristic of effective schools" (Sun, 2003, p.5).

School Self-Assessments (SSAs)--"A process, directly or indirectly aimed at school improvement, in which the school's input, internal processes at the school and classroom levels, and performance are assessed" (Hofman et al., 2009, p. 48).

School Improvement Research--Explores "the journey to success and the necessary conditions to support successful change" (Sun, 2003, p.11).

Schools in the Middle--term coined by the Ontario Ministry of Education (2011) referring to schools where "51%-74% of students are achieving in the top two quartiles on standardized achievement tests but results have been stagnant or even declining based on three-year trends" (para. 2). Also refers to a program designed by the Ontario Ministry of Education to address the problem of moderate static student achievement.

Summative Assessment--"The process of summarizing learning usually at the end of a cycle of learning in order to make judgments and to communicate with stakeholders" (Ontario Ministry of Education, 2010, para. 9).

Review of the Literature

This literature review aims to describe the previous work related to this topic and to develop a substantive framework that contains the factors assumed to either positively or negatively influence effective school improvement. I begin this literature review by explaining the distinction between school *effectiveness* research and school *improvement* research. Then, I discuss current literature related to teacher-level factors, school-level factors, and context-level factors as defined by Creemers and Kyriakides (2010a) in their dynamic model of educational effectiveness*,* a research-based approach for school improvement that I have chosen to structure my initial data collection and analysis. Finally, I outline current school improvement approaches to solving the problem of mediocre or stagnant student achievement.

The studies included in this literature review were found in peer-reviewed academic journals by searching for variations of the term *effective school improvement* using the Walden Thoreau Database. For example, I searched for school improvement, school effectiveness, and school improvement process. I also harvested the references listed in current relevant studies and associated books.

Current School Improvement Research

In the current global economy, a primary concern of education systems is the highest possible academic achievement for all students so they are prepared to be global citizens and become globally competitive. According to Sun (2003), the basic premise behind school effectiveness research is to define the factors of education systems that correlate with the highest possible academic achievement for all students. Most school

effectiveness models distinguish among the factors that exist at different levels of educational systems: student-, teacher-, school-, and context-level factors. Although school effectiveness researchers strongly assert that the teacher-level factors have the greatest impact on student learning, they also argue that higher-level factors such as school- and context-level factors provide the conditions for what happens in classrooms and thus greatly influence teacher-level factors. It is believed that a combination of factors from the different levels induces the highest possible academic achievement for all students. Rather than simply defining what effective and ineffective schools look like, school improvement researchers investigate how the desired factors get that way. This research aims (a) to tell education systems how to become successful; (b) to tell education systems not only the factors necessary for effectiveness, but also the factors necessary to support any needed changes and to solve any unsolved problems. Instead of *defining* the factors of effective schools, school improvement researchers explore how schools acquire and/or maintain those factors (Sun, 2003).

Education systems all around the world are seeking the products of school improvement research; governments and the public have recognized the importance of high student academic achievement for both societal and individual success (OECD, 2011). Race to the Top, the most ambitious school improvement initiative in the world, encourages states to tell teachers and principals how they can improve their practices and subsequently increase students' knowledge and skills (Branigin, 2009). To contribute toward meeting this Race to the Top objective, Campbell and Fullan (2006) described the school improvement efforts in eight case study districts in Ontario, Canada. These school

districts followed the Ontario Education Secretariat's Schools in the Middle strategy, which was capacity building with a focus on results, and achieved improved achievement outcomes in a short period of time (Campbell & Fullan, 2006). The process and results of these Ontario case studies informed this study.

Campbell and Fullan (2006) wanted to learn what was going on in those Ontario school districts that were engaging in successful school improvement initiatives. So they profiled their stories and provided concrete examples of effective school improvement strategies. The eight participating districts were also purposefully chosen because they represented as many extreme contexts as possible; large urban districts, geographically dispersed rural districts, ethnically diverse districts, and Aboriginal districts were studied. Senior district administrative leadership and key district officer personnel were interviewed along with a sample of school principals. Classroom observations and informal interviews with teachers and other school staff took place during school visits. The report describes the nature of school improvement in the selected districts then outlines its findings which were 12 key components of school improvement that link to four broad areas (Campbell & Fullan, 2006).

Campbell and Fullan (2006) found that exhibiting only one or two of the key components are not adequate because their combined strength is essential and the components are not mutually exclusive. The first broad area of effective school improvement, leadership with a purpose, includes the components: leadership for learning, student achievement as a shared focus, and moral purpose. The second broad area of effective school improvement, designing a coherent strategy, includes the

components: prioritized resource allocation, overarching strategy, district organization, and monitoring and accountability requirements. The third broad area of effective school improvement, developing precision, includes the components: professional learning and the use of data. Finally, the fourth broad area of effective school improvement, sharing responsibility, includes the components: communication, and positive and purposeful partnerships. While not offering a blueprint, Campbell and Fullan's findings can help other education systems because they could compare their existing school improvement actions with their findings.

In his exploration of school improvement theory and practice in schools in the country of Trinidad and Tobago, James (2008) defined school improvement as all of the actions or efforts that school systems do to try to positively impact the teaching and learning process. As is the United States government and most other national governments, the government of Trinidad and Tobago is committed to school improvement as a means toward producing economic growth, and individual and societal progress. However, James was concerned that the school improvement models developed and implemented in education systems in other countries were being used as the basis for school-improvement initiatives in Trinidad and Tobago and that these internationally-developed models may not be appropriate for the Trinidad and Tobago education system. James wanted to find out "what school improvement initiatives were actually being implemented, and what was the school improvement theory underlying those initiatives, and what were the initiatives' implications for engendering real improvement" (p. 2).

Therefore, James compared the internationally-developed student improvement models to the local school improvement actions and efforts taking place (James, 2008).

Although James (2008) acknowledged that his study was highly contextualized--it was conducted in a unique country at a specific time--he argued that his study still informed school improvement research because school improvement itself is highly contextualized. School improvement efforts should consider the specific factors related to each school. James employed a qualitative case study design based on an interpretive conceptual framework. Data was collected through teacher questionnaires, structured and unstructured interviews with school principals and system leaders, and analysis of school improvement-related documents. Fourteen schools from eight different districts were purposefully chosen based on their type, location, and characteristics so that diverse contexts would be studied. James obtained informed consent from 140 teachers and 25 administrators; he discussed the measures he took to guard their privacy and assure accuracy.

James' (2008) report was both descriptive and exploratory; he described the school improvement initiatives and underlying theories and he generated a proposition about how to modify the efforts to solve problems and/or enhance improvements. James found that the school improvement process was externally-mandated based on the requirements of an international organization. James wrote, "Meaningful conversations with teachers and other stakeholders who have to implement and experience the process generally do not take place" (p. 7). James found that the underlying theory of the prescribed process was sound but the necessary support resources to manage and sustain

the process were inadequate, support was untimely, supervision and monitoring was insufficient, there were too many changes required at the same time, and the process did not give enough consideration to school-level and context-level factors.

The capacity for change and adaptation in the case of effective school improvement framework programme, a joint research project between Belgium, England, Finland, Greece, Italy, The Netherlands, Portugal, and Spain, was designed to investigate the relationship between school effectiveness and school improvement in order "to increase the possibility for schools to improve education" (Creemers, Stoll, & Reezigt, 2008, p. 2). As part of this project, Creemers et al. (2008) described and analyzed the best school improvement practices in these eight European countries to draw out findings that might be applicable in diverse school contexts around the world. This analysis resulted in a framework for effective school improvement (ESI), *The ESI Framework*, which identified factors that might foster or hinder school effectiveness and school improvement. The ESI Framework measured school effectiveness by whether or not the school had achieved better outcomes and the ESI Framework measured school improvement by the school's capacity for managing change. The dynamic model of educational effectiveness (Creemers & Kyriakides, 2010b), which I used to guide the data collection and analysis in this study, was developed from the ESI Framework.

To build the ESI Framework, researchers visited schools in five countries and worked with school representatives in the other three countries to answer eleven predetermined questions about the extent that various factors, identified from both school effectiveness and school improvement literature, fostered or hindered effective school

improvement (Creemers et al., 2008). Case studies were written for each school then research teams analyzed the similarities and differences between each case study. As new ESI factors emerged the analysis continued; research teams found a number of trends across the improvement processes in the different countries. The ESI Framework included the use of both summative and formative assessment data, student engagement, the curriculum, the prescribed school improvement cycle, the school's and system's organization and culture, stakeholder involvement, professional learning, and external accountability measures. The ESI Framework categorized the relevant factors found as teacher-level, school-level, and context-level (Creemers et al., 2008).

Researchers have also explored whether various school effectiveness and school improvement factors work in the same way in different contexts (Wikeley, Stoll, Murillo, & De Jong, 2005). Wikeley et al. (2005) found three factors that had a positive impact on school improvement in some contexts and a negative impact on school improvement in other contexts. All three factors were categorized as context-level factors. The three factors are: the nature of school stakeholders' involvement in the school improvement process, the nature of external change agents' involvement in the school improvement process, and the comprehensiveness of the school improvement program. Wikeley et al. concluded that context-factors appeared to be the most important because even when schools were free to decide their improvement approaches, the widely established educational goals, external pressure to improve, and external resources and support impacted schools' outcomes and capacity for positive change. For example, Wikeley et al. noted that external pressure to improve positively impacts school improvement for

schools that are able to start improving but negatively influences schools that do not have the skills to initiate change.

According to Ehren and Visscher (2008), school inspections, referred to as QARs or external reviews in the school system, are a common strategy for exerting external pressure on schools. Therefore, they conducted a study to find out to what extent school inspections contributed to school improvement. After 190 randomly chosen schools completed a survey about capacity for innovation, the researchers selected the five schools with the highest innovation capacity and the five schools with the lowest innovation capacity. They surveyed school inspectors to find out how the inspectors assessed schools and what they specifically did to try to stimulate schools to improve. Inspectors were purposefully chosen for participation to represent directive, reserved, and average inspection styles. Ehren and Visscher assigned inspectors to case study schools so that both low and high capacity schools received each respective style of inspection. Data were gathered from the case study schools through interviews with a school leader and a teacher before the inspection, immediately after the inspection, 3 months afterward, and 6 months afterward. Observations were conducted during the inspection, 3 months afterward, and 6 months afterward. Documents, such as school inspection reports and school improvement plans, were analyzed. Ehren and Visscher's study design informed the design of this study.

Regardless of the inspectors' style, Ehren and Visscher (2008) found only minor variations in: what was monitored, how much monitoring took place, the feedback that was provided, and the recommendations that were provided. To measure the intended

effects of the QARs, the school improvement activities initiated by schools before the inspection were monitored until 6 months after the inspection and the recommendations that were provided to the school as a result of the inspection were monitored until 6 months after the inspection. School improvement activities were counted as an effect of the inspection visit only where feedback or recommendations from the inspection led to changes or new improvement plans. The researchers concluded that the number of unsatisfactory scores received from a QAR did not seem to influence the number of school improvement activities implemented at the schools. The researchers also concluded that the quantity of feedback and the number of improvement recommendations provided did not seem to influence the number of school improvement activities implemented at the schools. Contrary to their hypothesis, the researchers concluded that the level of school innovation capacity was not correlated with the number of improvement activities schools initiated after an inspection visit. Although the researchers found that all of the schools had slightly improved student outcomes as a result of QARs, improved outcomes persisted only when follow-up support and ongoing monitoring occurred. Based on the results of Ehren and Visscher's study, information about the follow-up support and ongoing monitoring provided at the school was uncovered as the nature of its school improvement activities was explored.

Another study by Luginbuhl, Webbink, and De Wolf (2007) found that the impact of school inspections, or QARs, varied depending on the type of statistical analysis employed. When the researchers used a standard fixed-effect model, they found student achievement test scores increased by 2 to 3% of a standard deviation within the first 2

years after the inspection. Analysis following a standard fixed-effect model also indicated that ”more intensive inspections produced larger improvements in school performance than less intensive ones” (p. 234). However, when the researchers tested randomly selected schools they found no difference in performance. Luginbuhl et al. concluded that QARs had little to know effect on student performance. School inspections or external reviews are required by the system prescribed school improvement process; therefore, the case study school participates in periodic QARs.

School self-evaluations, also often referred to as SSAs, are another common school improvement practice (Hofman et al., 2009). The case study school engages in SSAs because they are required by the system prescribed school improvement process. Hofman et al. (2009) carried out a quantitative study using data from 81 randomly selected elementary schools with over 2000 students and calculating multilevel analysis of variance statistics to find out whether there was a relationship between school self-evaluations and student academic achievement. The data came from a large scale National Dutch Inspectorate of Education database and the researchers found no significant differences between the sample and the population of schools and students. After operationally defining various characteristics of the schools and their self-evaluations, the researchers found that when SSAs were completed by teams of teachers within a learning-focused culture, SSAs were positively correlated with student achievement. “Schools characterized by well implemented accountability measures and who are already at the stage of evaluating their school improvement measures have a significantly better teaching-learning process quality than other schools” (p. 59). In other

words, when school self-evaluations are compelled by both external accountability requirements and the school's genuine desire for improvement, they have a positive impact (Hofman et al., 2009). Based on the results of this international study, information about accountability and desire for improvement at the case study school was uncovered as the nature of its school improvement activities was explored.

Creemers and Kyriakides (2010b) argued that school improvement interventions often result in lower achievement outcomes or have no impact on student learning but schools are required to continue the school improvement interventions for long periods of time anyway. Therefore, Creemers and Kyriakides developed the dynamic model of educational effectiveness from their comprehensive review of both school effectiveness and school improvement research to help practitioners: (a) identify the context, school, and/or teacher-level factors that should be introduced or changed through school improvement interventions, (b) focus on taking actions to develop and implement an effective school culture or school learning environment in order to positively influence teaching practice, and (c) emphasize the importance of assessing the impact their school improvement interventions have had on student learning outcomes.

Kyriakides (2008) synthesized six studies that were conducted over a 10-year period in varied educational contexts to test the validity of Creemers' (1994) comprehensive model of educational effectiveness, the predecessor of the dynamic model of educational effectiveness by Creemers and Kyriakides (2010b). The synthesis of these six studies revealed that influences on student achievement are multilevel (Kyriakides, 2008). Kyriakides found that teacher-level factors have unique effects on student learning

that are independent of the effects of factors operating at the context, school, and student levels. Kyriakides found that by controlling for both student factors and teacher-level factors, factors at the school level explained some variation in student achievement. Kyriakides also found that the impact of school and context-level factors depended on the difficulties that the school and/or system were facing. The operational definitions for the context, school, and teacher-level factors of the dynamic model and the multileveled design of the dynamic model emerged from Kyriakides' synthesis of these six studies of Creemers' comprehensive model.

As explained above, the dynamic model refers to factors operating at multiple levels (Creemers & Kyriakides, 2010b). Teaching factors are underscored but the model also emphasizes school-level factors, especially creating a positive learning environment at the school and influencing teaching and learning. Context level factors include the influence of the educational system and the wider educational setting in which learning occurs such as the values of the community and the importance school stakeholders give to education. The dynamic model assumes that school-level factors and context-level factors influence not only student achievement but also teaching factors.

The dynamic model further assumes that the impact of context, school, and/or teacher-level factors depends on the specific needs of the system, school, or teacher (Kyriakides & Creemers, 2009). Two schools may be at the same stage in terms of the functioning of a specific factor (i.e., collaboration among teachers) but one of the schools would get more benefits by making efforts to improve this factor than the other school because the other school is facing more imperative problems related to the functioning of

some other factor(s). The dynamic model asserts that some factors will have more impact on achievement than other factors; therefore, optimal points for the functioning of factors in relation to student outcomes must be identified. Kyriakides (2008) recommended that further studies were needed to explore these multileveled factors, look at the difficulties that schools and systems are facing, and examine how changes in the factors are associated with improvements in effectiveness. The design of this project study was based on this recommendation.

Teacher-level Factors

School effectiveness research has revealed that teacher-level factors explain more variation of student achievement than school or context-level factors (Kyriakides, Creemers, & Antoniou, 2009). Therefore, a great deal of research over the past decade has focused on understanding why teacher-level factors are important for learning and how to help teachers acquire and enhance the most effective teacher-level factors. In this research vein, a study by Kyriakides et al. (2009) examined whether the teacher-level factors included in the dynamic model of educational effectiveness could be grouped into measurable dimensions of teacher behavior and whether those dimensions were correlated with different student achievement outcomes.

The teacher-level factors of the dynamic model of educational effectiveness, which were identified based on the assumption that teacher effectiveness could be improved if teachers developed more effective behaviors are: orientation, structuring, questioning, teaching modeling, application, management of time, teacher role in making classroom a learning environment, and classroom assessment (Kyriakides et al., 2009).

The dynamic model was also designed based on the assumption that each teacher-effectiveness factor could be measured using the following five dimensions: frequency, focus, stage, quality, and differentiation. The dimensions were intended to help describe each factor. Kyriakides' and Creemers' (2008a) earlier study published in the journal entitled School Effectiveness and School Improvement investigated and established the validity of these five dimensions.

Multiple complex statistical modeling techniques revealed that the dimensions related to the eight factors could be grouped into distinguishable levels and that teachers who displayed the more advanced types of behaviors had better student achievement outcomes (Kyriakides et al., 2009). Therefore, the researchers concluded that the dynamic model could help educational researchers and leaders provide explicit quantitative and qualitative feedback to teachers that could result in improvements in teaching practices and student achievement. Kyriakides et al. recommended that case studies be conducted to find out the difficulties that teachers experience in moving up to the next level of teacher behaviors. In this study, the barriers associated with improving instruction were investigated.

Another study conducted by Kyriakides and Creemers (2009) examined the effects of the teacher-level factors from the dynamic model of educational effectiveness on different student achievement outcomes at different phases of schooling. The purposes of this study were to explain variations in student achievement based on teacher-level factors and to identify patterns of teacher behaviors that might be effective in different educational contexts. The teacher-level factors of the dynamic model of educational

effectiveness that were examined are: orientation, structuring, questioning, teaching modeling, application, management of time, teacher role in making classroom a learning environment, and classroom assessment. Anchored in a scientific realist theoretical framework, Kyriakides and Creemers played a detached role during the study, strove for objectivity, and operationally defined the dependent, explanatory, and independent variables of the study. The dependent variables identified and defined were: primary student achievement in mathematics and language, and elementary student achievement in mathematics and language. The explanatory variables identified and defined were: aptitude and social economic background. The independent variables identified and defined were the teacher-level factors outlined above (Kyriakides & Creemers, 2009).

Kyriakides and Creemers (2009) study was nonexperimental descriptive survey research following a one-shot survey design. They used stratified random sampling to select 80 primary schools located in the country of Cyprus; 76 schools completed the study. A total of 2812 students in their last year in these schools participated. Kyriakides and Creemers used stratified random sampling to select 52 elementary schools in the country of Cyprus; 50 schools completed the study. Again, all of the students (n=2503) in the last year in these schools participated. A chi square test did not reveal any statistically significant difference between the research samples and the research populations; the researchers claimed that the samples were nationally representative (Kyriakides & Creemers, 2009). However, the researchers acknowledged some unique characteristics of the education system in Cyprus and the limitations to the generalizability of these results to other nations due to these unique national characteristics.

Kyriakides and Creemers (2009) calculated and reported interrater reliability because different trained independent observers used a Likert-scale type observation instrument to measure the eight teacher-level factors in the 141 participating primary classrooms and in 108 participating elementary classrooms. Observation measurement instrument reliability and validity testing was explained and detailed explanations for measuring mathematics and language achievement at both the primary and elementary levels was provided. The researchers did not mention informed consent or its ethical considerations at all in this report. Research participants responded to four comprehensive achievement tests yet the researchers did not discuss the impact this extensive interaction might have had on their behavior.

Kyriakides and Creemers (2009) calculated correlation coefficients between all eight independent variables (teacher-level factors) and all four dependent variables (student achievement outcomes); the correlation matrix showed statistically significant correlations at the 0.05 level between almost all measures although the correlations were smaller than 0.20. Kyriakides and Creemers also employed a correlational-statistics analytical technique called structural equation modeling to show relationships between the variables and to test different models. Through the findings from their structural equation modeling, they concluded that "for each outcome, the dynamic model was found to fit better than any other alternative model and was able to explain more than 70% of the variance of student achievement at the classroom level" (p. 81). Kyriakides and Creemers contended; therefore, that the teacher-level factors from the dynamic model of educational effectiveness could be used to explain differences in the effectiveness of

teachers. The existence or non-existence of the teacher-level factors and dimensions defined in the dynamic model of educational effectiveness were investigated because their existence or non-existence could help discover the nature of school improvement at the case study school.

According to reports from the OECD's Teaching and Learning International Survey (TALIS, 2009), ongoing and collaborative teacher professional development activities, such as mentoring or teacher-networking programs, have a strong positive association with the existence of teacher-level factors that have been shown to increase student achievement. And, according to TALIS' results, the most effective types of professional development, advanced qualification programs and action research activities, are those in which teachers participate the least because teachers often have to pay all or most of their cost and/or they take the most time. Seemingly related but unfortunate, the TALIS also showed that 42% of teachers surveyed reported a lack of suitable professional development opportunities that positively impact their teaching practices. Finally, according to TALIS' results, high levels of trust in schools and a positive school climate were associated with increased teacher learning of effective teaching practices which has been shown to increase student achievement (OECD, 2009). In this study, the nature of the school's professional development and its associated professional learning climate was examined.

School-level Factors

A study by Opdenakker and Van Damme (2007) revealed that a substantial part of the difference in mean mathematics achievement between schools can be explained by

the differences between their school practices. The researchers concluded that school-level factors can affect student outcomes regardless of student composition and/or school context. The students and teachers in the first two grade levels in 57 schools voluntarily participated in surveys about school-level factors; informed consent was obtained prior to data collection. The school administrators completed additional surveys about their leadership practices and school outcome data came from a large national database. Structural equation modeling was used to study the relationships between the operationally defined school practices, leadership practices, and school outcomes. Opportunities to learn in a positive school climate and participative professionally-oriented leadership were strongly related to higher levels of mathematics achievement (Opdenakker & Van Damme, 2007).

Creemers and Kyriakides (2010a) studied the validity of the school-level factors identified in their dynamic model, the content of school policy on teaching and student learning environment. Anchored in a scientific realist theoretical framework, the researchers played a detached role during the study by limiting their interaction with the participants, striving for objectivity; and operationally defining the dependent, explanatory, and independent variables assuming their definitions as the reality. The dependent variables identified and defined were mathematics achievement, Greek language attainment, and student attitudes toward religious education. The explanatory variables were student aptitude and student social-economic. The researchers stated that school effectiveness research has found the actions of teachers to have the most impact on student learning; therefore, three dimensions of school policy related to teaching, the

quantity of teaching, provision of learning opportunities, and quality of teaching, were defined as independent variables. The researchers stated that school effectiveness research has found school culture to be the most important predictor of school effectiveness; therefore, three dimensions of school policy related to the student learning environment, student behavior, teacher collaboration, and stakeholder partnerships, were also defined as independent variables. To test the validity of the school-level factors of their dynamic model, Creemers and Kyriakides hypothesized that each of these independent variables, which are dimensions of the two overarching school-level factors included in their dynamic model, would have a statistically significant effect on both the cognitive and affective outcomes established as the dependent variables.

Creemers and Kyriakides' (2010a) study was nonexperimental descriptive survey research following a one-shot study design. Creemers and Kyriakides used stratified random sampling to select 50 out of 191 elementary schools; the cognitive and affective outcomes of all of the grade 5 students (n = 2,503) from each class (n = 108) in the 50 schools were measured and 86% of the 364 teachers in these 50 schools completed the survey. Both chi-square and t tests confirmed that there were no statistically significant differences between the research sample and the population (Creemers & Kyriakides, 2010a).

Survey instrument reliability and validity were extensively tested because the purpose of the study was to test the extent to which the school-level factors of the dynamic model define the actual content of school policy and the types of activities that actually take place in schools as well as the extent to which the school-level factors of the

dynamic model correspond with the expected effects of each dependent variable (Creemers & Kyriakides, 2010a). The researchers provided detailed explanations for all survey instrument reliability and validity testing and stated that the way they measured the school level factors was appropriate. Their survey required respondents to use Likert-type scales to record their responses (Creemers & Kyriakides, 2010a).

Creemers and Kyriakides (2010a) employed a correlational-statistics analytical technique called structural equation modeling to show the validated relationships between all of the operationally defined variables and discussed the results in the accompanying narrative. Through the findings from their structural equation modeling, the researchers concluded that all three dimensions of school policy related to teaching were strongly correlated with each other so all three must be integrated into school policy on teaching in order to have an impact on student achievement. They surmised that the guidelines and support activities that are offered to teachers to help them teach must encompass quantity of teaching, provision of learning opportunities, and quality of teaching. Through the findings from their structural equation modeling, the researchers also concluded that two of the three dimensions of school policy related to the student learning environment have a significant impact on both cognitive and affective student outcomes; these two dimensions are: teacher collaboration so that teachers receive feedback for improving their practice, stakeholder partnerships to improve the relationships between schools and parents (Creemers & Kyriakides, 2010a).

Creemers and Kyriakides (2010a) noted that although the effect sizes for the school-level factors identified in their dynamic model and validated in this study were

relatively small, their two overarching school-level factors explained at least 85% of the school-level variance. Therefore, the researchers synthesized that the dynamic model could be used to provide feedback to schools on the functioning of each overarching school factor and its dimensions. The example provided was that since quantity of teaching is one of the dimensions of the school factor defined as school policy on teaching, the school could examine the survey items that measure quantity of teaching (i.e., policy regarding bell to bell instruction, minimizing interruptions to instruction, etc.) so that suggestions for improving this factor may emerge (Creemers & Kyriakides, 2010a). After the data was collected and analyzed, it led to a description of the school-level factors and dimensions as defined in the dynamic model of educational effectiveness which could improve understanding of the nature of school improvement at the case study school.

Kyriakides, Creemers, Antoniou, and Demetriou (2010) argued that the impact of the school-level factors on school improvement outcomes depends on the trajectory of the school--declining, stagnant, or improving. Their 2010 synthesis of studies published in the British Educational Research Journal found that the development of school policy on teaching, one of the two overarching school-level factors identified in their dynamic model, had stronger effects on student achievement in schools where student achievement levels were declining and the quality of teaching was low. In a longitudinal study examining both teacher-level factors and school-level factors, Kyriakides and Creemers (2008b) also found that teachers and schools did not maintain their effectiveness level

over a long period of time without any additional effort whereas positive changes in school-level factors were found in schools that improved.

In yet another study by Kyriakides and Creemers (2010), the researchers employed a complex statistical modeling technique called discriminant function analysis and found that changes in the functioning of school-level factors could be used to classify the schools into the following three trajectories: those which improved their effectiveness status, those which stayed the same, and those with reduced effectiveness status. Kyriakides and Creemers again concluded that changes (or lack of changes) in the school-level factors included in the dynamic model could help researchers and practitioners "understand changes in the effectiveness status of schools" (p. 411). When the data was collected and analyzed, it led to a description of the changes or lack of changes in the school-level factors as defined in the dynamic model of educational effectiveness which helped improve understanding of the reasons for the improvement trajectory of the case study school.

In addition, Hallinger and Heck (2011) classified schools' improvement processes based on their trajectory or patterns of growth over time. After following 193 elementary schools over a 3-year period, Hallinger and Heck described two school-level factors, leadership and improvement capacity, and identified these factors' relative importance for schools with improving, stable, or declining patterns of growth. Using multi-level path analysis, Hallinger and Heck found that "these school-level factors have both direct and indirect effects on student achievement, not only because they influence student achievement at the school level but also because they directly and indirectly influence the

composition of classrooms, as well as teaching and learning that takes place within them" (p. 6). The researchers noted that patterns of school improvement could be linked to these specific alterable school-level factors but that school leaders must take context-level factors into account too as they work towards altering those school-level factors in order for improvements to occur. Hallinger and Heck concluded that schools with positive growth trajectories have leaders who encourage broad participation and collective responsibility, empower others, collaborate in school improvement decisions, and collaboratively evaluate the school's academic progress.

In another study closely examining the school-level factor of leadership, Heck and Hallinger (2010) found that "collaborative learning-directed leadership focused on building academic capacity increased subsequent teacher effectiveness at the classroom level, which, in turn, influenced student growth in reading and math" (p. 7). The researchers operationally defined student reading and math achievement as the dependent variable while distributed leadership capacity and academic improvement capacity were operationally defined as the independent variables; context-level factors were operationally defined as explanatory variables. Heck and Hallinger surveyed teachers, students, and parents to be able to triangulate the data before calculating correlational statistics. The researchers concluded that collaborative distributed leadership activities and capacity building activities mutually reinforced each other's effects and had a cumulatively greater impact on student learning in reading and math (Heck & Hallinger, 2010). In this study, the nature of the school's leadership and its associated capacity building actions was identified.

In another study closely examining the school-level factor of capacity building, Stringer (2009) qualitatively explored the internal and external influences on capacity building, how context-level factors influence the development of school capacity, and the relationship between capacity building actions and school improvement. Data was collected through researcher journaling, document and photographic analysis, and participant observation over the period of 12 months primarily from attending staff and team meetings. Follow-up in-depth interviews were also conducted with three school administrators, three teacher-leaders, eight teachers, four teachers' aids, and two support staff members. All of the participants selected had been involved with school improvement capacity building efforts for at least three years. The researcher employed open, axial, and selective coding techniques to reveal the key attributes of capacity building at the case study school. Although Stringer concluded that capacity building for school improvement was unique to each school setting, she also concluded that leadership could manage school structures, processes, and most importantly culture to move any school in the direction of improvement. Stringer also concluded that vision, stakeholder involvement, effective professional development, and a positive school culture enhance capacity building. This study investigated the nature of the school's capacity building actions and its associated leadership.

Through the Consortium on Chicago School Research group's 15-year study of schools that improved and schools that failed to improve, the researchers identified five essential school-level factors for advancing student achievement (Bryk, 2010). These school-level factors, which impact school improvement because they influence what

happens in classrooms, were: (a) clearly articulated instructional guidance as to what to teach and the most effective ways to teach it, (b) building capacity through effective professional development and collaborative learning opportunities, (c) strong parent-community-school ties, (d) a positive safe, secure learning climate focused on rigorous learning, and (e) principals that are instructional leaders and who develop trust and distribute leadership (Bryk, 2010). These school-level factors are consistent with the school-level factors found by other researchers; leadership and improvement capacity were identified as important school-level factors in all of the studies that I examined.

Context-level Factors

According to researchers, the model of school improvement employed by a school system becomes a central force within the culture of the school system (Griffore et al., 2010). Through an ethnographic analysis of 67 school district websites, Griffore et al. (2010) found that the school improvement process employed shaped the schools' common beliefs, defined the norms of behavior in the selected schools, and permeated the schools' cultures. The researchers compared the district's school improvement process to the number of references found on the websites of culture-laded terms such as administrative action, accountability, collaboration, community, teachers, students, and discipline. The correlational statistics from this comparison showed that districts with teacher-quality focused school improvement processes had different espoused values and norms than school districts with teaching-climate focused school improvement processes. Although neither type of school improvement process was correlated with student academic achievement test scores, the study substantiated the claim that culture, a

product of teaching-climate, norms, and values, is an essential factor for school improvement (Griffore et al., 2010).

According to Schein's (2010) influential words, "Culture is a learned set of assumptions based on a group's shared history" (p. 319). Schein argued that a leader must be aware of his/her organization's culture in order to lead the organization and that cultural understanding is possible through culture analysis. Schein recommended three levels of cultural analysis: artifacts, espoused beliefs, and basic underlying assumptions. Artifacts were defined as the visible products of the group; this includes everything that can be observed, felt, and heard. The climate of the organization was considered an artifact; but, climate, according to Schein, was not the same thing as culture. Schein also explained that although artifacts are easy to observe they are hard to decipher because researchers often do not share the same underlying cultural assumptions as the culture they are studying. Values were defined as the espoused goals and norms and are usually measured through survey questionnaires. It is possible for an organization's values to reflect desired behavior but not reflect actual behavior. Some values are part of the ideology of the organization and other values are only aspirations or rationalizations. But, when insiders are asked about the values of their organizational culture, they do not report some things because they take those things for granted. The cultural elements that are taken for granted are not just preferred solutions; they are basic assumptions (Schein, 2010). A basic assumption exists when insiders are not even aware of alternatives, when behaviors based on some other premise are not even conceivable. According to Schein, the essence of organizational culture lies in its basic assumptions.

According to Schein (2010), leaders must first analyze their organizations' cultures--artifacts, espoused values, and basic assumptions. Then, leaders must assess which basic assumptions of the culture are functional and which are dysfunctional. Finally, in order to positively change the organization, the leader must transform the dysfunctional basic assumptions of the culture in to functional basic assumptions. To transform basic assumptions, leaders must articulate and sell new values and leaders must bring to the surface and review the existing basic assumptions. To effectively manage and improve an organization, leaders must understand and positively change the organization's culture (Schein, 2010). This is relevant to this study because it provides an element that could help explain why the school has not yet made substantial positive changes.

The Council of Chief State School Officers' (CCSSO, 2011) recently published *Roadmap for Next-Generation State Accountability Systems* emphasized the importance of the context-level factors of a positive collaborative professional learning culture and accountability pressure to improved academic achievement. According to the findings in a recently published dissertation, "Pressure without support creates alienation and resistance, while support without pressure tends to be a waste of resources" (Sun, 2003, p. 11). Muhammad's (2009) book, *Transforming school culture: How to overcome staff division,* also emphasized the importance of building trust, providing professional support, and implementing fair and consistent systems of accountability. From the review of literature, it appears that school improvement researchers contend that school

improvement requires simultaneous support and pressure; therefore, I try to understand the nature of support and pressure at the case study school.

Current School Improvement Approaches

Coe's (2009) critical review of the school improvement literature began by stating that although there have been numerous school improvement programs that have claimed success; in most cases, the reality of those claims is questionable. Coe argued that almost all of the frequent accounts of improvements in individual schools were based on poorly designed evaluations and that most of the reports from larger scale improvement initiatives suffered from *publication bias*, the tendency to selectively publish positive results instead of neutral or negative results. Emphasizing his concerns, Coe wrote,

> For those who want to improve schooling, there seems to be plenty of advice about how to do it; the problem is not a shortage of initiatives. The problem is that evaluation of the true effects of school improvement initiatives is often seen as unnecessary or, when it is done, is done badly. Without proper evaluation, almost any approach can make what may appear to be compelling claims about its effectiveness (p. 363).

Coe (2009) also argued that school improvement experts who claim that each school is unique so school improvement strategies cannot be generalized or rigorously evaluated should not recommend policies and prescribe models because they have no basis for believing their recommendations and prescriptions will work. Coe emphasized that defining the conditions in which a solution is appropriate is a component of evaluation that school improvement researchers should adopt. According to Coe, school

improvement researchers should evaluate which school improvement approaches work under particular circumstances or schools should not invest their time, energy, and resources in those approaches. If increased student achievement scores were the outcome criteria for a rigorous evaluation of the school's improvement process, the process would be considered unsuccessful because student achievement scores have not increased. Therefore, since the study of the nature of the school improvement efforts at the case study school describes the particular circumstances at the school, this helps identify an effective approach.

One approach to school improvement that has defined increased student academic achievement as the outcome criteria of its success is the Ontario Ministry of Education Schools in the Middle initiative (OECD, 2011). The Schools in the Middle initiative prescribes specific school improvement strategies to schools with the specific condition of moderate static student achievement scores (Ontario Ministry of Education, 2011). The Schools in the Middle prescribed strategies include increasing networked professional learning opportunities for teachers, increasing distributed leadership opportunities for teachers, and requiring teachers to analyze student work to develop descriptive feedback and associated learning goals (Ontario Ministry of Education, 2011). Canadian students' PISA scores are no longer moderate; they are near the top in the world (OECD, 2011). Based on the findings from the data collection and analysis, Ontario's Schools in the Middle initiative informs this project study because it suggests an approach for increasing student achievement scores at the case study school.

Some current school improvement research has recognized the complexity within schools and has theorized that school improvement approaches are condemned to failure if they do not differentiate strategies to address differences in capacity in different sectors within the same school (Lima, 2007). To study the complexity within schools, Lima (2007) carried out a mixed-methods case study to find out teachers' perceptions about their professional development and the capacity for school improvement in two departments in a large secondary school. Lima surveyed and interviewed teachers then used social networking analysis techniques along with analysis of variance statistics to find out how the structure of teachers' professional and interpersonal relationships affected their professional development and capacity for improvement. Lima found that the teachers in the two departments experienced the same school in two distinct ways. Lima concluded that professional development and school improvement activities can have fragmented patterns because schools and their departments are *loosely coupled* organizations, differentiated cultures exist within the same school. Stronger collaborative relationships amongst teachers were correlated with improved perceptions about the impact of professional development and increased capacity for school improvement (Lima, 2007). Based on the findings from the data collection and analysis, Lima's conclusions inform this project study because they suggest a strategy for increasing the capacity for school improvement at the school.

From this review of literature, I have come to agree with this widely cited seminal statement:

> We know far more about the features that characterize an effective school than we know about how a school became effective in the first place. Why, then, do we try to force schools that we don't like, to resemble schools that we do like, by employing means that have little to do with the evolution of the kind of schools that we like? (Barth, 1986, p. 294)

Learning the nature of the project school's improvement process contributes to the knowledge base about how to foster school improvement.

Substantive Framework

The substantive framework for this study comes primarily from Schein's (2010) work regarding organizational culture and the dynamic model of educational effectiveness by Creemers and Kyriakides (2010b). For this study, I accept Schein's theory that organizational culture is a pattern of espoused values and basic assumptions that are shared by a group and even taught to new members of the organization "as the correct way to perceive, think, and feel" (p. 35). I also accept Schein's premise that to effectively manage and improve an organization, leaders must understand and positively change the organization's culture. For this study, I accept Kyriakides' and Creemers' (2008) assertion that context-level and school-level factors influence teaching factors and that school culture is an especially important factor. I also accept Kyriakides' and Creemers' assumption that actions taken to improve school culture are essential for a school to improve. Finally, I accept the premise of the dynamic model of educational effectiveness--the ultimate aim of any school improvement process should be to improve student academic achievement across the school (Creemers & Kyriakides, 2010b).

"Unless teaching and learning outcomes are improved, any school improvement effort should not be considered truly successful" (Creemers & Kyriakides, 2010b, p. 15). In this project study, I explored how organizational culture theory and the factors from the dynamic model relate to the nature of the school improvement process at the case study school. I also considered how the substantive framework informs the development of a comprehensive strategy for improving the effectiveness of teaching and improve student academic achievement (Kyriakides & Creemers, 2009).

Implications

To meet the accountability requirements of the No Child Left Behind (NCLB) Act, states adopted educational standards and developed high-stakes tests to assess whether or not students were meeting their adopted standards (CCSSO, 2011). NCLB-type accountability meant clearly identifying the goals or outcomes that were supposed to be achieved and clearly identifying who was supposed to be responsible for achieving the goals and outcomes. As Finn (1993), a leading advocate for NCLB-type accountability systems, wrote:

> Accountability in education today means that specified goals or outcomes will be achieved and that people throughout the organization are responsible for achieving them. Not just for following set procedures, putting in time or going through the motions, not even for making a valiant effort, but for actually producing measurable results. (p. 145)

Although NCLB-type accountability systems were well-intentioned, they did not, overall, result in increased student achievement (CCSSO, 2011). Also, during the decade

following NCLB, our world rapidly changed; we now have a knowledge-based global economy (OECD, 2011). Instead of measuring school effectiveness against state or national educational standards, we must now measure school effectiveness against the most successful education systems worldwide (OECD, 2011). The desired educational goals and outcomes have changed; rigorous educational standards now focus on 21st century career and college readiness (P21, 2012). Furthermore, research showed that NCLB-type accountability systems did not adequately separate teacher effects from school effects, individual effects, and/or environmental/societal effects (Valli, Croninger, & Walters, 2007). Valli et al. (2007) concluded that "it makes little sense to hold teachers individually accountable or even to hold schools accountable when multiple factors have a role in student learning; education is a collective pursuit" (p. 642). Valli et al. also cautioned that accountability systems that hold individual teachers or schools responsible by awarding merit pay for high test scores and/or dismissing teachers and/or administrators for low test scores negatively impact promising capacity building efforts such as the promotion of professional learning communities.

As opposed to NCLB, the Ontario Ministry of Education Schools in the Middle initiative was developed from the viewpoint that poor or mediocre school effectiveness "was more to do with lack of knowledge than lack of will" (OECD, 2011, p. 76). The Ontario Schools in the Middle initiative was designed based on the premise that the key to improvement was not teacher or school accountability, as defined in NCLB, but rather the chance to be part of a successful school and organization. With its Schools in the Middle initiative and other successful educational reform efforts, Canada significantly

increased its students' academic achievement; not only do Canadian students perform well--3rd best in the world on the 2006 PISA, Canadian students perform well despite their first language, immigrant status, or socio-economic status (OECD, 2011). The keys to the Ontario Schools in the Middle initiative were shared purpose, shared leadership, and culture (OECD, 2011). The Ontario Schools in the Middle initiative focused on providing teachers and school leaders networked professional learning opportunities to analyze student work, develop student learning goals, and collectively improve instruction, assessment, and descriptive feedback systems (Ontario Ministry of Education, 2011).

According to a report produced by the Council of Chief State School Officers (CCSSO) on June 17, 2011, the next generation of American accountability systems should be:

> A support mechanism within a broader set of strategies focused on collective capacity for continuous improvement. New accountability systems should emphasize strengthening professional practice and reflective teaching, recognize that punitive accountability measures can generate only so much improvement, and realize that sustained improvement comes from collective capacity building and internal drivers. (p. 8)

Depending on the findings from the data collection and analysis, a possible project may be to develop a school improvement plan based on the CCSSO's recommendations and modeled after the Ontario Schools in the Middle initiative.

Summary

Although all of the schools in the target system adhere to a school improvement process, student achievement scores on average across the system remain mediocre or stagnant. Therefore, the purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process. The target school was an overseas school with mediocre or stagnant achievement scores in a school system that serves children of United States armed service members. Since the substantive framework of this study is based on Schein's (2010) organizational culture theory and recent findings by Creemers and Kyriakides (2010b) that showed that actions taken to improve school culture are essential for a school to improve, the guiding question of this study seeks to discover if competing values between stakeholder groups impacted the school's culture and/or hindered school improvement efforts. Former Defense Secretary Leon Panetta underscored the importance of understanding the problem of mediocre or stagnant student achievement in schools that serve the children of armed service members when he said (as cited in Vaughn, 2012), "educating the children of armed service members is a national security issue. The bottom line is that our military is better able to defend the country when we address the long-term educational needs of their children". This study is also important because it contributes to the understanding of how real school improvement can occur and helps meet an objective of Race to the Top by informing educators as to how they can improve their practices and subsequently increase students' achievement.

In this section, evidence of the problem of mediocre or stagnant student achievement was provided along with information about the lack of school improvement process evaluation. How this project study can promote positive social justice was outlined, the guiding question for this study was stated, and special terms associated with this project study were defined. This section also included a critical review of the related literature and explained the framework of the study. Finally, a possible project based on anticipated research findings was presented.

The second section of this paper provides details of the methodology for data collection and analysis that was used for this qualitative case study along with the findings. The third section discusses the data-based project that was chosen to addresses the problem and promote positive social change. The fourth section includes information about the project's strengths and weaknesses as well as reflections and conclusions.

Section 2: The Methodology and Findings

Introduction

The purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process. The target school was an overseas school with mediocre or stagnant achievement scores in a school system that serves children of United States armed service members. This section of the study begins with a description of the research design and then explains (a) how the research design derived logically from the problem and the guiding question and (b) the rationale for the research design. The criteria for selecting the participants, the procedures for gaining access to the participants, and the methods for establishing a relationship with the participants are provided. This section also includes explanations about the different types of data that were collected as well as specifics about how each type was collected. The system for keeping track of the data and emerging understandings is delineated. The coding procedures for data analysis are explained, the procedures for dealing with discrepant cases are clarified, and the procedures for assuring accuracy and credibility are provided. Finally, the findings are presented, including details about the patterns, relationships, and themes that emerged from the data.

Qualitative Research Design and Approach

According to Creswell (2009), qualitative research is "a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (p. 4). Unlike the controlled research settings common in quantitative research,

qualitative research is conducted in natural settings so that qualitative researchers can make sense of problems as they exist in their complex contexts (Hatch, 2002). Qualitative researchers are interested in understanding the meaning participants derive from the things they encounter; therefore, participants' perspectives are stressed (Hatch, 2002). Qualitative research designs often change as researchers' understandings emerge; qualitative research analysis is inductive because researchers construct understandings as they collect and analyze the data (Hatch, 2002). Qualitative research is subjective because qualitative researchers must make descriptive and interpretive judgments and because qualitative researchers always influence the phenomenon they are studying (Creswell, 2009). Therefore, qualitative researchers must be reflexive; they must consider the influence they are having on the phenomenon, they must consider their own biases, and they must monitor their emotional responses (Hatch, 2002).

I chose a qualitative case study design for this project study because the guiding question required the researcher (a) to concentrate on exploring and understanding different stakeholders' perspectives in a natural setting: a school; (b) to study the complex phenomenon of school improvement in its typical context, where the boundaries were not clear between the phenomenon and the context (Creswell, 2009).

The following question guided this study: What is the nature of the QAR and SSA school improvement process for different stakeholder groups at the case study school, an overseas school with mediocre or stagnant achievement in a system that serves children of armed service members?

This research question was in alignment with the research problem in two ways: (a) the research question required the researcher to explore the nature of the school improvement process at the chosen school to understand why student achievement had not improved, even though the school had been engaged in a formal school improvement process for more than a decade; (b) the research question required the researcher to explore the nature of the school improvement process to uncover possible ways to actually increase student achievement and change the trajectory of the school. As appropriate in qualitative studies, a broad, open-ended research question was posed in order to focus the study and at the same time remain open to what might emerge from the data (Creswell, 2009).

Also, a qualitative case study research design was one of the best research designs for this project study because the methodological framework of the study was the constructivist paradigm. According to Hatch (2002), the researcher's methodological framework includes the researcher's assertion of the nature of reality, what can be known, and how knowledge is gained. Since the researcher's assumption was that individuals and groups construct multiple realities based on their own experiences, the research question was in alignment because it required exploring and understanding different stakeholders' realities about the nature of school improvement at their school (Janesick, 2011). The research design, a qualitative case study, was in alignment with the constructivist methodological framework because conducting a case study allows co-construction of understandings with different participants through extended and mutual engagement (Janesick, 2011). As appropriate in qualitative case studies and consistent

with a constructivist paradigm, naturalistic data collection methods were used such as focus group and individual interviewing, document analysis, and participant observation (Janesick, 2011). As appropriate in qualitative case studies and consistent with a constructivist paradigm, *ATLASti* qualitative analysis software was employed following Hatch's typological analysis method to uncover patterns, relationships, and themes. A rich narrative that describes co-constructed interpretations was produced (Hatch, 2002).

A narrative design was considered for this qualitative study because one intent was to provide details about stakeholders' school improvement experiences; but, since narrative designs typically focus on one individual's stories and are normally reported in a chronological structure a narrative design was not the best fit for this study (Creswell, 2009). An ethnographic research design was also considered for this qualitative study to obtain a holistic picture of the natural context as the literature review suggested that school culture is a key factor in effective school improvement; but, since ethnographic designs are typically used to study unknown settings and to develop understandings of problems that the researcher does not already know a lot about, an ethnographic design was not the best fit for this study (Creswell, 2009).

Participants

In order to select a typical school in the selected school system and in order to select an information-rich case for this qualitative case study, purposeful sampling, case selection based on predetermined criteria, was used (Merriam, 2009). The criteria used to choose the case study school included the following essential attributes: mediocre or stagnant test scores over the past five years, be part of the selected school system and

engage in the system-prescribed school improvement process, and be conveniently located so that interviewing of different stakeholder groups would be feasible. Therefore, a conveniently accessible school with mediocre or stagnant test scores was chosen as the case for this qualitative case study. The case study school has approximately 500 students in prekindergarten through fifth grade. Written approval to conduct this case study was obtained from both the district superintendent's office and the school principal. A private meeting with the school principal was held to provide an overview of the study and to establish rapport.

Within this purposefully chosen case, a sample of 24 parents was invited to participate in a parent focus group interview. The number of parents invited was controlled so that the size of the focus group could not be too large. The parent participants were initially contacted by email and then another email was sent with the written consent form attached. Only four parents agreed to participate. The principal and the assistant principal of the school were considered a unique sample because, as the leaders of the school, they have unique perspectives about the nature of school improvement. The principal and assistant principal were initially contacted in person and a follow-up descriptive email was sent with the written consent form attached. The military commanders of the school's military community were considered a unique sample because, as the leaders of the military community, they have unique perspectives about the nature of school improvement. Again, they were contacted initially in person and a follow-up descriptive email was sent with the written consent form attached.

After gaining principal approval, all of the teachers in the school were invited via email to participate in two focus group interviews. A consent form was then emailed to the five teachers who expressed an interest in participating in the interviews. After gaining principal approval, school improvement committee meetings were also observed; the principal, assistant principal, and two teacher-leaders participated in these school improvement committee meetings. Altogether, the researcher engaged in meaningful, in-depth, co-constructions of understanding with four parents, two school administrators, two military leaders, and seven teachers thus allowing the researcher to explore and understand different stakeholders' realities about the nature of school improvement at their school.

Since I am an administrator at a nearby school, the following ethical concerns were carefully attended: minimizing the privacy risks of participants, minimizing the perceived coercion of participants, and minimizing participants' potentially negative job impact. Pseudonyms were used during data collection, analysis, and reporting. Participants were allowed to exit the study at any time. Participants were asked to digitally sign and return the consent forms via email prior to initiating data collection. A paper copy of the completed consent forms were provided to all participants along with information about how they could obtain a copy of the culminating research report. The consent forms included Walden University's IRB approval number for this study, 01-08-13-0194299 expiring on January 7, 2014. Copies of the completed consent forms; district, IRB, and URR approval documentation, and all digitized data along with the associated ATLASti hermeneutic unit database file were stored on a password-protected hard drive.

Hard copies of completed consent forms, approval forms, and data were stored in a locked file cabinet. The researcher is the only person with a key to the cabinet and the data will be destroyed in 7 years.

Data Collection

Data was collected through stakeholder interviews, document analysis, and participant-observation. The integration of information from different methods and sources of data provided a better understanding of the multifaceted school improvement process in the complex setting of the school. Using multiple methods and sources of data also helped ensure credibility and reliability because varied data is more likely to offer contradictory patterns or rival themes (Merriam, 2009). Triangulation, the combination of methodologies in the study of the same phenomenon, occurred because interview data was collected from both individual and focus group interviews with four different stakeholder subgroups who had different perspectives; school improvement committee meetings were observed and different relevant documents were analyzed (Merriam, 2009). The specifics regarding these different methods and sources of data collection are outlined below along with the system used for keeping track of the data and emerging understandings.

Interviews

The substantive framework for this study came from Schein's (2010) model of organizational culture and the dynamic model of educational effectiveness by Creemers and Kyriakides (2010b). Schein asserts that leaders must uncover organizational members' espoused values and shared assumptions in order to understand the

organization's culture; therefore, the first prompt used during all of the interviews was to ask the interviewees to describe what they were primarily trying to accomplish through their efforts as a school administrator, teacher, parent of a student at the school, or key community leader concerned with the quality of education for students in the community. Evidence of espoused values and shared assumptions in the interview data was investigated from participants' responses to this question.

All interviews, conducted individually or with focus groups, followed a semistructured approach. During a semistructured interview, the researcher can choose prompts or questions from a prepared list or written interview guide (Weiss, 1994). During a semistructured interview, the researcher can ask the prepared questions in any order or add additional questions that were not prepared in advance. The list of topics in the interview guide (see Appendix C) was based on the teacher/classroom-level factors, school-level factors, and overarching context level factors of the dynamic model of educational effectiveness (Creemers & Kyriakides, 2010b). The prompts and questions were designed to try to get the respondents to provide concrete descriptions of things they have seen, heard, thought, or felt that are related to the nature of school improvement at the school (Weiss, 1994). At the conclusion of each small group or focus group interview and at the conclusion of the final follow-up interview with the teacher-participants, interviewees were asked to describe the barriers that they think prevented the school from increasing student academic achievement. Then, interviewees were asked what they think the school needed in order to improve student academic achievement.

Interviews lasted no more than one hour and a similar interview protocol, as discussed above, was used to guide all interviews (see Appendix C). The parent focus group interview was conducted in a private conference room in the school library on February 21, 2013. The individual and joint interviews with the principal and assistant principal were conducted in their offices from late January to late February, 2013. The key military leaders were asked to participate in one small group interview together. This interview was conducted at the office of one of the leaders on March 1, 2013. One of the teacher focus group interviews was conducted during the first few weeks of data collection, on February 6, 2013, while the other teacher focus group interview was conducted as data collection was coming to an end, on February 27, 2013, so that additional follow-up questions could be developed based on emerging understandings. Both teacher focus group interviews were conducted immediately after school in an extra training room at the school.

All interviews, conducted individually or with focus groups, were audio recorded using digital audio recording equipment and transcribed by an outside transcription service. The word processed transcriptions were imported as data files in to the ATLASti software program. As a form of member checking to establish validity and combat investigator bias, the participants were emailed a copy of their respective interview transcriptions and asked to reply with any questions, concerns, or corrections; none of the participants replied. To foster researcher reflection and facilitate ongoing data analysis, the transcriptions were reread three times and comments, interpretations, speculations, and questions were recorded as memos in the ATLASti program.

Participant-Observation

Since the methodological framework of this study was the constructivist paradigm I took a participant-observer level of involvement when conducting observations; my goal was to co-construct an understanding about the nature of school improvement with those being observed (DeWalt & DeWalt, 2011). As a participant-observer, I only occasionally interacted with those being observed. Informal interviewing techniques were used only if they were not too obtrusive. For example, I only asked one or two open-ended clarifying questions during the observations such as, "What do you mean?" or "What makes you say that?" As a participant-observer I hoped to see things that the participants took for granted, I hoped to see if the participants did what they say they do, and I hoped to develop a better understanding of the culture of the school. I also hoped that careful observations and ongoing data analysis would help me generate follow-up questions to ask during the second teacher focus group interview.

To provide an audit trail, increase reliability, and foster reflection and constant comparative data analysis, detailed field notes were kept (DeWalt & DeWalt, 2011). Before each observation, when and where the observation was being conducted was recorded. During each observation, jot notes were taken to include information about events observed and any relevant counts. Jot notes were taken on the observation protocol form (see Appendix D) attached to a clipboard. As soon as possible after each observation, expanded notes to include details about observed behaviors, what people said, what the meeting environment looked like, what the meeting culture felt like, etc. were carefully composed. Notes were word-processed and imported as data files directly

in to the ATLASti program. After each observation, I read over my notes and wrote comments, interpretations, speculations, and questions as memos in the ATLASti program.

Document Analysis

Document analysis was used to examine the school's QAR rating report, SSA report, and several other school improvement related documents provided by the school improvement chairperson. This document analysis took place prior to the final teacher focus group interview so that the understandings that emerged could be used to revise and refine the interview questions. To analyze these documents, the word processed reports and plans were imported as data files in to the ATLASti software program. Hatch's (2002) typological analysis method was employed. The details of this data analysis method are outlined in the next subsection of this report.

Data Analysis

Data Analysis Method

Hatch's (2002) typological analysis method was followed as it is a recommended approach for analysis of interview and focus group data. The process for coding, for pattern identification, for relationship identification, for thematic identification, and for dealing with discrepant cases was based on Hatch's typological analysis method. Rather than the initial coding categories emerging from the data, Hatch's typological analysis method starts with preselected categories called *typologies* that are used to code the data; the substantive framework for this study identified and justified the preselected categories that were used.

Since I accepted Schein's (2010) premise that to effectively manage and improve an organization leaders must understand and positively change the organization's culture, initial coding was done by reading over the data as it was collected and marking the places in the data where there was evidence of participants' espoused values--a key attribute of culture according to Schein. Then, as per Schein's model, the data was reexamined and the places in the data that related to shared assumptions were also marked. Since I accepted Kyriakides' and Creemers' (2010b) assertion that context-level and school-level factors influence teacher/classroom-level factors, the dynamic model of educational effectiveness provided the next three coding typologies. As defined by Creemers and Kyriakides, evidence of teacher/classroom-level factors, school-level factors, and context-level factors were coded. Typology coding was completed as data was collected; but, the subsequent steps of data analysis were completed after data collection ended.

After data collection ended and all of the raw data had been coded for each predetermined typology, data was sorted by typology and summary statements for each category were written (Hatch, 2002). According to Hatch, the summary statements should not include interpretations. Sorting by typology-code was easily accomplished through the ATLASti program and the word-processed summary statements were imported into the ATLASti data set as memos. Then, the summary statements were read and possible patterns were identified. Hatch defines patterns as regularities such as things happening in similar ways or patterned differences. At this point, the summary statements for anticipated patterns and again for unexpected patterns were searched (Hatch, 2002).

Next, the marked data sorted by typology and code was recoded again by marking anything related to the hypothetical patterns found in the previous step (Hatch, 2002). Then, the raw data--coded and uncoded--was reexamined to see if it contained any discrepant information. Finally, co-occurrence tables and graphs were generated with the ATLASti program and carefully examined to make a judgment as to whether or not the identified codes and patterns were justified. If contradicting data were found, an explanation was provided as a memo in the data set or the identified codes or patterns were adjusted accordingly (Hatch, 2002). The resulting codes and patterns are shown in Figures 1–5 starting on page 67 and listed in Appendix E.

The next step in Hatch's (2002) typological analysis method was to look for relationships or connections across the justified patterns. Hatch defines relationships as links between the data such as cause/effect or means-to-an-end. As Hatch recommends, a visual representation was made to help with this process; ATLASti network analysis tools were used to generate the visual representation. Next, as per Hatch's model, one-sentence generalizations were written for each of the relationships found. Hatch wrote, "Expressing findings as generalizations provides a syntactic device for ensuring that what has been found can be communicated to others. If findings cannot be expressed as generalizations, chances are data analysis is incomplete" (p. 159). These one-sentence generalizations can also be considered themes. Hatch defines themes as "statements of meaning that run through the pertinent data" (p. 156). Finally, to prepare for writing the report, data excerpts were selected from the primary documents that provide powerful examples of the codes, patterns, relationships, and themes. Data excerpts also accurately

express the participants' perspectives, and clearly convey the researcher's ideas. The primary documents are listed in Appendix F and referenced throughout the remainder of this report by the identification number assigned by the ATLASti program ranging from primary document one (P1) to primary document sixteen (P16).

Findings and Patterns

Espoused values. The espoused value, The demonstration of academic proficiency is the measure of a successful school improvement process, coded as VAL_Demonstrate Proficiency or Improvement, was found 22 times in the data. It was the most grounded espoused value found in the data. This espoused value was found in nine statements in the documents; but, there were no instances of it in the observation notes. This espoused value was found in two statements from the administrator stakeholders and four statements from the teacher stakeholders. This espoused value was found in five statements from the parent stakeholders and two statements from the key community leader stakeholders. Nine statements in the documents were references to the school's improvement process-required formal academic goals. Yet, only one stakeholder expressed the importance of having these types of formal academic goals saying, "I do believe we have to have goals because if we didn't have goals you wouldn't know where you were going, you will be kind of scattered all over everywhere. So I believe goals are important" (P

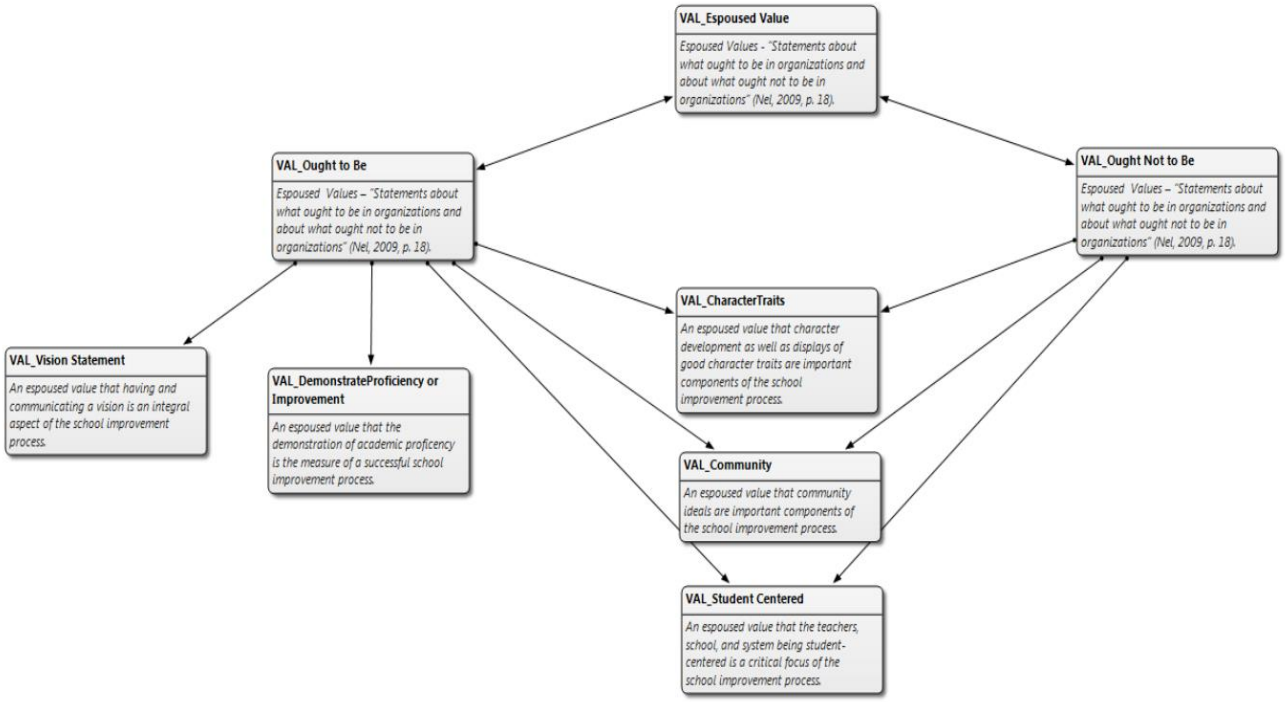

Figure 1. Espoused value codes and patterns.

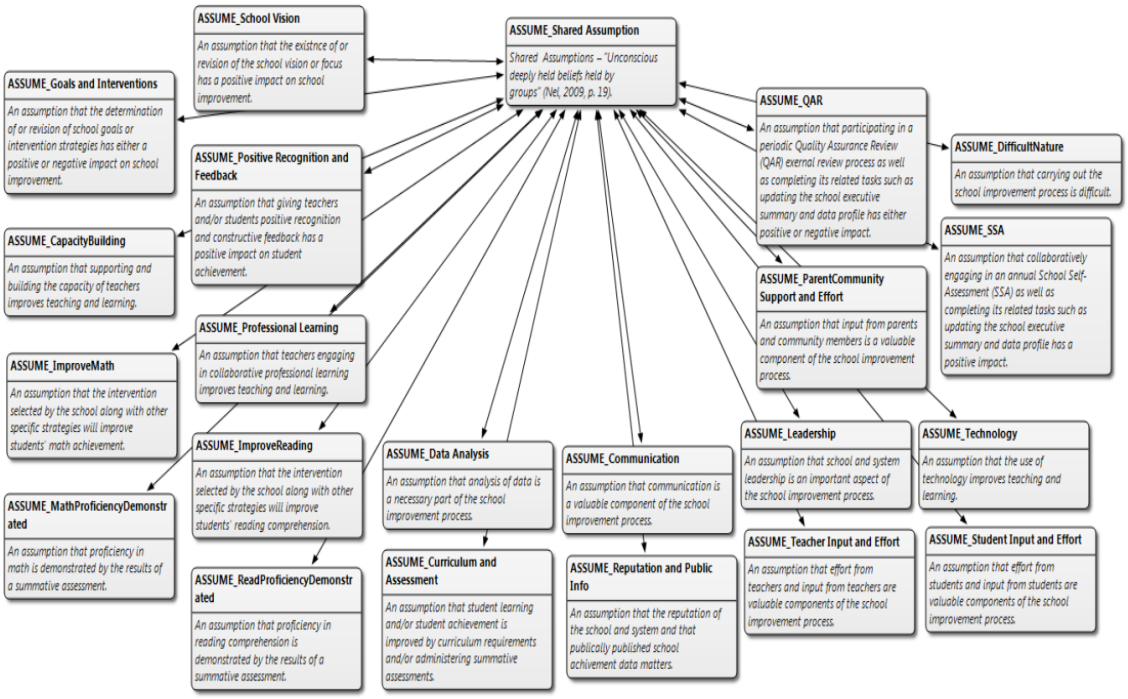

Figure 2. Shared assumption codes and patterns.

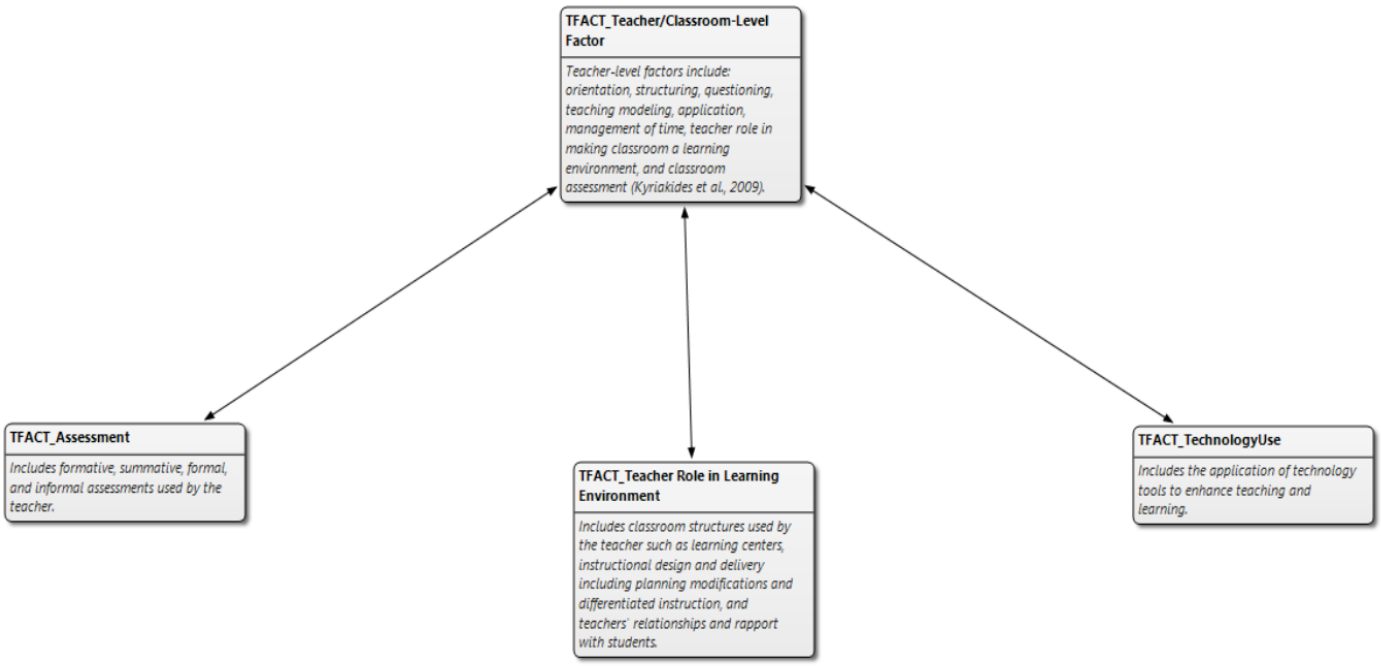

Figure 3. Teacher-level, factor-related codes and patterns.

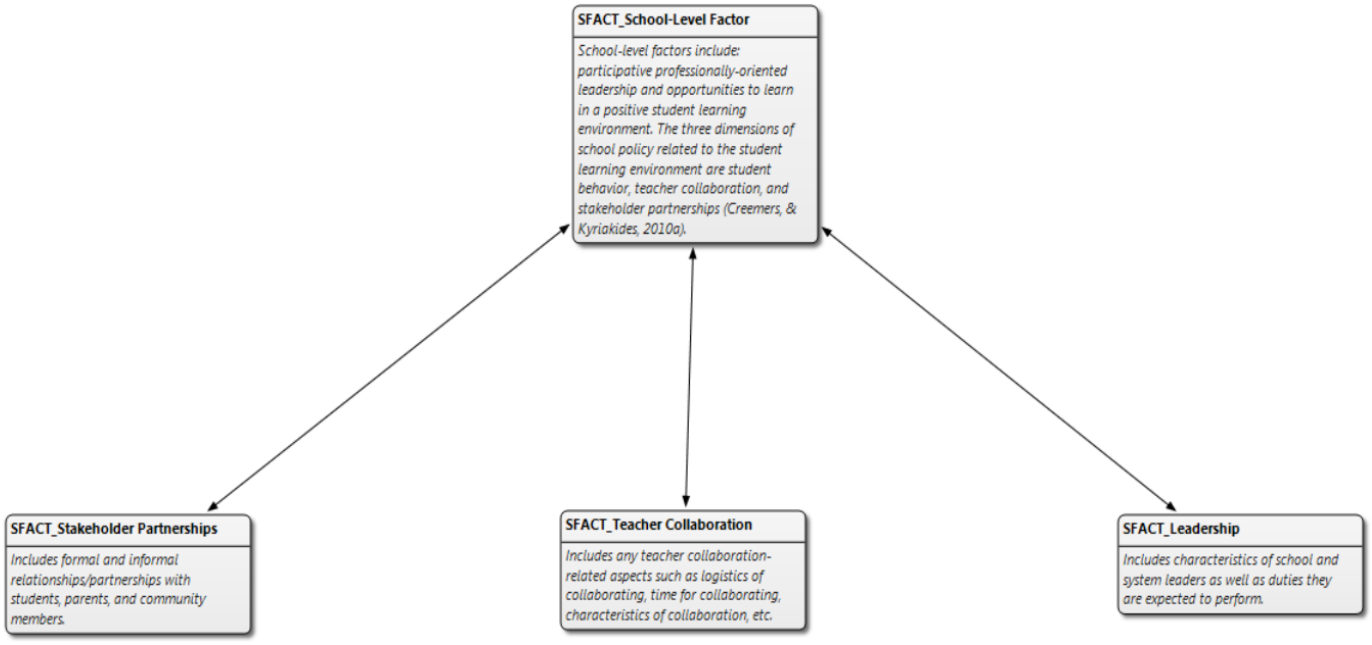

Figure 4. School-level, factor-related codes and patterns.

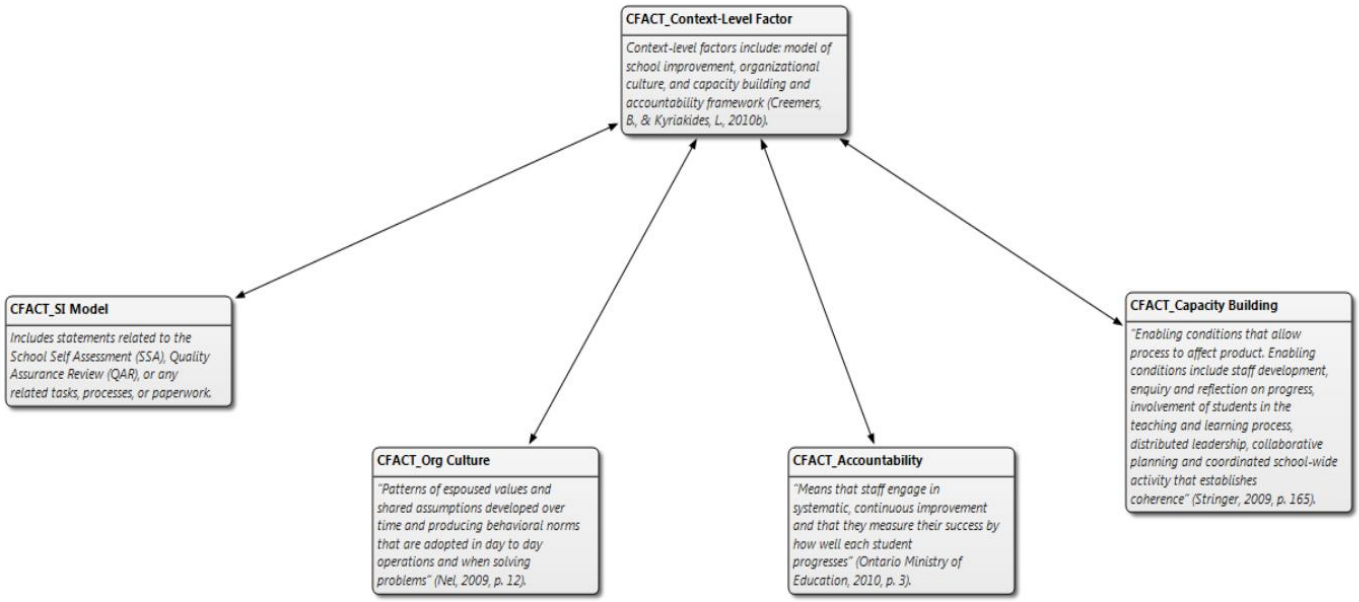

Figure 5. Context-level, factor-related codes and patterns.

The key community leaders twice expressed a need for objective and challenging performance measures, a need to “continue to raise the bar”, and a need for “a little more accountability” (P10). Two parents as well as two teachers talked about improvement being demonstrated through other measures such as students "moving forward from wherever they are" (P9), students attaining their personal best, and students demonstrating life skills like time management and the joy of learning (P11). Parents did not mention the need for or desire for standardized proficiency measures. An administrator implied that the use of standardized tests to demonstrate school improvement or academic proficiency is a good thing and two teachers implied that the use of standardized tests to demonstrate school improvement or academic proficiency is a bad thing. These findings suggest that different stakeholder groups may have different perceptions of how a successful school improvement process should be measured or how academic proficiency should be demonstrated.

The espoused value, *The teachers, school, and system are student-centered,* coded as *VAL_Student Centered*, was found 19 times in the data. It was the second most grounded espoused value found in the data. This espoused value was found in four statements; but, there were no instances of it in the observation notes. There were six statements from the administrator stakeholders, two statements from the teacher stakeholders, seven statements from the key community leader stakeholders, and no statements related to this value from the parent stakeholders. The importance of being student-centered was revealed once in the documents, mentioned once by the administrators, and mentioned once by the key community leaders. The importance of

being student-centered was implied in several other stakeholder comments. For example, a teacher stakeholder said her focus was on moving students forward every day (P9) and key community leaders talked about providing a challenging “solid education” (P10) that prepares students. The key community leaders also expressed the importance of the children being happy and the parents being satisfied with their children’s education (P10).

Several stakeholders also implied that teachers, the school improvement process, the system, and even the parents were not always student-centered. The administrator stakeholders talked about instruction being key and teaching being the most important thing (P6) rather than student engagement being key and learning being the most important thing. The administrator stakeholders may have suggested that all of the teachers are not always student-centered when they said that “*the majority* [emphasis added] of the teachers work really really hard" (P6) and that *only a few teachers* will “go the extra mile" (P7). The administrator stakeholders may have also suggested that the system is not always student-centered when they said that the system does things the way it does because "they think it is going to expedite it and be the most cost effective" (P12). A teacher stakeholder said that focusing on school improvement-related goals all of the time takes away from helping students accomplish important things like "loving learning, thinking deeply, and unleashing passion" (P9). Finally, the key community leaders said that other community members have told them that a school is effective when it has “better facilities, larger populations, more resources, more funding, and better athletics” (P10) rather than when it is student-centered.

The espoused value, *Having and communicating a vision is an integral aspect of the school improvement process*, coded as *VAL_Vision Statement*, was found 14 times in the data. It was the least grounded espoused value found in the data. Thirteen of the 14 instances of this espoused value were found in the school improvement process-related documents that were analyzed. Only one instance of this espoused value was found in the other data sources. One administrator mentioned the importance of the school's vision, “Our vision unifies and commits our school toward a common purpose and lights the path to a positive school climate” (P4). The other 13 instances that this espoused value was found were recitations of the school's vision. This suggests that stating the school's vision is emphasized in the system-prescribed school improvement process.

The espoused value, *Modeling good character traits and formal character development programs are important components of an effective school improvement process*, coded as *VAL_Character Traits*, was found 17 times in the data. Three statements in the documents revealed this value; but, there were no instances of this value found in the observation notes. All of the stakeholders made statements espousing this value. There were two statements from the administrator stakeholders, five statements from the teacher stakeholders, five statements from the key community leader stakeholders, and two statements from the parent stakeholders. The key community leaders made positive comments about the case study school's formal character development program and the documents also included supportive references to these programs. The administrators, key community leaders, and the documents implied that adaptability is a good character trait. For example, one administrator said "change is

good" (P2) and one key leader explained how he has learned the importance of being able to adapt from his personal and professional experiences (P10). The key community leaders, one administrator and two parents stated that determination, striving for your personal best and self-confidence are good character traits that the school should be trying to help students improve. All of the other instances of this espoused value included listings of other good character traits that the school should be helping students improve such as an appreciation of diversity, joyfulness, and respectfulness (P4).

These data suggest that all of the stakeholder groups perceive that improvement of personal characteristics should be an objective of the school improvement process. This perception is not consistent with the measures of improvement that the school and the system utilize which are solely proficiency and performance measures.

The espoused value, *Promoting community ideals is an important component of an effective school improvement process*, coded as *VAL_Community*, was found 15 times in the data. This value was revealed in ten statements found in the documents; but, there were no instances of it in the observation notes. An administrator made one statement and the key community leaders made four statements related to this value. Neither the teachers nor the parents made statements related to this value. The key community leaders talked about the unique global perspective of the case study school including its collaboration with foreign national schools since the case study school is an American school in a foreign country (P10). One key community leader said, “When you are in an overseas school you get a perspective which I think enriches the education experience so to me it is a priority that the students are given the opportunity to see and experience the

things that will enhance their education that the average student in the United States doesn't get" (P10). The key community leaders talked about the importance of the local traditions and close ties of the local military community as well as the challenges of living in a foreign country (P2). The key community leaders also talked about the challenges of living in a diverse population and in such a widespread geographical area (P2). The school is the "hub of the community" (P1) was found in the documents along with a comment that "learning happens inside and outside of the school" (P1).

Since the purpose of this qualitative case study was to explore the school improvement process and to determine if different stakeholder groups have different espoused values and shared assumptions that impact that process at the case study school, an overseas school with mediocre or stagnant achievement scores in a school system that serves children of United States armed service members, the researcher compared the occurrence of espoused value statements made by the different stakeholders. Table 3 and Figure 6 show the following patterns:

- The administrators and key community leaders made the most statements about the importance of the school being student-centered; they had similar occurrences of this espoused value.
- The key community leaders made the most statements valuing good character traits/character development programs. Teachers and parents made almost as many statements valuing good character traits/character development programs. All stakeholder groups except the administrator stakeholders had similar occurrences of this espoused value.

- The key community leaders made the most statements valuing community ideals.
- Parents made the most statements about how students demonstrate proficiency or improvement. Teachers made almost as many statements about how students demonstrate proficiency or improvement.
- Parents and teachers had similar occurrences of espoused values.

Table 3.

Comparison of Occurrence of Espoused Value Statements Made by Different Stakeholder Groups

Value Codes	Admin	Keylead	Parent	Teacher
VAL_Character Traits	0.04	0.18	0.14	0.17
VAL_Community	0.04	0.15	0	0
VAL_Demonstrate Proficiency or Improvement	0.03	0.06	0.20	0.14
VAL_Student Centered	0.24	0.25	0	0.07
VAL_Vision Statement	0.04	0	0	0

Note. Tabulated and calculated with ATLASti qualitative analysis software. The coefficient shown is based on the Normalized Co-Occurrence measure or C-Index; in the case of pair wise co-occurrence it is the co-citation frequency between two and only two terms k1 and k2 (Garcia, 2005). C-Index is given by: Eq 1: C12 - index: n12/(n1 + n2) - n12 where: c12 = 0 when n12 = 0, c12 > 0 when n12 > 0, and c12 = 1 when n12 = n1 = n2 (Garcia, 2005).

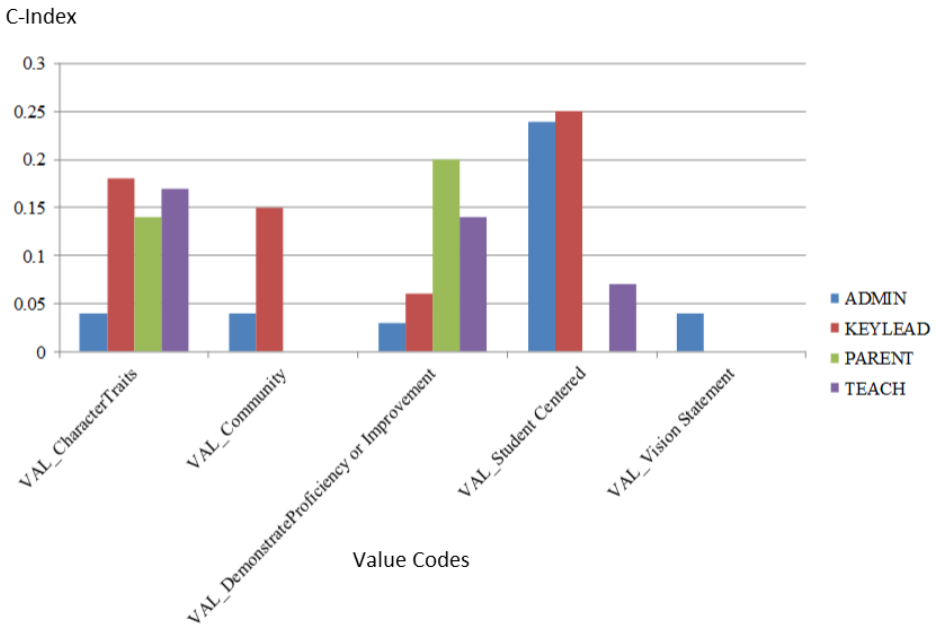

Figure 6. Comparison of occurrence of espoused value statements made by different stakeholder groups.

Shared assumptions. The shared assumption, *There is a positive impact from collaborative engagement in an annual SSA including updating the school executive summary and data profile*, coded as *ASSUME_SSA*, was found in three places in the documents analyzed and was only mentioned once by only one of the stakeholder groups. This was one of the least grounded assumptions found in the data. A teacher mentioned how reflecting on external review results helped the school improve (P13) which may suggest that the SSA may be more beneficial when it is completed in conjunction with the QAR versus when it is completed in isolation.

The shared assumptions, *Proficiency in math is demonstrated by the results of a summative assessment* and *Proficiency in reading is demonstrated by the results of a summative assessment*, coded *ASSUME_MathProficiencyDemonstrated* and

ASSUME_ReadProficiencyDemonstrated respectively, were also the least grounded assumptions found in the data. These assumptions were found in four places in the documents analyzed. They were not found in any of the stakeholders' interview transcriptions or observation notes. These findings suggest that the nature of the school improvement process includes written statements that are different from assumptions made orally.

The shared assumption, *Publically published school achievement data and the reputation of the school/system matters*, coded as *ASSUME_Reputation and Public Info*, was one of the least grounded assumptions found in the data too. The key community leader stakeholders made this assumption all four times; but, none of the other stakeholder groups made this assumption. This suggests that key community leaders may believe that public opinion is an important aspect of the school improvement process whereas the other stakeholder groups may not be as concerned with public opinion.

The shared assumption, *Giving teachers and/or students positive recognition and constructive feedback has a positive impact on student achievement*, coded as *ASSUME_Positive Recognition and Feedback*, was found in one place in the documents analyzed and in four places in the interview transcriptions. This was the second least grounded assumption found in the data. This assumption was not found in the observation notes. The school administrator stakeholders made this assumption three times while the key community leader stakeholders and parent stakeholders made this assumption once each. However, the teacher stakeholders did not make this assumption. This suggests that different stakeholders have different beliefs about whether or not the nature of the school

improvement process requires positive recognition and feedback to be effective.

The shared assumption, *The use of technology improves teaching and learning*, coded as *ASSUME_Technology*, was also the second least grounded assumption found in the data. This assumption was found in six places. This assumption was found in one place in the documents analyzed and in five places in the interview transcriptions. This assumption was not found in the observation notes. The school administrator stakeholders made this assumption four times while the teacher stakeholders made this assumption once. However, the key community leader and parent stakeholders did not make this assumption. The administrators twice mentioned their belief that the existing webinar sessions, current use of Smart boards, and current use of Smart board response systems were lacking but that the technology tools were promising (P12). For example one administrator said, "The webinars are bad. When we did a small group, live person that was great" (P12). Another administrator said, "We all have interactive white boards but the majority of what I am seeing is they are using them mostly as display tools rather than interactive tools" (P6). The teachers mentioned twice that they believed that the after school sessions taught by their colleagues were effective. (P13) For example, one teacher said, "I am taking a webpage design class right now and I am learning a lot actually about technology, because you know, four of the second grade teachers are part of it. So it is really nice and then we are learning these different ways to incorporate technology" (P13). Smart board response systems, classroom websites, and Excel spreadsheets were given as examples of potentially worthwhile technology tools by the school administrators and teachers suggesting both groups share similar assumptions regarding

the use of technology.

The shared assumption, *The existence of or revision of the school vision has a positive impact on the school improvement process*, coded as *ASSUME_School Vision*, was found in eight places in the documents analyzed and the key community leader stakeholders mentioned the importance of a school focus once (P10). This was the third least grounded assumption found in the data. This assumption was not found in any of the other stakeholders' interview transcriptions or in the observation notes. Since only one of the stakeholder groups made this assumption only one time it suggests again that the nature of the school improvement process includes written statements that are different from assumptions made orally.

The shared assumption, *The determination of or revision of school goals and/or intervention strategies has either a positive or negative impact on the school improvement process*, coded as *ASSUME_Goals and Interventions*, was found in two places in the documents analyzed. In both places language was found about goal setting and goal revision having a positive impact (P4). A parent stakeholder made this assumption once sharing the belief that goals should only be a starting point rather than an ending point and implying that goal setting and revision can have a negative impact (P11). A teacher stakeholder made this assumption once sharing the belief that the school improvement process seems to "push" goals and interventions and implying this push can be negative (P13). An administrator stakeholder shared a belief that goal-setting is needed by saying, "If we didn't have goals we wouldn't know where we were going, we would be kind of scattered all over everywhere" (P6). This assumption was not made by

the key community leader stakeholders. This assumption was found in four places in the observation notes; all four findings included language about the logistical requirements of goal/intervention determination/revision. This finding suggests that persons in nonleadership positions may believe that the nature of the school improvement process may overly emphasize goal determination and goal revision whereas persons in leadership positions assume goal determination and goal revision are critical.

The shared assumption, *Student learning and/or student achievement is improved by curriculum requirements and/or administering summative assessments*, coded as *ASSUME_Curriculum and Assessment*, was found twice in the documents analyzed. The school administrator stakeholders made this assumption four times and the key community leader stakeholders made this assumption four times. The parent stakeholders did not make this assumption. Most of the data showed stakeholders are frustrated with the system's outdated curriculum and summative assessment requirements. An administrator talked about the need for clear and consistent updated requirements and shared a belief that the union stops the system from implementing these types of requirements (P6). The administrator contrasted the case study school system with her previous school system saying in the previous system, "We had committees, the teachers were on those committees and we piloted different things but ultimately the decision was at the district level and the expectation was when it came to curricular things, when it came to assessments, if we wanted something implemented it was implemented" (P6). One teacher said that decisions about curriculum and assessment came from above the school level and "that was the way it was" (P9) while another teacher shared the belief

that the curriculum and assessments provided by the system were outdated (P13).

The shared assumption, *School and system leadership is an important aspect of the school improvement process*, coded as *ASSUME_Leadership*, was found in all of the data sources except for the observation notes. The three occurrences of this assumption found in the documents were official declarations of the leaderships' attempts to promote school effectiveness and ensure compliance with the system-prescribed school improvement process. There were only two statements made by the teacher stakeholders; both teachers mentioned a perceived need for more school administrator visits to the classrooms in order to monitor and support teachers (P13). There were four statements made by school administrator stakeholders. In all four instances, the administrators mentioned a perceived need for school administrators to monitor and support teachers more. One administrator said, "I want to be able to have lesson plans turned in, I want to get a good feel of what is going on in classrooms, what the teaching is about and to give feedback because I think that is as important to being an instructional leader as anything else" (P12). The other three occurrences of this assumption, two from the key community leaders and one from the parents, revealed the belief that school and system leadership can make a positive difference on behalf of the students. All stakeholder groups seemed to perceive a need for effective leadership.

The shared assumption, *Participating in a periodic QAR external review process as well as completing its related tasks such as updating the school executive summary and data profile has either a positive or negative impact on school effectiveness*, coded as *ASSUME_QAR*, was found 14 times in the data. This assumption was found in six places

in the documents analyzed, made three times by administrative stakeholders, and made three times by teacher stakeholders. This assumption was found twice in the observation. However, neither the parents nor the key community leaders made this assumption. All of the stakeholders that were directly related to the school made this assumption whereas the stakeholders that were indirectly related to the school did not. The documents and observation notes included language about the tasks that needed to be done to get ready for the external visit or the tasks that needed to be done to meet post-visit requirements. The meetings observed were almost entirely focused on accomplishing pre and post QAR visit tasks (P16). Several of the statements made by the administrators and teachers were also about doing what needs to be done to prepare for the visit or requirements after the visit. One administrator discussed how she explicitly tries to make preparing for the visit just part of what the school normally does and another administrator said "some of the faculty just wanted to get it done for the visit" (P6). One teacher said that the QAR holds the school accountable and another teacher discussed the value of an external review because it validates the school's efforts (P13).

The shared assumption, *Building the capacity of teachers improves teaching and learning*, coded as *ASSUME_CapacityBuilding*, was found in 16 places. The administrator stakeholders made 12 comments in which they highlighted the need to continuously collaborate with teachers as well as to encourage them to question and reflect on teaching and learning. In five of their 12 statements, the administrators expressed concerns about not having enough time to build teacher capacity (P6). The administrators also talked about attending grade level meetings, modeling lessons,

conducting observations and having follow-up conversations, and working with teachers to design and set up learning centers (P7). The administrators said development for teachers needed to be individualized based on teachers' needs and that much of the recent staff development was not effective because it was not individualized nor based on teachers' needs (P12). An administrator felt that above school level staff developers would be more effective at building capacity if they were dispersed to work at the school level instead (P7).

The teacher stakeholders only made two statements related to this assumption; they mentioned lack of time and support in both (P9). For example, one teacher said, "They do provide the resources, I don't think they provide the time for people to be able to access it and figure it all out though" (P9). One statement was made by the key community leader stakeholders and one instance of this assumption was revealed in the observation notes. The need to be able to adapt to situations and the need to base actions on research was discussed respectively (P10 and P16). The fact that the administrators made statements about the need to build capacity so many times and the other stakeholder groups made so few statements about building capacity suggests that capacity building may be perceived differently by administrators than other school stakeholders.

The shared assumption, *Effort from students and input from students are valuable components of the school improvement process*, coded as *ASSUME_Student Input and Effort*, was found 18 times in the data. This assumption was found in three places in the documents analyzed, made eight times by administrative stakeholders, made four times by teacher stakeholders, made twice by the parent stakeholders, and made twice by the

key community leader stakeholders. Two of the statements found in the documents included language about the open door/consensus-oriented policy of the school administrators (P4). Three of the comments made by the administrator stakeholders were about the role of the student council in providing an opportunity for student input (P12). The importance of students taking responsibility for and being engaged in their own learning (P7 and P8) was emphasized by the administrator stakeholders five times as well as at least once by all of the other stakeholder groups. For example, one teachers said, "I am a teacher and I am doing the teaching but you (the students) get to choose about doing the learning" (P8). This data suggested that all of the stakeholder groups agree that student effort and input is a critical component of the school improvement process.

The shared assumption, *Analysis of data is a necessary part of the school improvement process*, coded as *ASSUME_Data Analysis*, was found in 19 places. This assumption was found in all of the data sources except for the key community leader and parent interview transcripts. Fifteen of the occurrences of this assumption were related to how periodic summative assessment data analysis occurs in order to determine the school improvement goals and interventions. For example the following was written in the school improvement self-assessment document, "We review demographic, perception, and achievement data as available to complete the whole picture of our student body and community analysis" (P4). There were only two statements made by the teacher stakeholders and in both cases teachers mentioned a time in the past when data was analyzed in order to meet QAR or SSA goal and intervention requirements (P9 and P13). One teacher shared:

> Like one time we did one where we had the benchmark material from the reading series and they had it broken down into gender and race and that and we realized that one of the significant skills that we noticed was a problem was sequencing and then when we followed it down we found that it was Asian males (P13).

In two out of the four times the school administrator stakeholders mentioned this assumption, they were advocating for focusing on teaching the content that is on the standardized summative assessment to purposefully try to increase the scores on that test (P6). One administrator said:

> If we are being looked at on the TerraNova and we know what the content is in math and we know the weight of particular items on the TerraNova and maybe there is a particular skill that has a weight of ten in that skill of one to ten that you normally teach in May and the test is in March and there is a unit that only has a weight of two that you spend a month on in February. It would be smarter if you look at those units of instruction and you flip them, so those skills that are weighted more and have a greater impact on your overall score you work on first rather than after the fact (P6).

Only four of the occurrences of this assumption emphasized the importance of looking at student work or formative assessment in order to improve teaching and learning. This suggests that this type of analysis of data is not the focus of the school improvement process (P7).

The shared assumption, *Teachers engaging in collaborative professional learning improves teaching and learning*, coded as *ASSUME_Professional Learning*, was found in

20 places. Five instances of this assumption were found in the documents analyzed, 14 statements were made by the administrator stakeholders, and one statement was made by the teacher stakeholders. The need to develop teachers was not suggested by the key community leaders or parents or found in the observation notes. Nineteen of the times this assumption was made the stakeholders talked about the kinds of professional development they have had in the past or would like to have in the future such as technology training, webinar-based training, data team sessions, professional learning community (PLC) sessions, etc. For example, a stakeholder said, “A couple of years ago for three years in a row we did the differentiated instruction that was a package deal that was sent and we had to implement” (P12).

When directly asked if the existing professional development helped improve instruction in the school and increase student learning, the administrators and teachers all said "no"; they felt that most of the professional development currently offered did not result in improvements to teaching or learning (P9 and P12). For example, one stakeholder said, “Now, our bosses, the big ones, keep putting forward this question of, what are they calling us, professional learning communities. Ok, we are here, I am thinking most of this room will think that is a slamming good idea but it requires time and it requires support that they don’t provide” (P9). And, another stakeholder said, “It depends on the avenue, the way it is presented, the Go-To Meetings seem to be ok but the BAS webinars stink” (P12). The fact that the administrators made statements about the need to develop teachers so many times and the other stakeholder groups made so few statements about this suggests that professional development may be perceived

differently by administrators than other school stakeholders.

The shared assumption, *Communication is a valuable component of the school improvement process*, coded as *ASSUME_Communication*, was found 23 times in the data. This assumption was found twice in the observation notes; both instances were references to the school's external review required action to develop a comprehensive communication plan (P16). This assumption was also found in 12 places in the documents analyzed; all of these instances were explanations of the various aspects of the school's newly developed communication plan. This assumption was made four times by administrative stakeholders; two of these instances were references to their “open-door policy” (P6), one was an explanation of the “important role of the Parent Teacher Association” (P12), and one was sharing how the administrators try to "help support conversations" with teachers (P7).

This assumption was made five times by teacher stakeholders; teachers twice referred to their weekly grade-level meetings stating that the meetings focus on tasks that need to be accomplished by the grade level (P13). One teacher expressed a perceived importance of public relations-related communication, one teacher shared the perception that the school-level administration solicits, listens to, and responds to teacher input regarding school-level issues, and one teacher shared the perception that above school-level administration does not solicit, listen to, or respond to teacher input (P13). For example, one teacher explained what they do at their weekly grade-level meetings, “We discuss testing situations, the way to be aware of things that we have to do as far as the system is concerned, technology things, our field trips, which we have a lot of during the

first quarter, and things that they talk about during those meetings the team leaders have. It is always something to do with school improvement, almost always" (P13). And, another teacher explained school-level communications versus above school-level communications saying, "There are some things that I think are even out of the administrators control, you know, at a bigger system wide level I think there are more controls put on things and I don't think that teacher input is as significant but at this grassroots level here I think my experience has been that administrators have been receptive" (P13). These findings suggest that school-improvement related communication seems to be focused on sharing information and getting tasks accomplished rather than having conversations about teaching and learning.

The shared assumption, *Input from parents and community members is a valuable component of the school improvement process*, coded as *ASSUME_ParentCommunity Support and Effort*, was found 27 times in the data. This assumption was found in 11 places in the documents analyzed; all of these instances were explanations of the various ways the school encourages parent and community involvement such as partnerships with community organizations and parents including the PTA, invitations to meetings, and volunteers for events (P3 and P4). This assumption was made three times by administrative stakeholders; two of these instances were references to partnerships with community organizations and parents including the PTA, and one was a discussion about how military deployments can negatively impact parents' involvement (P12). This assumption was made seven times by teacher stakeholders; in two of these instances teachers discussed how military deployments can negatively impact parents' involvement

and in four of these instances teachers discussed the need for more parental involvement (P8 and P9). One teacher also shared a specific concern about the challenge of involving parents saying, “We are doing the best we can with creating web pages, emailing parents all the time, and requesting parent conferences but besides that how much can we do as teachers to get the parents involved” (P9).

This assumption was also made six times by parent stakeholders; parents twice expressed the perceived need for more parental involvement, and the other four times parents shared specific examples of how they do the best they can to be involved as parents (P11). One parents said, “I’m trying to get to know how each of my children learns like auditory or visual or whatever in order to help them” (P11). And, another parent said, “I have met with each of my children's teachers and discussed what they have seen in addition to what I see at home when they are working on school work” (P11). The key community leaders only made one statement discussing how military deployments can negatively impact parents' involvement as well as expressing a concern about schools demanding too much parental involvement (P10). One participant, a key military leader, said:

> I have a concern about the balance between parental involvement and educator involvement, where is that line drawn, because if you had a military member deployed and the remaining parent here is weak in a particular subject or doesn’t speak English well and can’t effectively provide the level of parental assistance that is expected that becomes a potential barrier there that can create difficulties for the students and how well they learn (P10).

All stakeholder groups seemed to perceive a need for parent and community member involvement but they also seemed to perceive that there were constraints to and limits to this involvement.

The shared assumption, *The intervention selected by the school will improve students' math achievement*, coded as *ASSUME_ImproveMath*, was found in 30 places and almost all of those occurrences were in the school-improvement related documents analyzed. In almost all of these instances, UPSL (understand, plan, solve, look back) was mentioned although never elaborated upon. The shared assumption, *The intervention selected by the school will improve students' reading comprehension*, coded as *ASSUME_ImproveReading*, was found in 35 places and almost all of those occurrences were in the school-improvement related documents analyzed. In almost all of these instances, the use of graphic organizers or the new BAS (Benchmark Assessment System) test was mentioned; but, again not elaborated upon. These findings again suggest that that the nature of the school improvement process includes written statements that are different from assumptions made orally.

The shared assumption, *Effort from teachers and input from teachers are valuable components of the school improvement process*, coded as *ASSUME_Teacher Input and Effort*, was found 37 times in the data. This assumption was the second most grounded assumption found in the data. This assumption was found in seven places in the documents analyzed and once in the observation notes, made nine times by administrative stakeholders, made ten times by teacher stakeholders, made six times by the parent stakeholders, and made four times by the key community leader stakeholders.

The existence of opportunities for teacher-input at the school level (P13) was revealed in the documents and observation notes. Teachers mentioned the existence of opportunities for teacher-input at the school level five times. However, the need for increasing the opportunities for teacher input and collaboration at school and system levels (P13, P12, and P10) was also mentioned by teacher stakeholders five times. The administrator stakeholders discussed the need for increased teacher input six times and the key community leader stakeholders discussed the need for increased teacher input four times.

Administrators, key community leaders, and parents also expressed a perceived need to increase teachers' efforts and desire to improve their teaching and their students' learning (P12, P10, and P11). One key community leader said:

> We all kind of have the same attitude for our students that you shouldn't be happy with the status quo you should be always asking what is next, what can I do better, how can I do more. So we expect the students to be asking those questions and thinking those things. And, the same thing with the educators, they should ask themselves, 'Ok Johnny has learned all I can teach him about algebra, what is next, well let us give Johnny some geometry or let us give Johnny AP calculus instead of the regular'. So kind of challenging the system, the student, and the educator (P10).

Many parent stakeholders emphasized how teachers' efforts to improve their teaching and their students' learning have made the most positive difference for their children (P11). For example, one parent said, "I have been happy with my child's achievement and think this is largely because of the attitude and effort of his teachers"

(P11). However, another parent said that "not all of the teachers are of the same quality" (P11). These findings suggest that all of the stakeholders agree that teacher input and effort are critical to school effectiveness.

The shared assumption, *Carrying out the school improvement process is difficult*, coded as *ASSUME_DifficultNature*, was found in 64 places. This assumption was the most grounded assumption found in the data. The "enormous challenges" (P1) involved in implementing the system-prescribed process were discussed by the teacher and administrator stakeholders but not by the key community leader and parent stakeholders. For example, out of the 12 instances this assumption was found in the analyzed documents, one of the statements said, "with discomfort the decision was made to combine the two math goals into one and add a reading goal" (P1). The documents also included language about “confusion surrounding implementing the interventions” (P2). There was only one instance of this assumption found in the observation notes. The notes said that the school improvement leadership team had to figure out how to prepare the required end of year progress report (P16). All 32 of the statements made by school administrator stakeholders included language denoting the challenges of carrying out the school improvement process. For example, the administrators used the word *difficult* eight times to describe school-improvement related tasks like asking teachers to collaboratively share and analyze data. The administrators also talked about “some teachers being resentful about the time required for school improvement tasks” (P6), about “some teachers being resistant to doing the tasks” (P7), about “the paperwork requirements being cumbersome, ridiculous, and tedious” (P7), and about being “stuck

and not seeing any growth from the process" (P6). A lack of trust was mentioned as a problem four times and union grievances complicating the process was mentioned as a problem four times by the administrators (P6 and P7).

All 16 of the statements made by teacher stakeholders also included language denoting the challenges of carrying out the school improvement process. For example, the teachers talked about the process being "labor intensive and very time consuming" (P9); the teachers said the process brought "a lot of pressure" and "actually takes away from teaching" (P9). One teacher said, "The school improvement process does not seem to consider the fact that students and teachers have specific needs so a standardized intervention really doesn't work" (P13). Another teacher said that the process seemed to "push and push and push" (P13). Yet, another teacher said, "The school improvement process does hold the school accountable" (P13). These findings suggest that administrators and teachers agree that the nature of the school improvement process is extremely trying.

Since the purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process, the researcher compared the occurrence of shared assumptions statements made by the different stakeholders. Table 4 and Figure 7 show the following patterns:

- The administrators made the most statements about building teacher capacity and developing teachers professionally. The administrators' occurrences of these shared assumptions were different from the occurrences of the other three stakeholder groups which were similar to each other.

- The administrators made the most statements about how carrying out the school improvement process is difficult; however, teachers made almost as many statements. The occurrences of this shared assumption were similar between administrators and teachers and between key community leaders and parents.
- The key community leaders made many more statements than the other stakeholder groups about the importance of publically published school achievement data and the reputation of the school/system. The key community leaders' occurrences of this shared assumption were different from the occurrences of the other three stakeholder groups which were similar to each other.
- The key community leaders made many more statements than the other stakeholder groups about student achievement being improved by curriculum requirements and/or administering summative assessments. Teachers' and administrators' occurrences of this shared assumption were similar.
- The parents made the most statements about their input being a valuable component of the school improvement process.
- The teachers made the most statements about communication being a valuable component of the school improvement process.
- The teachers and the parents made similar numbers of statements about input from teachers being a valuable component of the school improvement process.

Teacher, school, and context level factors. The teacher-level factor, *Formative,*

summative, formal, and informal assessments used by the teacher, coded *TFACT_Assessment*, was found 13 times in the data. This was the second least grounded factor found in the data including the context-level and school-level factors. This factor was found in every data source. The assessment factor was found once in the documents analyzed, once in the observation notes, four times from comments by administrative stakeholders, four times from comments by teacher stakeholders, twice from comments by the key community leader stakeholders, and once from comments by the parent stakeholders. The instance this factor occurred in the documents it was a declaration that assessment data was utilized by teachers and the school to improve student performance (P2); however, the instance this factor occurred in the observation notes it was a mandate from the recent external review for the teachers and the school to develop "consistent assessments to track student performance in and across grade levels; and to monitor the quality and the frequency for the implementation of interventions" (P14).

One administrator and one teacher talked about assessments being used to inform instruction and improve student learning. An administrator said they "just started looking at what the children needed and we saw growth begin to go through the roof" (P7) and a teacher said "My job is to figure out where my children are academically" (P9). But neither explained how they went about doing these types of assessments. One

Table 4.

Comparison of Occurrence of Shared Assumptions Made by Different Stakeholder Groups

Assumption codes	Admin	Keylead	Parent	Teach
ASSUME_CapacityBuilding	0.12	0.03	0	0.03
ASSUME_Communication	0.03	0	0	0.08
ASSUME_Curriculum and Assessment	0.05	0.15	0	0.02
ASSUME_Data Analysis	0.04	0	0	0.05
ASSUME_DifficultNature	0.26	0	0	0.19
ASSUME_Goals and Interventions	0	0	0.04	0.02
ASSUME_ImproveMath	0.04	0	0.05	0
ASSUME_ImproveReading	0.06	0	0.14	0
ASSUME_Leadership	0.04	0.07	0.04	0.04
ASSUME_MathProficiencyDemonstrated	0	0	0	0
ASSUME_ParentCommunity Support and Effort	0.02	0.05	0.16	0.09
ASSUME_Positive Recognition and Feedback	0.03	0.04	0	0
ASSUME_Professional Learning	0.12	0	0	0.03
ASSUME_QAR	0.03	0	0	0.05
ASSUME_ReadProficiencyDemonstrated	0	0	0	0
ASSUME_Reputation and Public Info	0	0.22	0	0
ASSUME_School Vision	0	0.04	0	0
ASSUME_SSA	0	0	0	0.02
ASSUME_Student Input and Effort	0.08	0.06	0.06	0.02
ASSUME_Teacher Input and Effort	0.07	0.08	0.13	0.14
ASSUME_Technology	0.04	0	0	0.02

Note. Tabulated and calculated with AtlasTi qualitative analysis software. The coefficient shown is based on the Normalized Co-Occurrence measure or C-Index; in the case of pair wise co-occurrence it is the co-citation frequency between two and only two terms k1 and k2 (Garcia, 2005). C-Index is given by: Eq 1: C12 - index: n12/(n1 + n2) - n12 where: c12 = 0 when n12 = 0, c12 > 0 when n12 > 0, and c12 = 1 when n12 = n1 = n2 (Garcia, 2005).

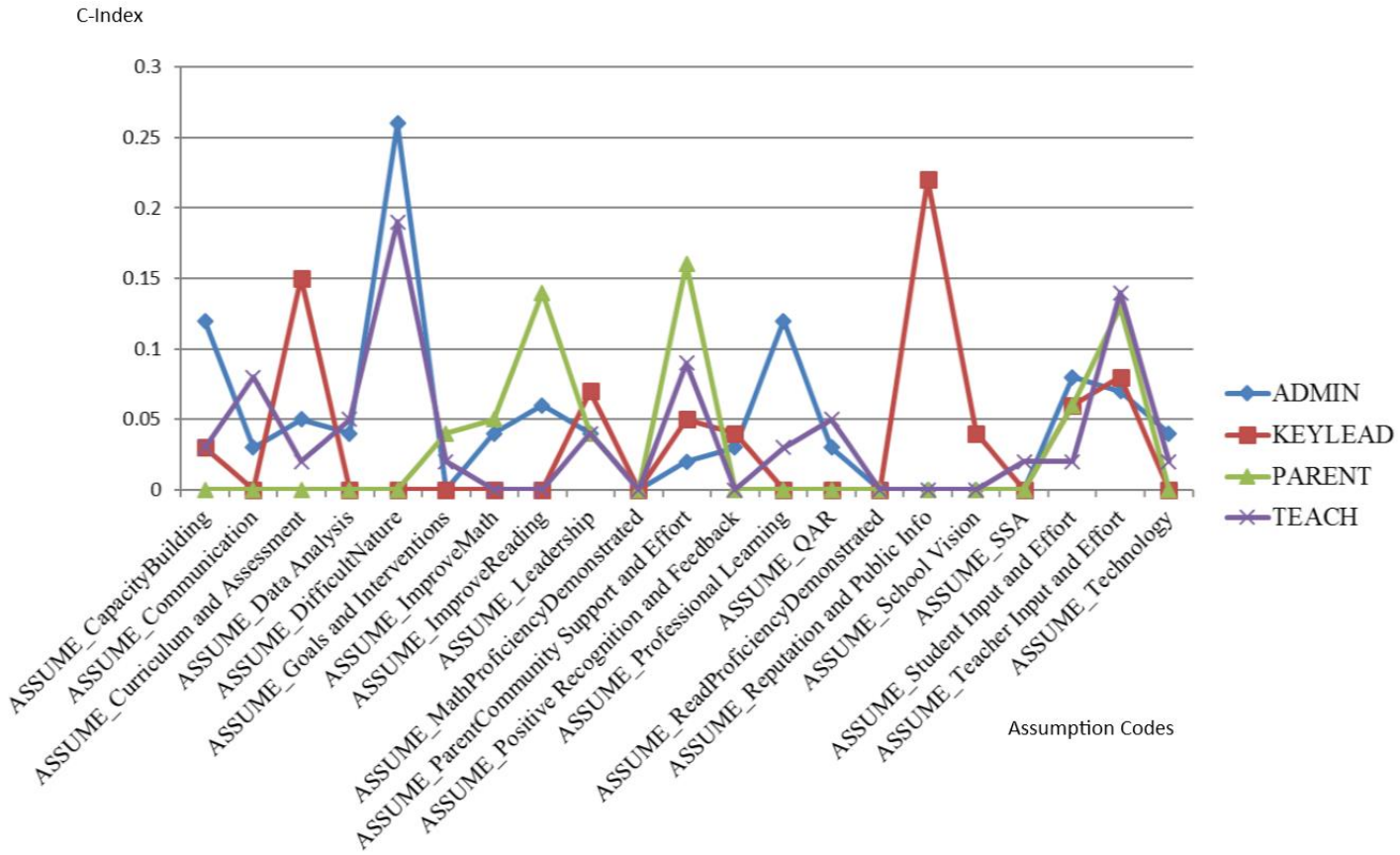

Figure 7. Comparison of occurrence of shared assumptions made by different stakeholder groups.

administrator and one teacher shared assessment approaches that almost took place or that sometimes took place in the past; these comments seem to contradict the written occurrences of this factor as well as the other comments made by the administrators and teachers discussing the use of varied assessment approaches. An administrator said that "the school almost participated in a common math assessment pilot program" (P12) and a teacher said, "We used to have periodic baseline and benchmark assessment workshops" (P13).

One administrators and two teachers discussed how students should assess themselves and manage their own learning (P7 and P8). For example, a teacher said, "When I gave their tests back they had to use a colored pencil and correct their mistakes and then explain why they did it wrong, what was their misunderstanding, and how they could correct it" (P8). All of the comments made by the key community leaders and teachers referred to the need for teachers to understand individual students' personal and learning needs in order to best facilitate their learning (P10 and P11). For example, a key community leader said, "There needs to be awareness on a teacher's part that each student is different and there are different home situations that create those unique situations that could hinder learning" (P10). This data suggested that these stakeholders believed that assessment should be multifaceted and focused on working with students to help them learn.

The teacher-level factor, *Role in learning environment includes classroom structures used by the teacher such as learning centers, instructional design including planning modifications and differentiated instruction, and teachers' relationships and*

rapport with students, coded *TFACT_Teacher Role in Learning Environment*, was found 24 times in the data. This was the most grounded teacher-level factor found in the data; and, only one school-level factor had more occurrences in the data. All of the context-level factors were at least as grounded as this factor. The role in learning environment factor was found once in the documents analyzed but not in the observation notes. It was revealed five times from comments by administrative stakeholders, four times from comments by teacher stakeholders, nine times from comments by the key community leader stakeholders, and five times from comments by the parent stakeholders.

One document stated that teachers use "multiple strategies when differentiating instruction in respect to cultural differences, learning styles, and individual learner abilities, and providing active learning opportunities" (P4). But, the administrator stakeholders talked about “a lack of differentiated instruction and active learning” (P7) contradicting what was found in the written documents. The key community leaders and parents mentioned this factor of teachers' role in learning environment more times than the administrators and teachers. When asked to describe a situation when they believed student learning improved, one key community leader said, "For me and I can speak for my children, it was the attitude and the involvement of the educator and the passion and the dedication, you know we can all think back of those teachers that had a great influence in our lives" (P10). Another key community leader said:

> So my experience with my children--they have learned the most when they had a teacher who was engaged who could connect with them on their level so they

> allowed themselves to continue to grow, pass their degree and pass their certifications and to remain relevant to the time and to the student (P10).

The key community leaders and parents also talked about the need for teachers to understand military children's unique situations and work with them to help mitigate the negative impact of parent deployments, and frequent moves that are part of military life. These findings suggest that community leaders and parents believe that teachers' role in learning environment is a key factor for increasing student learning.

The teacher-level factor, *Technology use includes the application of technology tools to enhance teaching and learning*, coded *TFACT_TechnologyUse*, was only found four times in the data. This was the least grounded factor found in the data including the context-level and school-level factors. It was found once in the administrator comments, twice in the teacher comments, and once in the parent comments. The administrator comment contradicted the teacher comments. An administrator said, "We all have interactive white boards but the majority of what I am seeing is they are using them mostly as display tools rather than interactive tools" (P6). But a teacher said:

> I try to include technology a lot, smart boards. The students loved to write on the smart boards. I was finding ways for them to get up sometimes just a click of a mouse and they would sit down but they took turns, they listened to instructions, they paid attention (P8).

The parent talked about how technology could be used to assess individual student needs quickly to "teach all students in a way that genuinely challenges at an

individual scale in the future" (P11). These findings suggest that all stakeholders believe that the effective use of technology has the potential to foster school improvement.

The school-level factor, *Leadership includes the characteristics of school and system leaders as well as the duties they are expected to perform*, coded as *SFACT_Leadership*, was found 18 times in the data. This was the third least grounded factor found in the data including the context-level and teacher-level factors. This factor was found in every data source. The leadership factor was found seven times in the documents analyzed, once in the observation notes, five times from comments by administrative stakeholders, three times from comments by teacher stakeholders, once from comments by the key community leader stakeholders, and once from comments by the parent stakeholders. The instances this factor occurred in the documents were declarations of how "the school administration governs and leads to promote school effectiveness and improve student performance" (P2). Comments about the school administration having an "open door policy" and "visiting classrooms and talking with teachers" (P4, P7, and P13) were found in the documents analyzed and made by the administrator stakeholders and teacher stakeholders. But both the administrators and the teachers talked about the need for even more classroom visits and instructional supervision and feedback from the school and system leadership (P12 and P13). Both the key community leaders and the parents said that effective leadership was critical (P10 and P11). A parent said, "I think the school needs an open-minded administration that is willing and able to go above and beyond" (P11). These findings suggest that all

stakeholders believe that leadership is an important factor for effective school improvement.

The school-level factor, *Stakeholder partnerships includes formal and informal relationships/partnerships with students, parents, and community members*, coded as *SFACT_Stakeholder Partnerships*, was found 18 times in the data. This was the third least grounded factor found in the data including the context-level and teacher-level factors. This factor was found in every data source. The stakeholder partnership factor was found three times in the documents analyzed, twice in the observation notes, four times from comments by administrative stakeholders, five times from comments by teacher stakeholders, once from comments by the key community leader stakeholders, and twice from comments by the parent stakeholders. The instances this factor occurred in the documents and observation notes were declarations about the school's communication plan and how the school and teachers try to connect with parents and community members.

Comments about the need to involve parents more were made by the administrator stakeholders, teacher stakeholders, and parents (P12, P13, and P11). But, although the key community leaders mentioned the need for parent involvement, they talked about "balanced parental involvement rather than expecting too much from the parents" (P10). One key community leader said that some school systems "place a heavy emphasis on parental involvement" expressing how "the mix was a little bit disconcerting" (P10). The administrators also talked about student involvement such as

how the student council functions and "students give new student tours of the school" (P12).

The teachers also talked about how the demands of military family life such as moving every few years, parents working long hours, and parent deployments hindered parent and student involvement (P13). For example, one teacher said:

> I mean, for kids and their achievement moving with the military is hard because maybe you start in September with a teacher and by the time December rolls around you are going someplace else and starting over and then all the factors that go with this, not just about moving into a new classroom, it is more in a personal relationships with your peers, more in a personal relationship with different adults, a new home, a new place to go shopping, a new yard, a new all of that. And all of that takes time for military kids to digest. Some kids they seem to be taking it good, they can handle it very well but I wonder how many of them just absorb it, this it ok, this is the move, ok I am ready to go and then they just become very plastic or very not really involved in things. So you never really know if they really are achieving as best as they could because they either are dealing and coping, surviving with the change that they are doing or they are not (P13).

The school-level factor, *Teacher collaboration includes any teacher collaboration-related aspects such as logistics of collaborating, time for collaborating, and characteristics of collaboration*, coded as *SFACT_Teacher Collaboration*, was found 54 times in the data. This was the most grounded school-level factor found in the data

and the second most grounded factor found in the data even when also considering the teacher-level and context-level factors. The teacher collaboration factor was found seven times in the documents analyzed and three times in the observation notes. Various collaborative opportunities that have occurred were described in these written occurrences. "The school has a positive, collaborative learning environment" (P5) was written in the documents. Statements about collaborative learning teams, grade level teams, and collaboratively reviewing data were found in the documents and notes (P5 and P14).

Unfortunately, the written occurrences of this factor contradict most of the comments made by the various stakeholder groups regarding this factor because most of them said there was a lack of time and opportunity for teacher collaboration. For example, 12 of the 28 times the administrative stakeholders mentioned the teacher collaboration factor, they mentioned that there was a lack of time for teacher collaboration (P6 and P7). One administrator said, “I don’t think there is time to actually collaborate about what teachers need to do” (P6). Another administrator said:

> Well one of the things that I would like is time, whether we are successful in having some time where we have either a half a day once a month or an hour extra every week but what the time will allow us to do will be to have the continuous ongoing professional development sessions that we need and I think meeting as grade level groups, having the vertical and the horizontal meetings between grade levels, forming our professional learning teams or committees (P7).

When asked directly what they thought were the barriers to improving achievement in their school, the administrators said, “I think lack of collaboration time” (P12).

The teacher collaboration factor was not mentioned by the parents or key community leaders. But, the teacher collaboration factor was mentioned 16 times by teacher stakeholders. The teachers talked about their grade level meetings saying, “It is an ideal time to rehearse some testing things, school improvement things, even problems that we might have with certain parents or students" (P9). But, other teachers talked about not meeting with a grade level group (P13). A teacher said, “We don’t seem to have a lot of that going on with my particular grade group this year but in the past we would get together if we had an event that was going on and figure out how we wanted to run that event” (P13). The teachers also talked about the meetings with their team leaders who also attend a regular meeting with the administrators explaining that "Every Thursday we meet during lunch time and we just talk about what is going on because two other people that are in our team are the team leaders so they normally have an agenda what we are going to talk about from their meeting with the administrators and it is always very, very productive " (P13). These findings suggest that collaborative opportunities are inconsistent and when collaboration does occur it is focused on logistical tasks.

The context-level factor, *Accountability includes staff engaging in systematic, continuous improvement and measuring their success by how well each student progresses*, coded as *CFACT_Accountability*, was found 24 times in the data. This was the least grounded context-level factor found in the data; but, only one school-level factor and zero teacher-level factors had more occurrences in the data. The accountability factor

was found twice in the documents analyzed and was not found in the observation notes. This factor was found seven times in the administrative stakeholders' comments, seven times in the teacher stakeholders' comments, six times in the key community leader stakeholders' comments, and twice in the parent stakeholders' comments. Both instances this factor occurred in the documents were references to the annual system assessments used to measure student growth and the school improvement progress (P4). However, many of the other instances this factor occurred were statements that accountability was needed, accountability was lacking, or accountability varied from school to school or teacher to teacher. For example, a key community leader said, "In the military community we know that as we raise our right hand we are now held to a higher standard and there is more expectations of us. And I don't think that it is a bad value to pass on to our children" (P10). The administrators shared frustrations about a lack of requirements saying, "because you don't have somebody saying yes you will do that and this is the way it is going to be, it is not happening" (P6).

Key community leaders shared their concern about the education provided by this system being comparable to the education provided by other school systems and key community leaders shared their desire for more accountability (P10). One key community leader said, "I think we also have to hold the educators to periodic reviews, performance assessments, and honest hiring decisions and firing decisions. If they are not meeting their expectations then let us find someone who can" (P10). A teacher said, "The accountability in a school depends on the leadership in the school as well as the rapport between the school administration and the teachers in a school" (P13). One teacher also

said, “The external review or QAR held the school accountable” (P13). A parent said, “I feel the school and teachers could do even more to help students grow” (P13). One parent also shared a perception that “government/system mandates are barriers to improvement” (P11). When asked what made him say that, he said, "I don't always agree with all of the testing requirements that the school has. And, No Child Left Behind (NCLB) would be another example of standards that I think are barriers" (P11). This is a paradox because testing requirements are central to accountability policies. The parent may perceive that measurement of student growth and continuous improvement do not require testing-based accountability measures or that more effective assessments are needed.

The context-level factor, *Capacity building includes the enabling conditions that allow process to affect product. These enabling conditions include staff development, enquiry and reflection on progress, involvement of students in the teaching and learning process, distributed leadership, collaborative planning, and coordinated school-wide activity that establishes coherence*, coded as *CFACT_Capacity Building*, was found 42 times in the data. This was the second most grounded context-level factor found in the data and the third most grounded factor found in the data even when also considering the teacher-level and school-level factors.

The capacity building factor was found three times in the documents analyzed and once in the observation notes. Various professional development opportunities that have happened were described in these occurrences. "Teachers receive ongoing comprehensive training" was written in one document. These written occurrences of this factor contradict most of the comments made by the various stakeholder groups regarding this factor

because most of them said there was a lack of ongoing comprehensive training. For example, many of the 22 times the administrative stakeholders mentioned the capacity building factor, they mentioned that there was “a lack of time for continuous training for teachers” (P12) and a lack of control over any training that does occur.

The administrators also shared that most of the professional development was "packaged" (P12) or "one-shot deals" (P6), and that “growth opportunities are limited for both teachers and administrators” (P6). One administrator said, “The only thing I know of as far as opportunity for growth would be on the technical boards that people have an opportunity to volunteer for but we have had very few of those lately and very few people get to be on them. It seems that more and more has been taken away from the at-school level in terms of what the school needs are and more is pushed down from the headquarters or the area level to tell principals this is what you will have for your school” (P12). The administrators also said that the limited growth opportunities that do exist are not designed based on the needs of the teachers (P12). Administrators said, “We are talking about differentiated instruction for students and yet we treat teachers like they are all the same and we don’t differentiate based on their needs” (P12). Administrators also said, “Many above school level positions are not as helpful for building teacher capacity as they could be if they were at the school level” (P7). And, administrators said that much capacity building is “hindered because of the union” (P12). Expressing frustration about the lack of capacity building, one administrator said, "We have taught differentiated instruction I know for the last five years and we haven’t gotten past the stage of awareness. And the rest of the world is moving on without us" (P7). When asked if the

training offered to teachers leads to improved instruction or student learning, the administrator stakeholders said, "no" (P12).

The capacity building factor was not mentioned by the parents and was only mentioned once by the key community leaders. One key community leader discussed the need for the system to adapt to build capacity rather than the stakeholders adapting to the system saying, "We always expect people to adapt themselves to us, where more importantly we have to adapt ourselves to their needs and the different situations that are going to affect results" (P10). The capacity building factor was mentioned 15 times by teacher stakeholders. The teachers also mentioned a lack of time for and control over their growth opportunities (P9). A teacher said, “There are lots of resources intended to build capacity such as a bookroom and above school-level resource persons; but, the school-level opportunities such as technology-related workshops help me grow more than any of these” (P13). The teachers said that all of the recent training was related to the system-prescribed school improvement process and that most of it did not help them improve instruction or student learning. One teacher said, "It has been a lot of years since I felt that I had professional development that was significant" (P9).

The context-level factor of organizational culture includes “Patterns of espoused values and shared assumptions developed over time and producing behavioral norms that are adopted in day to day operations and when solving problems” (Nel, 2009, p. 12). Consistent with Schein’s (2010) organizational culture theory and recent findings by Creemers and Kyriakides (2010b) showing that actions taken to improve school culture are essential for a school to improve, the context-level factor of organizational culture

was the most grounded factor found in the data even when also considering the teacher-level and school-level factors. There were 89 occurrences of the context-level factor of organizational culture which was coded as *CFACT_Org Culture*.

The organizational culture factor was found six times in the documents analyzed and once in the observation notes. A reference to the formal system-prescribed school improvement process was written in one document and found in the observation notes. The existence of abundant resources, varied activities, and positive traits such as trust and a feeling that all stakeholders are contributing to the success of the system were mentioned in these occurrences. For example, the school improvement process-required self-assessment document stated, "The interaction of staff members with all students is caring, responsive, supportive, and respectful. Students trust staff members. Staff members and students feel that they are respected and valued. Parents and the community perceive the school as trustworthy, warm, inviting, and helpful. Morale is high among staff members" (P4).

But these types of written occurrences mentioning a trusting culture contradicted six comments made by the administrator and teacher stakeholder groups regarding this factor because they said there was a lack of trust in the organizational culture (P12 and P13). When asked about their perceived lack of control at the school level, an administrator said, "It feels like a lack of trust. I am not sure that that is the intention but that is what it feels like" (P12). One stakeholder said, "It is remarkable really how often we at the school level manage to do all the things they tell us to do considering that they get thrown at us from above and we have to scramble to do them while we are still trying

to teach the kids" (P12). The administrator and teacher stakeholder groups also made eight comments contradicting the participative feeling mentioned in the documents. They said they had very little input about what should be done or why it should be done; but, instead had to focus on operationalizing whatever the system told them to do (P12 and P13). One administrator said, "We have to answer questions from parents but we don't really know what is going on or why" (P7).

Three teachers wondered about the theory and research that supported system decisions (P9). One teacher said, "So they give lip service to things but they really don't follow it up in practice. I realized that all of these theories, these philosophies of learning theory that we did as undergraduates and graduates is really not being practiced in the development of a curriculum, in development of standards, in development of a working structure of the day" (P9). Both groups explicitly said that they were not given genuine participative opportunities; but, really "had to just get it done" (P16). There were 7 statements related to this context-level factor made by the key community leaders and 4 statements related to this context-level factor made by the parents. Both groups said that positive traits like trust and participative feelings and opportunities were important and could be improved.

There were many similar responses from administrators and teachers pertaining to this context-level factor of organizational culture. For example, both administrator and teacher stakeholder groups felt there was a lack of time and support; there were two instances of this statement from both groups (P2 and P7). One stakeholder said, "We have got a lot of resources. We have got a lot of good people in this school, attached to

this school, and then in the district I think. But, time is tough (P9). Another stakeholder said, “I think there are lots of supports but some of them are more real. We have sub days to accomplish the testing but we do not have sub days for organizing integrated learning teams in a grade level or even better vertically” (P9). Both groups also said they were overwhelmed (P9 and P11) with "so much minutia" (P9). The teachers said, “There is just so much business that while those times we do have are valuable to us a lot of the time we end up spending talking about special events and then testing, organizing testing, tracking testing, when is testing due” (P9). Finally, both administrators and teachers said that they were given old curriculum materials as a result of the process the system follows (P6 and P9) and that it seemed like every bit of flexible time was used to meet requirements of the system prescribed school improvement and external review processes (P6 and P9).

The most common statement made by the administrators regarding this context-level factor of organizational culture, 11 comments, was regarding the perception that "the union is running the ship rather than the administration" and how much "fighting" and difficulty this causes (P6). One administrator said, “We have to bargain everything before we are able to implement and even then after it has been bargained and we are ready to implement somebody finds another loophole and says stop. It gets in the way of what we need to do for kids. And that is part of it but the other part is that I think as an organization we are so worried about what might happen if we push forward that we just don’t” (P7).

Another common statement made by the stakeholders regarding this context-level factor of organizational culture, 8 comments, was regarding the perception that "initiatives get watered down or thrown out" and how this lack of follow through hinders improvement (P12). One stakeholder said, "At one time the system may have been a top system but I think others are gaining and we aren't" (P12). Stakeholders gave three specific examples of this lack of follow through citing a math assessment pilot that never happened, a discipline matrix that never materialized, and a standards-based report card that was severely watered down by the time it was only partially and inconsistently implemented (P12).

The most common statement made by the teachers regarding this context-level factor of organizational culture, 6 comments, was regarding the perception that there is a "conflict between what we know needs to be done to help kids and what the system expects us to do" (P9). One teacher said, "I am aware that I have bosses and that they have expectations. I am being paid for those expectations regardless of what I think needs to be done"(P9). Another teacher said, "I don't believe that giving children more and more and more is going to make them better and better and better and better but that is what I have to do anyway" (P9).

In order to explore the nature of the school improvement process for the various stakeholder groups the researcher compared the occurrence of the school improvement factor-related statements made by the different stakeholders. Table 5 and Figure 8 show the following patterns:

- The administrators made the most statements about the context-level factor of

organizational culture. Teachers made almost as many statements about the organizational culture factor.

- Administrators and teachers had similar occurrences of all of the other factors except for the context-level factor of accountability. Instead, teachers and key community leaders had similar occurrences of the accountability factor.
- The key community leaders made the most statements about the school-level factor of teacher role in learning environment. Parents made almost as many statements about the teacher role in learning environment factor.

Anticipated patterns. The purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process. Therefore, the researcher anticipated that the data patterns might suggest that different stakeholder groups have competing values, diverse assumptions, and/or varied perceptions. In expectation of this finding, the researcher analyzed the data patterns based on the competing values framework, a mechanism for studying organizational culture and initiating change based on both the current and the desired organizational culture (Cameron & Quinn, 2011). Over the past 25 years, the competing values framework has been studied and tested by researchers from various disciplines; it is widely considered one of the most important frameworks for making sense of culture (Nel, 2009).

Table 5.

Comparison of Occurrence of Factors Made by Different Stakeholder Groups

Factor Codes	Admin	Keylead	Parent	Teach
CFACT_Accountability	0.03	0.1	0.04	0.09
CFACT_Capacity Building	0.11	0.01	0	0.11
CFACT_Org Culture	0.21	0.06	0.03	0.16
CFACT_SI Model	0.04	0	0	0.05
SFACT_Leadership	0.02	0.02	0.02	0.03
SFACT_Stakeholder Partnerships	0.02	0.04	0.05	0.05
SFACT_Teacher Collaboration	0.14	0	0	0.11
TFACT_Assessment	0.02	0.04	0.03	0.04
TFACT_Teacher Role in Learning Environment	0.03	0.16	0.09	0.03
TFACT_TechnologyUse	0.01	0	0.04	0.02

Note. Tabulated and calculated by Atlas Ti qualitative analysis software. The coefficient shown is based on the Normalized Co-Occurrence measure or C-Index; in the case of pair wise co-occurrence it is the co-citation frequency between two and only two terms k1 and k2 (Garcia, 2005). C-Index is given by: Eq 1: C12 - index: n12/(n1 + n2) - n12 where: c12 = 0 when n12 = 0, c12 > 0 when n12 > 0, and c12 = 1 when n12 = n1 = n2 (Garcia, 2005).

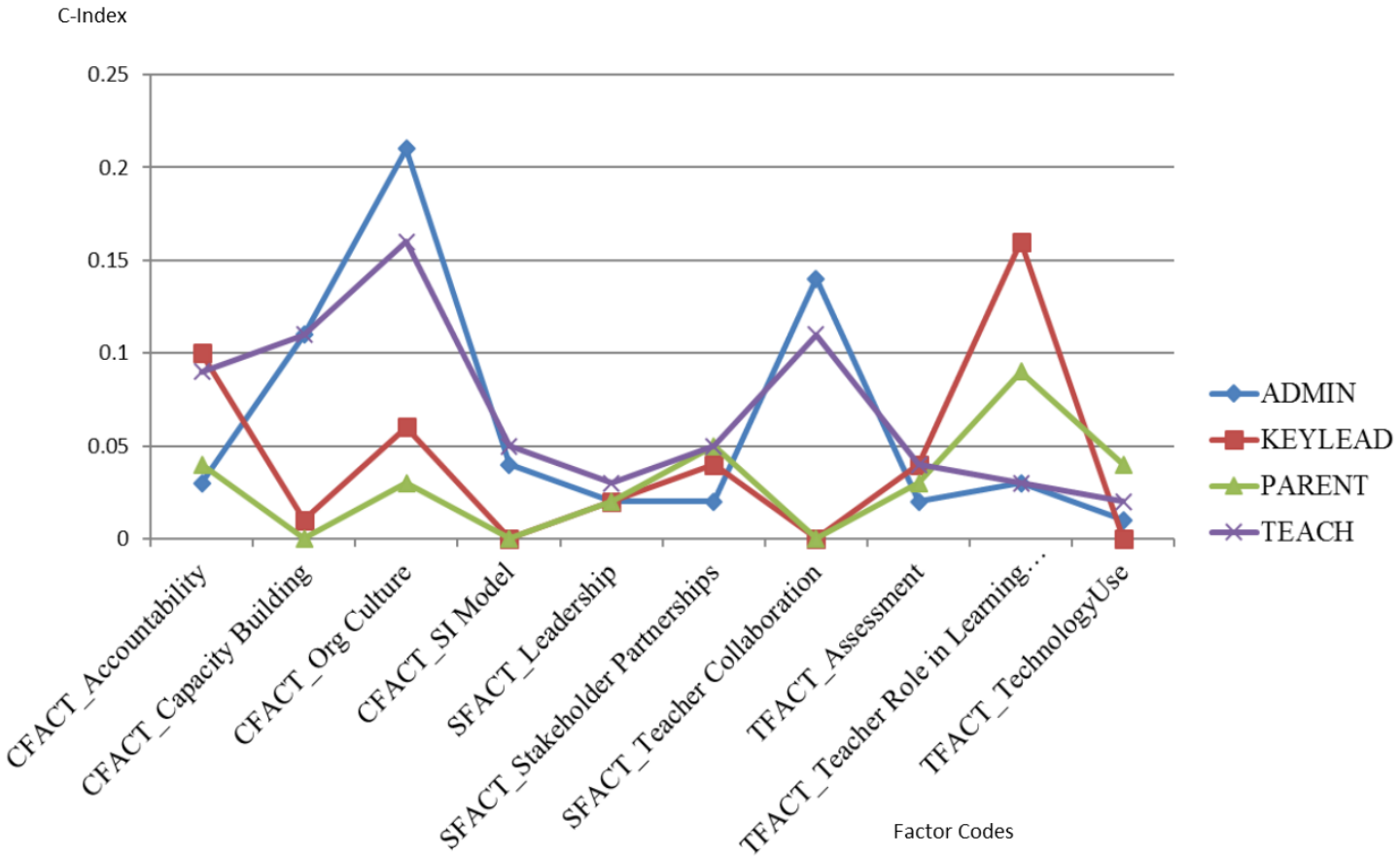

Figure 8. Comparison of occurrence of factors made by different stakeholder groups.

The competing values framework approach is based on investigating an organization regarding two pairs of contradictory values--internal focus versus external focus and flexibility/discretion versus stability/control. Four competing values framework quadrants (see Figure 9 on next page) are formed by placing these competing values on opposite ends of intersecting lines; these four quadrants depict the four organizational cultural forms defined as the clan, the adhocracy, the market, and the hierarchy (Cameron & Quinn, 2011).

Cameron and Quinn (2011) explained that an organization with a dominant clan culture concentrates on collaboration while an organization with a dominant market culture is competitive valuing productivity and initiative. In the other two diagonal quadrants, Cameron and Quinn explained that an organization with a dominant hierarchical culture strives for control, consistency, and formal relationships while an organization with a dominant adhocracy culture emphasizes growth and individuality. Research suggests that school systems are most effective when they have dominant clan and adhocracy cultures (Nel, 2009).

Analysis of the patterns found in the data suggested that the organizational culture of the case study school may be dominant hierarchy and market cultures. The data seemed to show traits of formality, obedience, and orderliness towards following system required processes--traits of dominant hierarchy cultures. The data also seemed to show traits of aggressiveness and diligence toward pursuing goals--traits of dominant market cultures. The traits of dominant clan and adhocracy cultures were not as prominent in the data. For example, as discussed above, the data related to the context-level factor of

organizational culture, the most grounded factor found in the data, consistently showed that stakeholders perceived a lack of control at the school level, lack of opportunities to participate in meaningful curriculum development, instructional improvement, or other initiatives, a lack of follow-through regarding proposed and attempted innovations, and a lack of time for professional learning and collaboration. Also, as discussed above, the data related to the shared assumptions and espoused values consistently showed that stakeholders perceived that adherence to the system-prescribed school improvement process and relentlessly pursuing the school-improvement mandated goals were the organizational foci even above student-centered instruction, the second most grounded espoused value, and even though adhering to the process and relentlessly pursuing the goals were considered overly time consuming and frustrating by administrators and teachers.

	Clan	Ad Hoc
Dominant organizational characteristics	Personal, like a family	Entrepreneurial, risk taking
Leadership style	Mentoring, facilitating, nurturing	Entrepreneurial, innovative, risk taking
Management of employees	Teamwork, consensus, and participation	Individual risk taking, innovation, freedom, and uniqueness
Organizational glue	Loyalty and mutual trust	Commitment to innovation, development
Strategic emphasis	Human development, high trust, openness	Acquisition of resources, creating new challenges
Criteria for success	Development of human resources, teamwork, concern for people	Unique and new products and services
	Hierarchy	**Market**
Dominant organizational characteristics	Controlled and structured	Competitive, achievement oriented
Leadership style	Coordinating, organizing, efficiency oriented	No-nonsense, aggressive, results oriented
Management of employees	Security, conformity, predictability	Competitiveness and achievement
Organizational glue	Formal rules and policies	Emphasis on achievement and goal accomplishment
Strategic emphasis	Permanence and stability	Competitive actions and winning
Criteria for success	Dependable, efficient, low cost	Winning in the marketplace, outpacing the competition

Figure 9. Competing Values Framework

According to Cameron and Quinn (2011), strengthening clan-aspects of a culture means more employee empowerment, participation, and involvement, more horizontal communication and cross-system teamwork, more recognition of employees, and a more caring climate. But, strengthening clan-aspects of a culture does not mean being too nice or not making tough decisions, lacking standards or rigor, slacking off, or tolerance of mediocrity. To strengthen clan-aspects of a culture, Cameron and Quinn recommend involving diverse employees in all phases of strategic planning, identifying, analyzing, and systematically intervening to solve the longest-standing intergroup conflicts, and energizing the employee recognition program. Strengthening adhocracy-aspects of a culture means more employee suggestions and listening to stakeholders, more process innovativeness, thoughtful risk-taking, and tolerance of first-time mistakes. But, strengthening adhocracy-aspects of a culture does not mean not sharing or not coordinating efforts, thoughtless risk taking or covering up errors, following fads or lacking focus. To strengthen adhocracy-aspects of a culture, Cameron and Quinn recommend reading extensively about what is being done in other similar contexts to foster continuous improvement, identifying major emerging issues and making one person or committee responsible for learning about and informing others about this issue, developing systems to encourage, measure, and reward innovative behavior, and recognizing and celebrating trial-and-error learning.

Unexpected patterns. Although the researcher expected the stakeholders to assume parental involvement is an important aspect of school improvement, the researcher did not anticipate that the key community leaders would mentioned the need

for "balanced" (P10) parental involvement explaining that some school systems "place a heavy emphasis on parental involvement" and expressing how "the mix was a little bit disconcerting" in some cases especially due to military deployments and other family demands (P10). For example, one key community leader talked about some schools expecting parents to provide all of the extra help their children need themselves rather than the school providing extra help (P10). This unexpected finding might suggest a need for increasing collective responsibility so that all stakeholders contribute to the effort to improve student achievement; students, parents, teachers, administrators, and community members should all be collectively responsible.

The researcher expected the administrators, key community leaders, and parents to value objective measures of academic proficiency as well as to assume formal accountability requirements foster increased student learning. Although administrators and key community leaders expressed these values and assumptions, parents did not mention the need for or desire for standardized proficiency measures and accountability requirements. Instead, parents talked about academic proficiency being demonstrated through other measures such as students "moving forward from wherever they are" (P11), "kids attaining their personal best" (P11), and students demonstrating life skills like time management and "the joy of learning" (P11). One parent also shared a perception that government/system accountability mandates were barriers to improvement (P11). When asked what made him say that, he said, "I don't always agree with all of the testing requirements that the school has. And, No Child Left Behind (NCLB) would be another example of standards that I think are barriers" (P11). This unexpected finding might

suggest a need for different ways to measure academic proficiency and to hold teachers and schools accountable.

Discrepant information. Discrepant information was found several times in the data. The administrators and the analyzed documents, which were approved by the administrators, made the assumption that the determination of or revision of school goals and/or intervention strategies had a positive impact on the school improvement process. But, parents and teachers made the assumption that the determination of or revision of school goals and/or intervention strategies had a negative impact on the school improvement process. An administrator stakeholder shared a belief that school improvement process related "goal-setting is critical because it drives performance and increases motivation" (P6) whereas parent and teacher stakeholders shared the belief that this goal-setting process was overly emphasized (P11 and P13) because it "narrows the school's efforts so that nongoal areas are neglected" (P13) and it "decreases motivation" (P11).

Discrepant information was also found with regards to stakeholders' perceived frustration with the system's curriculum and summative assessment requirements. The administrators expressed the belief that the union kept the system from implementing effective curriculum and summative assessment requirements (P6) whereas the teachers made the assumption that the system simply did not implement these requirements effectively (P13). Finally, discrepant information was found with regards to the teacher-level factor of technology use. Again, the administrator comments contradicted the teacher comments. The administrator stakeholders said technology tools were not being

used effectively by teachers whereas teachers talked about many varied and effective ways they use technology tools although they did express a desire to learn more (P7 and P9).

In his book *Teachers versus Technocrats* which was originally published in 1977, Wolcott (2003) described an educational improvement process that took place during the early 1970s. Wolcott analyzed the process from an anthropological perspective then theorized from this analysis that education systems are moiety subcultures composed of two competing groups: teachers and technocrats. Wolcott defined any member of an education system who is not a teacher as a technocrat. The discrepant information found in this case study seems to fit Wolcott's theory because the perceptions of the teachers contradict the perceptions of the administrators or technocrats. Unfortunately, according to Sarason's (1996) analysis of school cultures, "The greater the discrepancy between the values of the teachers and those of the supervisors, the greater the conflict between them" (p. 51).

Wolcott (2003) described both groups' reciprocating and complimentary behaviors. Wolcott's two major categories of teacher behaviors for coping with change were compliance and resistance. Wolcott concluded that the prevailing action of teachers was to go along which could include enthusiastic acceptance, routine acceptance, antagonistic acceptance, or innovative acceptance. Wolcott also concluded that the wait-and-see approach was the second most common teacher-response behavior and that heel-dragging approaches were the third most common teacher-response behaviors. Dropping out, taking informal action, and taking formal action were shown to be the least common

teacher-response behaviors. Wolcott's two major categories of technocrat behaviors for imposing change were soft-sell behaviors and hard-sell behaviors. Wolcott described how technocrats maintain the status quo, provide options, and persuade others as soft-sell approaches. Wolcott also described technocrats' hard-sell behaviors including the use of authoritative retreat strategies such as looking into the problem or reinterpreting the innovation as well as exercising their authority.

Some of the teacher behaviors identified by Wolcott (2003) were found in the data suggesting that Wolcott's Teachers versus Technocrats theory may apply to this case. For example, the teacher stakeholders made several comments showing routine acceptance behaviors and innovative acceptance behaviors. When asked how well they thought they were meeting their primary learning objectives from a scale of one to ten, one teacher responded, "Does this question relate to what the expectation is from others that we should be doing? Or, is it how do we feel for what we have decided is important" (P8)? Another teacher said, "I do what they ask me to do; but, I realized that all of the theories, the philosophies of learning theory that we did as undergraduates and graduates, are really not being practiced in the development of a curriculum, in the development of standards, in the development of a working structure of the day" (P8). Also implying routine and innovative acceptance behaviors a third teacher shared, "I am aware that I have bosses. I have supervisors. They are the people who come in and have expectations. I am being paid for those expectations" (P8).

Some of the teacher behaviors identified by Wolcott (2003) were also reported by the administrators providing additional evidence that Wolcott's Teachers versus

Technocrats theory may apply to this case. For example, the administrator stakeholders reported several times that the teachers frequently took formal action through union grievances. An administrator said, "In this system I think that we have so many grievances and so many MOUs (memos of understanding) that we have to fight to get things implemented" (P6). When discussing some of the teachers in the school, an administrator also mentioned teachers displaying acceptance behaviors saying, "So they give lip service to things but they really don't follow it up in practice" (P6). Finally, some of the administrator behaviors identified by Wolcott (2003) were also found in the data further suggesting that Wolcott's Teachers versus Technocrats theory may apply to this case. For example, administrators reported persuading others. An administrator said, "I think that whenever you are trying to change something change is difficult and so you will have those people that are out there and very willing to do it and then others that are dragging their feet. And so you reinforce those that are out there trying it and you go back and you work with those that are dragging their feet" (P6). Another administrator shared, "We told the teachers they were going to be using this kind of a pacing guide. Teachers were not used to using it and we were hitting our heads against the wall and so we have to work to get them to buy into it" (P6).

Discrepant information was also found when examining the written data versus the oral data that was collected. First, the written data assumed that proficiency in math and in reading is demonstrated by the results of a summative assessment. Secondly, the written data assumed that the existence of or revision of the school vision has a positive impact on the school improvement process. Thirdly, the written data assumed the

intervention selected by the school will improve students' math and reading achievement. These assumptions were only found in the written data.

The written data also often contradicted the oral statements made by the stakeholder groups. With regards to the teacher-level factor of role in learning environment, the written data included statements that teachers use strategies such as differentiated instruction but the oral data included statements that teachers did not use these strategies (P4 and P7). With regards to the school-level factor of teacher collaboration, the written data included statements about many varied collaboration opportunities for teachers; but, the oral data included statements about a lack of time and opportunity for teacher collaboration (P2 and P13). With regards to the context-level factor of accountability, the written data talked about the annual system assessments used to measure student growth and school improvement progress. However, the oral data related to this accountability factor showed perceptions that accountability is needed, accountability is lacking, or accountability varies from school to school or teacher to teacher. Finally, the written data valued having and communicating a vision as an integral aspect of the school improvement process whereas only one administrator mentioned the school vision only once.

The written occurrences of the capacity building factor contradict most of the oral statements made by the various stakeholder groups regarding the capacity building factor because the written documents included statements about ongoing training whereas the stakeholder groups said there was a lack of ongoing training to build capacity (P4 and P8). The written occurrences mentioning a trusting culture contradicted six comments

made by the administrator and teacher stakeholder groups regarding this factor because they said there was a lack of trust in the organizational culture (P12 and P13). The administrator and teacher stakeholder groups also made eight comments contradicting the participative feeling mentioned in the written documents. They said they had very little input about what should be done or why it should be done; but, instead had to focus on operationalizing whatever the system told them to do (P12 and P13). The findings from the administrator and teacher stakeholder groups also suggested collaborative opportunities are inconsistent and when collaboration does occur it is focused on handling logistical tasks; this contradicts the written declarations about ongoing teacher collaboration being focused on improving teaching and learning (P12 and P13).

The existence of these discrepancies may support the researcher's anticipated finding that competing values, diverse assumptions, and/or varied perceptions exist which hinder school improvement efforts. Unfortunately, individuals' conceptions of a system govern their role performance regardless of whether their conceptions are correct or faulty (Sarason, 1996). "Too frequently the individual's conception of the system serves as a basis for inaction and rigidity or as a convenient target onto which one can direct blame for most anything" (Sarason, 1996, p. 164). Therefore, the stakeholders' competing values, diverse assumptions, and/or varied perceptions could negatively impact the effectiveness of the school and the system even if these values, assumptions, and perceptions are not factual.

Relationships

The relationships found in the data can be understood based on policy change periods or *Ways* as defined by Hargreaves and Shirley (2009). According to Hargreaves and Shirley, three broad international policy change-periods happened during the last half century. The first change-period started in the 1960's in conjunction with the social movements of that era. During this "First Way" (p. 3), governments trusted educators to make the best decisions for children which resulted in exciting innovations but also vast inconsistencies. The second change-period, the "Second Way" (p. 5), began when leaders such as Ronald Reagan and Margaret Thatcher introduced standardization and accountability as policy drivers intended to balance inequities. Unfortunately, educators became disheartened and demoralized as their freedom and creativity were lost due to demands to focus on tests and standards. During the "Third Way" (p. 8), the new leaders at the time such as Bill Clinton and Tony Blair tried to provide new professional collaboration opportunities to reenergize educators. Although overall student achievement slightly increased during this time period, it quickly. Achievement gaps persisted and policy makers demanded more accountability, more tests, higher standards, and market competition. Building capacity in local contexts by distributing leadership, enabling educators to truly learn from and work with one another, and increasing student engagement and voice are the foci of the "Fourth Way" (Hargreaves & Shirley, 2009, p.11).

Rather than aspiring to simply have higher achievement test scores, the Fourth Way calls for inspiring and inclusive goals to drive improvement (Hargreaves & Shirley,

2009). Rather than exerting more pressure on teachers or trying to entice them with incentives, the Fourth Way strives to deeply support and connect teachers. In the Third Way unions are considered obstacles to be neutralized with bargains and deals; but, in the Fourth Way unions genuinely become active partners in creating better solutions to benefit all students. The Fourth Way emphasizes responsibility over accountability by using data to identify areas to improve and to connect educators experiencing different levels of success. In the Third Way parents are considered clients or consumers whereas in the Fourth Way parents are also active partners in creating better solutions to benefit all students. Instead of principals being line managers in cultures of compliance, Fourth Way principals collaborate with others--fellow principals, teachers, parents, and students--to inquire into and improve instruction. Parents and policy makers had blind trust in educators during the First Way, they developed active mistrust in educators during the Second Way, and policy makers tried to restore trust in educators during the Third Way by delivering persuasive achievement test improvements; but, in the Fourth Way trust is actively developed over time as people work together and learn from each other to serve their children (Hargreaves & Shirley, 2009).

Again, the relationships found in the data can be understood based on these policy change periods or Ways. For example, the findings show that all of the stakeholder groups perceive that improvement of students' personal characteristics should be a focus of the school, espoused value coded as *VAL_Character Traits*, but the school vision is solely focused on increasing student achievement, a Pre-Fourth Way vision. Instead of this Pre-Fourth Way vision, improving students' personal characteristics would be an

inspiring and inclusive vision--a Fourth Way vision that could drive the efforts of all stakeholder groups because it also happens to be strongly valued by all stakeholder groups. The findings related to communication and data analysis assumptions, coded as *ASSUME_Communication* and *ASSUME_Data Analysis* respectively, provide two more examples of Pre-Fourth Way versus Fourth Way relationships in the data. Most of the 23 occurrences of the assumption that communication is a valuable component of the school improvement process suggested that school-improvement related communication seems to be focused on sharing information and getting tasks accomplished rather than having conversations about teaching and learning; therefore, most of the occurrences of this assumption were Pre-Fourth Way statements rather than statements about active partnerships where all stakeholders are working and learning together.

Only four of 19 occurrences of the assumption that data analysis is a necessary part of the school improvement process emphasized the importance of looking at student work or using formative assessment data in order to improve teaching and learning which is Fourth Way data analysis. Instead, most of the occurrences of this assumption were Pre-Fourth Way comments about periodic summative assessment data analysis to meet accountability and accreditation requirements. Figure 10 displays the codes that were found to be based on Pre-Fourth Way policies and practices; no codes were found that were based on Fourth Way policies and practices.

Themes

Although there were several other important findings from this study such as the need to promote the school's vision, the need to increase administrative observations and

feedback, the need to increase teacher-to-teacher observations, and the need to improve technology training, the two foremost themes that were found will be the theoretical foundation for the project outlined in the next section of this paper. For the purpose of clarification, the two primary themes found will be referred to as: *Teachers versus Technocrats* and *Pre-Fourth Way*. While this study was a single-case qualitative study and the findings are unique to this case, these two major themes can inform other researchers and/or can be considered to improve practice in another setting.

School culture cannot be understood only in terms of differing roles and responsibilities such as teachers or administrators; instead, school culture must be understood in terms of values and assumptions (Sarason, 1996). Values and assumptions are not always related to roles; however, they do frequently have their source in roles. As mentioned above, the researcher anticipated finding that different stakeholder groups who have different roles and responsibilities would also have different values and assumptions. However, the researcher did not anticipate finding such contrasting perceptions between the groups. The Teachers versus Technocrats theme is generalized from the competing values and assumptions found between the teacher stakeholders and the administrator stakeholders. According to the competing values framework, competing values and assumptions can damage organizational culture and hinder improvement efforts. The Teachers versus Technocrats theme suggests a need to foster collective responsibility, empower innovation, build capacity, and improve organizational culture.

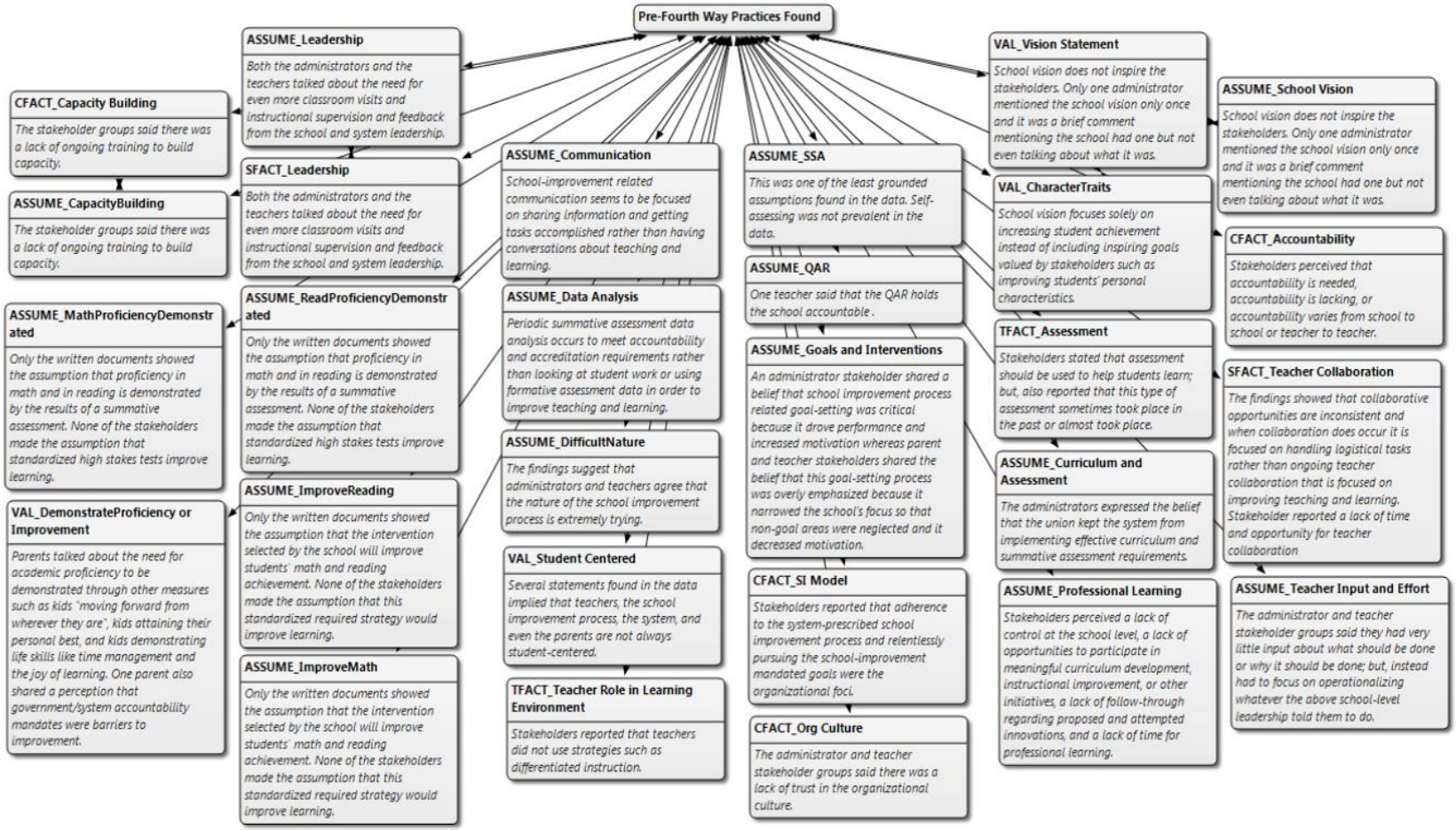

Figure 10. Pre-Fourth Way practices found.

Market-oriented practices emphasize customer choice, competition, and pay for performance (Hargreaves & Shirley, 2012). Standardized practices embrace uniform curriculum, high stakes testing, and compliance/fidelity measures. Target/transparency practices use goals and public reporting to require improvements while simultaneously providing what is believed to be the needed support for the improvements (Hargreaves & Shirley, 2012). The Pre-Fourth Way theme is generalized from these kinds of Pre-Fourth Way practices found throughout the coded data.

On the other hand, Fourth Way practices do not drive change or deliver support like Pre-Fourth Way practices (Hargreaves & Shirley, 2012). A Fourth Way reform would articulate a vision that capitalizes on the values and assumptions that already exist in the local community in a way that is inspiring. A Fourth Way reform would determine active ways that teachers, students, parents, and community members could collectively participate in establishing and striving toward their inspiring vision (Hargreaves & Shirley, 2012).

A Fourth Way reform would lesson accountability and testing requirements and instead rely on capacity building such as teachers learning from teachers and schools learning from schools (Hargreaves & Shirley, 2012). A Fourth Way reform would avoid strategies of tightened line management and instructional prescription because they turn principals into compliance officers and teachers in to deliverers; autocracy also leads to a mistrusting culture so a Fourth Way reform would distribute leadership. A Fourth Way reform would distribute leadership not by delegation of tasks on to already overworked teachers but by enabling teachers to take on new roles by providing time and support

(Hargreaves & Shirley, 2012). The project outlined in the next section will be a Fourth Way reform because a Fourth Way reform would foster a 21st century organizational culture that builds capacity, empowers innovation, and promotes collective responsibility.

Evidence of Quality

Using multiple methods and sources of data helped ensure credibility and reliability (Merriam, 2009). Triangulation occurred because interview data was collected from both individual and focus group interviews with four different stakeholder subgroups that have different perspectives; two school improvement committee meetings were observed and different relevant documents were analyzed (Merriam, 2009). To assure accuracy, ongoing member checking was used. As another form of member checking to establish validity and combat investigator bias, all of the various respondents were emailed a copy of their respective interview transcriptions and given the opportunity to provide input, ask questions, or express concerns.

Conclusion

This section of the project study began with a description of the research design along with an explanation of how the research design derived logically from the problem and the research question. A rationalization for the research design was also given. The criteria for selecting the participants, procedures for gaining access to the participants, and methods for establishing a relationship with the participants were outlined. This section of the project study also included information regarding the different types of data collected as well as specifics for how each type of data was collected. The system for keeping track of the data and emerging understandings was delineated. The coding

procedures for data analysis were explained, the procedures for dealing with discrepant cases were clarified, and the procedures for assuring accuracy and credibility were provided.

The findings were presented including details about the patterns, relationships, and the two major themes found. The findings included direct quotations in order to capture stakeholders' descriptions of the nature of school improvement as well as stakeholders' espoused values, shared assumptions, and perceptions of the various factors related to school improvement. Comparison tables were used to represent the multiple perspectives from the stakeholder groupings--administrators, teachers, parents, and key community leaders. Any tensions and/or contradictions were highlighted and discussed.

In Section 3, a project for addressing mediocre or stagnant test scores will be delineated based on these findings, especially the findings related to the two major themes. The relevant current literature which will also be reviewed in the next section will likewise inform the project design.

Section 3: The Project

Introduction

Resolving the problem of mediocre or stagnant student achievement is possible through the implementation of reform strategies based on the successful practices of the highest performing educational systems in the world as described in *The Global Fourth Way* by Hargreaves and Shirley (2012). Fourth Way reform strategies have been shown to increase student achievement because they foster a 21st century organizational culture (Hargreaves & Shirley, 2012). In addition to improving organizational culture, Fourth Way practices have been shown to build teacher capacity, empower innovation, and promote collective responsibility. Fourth Way reform strategies are in alignment with the findings of this research. Fourth Way practices are also in alignment with the actions recommended by the competing values framework; thus, implementing these practices can also help repair the damage to organizational culture that competing values and assumptions may have caused (Cameron & Quinn, 2011).

Section 3 will provide a description of this project study including its goals and a rationale. A review of the literature will emphasize the research and theory related to the recommended Fourth Way practices. Correspondingly, the proposed Fourth Way practices are the same as important context-level factors, school-level factors, and teacher-level factors identified in the dynamic model of educational effectiveness (Creemers & Kyriakides, 2010b) which was part of the substantive framework of this study and was used for typological analysis of the data. Project implementation including a general timeline and potential barriers will be discussed. The roles and responsibilities

of leaders and the project evaluation will be outlined. Finally, the researcher will address the possible social justice impact for the local stakeholders and for the far-reaching educational community.

Description and Goals

The project will be to develop a networked professional learning community professional development program which will be designed to positively impact the important context-level factors, school-level factors, and teacher-level factors that have been shown to be strongly correlated with increased student achievement. Building teacher capacity for long term improvement is an important teacher-level factor that will be a focus of this project, cultivating collective responsibility amongst all stakeholder groups is an important school-level factor that will be a focus of this project, and empowering innovation is an important school-level factor that will be a focus of this project (Hargreaves & Shirley, 2012). These factors are also similar to the research-based Fourth Way practices used by the highest performing school systems in the world (Hargreaves & Shirley, 2012). These factors, or Fourth Way practices, have all been shown to improve organizational culture, an important context-level factor that will also be a focus of this project (Cameron & Quinn, 2011). This networked professional learning community professional development program (see Appendix A) is referred to throughout this paper as the *Networked Learning Community* (NLC).

This project addresses the problem of mediocre or stagnant student achievement, the problem addressed by this study, because a NLC should build teachers' capacity to improve, an important teacher-level factor that has been shown to impact student

achievement. According to the OECD's 2009 PISA, four of the world's highest-performing school systems are Hong Kong, Korea, Shanghai, and Singapore (OECD, 2011). The performance of these systems is not due to increases in education expenditures because these countries have not spent more; they actually consistently spend less than the OECD average. Only 11 years ago, Hong Kong ranked 17th in the world and Singapore was ranked 15th in the world but just five years later they ranked 2nd and 4th respectively. Obviously, these systems were able to make dramatic improvements quickly. The exceptional performance of these school systems is believed to be due to their focus on building the capacity of teachers (Jensen et al., 2012). To build teacher capacity, these highest performing school systems emphasize openness to new ideas, career-long teacher learning and advancement opportunities, sustained professional development, and providing opportunities for collaboration, mentoring, feedback and reflective practice (Jensen et al., 2012). The NLC designed for this project should emphasize these capacity-building ideals.

This project also addresses the problem of mediocre or stagnant student achievement because a NLC should cultivate collective responsibility. Increased collective responsibility has been shown to improve the learning environment which, as mentioned above, is an important school-level factor correlated with increased student achievement (Creemers & Kyriakides, 2010). The findings from Whalan's (2012) study supported collective struggle as a necessary component for the development of collective responsibility. "Taking a confrontational stance on conflict builds a strong community whereas suppressing dissenting voices increases the risk of maintaining a false sense of

unity" (p.17). Therefore, to build collective responsibility, researchers recommend collective struggle which includes addressing conflict openly, dealing with differences by valuing inclusion, and building trust through critical reflection (Whalan, 2012). The NLC designed for this project should provide the structure needed for system stakeholders to engage in collective struggle.

This study also examined if different stakeholder groups had different espoused values and shared assumptions, and if those competing values hindered the improvement efforts at the case study school. The researcher found evidence of competing values that might have hindered improvement. This project addresses the problem of competing values because a NLC should empower innovation which has been shown to facilitate teamwork and improve the learning environment (Wagner, 2012). Again, improving the learning environment is an important school-level factor correlated with increased student achievement (Creemers & Kyriakides, 2010). Organizations that empower innovation excel at developing the capacities of all of their diverse members and tend to be playful and positive environments where people find ways to make their differences an organizational strength rather than an organizational hindrance (Wagner, 2012). Empowering innovation is also now considered to be essential to the United States' future economic growth. Finally, today's students and young workers find organizations with cultures of innovation more engaging and intrinsically motivating (Wagner, 2012). The NLC designed for this project should spark innovation.

This project likewise addresses the problem of competing values because a NLC should improve organizational culture, the most important context-level factor identified

by Creemers and Kyriakides (2010b) in their dynamic model of educational effectiveness. Improved organizational culture has been correlated with increased organizational commitment and increased organizational commitment has been correlated with improved organizational effectiveness (Padma & Nail, 2009). Padma and Nail (2009) randomly surveyed 100 employees to find out how differences in organizational culture are reflected in different dimensions of commitment. The three dimensions of commitment were: affective commitment which was defined as positive feelings and personal identification, continuance commitment which was defined as feelings due to the costs associated with leaving, and normative commitment which was defined as feelings due to obligations to remain (Padma & Nail, 2009).

Padma and Nail (2009) found that the clan culture has the greatest positive impact in stimulating all three dimensions of organizational commitment (*R*=.36 for affective commitment, *R*=.70 continuance commitment, and *R*= .31 normative commitment). Other research also suggests that school systems are most effective when they have dominant clan and adhocracy cultures (Nel, 2009). Padma and Nail found that hierarchy and market cultures have negative impacts in reducing affective organizational commitment and no significant impact on the other dimensions of commitment (respectively *R*= -.11 and *R*= -.26 for affective commitment, *R*=.03 and *R*=.06 continuance commitment, and *R*= -.15 and *R*= .11 normative commitment). Unfortunately, analysis of the patterns found in the data of this study suggests that the organizational culture of the case study school may be dominant hierarchy and market cultures. The NLC proposed as this project should initiate cultural change to create a dominant clan and adhocracy organizational culture.

A networked professional learning community professional development program should be a solution to the problems of mediocre or stagnant student achievement and competing values hindering improvement because a NLC would have the following goals: improve organizational culture, cultivate collective responsibility, empower innovation, and build teacher capacity. All of these approaches, practiced by schools in the best performing countries in the world, have been shown to be strongly correlated with increased student achievement. Significant improvements in student achievement depend on major changes in the structures and practices of schools and these changes should emerge from the professional learning that would occur through relationships built within and across schools that participate in this NLC (Katz & Earl, 2010).

Rationale

Intensified international competition requires highly knowledgeable and skilled educators (Muijs, West, & Ainscow, 2010). Demands for increased student achievement and concern over academic inequities mean that schools must set and meet demanding goals; this calls for augmented capacity (Muijs et al., 2010). The advantages of an improved organizational culture, the advantages of an improved learning environment, the increased need for collective responsibility, and the increased need for innovation necessitate networking because networking fosters improved organizational culture and learning environment, promotes collective responsibility through the sharing of ideas and resources, and encourages innovation through broadened opportunities and possibilities (Muijs et al., 2010).

School systems, schools, and their stakeholders construct shared assumptions and interpretations of reality; but, as suggested from the Teachers versus Technocrats theme, the shared assumptions of school stakeholders can become myopic or disconnected from the other stakeholders' perceptions and interpretations of reality (Katz & Earl, 2010). In order for positive change to occur, school stakeholders need to reconnect with other school stakeholders that have enough differences for insights to occur but at the same time are sufficiently similar for dialogue to be possible. Networking that is based on the ideal that all participants have a contribution to make can solve the problems of narrow-mindedness and competing assumptions as found from this study. Purely internal improvement programs can flounder due to lack of internal capacity; networking can build internal capacity that fosters school improvement (Katz & Earl, 2010).

Although promoting the school's vision, increasing administrative observations and feedback, increasing teacher-to-teacher observations, and improving technology training were needs found in the data, the research related to the Pre-Fourth Way theme suggests that driving change or prescribing interventions is not the most effective way to promote positive long-term and substantial change (Hargreaves & Shirley, 2012). Therefore, in this project design, I purposefully did not prescribe these types of activities. Instead, the NLC would be a Fourth Way reform designed to inspire innovation (Katz & Earl, 2010). "Innovative solutions arise when people in networking learning communities draw on outside explicit knowledge and combine it with tacit knowledge in response to authentic problems" (Katz & Earl, 2010, p.28). As a Fourth Way reform, the NLC would be structured so that the participants drive their own change efforts--educators can learn

from educators and schools can learn from schools (Hargreaves & Shirley, 2012). The NLC would be developed so that it can harness resources and increase the flow of information thus distributing leadership Fourth Way-style; teachers can be truly enabled to take on new roles (Hargreaves & Shirley, 2012). Since the activities of the NLC would not be coerced, the NLC can also create social capital that nurtures collective responsibility and diminishes divisiveness as found in the Teachers versus Technocrats theme (Katz & Earl, 2010).

Definitions

Collaboration--"Joint activities between actors within the network" (Muijs, West, & Ainscow, 2010, p.6).

Collective Responsibility--"Group-level accountability to each other as colleagues and to the students in the school" (Whalan, 2012, p.39).

Context-level Factors--Includes "the model of school improvement that the system follows, the accountability and corresponding capacity-building framework of the system, and organizational culture" (Creemers & Kyriakides, 2010b, p.7).

Distributed Leadership--Includes "the sharing, the spreading, and the distributing of leadership work across individuals and roles across the school organization" (Angelle, 2010, p.1).

Espoused Values--"Statements about what ought to be in organizations and about what ought not to be in organizations" (Nel, 2009, p. 18).

Innovation--"A process by which new things take place or a process of having original ideas and insights that have value" (Wagner, 2012, p.23).

Networking--"At least two entities (individuals, groups, organizations) working together for a common purpose for at least some of the time" (Muijs, West, & Ainscow, 2010, p.6).

Organizational Culture--"Patterns of espoused values and shared assumptions developed over time and producing behavioral norms that are adopted in day to day operations and when solving problems" (Nel, 2009, p. 12).

Organizational Dissent--""A particular form of employee voice that involves the expression of disagreement or contradictory opinions about organizational practices and policies" (Ozdemir, 2011, p. 1906).

Organizational Identity--"The shared meaning that an organization is understood to have that arises from its members' (and others') awareness that they belong to it" (Cornelissen, Haslam, & Balmer, 2007).

Organizational Justice--Three forms of organizational justice have been distinguished in the research literature: "distributive justice, referring to the perceived fairness of the distribution of tasks and the allocation of resources; procedural justice, referring to the perceived fairness of the formal decision-making procedures; and interactional justice, referring to the perceived fairness of the interpersonal treatment, received from the supervisor" (Lipponen & Wisse, 2011, p. 1066).

Organizational Learning--"The deliberate use of individual, group, and system learning to embed new thinking and practices that continuously renew and transform the organization in ways that support shared aims" (Collinson, 2010, p. 193).

Organizational Mindfulness--"When organizations actively seek to know what they don't know, learn from mistakes, pay attention to detail, yet maintain the capacity for prompt thoughtful action" (Ray, Baker, & Plowman, 2011, p. 189).

School-level Factors--Includes "the orientation of leadership and the three dimensions of school policy related to learning environment which are student behavior, teacher collaboration, and stakeholder partnerships" (Creemers & Kyriakides, 2010a, p. 265).

Shared Assumptions--"Unconscious deeply held beliefs held by groups" (Nel, 2009, p. 19).

Systems Thinking--"A coherent and strategic process that that aims to integrate the components of the educational system to maximize organizational effectiveness toward the common purpose of student learning. The interrelationships among staff and the manner in which each component of the educational system function together contributes directly to the quality of student learning" (Ontario Ministry of Education, 2010, p.46).

Teacher-level Factors--Includes the following capabilities of teachers: "orientation, structuring, questioning, teaching modeling, application, management of time, teacher role in making classroom a learning environment, and classroom assessment" (Kyriakides et al., 2009, p. 63).

Review of the Literature

This review of the literature will examine the research and theory related to Fourth Way reform strategies based on the successful practices of the highest performing educational systems in the world as described in *The Global Fourth Way* by Hargreaves

and Shirley (2012). Since Fourth Way reform strategies have been shown to increase student achievement the NLC project will incorporate these practices (Hargreaves & Shirley, 2012). The Fourth Way practices examined in this literature review and that will form the basis of the NLC project are: improving organizational culture, promoting collective responsibility, empowering innovation, and building teacher capacity. The peer-reviewed research summarized in this literature review was found by searching the Walden research database using the names of these practices as the search terms and by mining the research cited in Hargreaves' and Shirley's text. Correspondingly, the Fourth Way practices discussed in this literature review are the same as important context-level factors, school-level factors, and teacher-level factors identified in the dynamic model of educational effectiveness (Creemers & Kyriakides, 2010b) which was part of the substantive framework of this study and was used for typological analysis of the data.

Improved Organizational Culture--Important Context-level Factor

Lomos, Hofman, and Bosker (2011) concluded through their meta-analysis of five recent studies of professional learning communities (PLC's) that a PLC-culture could enhance student academic achievement. All five studies included in their meta-analysis were performed on independent data sets and were focused on secondary educational settings (Lomos et al., 2011). All five studies included in their meta-analysis explicitly measured student academic achievement as an outcome and calculated the statistical impact of a PLC-culture on that student academic achievement outcome. Their calculations showed that "although relatively small," there was a positive and significant

relationship between a PLC-culture and student academic achievement (Lomos et al., 2011, p. 137).

All five studies analyzed by Lomos et al. (2011) also included a clear conceptualization of a PLC culture. Therefore, Lomos et al. were also able to synthesize the various notions of PLC's to try to more effectively operationalize what is meant by a PLC-culture. They conceptualized that a PLC-culture should be grounded in the philosophy that enhanced learning--for both professionals and students--results from the varied experiences and perspectives that PLC members share with one another as they work together toward common goals. They also conceptualized that PLC's should focus on student learning while promoting continuous teacher learning through joint study of research literature (Lomos et al., 2011). As recommended by this research, the NLC, outlined as the project resulting from this study (see Appendix A), should provide varied experiences, solicit diverse perspectives, and engage teachers in joint study of research literature.

In order to understand the culture of schools with large percentages of teachers engaged in ongoing and extensive professional learning, Arthur, Marland, Pill, and Rea (2010) conducted two simultaneous case studies. Arthur et al. interviewed school leaders, interviewed teachers, examined school reports, and examined professional development plans and artifacts then used mixed methods to analyze the statistical and descriptive findings. Arthur et al. strove to identify the characteristics of a school that encourage and sustain teachers' learning through study and research. The school characteristics identified were: leadership that models professional learning; leadership that creates

structural enabling conditions including genuine learning opportunities; leadership that creates social enabling conditions including a positive learning space; mentoring/coaching that bridges the gap between organizational goals and teacher goals; learning opportunities rooted in teachers' personal and professional values; opportunities to learn about students' learning rather than teachers' teaching; opportunities that are both academic and practical (Arthur et al., 2010). The NLC, outlined as the project resulting from this study (see Appendix A), should incorporate these recommendations.

Research by Allame et al. (2011) studied the relationship between knowledge management systems that promote knowledge sharing and collaboration with organizational benefits such as increased innovation and increased capacity for positive change. Allame et al. also examined whether or not the type of organizational culture had an intermediary effect on this relationship. After surveying 98 randomly chosen employees in an organization, the researchers found there was a statistically significant correlation between learning-focused knowledge management systems and organizational benefits but that the type of organizational culture did not have a statistically significant intermediary effect. Allame et al. concluded that organizational leaders should promote knowledge sharing and collaboration because this type of learning-focused knowledge management system can foster organizational improvement. One of the main obstacles of successful knowledge management was changing the organization's culturally shared assumption that *knowledge is power* and that knowledge should be hoarded instead of shared freely. A learning-focused knowledge management system could help eliminate the obstacles between *those who know* and *those who don't know* thus changing this

shared assumption in an organization's culture. Therefore, learning-focused knowledge management systems can improve organizational culture (Allame et al., 2011).

Learning-focused knowledge management requires establishing a structure that would combine the most developed mental capacities of its participants with joint decision making opportunities (Allame et al., 2011). Network structures were recommended as the most suitable structures to support a learning-focused knowledge management system because networks have few hierarchical features and because networks give freedom of action and authority to all participants. Information and communications technologies have increased the potential of knowledge sharing in network structures. Collaboration and knowledge sharing can replace knowledge hoarding in network structures and technology can secure the efficient transmission of knowledge in network structures. The Allame et al. (2011) study along with several other studies cited in this review of literature provided the rationale for this NLC project (see Appendix A).

Canada is one of the highest scoring countries on the OECD's (2011) PISA and Canada has one of the most robust economies. Most impressively, Canadian students of all social economic backgrounds have high achievement--there is no gap in performance for low income, immigrant, or minority children in Canada (OECD, 2011). The words of Canadian hockey legend, Wayne Gretsky, summarize the underlying philosophy of the high performing educational system in Alberta, Canada, " 'Statistically, 100% of the shots you don't take, don't go in.' " (Hargreaves & Shirley, 2012, p. 107). Alberta's system combines continuous incremental testing with innovation through its

organizational culture that is based on trust and risk; although test-based accountability exists, educators in Alberta are not held back by constant performance anxiety (Alberta Ministry of Education, 2010).

The Alberta Initiative for School Improvement (AISI) is credited for creating and maintaining this effective organizational culture because the purpose of the AISI is "to fund teacher, principals, students, and community members to develop their own bottom-up innovations to respond to local needs and to engage teachers in inquiring into and improving their own practice" (Hargreaves & Shirley, 2012, p. 98). AISI participants cannot receive the generous project funding without a commitment to share their learning with other schools so networking is integral to the program's design (Alberta Ministry of Education, 2010). Although a steering committee at the system level sets priorities and approves and manages the three-year projects, the steering committee does not see itself as driving change or delivering services; instead, the steering committee sees itself as gently but firmly monitoring progress while reviewing and revising the process. Teachers are trusted as true professionals who create new knowledge and adapt research-based knowledge; the teachers are the impetus of change (Alberta Ministry of Education, 2010).

Instead of a program built on nonnegotiable change mandates, goals and targets to direct efforts, and support delivered by the system, Alberta's AISI program was based on the view that building trust, developing relationships, increasing collaboration, and allowing teachers to support each other would *reculture* the organization to one in which everyone would be excited to improve and innovate--this view has proven to be highly successful (Alberta Ministry of Education, 2010). Instead of pushing change, Alberta's

AISI program pulls change from its people through networking initiatives driven by teachers within and across the schools. Alberta's networking initiatives, a successful Fourth Way reform strategy, influenced the design of the NLC proposed for this project study (see Appendix A).

Surveying 756 school principals of large-size (1001-3000 students), medium-size (501-1000 students), and small-size (10-500 students) schools, Gumuseli and Eryilmaz (2011) calculated ANOVA and t-tests to describe the culture of three different sizes of schools taking into account professional development, teacher collaboration, organizational identification, leadership collaboration and learning partnerships. Gumuseli and Eryilmaz found no significant differences in the cultures of the three sizes of schools; but, they were able to develop descriptions of both negative and positive school culture.

After reviewing the research, the researchers concluded that there were strong correlations between negative school culture and diminished levels of organizational effectiveness and decreased student achievement (Gumuseli & Eryilmaz, 2011). Unhealthy school cultures were described as having "inward and short-term focus, low staff morale, fragmentation, inconsistency, emotional outbursts, and subculture values that supersede shared organizational values and impede organizational improvement" (p. 15). Whereas, the researchers concluded that there were strong correlations between positive school culture and improved levels of organizational effectiveness and increased student achievement. Healthy school cultures were described as having extensive sharing of knowledge and skills, greater risk-taking and innovation, higher organizational

identification and job satisfaction, strong professional networks, and more continuous and comprehensive attempts to improve (Gumuseli & Eryilmaz, 2011).

Surveying 381 teachers in nine schools, Gunbayi (2007) calculated ANOVA and Tukey post hoc analysis to determine if there was a difference in perception of school culture based on teachers' teaching category, gender, age, education level, or seniority in the school. Teachers teaching art, music, and physical education reported a more open positive school culture than teachers teaching social studies/language arts or science/math. Teachers teaching social studies/language arts reported a more open positive school culture than teachers teaching science/math. These differences were statistically significant at $p<.05$. There was not a significant difference in teacher perceptions based on gender or education level. However, older teachers reported a more open positive school culture than younger teachers, but, on the other hand teachers with less seniority reported a more open positive school culture than teachers with more seniority again at a statistically significant level of $p<.05$ (Gunbayi, 2007).

Connolly (2011) also concluded that organizational culture has been linked to school performance. Connolly also found that the concept of organizational culture has been interpreted in a range of ways. After conducting a longitudinal case study by observing the cultural change process in a school, Connolly described and explained different perspectives of organizational culture. The perspectives were: process defined as a multifaceted constantly changing phenomenon; external reality defined as an objective phenomenon that includes the shared rules of an organization and the ways in which they are shaped and expressed; interpretation defined as a subjective phenomenon

that includes the assumptions and values of the organization; and competing subcultures defined as a complex mixture of the identities of various groups within the organization. Connolly concluded that the existence of wide-ranging perspectives of organizational culture has implications for educational leaders because the way educational leaders approach change is influenced by the essence of what they contemplate they are changing. Identifying a perspective of organizational culture should enhance understanding of how to initiate change (Connolly, 2011). The findings by Gumuseli and Eryilmaz (2011), Gunbayi (2007), and Connolly were important as the researcher considered alternative ways to solve the problem of mediocre or stagnant student achievement.

To fundamentally change organizational culture management should study the interactions between the various components of the organization (Deming, 1994). Then, management should figure out if the interactions between the components are reinforcing positive change efforts or nullifying positive change efforts (Deming, 1994). Muhammad (2009) studied the interactions between the various components of 34 school systems and found four distinct groups with conflicting belief systems; he found that two of the groups actually battle against each other. The first group, the Believers, believe all students are capable of academic success and believe educators have a direct impact on students' success. The second group, the Tweeners, are new to the organizational culture and are most interested in organizational stability. The third group, the Survivors, are mainly concerned with their own mental, physical, and emotional survival. The fourth group, the Fundamentalists, are openly opposed to change and are willing to use all of

their tremendous political power to maintain the status quo. The Fundamentalists are actively engaged in an ideological battle with the Believers. Muhammad determined that these four groups had a divisive impact on organizational culture and determined that in order to transform a divisive culture to a healthy culture "it is essential for leaders to understand and influence change within these groups" (p. 29). Changing the interactions between these four groups is "a tightrope act of major proportion" (p 16). According to Muhammad's findings, providing opportunities for various subgroups to interact and collectively struggle should be a goal of the NLC proposed in this project study.

Improved Learning Environment--Important School-level Factor

Promoting collective responsibility. According to Angelle's (2010) review of literature, the complexity of schools today are such that one leader cannot meet all of the demands; schools with a single leader cannot function as effectively as schools in which leadership is distributed. However, dividing responsibilities amongst members of a group or delegating tasks without the accompanying authority is not considered to be distributed leadership. To provide a description of the daily practices of distributed leadership, Angelle conducted a qualitative case study of a middle school that was considered highly functional in its distributed leadership when evaluated by an outside accreditation agency. Wanting to understand the organizational culture that is necessary for successful distributed leadership, the researcher found that trust was the foundation and relationships were the glue. The researcher concluded that schools with successful distributed leadership have "a strong collaborative leader who practices shared decision making; a culture where trust permeates the organization; and continuous building of strong,

positive relationships" (Angelle, 2010, p. 13). These findings suggest that distributed leadership fosters an improved learning environment. The NLC (see Appendix A) should provide opportunities to distribute leadership throughout the network.

Riketta and Nienaber (2007) surveyed 399 employees to determine the perceived compatibility between their organizational subgroups' foci and the organization's focus. The researchers also examined whether or not each subgroup's perceived compatibility with the organization's focus was correlated with its members' willingness to exert effort on behalf of the organization and its members' willingness to accept responsibility for the organization's mission. As predicted, the subgroup's perceived compatibility with the organization's focus correlated positively with the subgroup's level of motivation and collective responsibility. Subgroup identification with a particular organizational focus correlated more strongly with the outcomes associated with that focus than with the outcomes associated with different foci. Defining organizational identification as, "the perception of oneness with or belongingness to an organization, where an individual defines him or herself in terms of the organization in which he or she is a member" (p. 63), Riketta and Nienaber recommended that subgroup identification with the organization is critical for employee motivation and commitment; collective responsibility is enhanced when organizational identification is increased.

Shapiro (2010) argued that unaddressed identity concerns make organizational subgroups susceptible to *the tribe's effect*, "a rigidification of subgroups' identity increasing the likelihood that intergroup relations will become polarized and will trend toward conflict" (p. 636). Shapiro also argued that emotions are intrinsic to conflict.

Therefore, Shapiro asserted that highly emotional conflicts should be expected when interrelated groups have incompatible identities and foci. Shapiro outlined three major impediments to effectively dealing with emotional conflict: neglecting to consider the emotional and identity-elements fueling the conflict and assuming the subgroups involved are acting rationally; failing to accurately identify the various opposing subgroups and the theories that drive their behaviors; lacking strategies and tactics to manage the emotional dynamics of intergroup conflict. Promoting cooperative conflict management should involve addressing each subgroup's unaddressed identity concerns and avoiding rigidification of any of the subgroups' identities. Shapiro recommended observations and interviews to identify the subgroups then to identify if any subgroups feel treated as outsiders or feel that their input into important decisions is ignored. Shapiro also recommended working on building mutual respect between subgroups, building affiliation between subgroups, and ultimately building a united organizational identity. Rikettas and Nienaber's (2007) and Shapiro's findings both suggest that improved organizational identification fosters an improved learning environment. The NLC (see Appendix A) should provide opportunities to enhance organizational identification throughout the network.

Collinson (2008) studied the skills and values leaders need to nurture collective learning and collective responsibility. Collinson concluded that it is leadership's responsibility to structure time for teachers to question the status quo and engage in regular dialogue. To promote collective learning and collective responsibility, leaders also have to model having their own claims and beliefs questioned. Additionally,

soliciting and accepting feedback--especially negative feedback, and publically detecting and correcting errors while maintaining a safe nonjudgmental atmosphere are important skills leaders need. Leaders should also have argumentation skills and conflict resolution skills because collective struggle is critical to building collective responsibility (Collinson, 2008).

Teacher dissent has been theoretically liked with collective struggle (Ozdemir, 2011). Some research has shown that teacher dissent may increase collective responsibility and improve organizational performance. Other research has shown that teacher dissent may result in negative effects including decreased teacher motivation and diminished organizational performance. Ozdemir (2011) interviewed 15 school administrators working in five different schools and analyzed the data with both descriptive statistics and qualitative methods to find out the reasons that prompt teacher dissent and the effects of teacher dissent on organizational culture. Ozdemir's results supported these other studies because Ozdemir found that teacher dissent may produce either constructive or destructive results in schools depending on how leadership perceives and responds to the dissent.

The events identified that trigger teacher dissent were: perceived unfair treatment, resistance to organizational change, perceived inefficiency; perceived unfair use of resources; ethical or justice concerns; and performance evaluation dissatisfaction (Ozdemir, 2011). The most common reason for teacher dissent was found to be perceived unfair treatment especially in the form of school leaders requiring teachers to perform tasks or do what was perceived as extra jobs. The most common ways teachers expressed

dissent were found to be: latent dissent especially in the form of teachers minimizing their communication with school leaders and articulated dissent especially in the form of labor union grievances. Whistle-blowing was not commonly found. As recommended by both Collinson's (2008) research and Ozdemir's (2011) study, the NLC (see Appendix A) should provide a safe nonjudgmental venue for collective struggle thus diminishing the potentially negative impact of teacher dissent and promoting collective responsibility.

De Cremer and van Dijke (2010) conducted three experimental cross sectional field studies and consistently found that collective responsibility increases when leaders are perceived to be fair. Researchers have also shown that group performance increases when fairness experiences are consistently positive across the group. The relationship between one's own treatment and fairness judgments and others' fairness experiences and judgments is similar; in other words "other-oriented justice effects appear to be every bit as strong as self-oriented justice effects" (p.1122). People care about how other members of their group are treated. Willingness to cooperate and willingness to be a participating member of a collective group is increased when all members of the group receive a voice and similar opportunities to participate (De Cremer & van Dijke, 2010).

Trust is the mechanism by which the fears associated with being a participating member of a collective group are reduced (DiPaola & Guy, 2009). Trust encourages teachers to risk interdependence. Trust decreases the vulnerability that exists when one teacher has to depend on the actions of another teacher. After surveying over 1200 teachers at 36 middle schools, DiPaola and Guy (2009) found a strong positive correlation ($r = .79$, $p < .01$) between perceived fairness and trust in the leadership. The

researchers also found that trust in leadership explained 66% of the variance in perceived fairness. Perceptions of fairness determine trust and trust is needed for teachers to engage in the thoughtful dialogue and collaboration necessary to improve student learning. Based on the findings of De Cremer and van Dijke (2010) and DiPaola and Guy, consistent fair procedures should be implemented in the NLC (see Appendix A) thus nurturing trust and promoting collective responsibility.

Empowering innovation. Perceptions of fairness and trust in leadership are also imperative in encouraging the risk-taking that is vital to innovation (Haugen & Davis, 2009). After qualitatively coding and analyzing 130 peer-reviewed articles, Haugen and Davis (2009) found that perceptions of fairness and trust are correlated with emotional and intellectual buy-in. Haugen and Davis concluded that emotional buy-in precedes intellectual buy-in, which in turn precedes behavioral change. Haugen and Davis also concluded that storytelling and appreciative inquiry techniques encourage innovative behaviors because they stimulate emotional and intellectual buy-in. Storytelling was shown to generate energy and ownership, increase participant engagement, and drive momentum. Appreciative inquiry (AI), which puts an emphasis on leaders identifying employees' strengths and valuing their unique abilities, was shown to be effective in bringing about change because it builds and sustains relationships. When employees are emotionally invested in their work they become vigorous, enthusiastic, proud, and inspired. Based on Haugen and Davis' findings, storytelling and AI techniques should be utilized in the NLC (see Appendix A) thus nurturing trust and empowering innovation.

Perceived organizational justice has also been found to be related to perceived fairness as well as increased performance and innovative behaviors (Lipponen & Wisse, 2011). However, three forms of organizational justice have been distinguished in the research literature: "distributive justice, referring to the perceived fairness of the distribution of tasks and the allocation of resources; procedural justice, referring to the perceived fairness of the formal decision-making procedures; and interactional justice, referring to the perceived fairness of the interpersonal treatment, received from the supervisor" (p. 1066). Lipponen and Wisse surveyed 441 faculty members in an educational organization and calculated regression analysis to determine relationships between the three forms of justice as well as between each type of justice and organizational performance and innovation. Lipponen and Wisse found all three forms of justice to be highly correlated.

When analyses were conducted separately for each form of justice and its correlation with performance/innovation, Lipponen and Wisse (2011) found distributive justice to be significantly related to performance/innovation ($R = .48$, $p < .01$). However, contrary to their hypothesis, Lipponen and Wisse found procedural justice was only somewhat related to performance/innovation ($R = .22$, $p < .01$) and interactional justice was not related to performance/innovation ($R = .11$). Since distributive justice was found to be the most important predictor of organizational performance and innovation, the researchers recommended that leaders pay close attention to the distribution of tasks and the allocation of resources. Lipponen's and Wisse's findings support the findings of De Cremer and van Dijke (2010) and DiPaola and Guy (2009) outlined above also

suggesting consistent fair procedures should be implemented in the NLC (see Appendix A).

Singapore is "animated by innovation, but also anchored in tradition" (Hargreaves & Shirley, 2012, p. 75). In Singapore, an enigma of high-stakes testing and pioneering technological invention exists and propels high levels of economic and educational achievement (Singapore Ministry of Education, 2009). Technology enhances access to traditional knowledge; teachers use technology mindfully to support good pedagogy. Leaders at the Singapore national directorate for education explained that their highly innovative educational system is a result of a policy called *structured insurgency* which includes deliberately designed networks for intense interaction and cross-pollination of ideas. Singapore's educational networks nudge people forward in directions that are good for the individual professionals and the common good (Singapore Ministry of Education, 2009). Singapore's educational networks, a successful Fourth Way reform strategy, influenced the design of the NLC proposed in this project study (see Appendix A).

Declining resources, increased academic expectations, and rapid technology changes are but a few of the challenges schools feel every day (Ray, Baker, & Plowman, 2011). The continuous data collection and documentation required to maintain accreditation adds burdens to already overburdened educators (Ray et al., 2011). Causing even more stress, some of the American public blames some of the problems in America on schools. Researchers have found that organizations reduce stress, empower innovation, and overcome challenges when they are mindful--when they actively seek out and thoughtfully experiment with new information and ideas. Organizational mindfulness

is the polar opposite of mindlessness which includes overreliance on previously established information, a reduced level of attention, and a rigid rule system governing behavior. Through surveying over 300 employees of 180 educational organizations, Ray et al. (2011) empirically validated five characteristics of mindfulness: preoccupation with failure which was defined as having open discussions about problems; reluctance to simplify which was defined as refusing to blindly follow previously established viewpoints; sensitivity to operations which was defined as having situational awareness that allows continuous adjustments; commitment to resilience which was defined as the ability to bounce back quickly from errors and cope with surprises; and deference to expertise which was defined as utilizing individuals regardless of status or rank because the organization recognizes that authority does not equate to expertise.

Through confirmatory factor analytic methods, the researchers demonstrated that the five characteristics of mindfulness were highly related but distinct and valid measures of organizational mindfulness (Ray et al., 2011). Ray et al. (2011) also found that individuals at the top of an organization's hierarchy viewed the organization as more mindful than those in middle or lower hierarchal roles. The researchers cautioned against mindless adherence to a formal established accreditation process because they warned that automatic routines associated with accreditation could limit innovation and the organization's capacity to act mindfully. As recommended by Ray's research, the NLC, outlined as the project resulting from this study (see Appendix A), should foster mindfulness thereby empowering innovation.

Improved Capacity of Teachers--Important Teacher-level Factor

Purposefully sampling a total of 117 teachers from two case study schools, one secondary and one elementary, Lima (2008) studied teachers' recognition of the influence other teachers have upon them as well as the interactions teachers have with other teachers. Defining *density* as the amount of actual relations or ties that exist in a given network compared to the number of possible relations or ties, Lima calculated the density of the participating teachers within their respective schools and across their school system.

Lima (2008) developed, tested, and administered a survey to participating teachers asking them how much they felt their departmental colleagues influenced their own professional development and performance and asking them about their professional relationships and personal ties with their departmental colleagues. Of the teachers surveyed, 90% of the secondary school teachers and 88% of the elementary school teachers responded. Defining *centrality of leadership* as having a high number of reported relations and ties, Lima rank ordered the participating teachers' centrality of leadership. While the existence of influence, relationships, and ties were found between teachers in the various departments surveyed, little instructional leadership was found regardless of the centrality of leadership. Teachers perceived as influential and/or with dense relations/ties with their colleagues, or teachers with high centrality of leadership, were not exchanging or developing professional and/or curricular materials with others, jointly planning with others, or doing other capacity building activities within their departments, schools, or systems (Lima, 2008).

Lima (2008) concluded that organizational culture impacted whether or not those teachers with high centrality of leadership engaged in capacity building activities within their departments, schools, or systems. According to Lima, cultures of isolation and congenial rather than collegial cultures keep teacher-leaders from engaging in capacity building activities. Lima recommended that schools/school systems look for teachers with high centrality of leadership, potential teacher-leaders, and provide them with ongoing training, assign clear networking responsibilities, and officially establish the necessary conditions to promote capacity building and networking activities. Lima also recommended that schools/school systems identify school/system needs and strategically align these capacity building and networking activities to meet those needs. Lima's (2008) conclusions and recommendations were considered as the researcher developed the NLC project related to this study (see Appendix A).

Since the turn of the century, Finland has been rated the top economically competitive country in the world by the OECD (2011). Finland has also been rated close to the top in reading, writing, science, and math according to the OECD's PISA results. There are many factors that experts say are the impetus for Finland's exceptional economic and educational obtainment; Finland's focus on building the professional capacity of its teachers is thought to be one of the major factors (Darling-Hammond, 2010). Finland builds teachers' professional capacity by valuing them with high-status, requiring rigorous qualifications, allowing them to work as a community based on trust--not just as a team to accomplish a task, and allowing them to develop and design curriculum and instruction--not just deliver already prepared standards. The Finnish

educational system does not have layers and levels of bureaucratic compliance and fidelity structures because the Finnish public trusts that teachers can produce quality learning. Accountability in Finland consists of periodic testing of samples of students for monitoring and feedback purposes; therefore, Finish testing is diagnostic in nature to help teachers improve instruction. Finland's capacity building initiatives, a successful Fourth Way reform strategy, influenced the design of the NLC proposed in this project study (see Appendix A).

Collective learning enhances the professional capacity of teachers and facilitates positive change (Cheng, 2011). "Collective learning is the learning process and outcome achieved when members of a community learn by social interaction" (p. 33). Members of a community share their values and beliefs during a collective learning process. Collective learning creates synergy because it continuously enhances teachers' capacities. Research has shown that teachers learn more effectively when they learn together as a team. After surveying 777 teachers from 20 secondary schools in a quasi-experimental design, Cheng (2011) applied structural equation modeling to identify predictors for teacher collective learning. By identifying these predictors, Cheng hoped to provide practical steps that could be taken to help schools foster collective learning. Cheng found that one aspect of learning predicts the development of teacher collective learning in a school: systems thinking, defined as the capacity to see the whole and the parts.

Systems thinking and team learning had a significant chi-square value of y=.91 at the 0.05 level (Cheng, 2011). Therefore, if school leaders want teachers to see interrelationships among the parts in a school, this research suggests that school leaders

should structure ways for teachers to collectively practice, analyze, and disseminate their knowledge of professional practices relevant to the school. Opportunities to exercise distributed leadership and nurture a trusting collegial school culture must also be provided to stimulate system thinking, foster collective learning, and build teacher capacity (Cheng, 2011). The NLC proposed as the project for this study (see Appendix A) should provide the necessary structure and opportunities as recommended by this research.

Fuller et al. (2009) found that organizations may need to vary their capacity building approaches depending on the role identity of the employee. After surveying 141 employees from three separate schools, the researchers found that there was a positive significant correlation between organizational identification and perceived prestige as well as between organizational identification and perceived respect. Fuller et al. provided an extensive review of research concluding that increasing employees' identification with the organization builds employees' capacity for constructive change and improves employee collaboration. But, they found that employees with cosmopolitan role identities, professionals who seek recognition from knowledgeable professional peers, do not respond the same way to various capacity building approaches as employees with local role identities, people who are committed to the organization due to its distinct values or characteristics (Fuller et al., 2009).

The researchers found that employees with a cosmopolitan role identity respond well to capacity building approaches that increase prestige because they evaluate the status of their organization based on construed external image or the extent to which

outsiders to the organization hold it in high esteem (Fuller et al., 2009). In contrast, the researchers found that employees with a local role identity respond well to capacity building approaches that increase respect because they evaluate the status of their organization based on the opportunities for participation and advancement they receive from the organization (Fuller et al., 2009). These findings suggest that many professionals need opportunities to network with other professionals outside of their organizations in order to build their professional capacity. Of course, the NLC (see Appendix A) proposed as the project for this study should provide these types of opportunities.

Improvement Approach--A Networked Learning Community

Improving a school is a complex problem made up of multiple threads with numerous problems rooted within each thread and all of these problems interacting with each other--there are many ways to approach the problem of improving a school (Bryk, Gomez, & Grunow, 2011). "Networks provide a plausible alternative for productively organizing the diverse expertise needed to solve complex educational problems" (p.6). Networked improvement communities could connect a varied colleagueship of knowledge and skill in a way that could align their efforts and increase the likelihood of a successful solution. Instead of researchers exploring purely theoretically-based ideas, practitioners engaging in local problem solving with no research basis, or practitioners being expected to implement idealized innovations, these networked improvement communities would be deliberately focused on sharing research-based ideas and connecting people so problem-centered innovations could be tested on a small-scale in

diverse settings. Therefore, networked improvement communities could also provide a way for practitioners in schools to benefit from educational research and for educational researchers to develop promising ideas that could sustain and enhance improvements. Bryk et al. outlined how the organization of this type of a networked improvement community might be carried out.

Since educational innovations are often successful in one setting but lose effectiveness when transferred to a new setting or implemented on a large scale, Bryk et al. (2011) recommended a networked improvement community design which is explicitly and formally structured so that diverse participants from highly varied circumstances have clear directions to accomplish intentional actions aimed at determining and trying out coherent potential solutions to complex problems. By engaging in concurrent development of solutions to similar problems across varied contexts, participants could fine-tune their understanding of the nature of their problem, test the validity of their knowledge, empower innovation, advance collective responsibility, and build capacity for improvement. To accomplish these goals, participants in a networked improvement community should value and continuously attend to shared attainable targets. These targets should be under constant negotiation in a networked improvement community so there is joint comparative analysis of ongoing results. Although participants would be working on solving their local problems they would not be autonomous actors; instead they would be peers who would also be jointly accountable for generative improvement of the collective problem (Bryk et al., 2011).

Bryk et al. (2011) recommended utilizing program improvement maps and driver diagrams, improvement science tools, intended to guide the development of agreed upon targets and thoughtful solutions. A program solution map would provide a comprehensive description of the *challenge space*, including all of the various aspects of the complex problem. A driver diagram would require participants to explain hypothesized solutions and show causal thinking. According to Bryk et al., "Explicit problem decomposition coupled to explicit causal logic in intervention design is a critical guiding activity across a networked improvement community" (p. 20). Using a common protocol to share, test, and generalize was recommended by the researchers as another critical component of effective networks because a protocol would structure the process of introducing potential changes and examining whether or not the changes are actually improvements (Bryk et al., 2011).

In addition to summative outcome measures such as achievement test scores, ongoing improvement efforts also need data about specific processes and experiences as they occur; therefore, the common protocol should solicit collection of and discussion about both effect and cause data (Bryk et al., 2011). Rather than simply sharing research-based practices, the common protocol should direct efforts toward understanding how a potential research-based solution might be or has been adaptively implemented in varied contexts. The focus of the networked improvement community should be to "understand what works when, for whom and in which contexts" (p. 25). Bryk et al. (2011) recommended a plan-do-study-act protocol to guide the ongoing work of the networked improvement community.

Finally, Bryk et al. (2011) recommended that the networked improvement community field test potential solutions as quickly as possible. Rather than endless planning meetings or overly complicated attempts to solve all of the problems found on the improvement map, network participants should "embrace a spirit of rapid prototyping—try it quickly, learn from it cheaply, revise and retry" (p. 29). Participants would share details about their attempted solutions as well as the adaptations they employed and their local constraints; this transparent sharing documents differences and builds knowledge about how interventions might be made to work under varied circumstances (Bryk et al., 2011).

After surveying a random sample of 662 schools that had been participating in a networked learning community, Katz and Earl (2010) found that educators' changes in thinking had a highly significant correlation with increased pupil outcomes as measured from student achievement test results over three years. According to a regression analysis completed from their survey data using changes in thinking as well as pupil outcomes as dependent variables, six features of networked learning communities were also found to have highly significant relationships ($p < .001$) with both changes in thinking and pupil outcomes. The six features and their correlations were: network focus (.52); formal school leaders' engagement with the network (.51); network enquiry (.48); networked distributed leadership (.47); network relationships (.47); and developing capacity for collaborative enquiry (.44). Katz and Earl (2010) concluded that these six features could predict educators' changes in thinking and were therefore the key enablers of successful networked learning communities.

According to Katz and Earl (2010), networked learning communities should have a challenging focus that is based on the system's context, history, and needs. The focus of networked learning communities should simultaneously be based on the participants' needs. A network's focus should require educators to reconceptualize, unlearn, or make changes to existing practices or structures. Finally, a network's focus should make the status quo more difficult to protect. According to Katz and Earl, networked learning communities were more successful when formal school leaders engage with participants across the network. The leadership engagement activities shown to be most impactful were: directing the work of the network; setting and monitoring the agendas of network meetings; encouraging and motivating network participants; and building the capacity of network participants by creating conditions, opportunities, and experiences for mutual learning (Katz & Earl, 2010).

According to Katz and Earl (2010), comfortable relationships and working together are necessary for collaboration to occur but not enough to impact positive change in thinking and instructional practice. Collaboration activities that are interactions among colleagues who get along or that are a routine course of work in schools do not test the status quo and are not correlated with increased changes in educators thinking and increased pupil outcomes. Instead, to positively impact pupil outcomes, educators should jointly address new and often difficult ideas in an environment free from the risk of censure or retribution. Instead, educators should actively support one another as well as find ways to acknowledge and respond to conflict. Educators should engage in enquiry that is a systematic analysis of teaching and learning or that is the examination of new

conceptions of teaching and learning. Professional reflective practice was also considered to be an important aspect of both collaborative and network enquiry. Enquiry that includes reflection, questioning, seeking alternatives, and weighing consequences was correlated with increased changes in educators' thinking and increased pupil outcomes (Katz & Earl, 2010).

Networked learning communities can increase innovation across school systems because the ideas developed in networks can be adopted, personalized, and ultimately implemented in schools across the system (Katz & Earl, 2010). Networked learning communities can promote collective responsibility across school systems because communication is improved, information is disseminated, and trust is strengthened. Networked learning communities can build capacity for improvement across school systems because educators collaboratively address problems and solve issues of mutual concern. A networked professional learning community professional development program would be one of the best solutions to the problem of mediocre or stagnant student achievement in the case study school system because a NLC should improve organizational culture, empower innovation, cultivate collective responsibility, and build teacher capacity. Katz's and Earl's (2010) research along with the networked improvement community recommendations by Bryk et al. (2011) cited in this review of literature provide additional support for the NLC improvement approach recommended in this study (see Appendix A).

Implementation

As supported by the literature review above and the two major themes found from the data collected, the project proposed as a result of this study is to develop a networked professional learning community professional development program which will be designed to positively impact the important context-level factors, school-level factors, and teacher-level factors that have been shown to be strongly correlated with increased student achievement. The purpose of the NLC will be to improve the mediocre or stagnant student achievement in schools that serve the children of United States armed service members. Building teacher capacity for long term improvement is an important teacher-level factor that will be a goal of the NLC, cultivating collective responsibility amongst all stakeholder groups is an important school-level factor that will be a goal of the NLC, and empowering innovation is an important school-level factor that will be a goal of the NLC. These factors also compare with the research-based Fourth Way practices used by the highest performing school systems in the world (Hargreaves & Shirley, 2012). These factors, or Fourth Way practices, have all been shown to improve organizational culture (Cameron & Quinn, 2011), an important context-level factor that will also be a goal of the NLC. The target audience of the NLC will be any educators and schools throughout the case study school's system; the researcher will be the NLC's facilitator. BlackBoard, an Internet-based virtual learning environment which is already available throughout the school system, will be the platform for the NLC.

Although promoting the school's vision, increasing administrative observations and feedback, increasing teacher-to-teacher observations, and improving technology

training were needs found in the data, the research related to the Pre-Fourth Way theme suggests that driving change or prescribing interventions is not the most effective way to promote positive long-term and substantial change (Hargreaves & Shirley, 2012). Therefore, in this project design, I purposefully did not prescribe these types of activities. Instead, I designed the NLC from a Fourth Way perspective. I also designed the NLC to diminish divisiveness as found from the Teachers versus Technocrats theme. The following five learning outcomes, which will be the learning outcomes for this NLC, have been found to enable successful networked learning communities because they are strongly correlated with changes in educators' thinking as well as improved student learning outcomes (Katz & Earl, 2010):

Learning Outcome 1

The NLC will engage formal school leaders with other participants across the network thus providing opportunities for formal leaders to demonstrate their commitment to lifelong learning and enhance organizational mindfulness.

Learning Outcome 2

The NLC will provide opportunities to distribute leadership across the network. The work of the NLC will be driven by the needs and goals of its participants thus fostering collective responsibility.

Learning Outcome 3

The NLC will increase communication, increase the sharing of knowledge across the network, and increase collaboration amongst participants thus enabling risk-taking and empowering innovation.

Learning Outcome 4

The NLC will provide safe opportunities for open discussions about problems as well as opportunities for collective struggle thus improving relationships across the network. The trust developed through the NLC will build capacity for continuous improvement.

Learning Outcome 5

The NLC will increase network participants' systematic analysis of their school improvement efforts and stimulate professional reflective practice. Participants will study research literature pertaining to their problems or challenges, consider diverse perspectives and potential solutions, apply their joint-learning to specific problems or challenges in their unique professional settings, and share their experiences openly. The potential solutions developed from research-based best practices will be adapted and implemented in various contexts.

As soon as this project study is approved by the researcher's doctoral committee and university, this NLC proposal will be submitted to the superintendent of the case study school's district and to the director of research for the case study school's system. The researcher will request permission to solicit participants from across the district and/or across the system to begin implementation at the beginning of the next school term. If permission for district-wide and/or system-wide implementation is not granted or is delayed, the researcher will implement a NLC at her own school at the beginning of the earliest possible school term. The NLC will be presented as a 2-credit graduate online course opportunity to take place during a period of nine weeks with participants

completing approximately three hours a week of course work using BlackBoard. The researcher will work through the University of San Diego and The University of Maryland to provide graduate credit because the case study school's system has an existing agreement with these two universities and the researcher has offered numerous other courses through these universities in the past. A detailed course implementation plan including the activities for each of the nine weeks can be found in Appendix A.

Potential Barriers

Considering the Teachers versus Technocrats major finding of this study, lack of trust is a potential barrier that could hinder successful implementation of this NLC project. As discussed in the findings section of this paper, lack of trust was mentioned as a problem four times by the administrators (P6 and P7). When asked about the typical culture of the school, an administrator described how the grade level groups interacted saying, "Some of the grade levels are a little bit more resistant to change and working as a team. Some of the problem is a lack of trust which I think is really important" (P6). An administrator explained, "In order to collaborate and be willing to share data and so forth you really have to trust whoever you are working with because you don't want to be embarrassed" (P6). When asked to describe a situation when student learning improved, an administrator described how trust was critical saying, "I have to trust you to tell me where you are and what you need" (P7). Therefore, NLC members will engage in relationship-building activities to cultivate trust, encourage participation, and increase collective responsibility (see Week 2 activities in Appendix A).

"A process is a set of causes and conditions that repeatedly come together as a series of steps to transfer inputs into outcomes" (Langley et al., 2009, p. 36). All processes have input(s), steps, and outcomes(s). The process of implementing this NLC project will have teachers and administrators providing inputs; therefore, this process could be hindered by some characteristic(s) of the participants and/or by something the participants are doing or not doing. For example, "analysis paralysis" (Langley et al., 2009, p. 142) is a potential hindrance which happens when teams continuously diagnose and plan rather than try and test. Therefore, NLC participants' work will be guided by a formal Plan-Do-Study-Act protocol to combat this potential barrier.

The process of implementing this NLC project could also be hindered by some action such as squelching promising new ideas (Langley et al., 2009). New ideas are easily killed because they have not yet acquired a logical pattern of support; logical arguments can easily be made that squelch the ideas. To avoid this potential barrier, NLC participants will be encouraged to use logical positive thinking first and consider how to make the ideas work then use negative logical thinking later to predict problems that might occur. And, the process of implementing this NLC project could be hindered because of some inefficiency or problem with the implementation design. For example, the "activity trap" (Langley et al., 2009, p. 340) is a hindrance which happens when organizations do training that is not connected to the specific improvement aims of the organization and that does not include follow-up coaching. To combat this potential barrier, the NLC activities have been carefully designed, participants' needs and goals will drive the work of the NLC, and feedback from participants will be solicited.

As discussed in the findings section of this paper, lack of time was mentioned as a problem numerous times by the teacher stakeholders and the administrator stakeholders. For example, an administrator said, “The biggest thing that is lacking right now is the time to be able to meet as a professional learning group” (P7). And, a teacher said, “Those types of meetings where you get together with your grade level, it is all done on your own time. It is not like we have actually been afforded the time” (P13). Since lack of time is a potential barrier to the successful implementation of this NLC project, the NLC will be designed to provide an opportunity for educators in the system to share and support each other to solve problems helping NLC members save time.

According to Deming’s (1994) new economic theory, even when a system is stable, variations will still occur on a regular basis from common causes. If a leader reacts to a problem as if it came from a special cause when it actually came from a common cause, he or she is tampering with the system and making the problem even worse. So, a potential barrier to the successful implementation of this project is this type of harmful tampering. Instead of tampering, the NLC leader needs to remember that Murphy’s Law exists--so when there are problems--he or she needs to determine if the problems were from common causes or from special causes. If the problem was from a special cause, the leader needs to figure out if anything can even be done to solve the problem before reacting; if the problem was from a common cause, the leader needs to remember that although ways to minimize the impact of common causes should be considered, common causes of variation cannot be eliminated (Deming, 1994).

Roles and Responsibilities of Leaders

Since changing organizational culture involves changing people, it is leadership's responsibility to get to know the people in the NLC, the effect the NLC is having on the participants, and the effect the innovations developed by the NLC are having in the schools that are trying them (Deming, 1994). To attract the participants to make change, it is the role of the NLC leader to take care of the people in the NLC and guide its work. Since leaders do not have the ability to control all of the varied beliefs of the people in the NLC, they must instead gain their cooperation (Muhammad, 2009). In studies of human cooperation, researchers found that people "resist cooperation when their cognitive need to understand is not fulfilled" (Muhammad, 2009, p. 87). Therefore, to obtain the cooperation necessary to make and sustain improvements, NLC leaders must insist that the NLC participants adhere to the discussion protocols and that NLC participants provide clear reasons for any proposed change. In studies of leadership, researchers found that people resist change when they do not trust the judgment or skills of the leader. Therefore, leaders must foster trust by continuously sharing their knowledge and skills as well as by engaging fairly and mindfully in collective struggles while inspiring others. Finally, school leaders can generate a wider and sustained positive impact from the work of the NLC by helping the people in the NLC see the big picture while steadily encouraging the open discussion of problems and ideas along with risk-taking and experimentation (Muhammad, 2009).

Project Evaluation

"You can learn more and improve more from trying and testing than from diagnosis and planning. The success of a test lies in what is learned from it, no matter how it turns out" (Langley et al., 2009, p.142). Learning from testing a change increases the likelihood that the change will actually lead to more substantial improvements and that the change will be long-lasting (Langley et al., 2009). The activities of the NLC will guide participants to implement changes on a small-scale in order to test their potential solutions and then to learn from those tests. As recommended by improvement science, conducting trials in diverse contexts will be a primary outcome of the NLC so as to find out "what works when, for whom, and under what conditions" (Bryk et al., 2011, p.25). Different environments should be included when scaling up testing so key variables can be considered and appropriate adjustments can be made for the next stage of trial (Bryk et al., 2011).

As potential solutions are attempted through the work of the NLC, details about implementation, adaptations employed, and local constraints will be recorded. The success of this primary NLC outcome, Learning Outcome 5 above, will be evaluated based on how well this record of school improvement efforts documents implementation differences, builds knowledge about how solutions might be made to work under varied circumstances, and facilitates more effective planning of the next steps of continuous improvement. The success of Learning Outcomes 1 and 2 will be evaluated based on a count of the number of formal school leaders and other organizational members who participate in the NLC. The success of Learning Outcomes 3 and 4 will be evaluated

based on an analysis of the NLC participants' responses to a brief post-course survey intended to find out the NLC's impact on communication, collaboration, innovation, collective responsibility, and capacity to improve (see Appendix A for evaluation survey). The five NLC outcomes, specified above in the implementation subsection, were chosen because they include strategies that are highly correlated with increased student achievement. Since the overall goal of the NLC is to increase student achievement to solve the problem of moderate or stagnant student achievement which was the reason for this study, standardized student achievement scores, published publically online, will be analyzed to determine if they are trending upward during the three to five year time period following initial implementation of this NLC project.

Projects Impact on Social Change

Local Community

The purpose of this qualitative case study was to explore the target school's improvement process and to discover how different stakeholder groups viewed that process. Therefore, the researcher anticipated finding that different stakeholder groups who have different roles and responsibilities would also have different values and assumptions. However, the researcher did not anticipate finding such contrasting perceptions between the groups. The Teachers versus Technocrats theme is generalized from the competing values and assumptions found between the teacher stakeholders and the administrator stakeholders. According to the competing values framework, competing values and assumptions can damage organizational culture and hinder improvement efforts (Cameron & Quinn, 2011).

As the researcher explained in the findings section of this project study, an organization with a dominant clan culture concentrates on collaboration and cooperation; an organization with a dominant market culture is competitive valuing productivity and initiative; an organization with a dominant hierarchical culture strives for control, consistency, and formal relationships; and an organization with a dominant adhocracy culture emphasizes growth and individuality (Cameron & Quinn, 2011). Research suggests that school systems are most effective when they have dominant clan and adhocracy cultures (Nel, 2009). Unfortunately, analysis of the patterns found in the data suggested that the organizational culture of the case study school may be dominant hierarchy and market cultures. For example, one specific finding from the data showed that stakeholders perceived that adherence to the system-prescribed school improvement process and relentlessly pursuing the school-improvement mandated goals were the organizational foci even above student-centered instruction and even though adhering to the process and relentlessly pursuing the goals were considered overly time consuming and frustrating by administrators and teachers.

According to Cameron and Quinn (2011), strengthening clan-aspects of a culture means more employee empowerment, participation, and involvement, more horizontal communication and cross-system teamwork, more recognition of employees, and a more caring climate. Strengthening adhocracy-aspects of a culture means more employee suggestions and listening to stakeholders, more process innovativeness, thoughtful risk-taking, and tolerance of first-time mistakes. In order to try to solve the problem of competing values especially as reflected in the Teachers versus Technocrats theme, the

NLC has been designed to accomplish most of Cameron and Quinn's recommendations. Therefore, the NLC should benefit all local stakeholders--community members, administrators, teachers, and parents--and ultimately the students.

This project addresses the needs of learners in the case study school because the NLC is designed to try to resolve the problem of mediocre or stagnant student achievement through the implementation of reform strategies based on the successful practices of the highest performing educational systems in the world as described in *The Global Fourth Way* by Hargreaves and Shirley (2012). Fourth Way reform strategies have been shown to increase student achievement because they foster a 21st century organizational culture (Hargreaves & Shirley, 2012). In addition to improving organizational culture, Fourth Way practices have been shown to build teacher capacity, empower innovation, and promote collective responsibility. Fourth Way reform strategies are in alignment with the findings of this research because, as reflected in the Pre-Fourth Way theme, many Pre-Fourth Way practices were found throughout the coded data. Since the ultimate aim of any school improvement process should be to improve student academic achievement across the school, the Fourth Way shift prompted by this NLC is important to students in the case study school.

Far-Reaching

The achievement score trend data for the school system in which the case study school belongs showed that 12 out of 13 schools in the district have 51%-74% of students achieving in the top two quartiles on standardized achievement tests but achievement test results have been stagnant or even declining based on 3-year trends (see Table 2). All of

the schools in the system adhere to a time-consuming and demanding system-prescribed school improvement process; however, this problem of mediocre or stagnant achievement remains. Unfortunately, this problem of mediocre or stagnant student achievement can be found in school systems across America and around the globe too. The selected school was chosen for this case study because it is a typical school in the system. Although the findings of one case, as in this project study, cannot be generalized they can often uncover issues that could hinder or opportunities that could foster improvement not only in the one setting but also in other similar settings. This project study has far reaching implications for school systems with mediocre or stagnant student achievement because of the issues and opportunities that have been uncovered.

As the OECD (2011) PISA continues to expand and become more influential and as the importance of high levels of student achievement increases world-wide, school systems around the globe can help each other and learn from each other through networking. This NLC project is important in the larger context because its design can help others design successful networking programs in other contexts. The design and implementation of this NLC project can also increase understanding of the conditions in which networking is likely to be successful. Finally, implementation of this NLC project can help others know how to go about networking.

Conclusion

From a longitudinal case study of an affluent school with moderately high but static student achievement scores, a school similar to the case study school examined in this project study, Collinson (2010) found that by maintaining the status quo the school

did not develop the organizational learning culture needed to make the changes needed to meet the increased learning demands of the 21st century. Educational research has linked increased student learning with the existence of an organizational culture focused on learning for all. Just as classroom teachers must create a learning environment for students, leaders must create an environment that supports organizational learning. Collinson found that practicing democratic principles, attending to relationships, meeting participants' needs, fostering inquiry, and facilitating the dissemination of shared learning are the key conditions that promote an organizational culture focused on learning for all. The NLC project described in this section included these key conditions. As summarized in the literature review and implementation plan above, the NLC should promote an organizational culture focused on learning for all, the NLC should develop collective responsibility for all students' learning, the NLC should empower innovation to meet the increased learning demands of the 21st century, and the NLC should build teacher capacity for continuous improvement. As explained in this section, the NLC should help solve the problem of stagnant student achievement that was the basis of this study.

In addition to a description and rationale for the proposed NLC project as well as a review of the recent relevant literature, implementation of the NLC including a general timeline and potential barriers was also discussed in this section. The roles and responsibilities of leaders and the project evaluation was outlined. Finally, the researcher addressed the possible social justice impact for the local stakeholders and for the far-reaching educational community. The final section of this paper will include conclusions

and reflections regarding the development of the proposed NLC project, the researcher as practitioner, and the research process.

Section 4: Conclusions and Reflections

Introduction

For American students, standardized test scores tend to be correlated with socioeconomic status (OECD, 2011). According to Collinson (2010), many affluent schools have moderately high levels of academic achievement--like the target school in this study. But because of their existing relative success, many of these affluent schools become stagnant--again like the case study school examined in this project study. Affluent stagnant schools often do not have a culture of organizational learning or the synergy to innovate. Affluent stagnant schools often do not demonstrate collective responsibility for all students learning; instead, affluent stagnant schools often focus on the easy-to-teach students and rely heavily on selected quantifiable data to rationalize their approach. Affluent stagnant schools often do not build teacher capacity; teachers are usually not challenged to identify the shortcomings in their instruction or share knowledge with their colleagues. Having been acceptably successful, affluent stagnant schools often continue using outdated strategies even when student achievement is no longer improving, like the Pre-Fourth Way strategies found in the case study school examined in this study (Collinson, 2010).

The final section of this paper begins with a review of the proposed NLC project's strengths along with thoughts regarding the limitations of the proposed NLC project. This is followed by (a) concluding deliberations about project development, along with an analysis of the researcher as project developer, (b) concluding deliberations about leadership, along with an analysis of the researcher as practitioner, and (c) concluding

deliberations about scholarship, along with an analysis of the researcher as scholar. The paper will close with recommendations for further research.

Project Strengths

The NLC project proposed in this paper would work on innovative ways to improve the outcomes of the system-prescribed school improvement process. The five standards that form the basis of this process are as follows:

Standard 1: Purpose and Direction

> The school maintains and communicates a purpose and direction that commit to high expectations for learning as well as shared values and beliefs about teaching and learning.

Standard 2: Governance and Leadership

> The school operates under governance and leadership that promote and support student performance and school effectiveness.

Standard 3: Teaching and Assessing for Learning

> The school's curriculum, instructional design, and assessment practices guide and ensure teacher effectiveness and student learning.

Standard 4: Resources and Support Systems

> The school has resources and provides services that support its purpose and direction to ensure success for all students.

Standard 5: Using Results for Continuous Improvement

> The school implements a comprehensive assessment system that generates a range of data about student learning and school effectiveness and uses the results to guide continuous improvement. (AdvancED, 2011)

Participants discussing and collaboratively developing potential solutions to their problems or challenges related to these five standards would be one of the major strengths of the NLC project proposed in this paper. In addition, these five standards address most of the needs found in the data analyzed for this project study. For example, Standard 1: Purpose and Direction would address the need to promote the school's vision. Standard 2: Governance and Leadership would address the need to increase administrative observations and feedback and Standard 3: Teaching and Assessing for Learning would address the need to increase teacher-to-teacher observations and improve technology training. By focusing the NLC participants' work on these five standards, NLC participants are more likely to develop innovative solutions to these problems, NLC participants are more likely to collectively take responsibility for solving these problems, and NLC participants are more likely to build the capacity necessary to carry out the actions needed to solve these problems.

Muhammad's (2009) study of 34 schools' cultures led him to recommend actions similar to those specified by Cameron and Quinn's (2011) competing values framework to overcome division, create cohesiveness between stakeholders, and improve the school's culture. Those actions were: developing a cohesive school-wide focus on learning, celebrating success of and with all stakeholders, and creating a system of support and collaboration (Muhammad, 2009). Creating a system of support and

collaboration would be one of the major strengths of the NLC project proposed in this paper because the NLC would provide an opportunity for participants to help each other and work together. Another strength of the NLC would be that its work would be driven by the participants' needs and structured to tap the wisdom of the group. The NLC would distribute leadership, provide a safe place for participants to collectively struggle, and foster trusting relationships--thus increasing collective responsibility. And the NLC would promote increased communication and encourage risk-taking and experimentation; thus, the NLC would empower innovation. Finally, the NLC participants would share, examine, and try out potential research-based solutions to school-improvement-related problems in varied contexts; this would build capacity for ongoing progress.

Project Limitations

Variation is the natural state of affairs (Deming, 1994). And variation is the problem to solve. The problem is not knowing what works; school effectiveness research tells educators what works. The problem is figuring out how to do what works in varied circumstances. Achieving efficacy in varied contexts is a challenge. So an alternative approach to addressing the problem of stagnant student achievement levels could be for educators to consider the research-based best practices they need or want to employ and focus on answering the question, "What would it take to make this research-based best practice work in my school?" Although this approach might provide educators with a guide as to how to proceed, this approach would be dependent upon educators' capacity to obtain and consider the research as well as educators' capacity to collectively struggle through answering this question. If capacity is lacking, this approach would most likely

be lacking too. This approach might not empower innovation or positively change organizational culture either.

Another alternative approach to addressing the problem of stagnant student achievement levels could be for the system to increase its accountability measures and put more pressure on schools to improve. This Second Way approach which was the premise of the No Child Left Behind Act disheartened and demoralized educators and did not result in improved student achievement (Hargreaves & Shirley, 2009). According to the findings from this study, educators already find the school improvement process to be trying and overly time consuming so pushing the process even harder is likely to exasperate educators even more and perhaps diminish the culture in schools and across the organization rather than improve it.

Providing a safe place for educators to collectively struggle is another challenge. Considering the Teachers versus Technocrats major finding of this study, developing a trusting collaborative NLC group in a brief period of time is a limitation of this project. Accomplishing any of the learning objectives of the project after just the 9-week course would be a challenge because improving organizational culture, increasing collective responsibility, empowering innovation, and building capacity are major endeavors that most likely require time and persistent efforts. Therefore, the researcher recommends that the NLC course be offered every school term and that educators be encouraged to participate more than once. The researcher recommends that the work of the NLC be continuous rather than a one-shot activity. The researcher recommends that ongoing professional learning communities evolve out of the work of this NLC.

Another time-related limitation of the proposed NLC project is how long it might take to actually implement because of the hierarchal nature of the case study school's system. Offering the NLC course to educators throughout the case study school's district would require the support and cooperation of the district superintendent as well as the principals of the schools in the district. Offering the NLC course to educators throughout the system would require support from the director of the system, each district superintendent, and principals from schools worldwide. Therefore, the researcher will begin by offering the NLC course to educators in her own school and neighboring school if permission for more widespread implementation is delayed.

Engaging in the NLC activities online via the BlackBoard distance learning platform is another limitation of this NLC proposal. Ideally, the NLC participants would work together face-to-face; but, since the case study school's system is spread out all over the world, face-to-face meetings are simply not possible. Employing distance learning tools is a feasible way to network educators from so many locations. The case study school's system also recently invested in high speed video teleconferencing (VTC) equipment for every school in the system. The researcher will pursue the possibility of utilizing the VTC equipment for the NLC's work because it would allow participants to see each other and talk to each other in real time.

Project Development and Evaluation

Bryk and Gomez (2011) suggested that project developers should focus on connecting academic research with their project designs because even though there is an extraordinary amount of educational research it has not helped solve enduring

educational problems as much as one might expect and hope. Therefore, Bryk and Gomez recommended that project developers should function like applied researchers; they should purposefully connect academic research with clinical practice. Bryk and Gomez also recommended that projects be designed so that practice and research inquiry occur jointly. Project developers should not only endeavor to achieve desired learning outcomes; project developers should also pursue the knowledge necessary to advance improvement of the project (Bryk & Gomez, 2011). Each subsequent project should be designed building upon the knowledge learned from implementing its predecessor.

Variation is another project development problem to solve (Bryk, 2010). Recent school effectiveness research tells educators what works; it is figuring out how to go about implementing what works in varied settings that is the new challenge. Therefore, when developing a project, Bryk (2010) recommended that project developers ask, "What would it take to make this project work in this unique setting" (p. 28)? Projects should be developed so that they don't require every diverse educational environment to fit their complex uniqueness into an inflexibly designed project. Instead of designing projects with the intent that participants must implement with fidelity, projects should be designed with variations in mind. Projects should be developed so that the aspects that need to be flexible are flexible (Bryk, 2010).

Analysis of Self as Project Developer

After developing the proposed project, I realized that I agree with Bryk's (2010) recommendation that project developers should design initiatives so that the aspects that need to be flexible are flexible. I learned that as a project developer I cannot be a *control*

freak. Accomplishing the project's desired outcome must be the focus; but, allowing for the wants and needs of the participants must be a focus too. Educators should not have to adapt to idealized innovations; instead, projects should be designed to be adaptable. Since I became aware of this project development idea, I attempted to develop a project that would be driven by the participants' wants and needs while simultaneously focusing on the desired outcome. The project design purposefully does not prescribe interventions; instead, allowing the participants to develop research-based solutions themselves.

After developing the proposed project, I also realized that I used a cyclical, backward-thinking approach when engaging in project development work. I started my project development efforts with the project outcomes in mind. I also started developing this project by thinking about how the recent research suggests one should go about trying to increase stagnant student achievement scores. I considered what specifically needed to happen to get to that end. Then, I plotted out the possibilities, reflected on them, reconsulted the research, revised, reflected, reconsulted the research, revised, and so on. I repeated this cycle numerous times until I had developed a first-version of the project that is ready to be implemented. In the spirit of continuous improvement, after initial implementation I expect the first-version of the project to be revised based on the project evaluation, my observations and reflections, and new research findings.

Leadership and Change

The results of a mixed-methods confirmatory study by Black (2010) revealed a significant positive correlation between the practice of servant leadership and the existence of a positive school culture. After surveying 231 randomly selected teachers

and the 15 principals that work with those teachers, the researcher interviewed 10% of the sample to confirm the quantitative results. Both the quantitative and qualitative data showed that organizational culture is supportive when leaders value their people; there was a .66 canonical correlation between this servant-leadership construct and a healthy school culture. Both the quantitative and qualitative data showed that organizational culture is collegial when leaders focus on developing their people; there was a .54 canonical correlation between this servant-leadership construct and a healthy school culture (Black, 2010).

Servant leaders assume a nonfocal position as a caring member of their team (Black, 2010). Servant leaders receptively demonstrate respect and dignity for others; they try to understand the people and the situation before taking action. Servant leaders remove obstacles and provide support without an expectation of acknowledgment. Servant leaders try to build consensus through building trust; they try to engage people and generate a sense of satisfaction and accomplishment. Since servant leaders shape empathetic communities, model moral and ethical responsibility, involve others in decision-making, and are committed to the growth of people (Black, 2010), servant leadership is in alignment with the strategies endorsed in this project study--creating and maintaining a positive organizational culture that builds capacity, empowering innovation, and promoting collective responsibility. The researcher recommends servant leadership as the model of leadership for facilitating the desired outcomes of this project study.

Analysis of Self as Practitioner

Freire (1970) said, "The people must find themselves in the leaders, and the latter must find themselves in the people" (p. 163). Freire also said that leaders and those being led, the people, are "immersed in systems of oppression" (Miller et al., 2011, p.1085). According to Miller (2011), effective relationships, solidarity between the leaders and the people, and constructive cultural synthesis are only possible through genuine dialogue. The key elements of Freierean dialogue are humility, faith, hope, critical thinking, and solidarity. Humility means that leaders are always open to new thoughts and understandings and do not assume they have all the answers. Faith means leaders have full confidence in the people thus can draw from the knowledge and skill of the people. Hope means leaders believe improvements are truly attainable. Critical thinking means that leaders are aware of systems of oppression and actively seek to change them. Solidarity means leaders and the people work in union to improve the conditions of all (Miller et al., 2011).

As suggested by Freire's transformative ideology and through the literature I reviewed for this project study, I learned that leaders who seek change must truly collaborate with those being led by engaging in genuine dialogue. I learned that leaders who seek change should go to the people being led openly, humbly, and ready to listen. I learned that leaders should trust the people and that the people being led should trust their leaders. I learned that through faith in the people as co-agents of change, leaders can stimulate positive social transformation because the people being led are uniquely experienced and strategically positioned to instigate authentic long-lasting improvement;

it takes the collective efforts of all to make wide and sustained changes. As suggested by Freire's transformative ideology and through completion of this project study, I also learned that through true collaboration and genuine dialogue leaders can create and maintain an organizational culture that builds capacity, empowers innovation, and promotes collective responsibility--all strategies that have been shown to be highly correlated with increased student achievement.

Scholarship

Research methodology can be a barrier to scholarship (Cornelissen, Haslam, & Balmer, 2007). According to Cornelissen et al. (2007), if researchers become overly concerned about methodology they could prioritize the way questions are answered over answering the questions that are actually asked. "There are also perils in a form of 'methodological apartheid' whereby researchers who favor different analytic techniques (qualitative versus quantitative, observational versus survey,) simply agree to leave each other alone" (p. 191). And, the existence of divisions between researchers who favor different techniques is associated with suspicion about the methods that other researchers employ as well as a certain amount of distrust of the ideas that emerge from the use of those other methods (Cornelissen et al., 2007).

A qualitative case study research design was the chosen research design for this project study because the research question required the researcher to concentrate on exploring and understanding different stakeholders' perspectives about the nature of the school improvement process in the natural setting of the chosen school. Although a qualitative case study research design was beneficial because the researcher uncovered

issues and opportunities that can have substantial positive local and far-reaching implications, the researcher realized that the use of frequency counts to quantify key pieces of data was also worthwhile. Rather than becoming overly concerned with methodology, as cautioned by Cornelissen et al. (2007), the researcher strove to answer the question that was asked.

Analysis of Self as Scholar

My husband of 24 years died right after I wrote the findings section of this paper. He was diagnosed with cancer 18 months earlier as I was starting the final course and my prospectus for this project study. My first inclination after finding out he was ill was to suspend this work but he insisted that I should make this journey while he simultaneously made his. Supporting my loved one while he was fighting for his life helped me realize that although this work was important it was not imperative; my husband's struggle kept me from taking this work too seriously. I am certain that my thinking was more reflective and my scholarship was improved because of our joint journeys. Taking care of my husband also improved my patience which helped me take more time to observe and grapple.

After my husband's death, as I was trying to write the project section for this paper, I started hiking. I decided to hike because I thought the physical exertion might relieve the tension I felt throughout my body after spending so much time in the hospital at my husband's side. As I was hiking I recognized that my experience as a scholar was much like my experience trying to find my way through the woods while huffing and puffing up a mountain trail and finally being rewarded by the wondrous view. First, I had

to decipher the trail markers which one might think would be straightforward but I realized could be interpreted in different ways. Several times, I thought a squiggly mark meant go one way when in reality it meant go another. As with my research, I didn't always choose the correct hiking direction the first time. Sometimes I had to go back and reexamine the markers. As with hiking, sometimes my work as a scholar was exhausting and sometimes my work as a scholar was exhilarating.

As I was hiking and as I was conducting this research, I often felt anxious. When peering around a corner about to enter a dark wooded area, I worried that I might trip and twist my ankle or get lost and never be found. When conducting this research and writing this paper, I worried that my findings might be worthless or my writing might be meaningless. As both a hiker and as a scholar, I had to analyze the situation, make an observation/research-based decision, and take a chance one way or the other. Hiking and scholarship both required me to take one step or analyze one idea or write one word at a time. I saw different things on the way down the mountain than I saw on the way up it and I learned different things writing the first draft of a subsection than I did revising the second. Therefore, I learned that being a hiker and being a scholar require mindfulness and courage--characteristics I continuously try to develop for both personal and professional improvement.

Implications, Applications, and Directions for Future Research

> Imagine that you're either the referee, coach, player, or spectator at an unconventional soccer match: the field for the game is round; there are several goals scattered haphazardly around the circular field; people can enter and leave

> the game whenever they want to; they can throw balls in whenever they want they can say 'that's my goal' whenever they want to, as many times as they want to, and for as many goals as they want to; the entire game takes place on a sloped field; and the game is played as if it makes sense. If you now substitute in this example principals for referees, teachers for coaches, students for players, parents for spectators and schooling for soccer, you have an equally unconventional depiction of school organizations. (Weick, 1976, p. 1)

From this soccer game metaphor, Weick (1976) described schools and school systems as "loosely coupled organizations" (p. 2) and concluded that rational explanations could not always account for what goes on in schools/school systems. Weick suggested that if we can better understand what goes on in schools/school systems, we might be able to better measure, predict, and influence the outcomes of interventions employed. To understand what goes on in schools/school systems, Weick recommended mixed-methods comparative and longitudinal studies that provide descriptions of both local control methods and hierarchical stabilizing methods. Weick also recommended studies that examine how authority and task-orientation impact relationships/connections within the school/school system.

As recommended by Weick (1976), comparative or longitudinal studies could be valuable directions for further research because they might extend understanding of the nature of school improvement from a single case study school to multiple schools or from a short time period to an extended time period. As recommended by Weick, studies that examine control methods or the impact of authority and of task-orientation on

relationships/connections within a school system could be valuable directions for further research because they might provide information to leverage existing relationships/connections, create advantageous relationships/connections, and improve organizational culture as well as the implementation of learning communities like the one outlined in this paper.

Since I am member of the school system I have been studying, I acknowledge that I have experienced a similar acculturation process as those I have been studying. I acknowledge that my expectations and conceptions of what a school is and what a school should be have been influenced by my own socialization in the system of study. I acknowledge that my biased conception of what schools are and should be was a source of difficulty in my analyzing the nature of school improvement at the case study school. Because of this concern, I think studying another similar school in a similarly affluent school district with moderate or stagnant student achievement scores would be worthwhile. Replicating this study using another case study school in another school system would be a way to compare and possibly validate this study's findings as well as inform the NLC project development. Also, the current study could be expanded in to the population of schools throughout the system in order to see whether there are similarities across the system. The study could be replicated across different schools in the system in order to establish a common set of shared values and assumptions.

Conclusion

A common ineffective response to the need for change is attempting more of the same (Langley et al., 2009). Significant improvements in student achievement depend on

major changes in the structures and practices of schools (Katz & Earl, 2010). Since the NLC proposed in this project study can develop capacity for change by stimulating collaboration and inquiry it can be the major change in structure and practice the case study school and its related system need to solve the problem of mediocre or stagnant student achievement. The NLC can also address competing values/assumptions, as found per the Teachers versus Technocrats theme from this research, because the NLC can engage formal school leaders with others, distribute leadership across the network, and enhance trusting relationships across the network. Finally, the NLC can address the Pre-Fourth Way theme from this research because the NLC can improve organizational culture, cultivate collective responsibility, empower innovation, and build teacher capacity--all Fourth Way approaches practiced by schools in the best performing countries in the world and shown to be strongly correlated with increased student achievement.

References

AdvancED. (2012). *Company overview.* Retrieved from http://www.advanc-ed.org/company-overview

AdvancED. (2012). *What is accreditation?* Retrieved from http://www.advanc-ed.org/what-accreditation

AdvancED. (2011). *Standards for quality schools.* Retrieved from http://www.advanc-ed.org/standards

Alberta Ministry of Education. (2010). *Steering committee report.* Retrieved from http://www.inspiringeducation.alberta.ca/LinkClick.aspx?fileticket=BjGiTVRiuD8%3d&tabid=37

Allame, S., Nouri, B., Tavakoli, S., & Shokrani, S. R. (2011). Effect of organizational culture on success of knowledge management system's implementation. *Interdisciplinary Journal of Contemporary Research in Business, 2*(9), 321-346. Retrieved from http://www.ijcrb.webs.com/

Anderson-Butcher, D., Lawson, H.A., Iachini, A., Bean, G., Flaspohler, P.D., & Zullig, K. (2010). Capacity-related innovations resulting from the implementation of a community collaboration model for school improvement. *Journal of Educational and Psychological Consultation, 20*, 257-287. doi:10.1080/10474412.2010.500512

Angelle, P. S. (2010). An organizational perspective of distributed leadership: A portrait of a middle school. *Research in Middle Level Education, 33*(5), 1-16. Retrieved from http://www.amle.org/publications/rmleonline/tabid/426/default.aspx

Arthur, L., Marland, H., Pill, A., & Rea, T. (2010). School culture and postgraduate professional development: Delineating the 'Enabling School'. *Professional Development in Education, 36*(3), 471-489. doi:10.1080/19415250903126043

Barth, R. (1986). On sheep and goats and school reform. *Phi Delta Kappan, 68*(4), 293–296. Retrieved from http://www.phideltakappan.org

Black, G. (2010). Correlational analysis of servant leadership and school climate. *Catholic Education: A Journal of Inquiry and Practice, 13*(4), 437-466. Retrieved from http://ejournals.bc.edu/ojs/index.php/catholic

Branigin, W. (2009, July 24). Obama launches race for $4 billion in education funds. *Washington Post*. Retrieved from http://www.washingtonpost.com/wp-dyn/content/article/2009/07/24/AR2009072402203.html

Bronfenbrenner, U. (1989). Ecological systems theory. In R. Vasta (Ed.), *Annals of child development* (pp. 187-249). Greenwich, CT: JAI Press.

Bryk, A.S., (2010). Organizing schools for improvement. *Phi Delta Kappa, 91*(7), 23-30. Retrieved from http://www.pdkintl.org/index.htm

Bryk, A.S., Gomez, L.M., & Gruno, A. (2011). Getting ideas into action: Building networked improvement communities in education. *Carnegie Foundation for the Advancement of Teaching.* Retrieved from http://www.carnegiefoundation.org/spotlight/webinar-bryk-gomez-building-networkedimprovement-communities-in-education

Cameron, K.S., & Quinn, R.E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (3rd ed.). San Francisco, CA: Jossey-Bass.

Campbell, C., & Fullan M. (2006). *Unlocking potential for learning: Effective district-wide strategies to raise student achievement in literacy and numeracy.* Ontario, Canada: The Literacy and Numeracy Secretariat.

Cheng, E. K. (2011). Management strategies for promoting teacher collective learning. *US-China Education Review*, *8*(1), 33-39. Retrieved from http://www.davidpublishing.com/journals_info.asp?jId=641

Coe, R. (2009). School improvement: Reality and illusion. *British Journal of Educational Studies, 57*(4), 363-379. doi:10.1111/j.1467-8527.2009.00444.x

College Board. (2012). *What is the SAT?* Retrieved from http://sat.collegeboard.org/about-tests/sat

Collinson, V. (2010). To learn or not to learn: A potential organizational learning gap among school systems. *Leadership and Policy in Schools, 9*(2), 190-219. doi:10.1080/15700760903342368

Collinson, V. (2008). Leading by learning: New directions in the twenty-first century. *Journal of Educational Administration, 46*(4), 443--460. doi:10.1108/09578230810881992

Connolly, M., James, C., & Beales, B. (2011). Contrasting perspectives on organizational culture change in schools. *Journal of Educational Change, 12*(4), 421-439. doi:10.1007/s10833-011-9166-x

Cornelissen, J. P., Haslam, S., & Balmer, J. T. (2007). Social identity, organizational identity and corporate identity: Towards an integrated understanding of processes, patternings and products. *British Journal of Management,* 181-216. doi:10.1111/j.1467-8551.2007.00522.x

Council of Chief State School Officers. (2011). *Roadmap for next-generation state accountability systems* [Working Draft Report]. Retrieved from http://www.ccsso.org/documents/Roadmap.pdf

Creemers, B. (1994). *The effective classroom.* London, England: Cassell.

Creemers, B., & Kyriakides, L. (2010a). School factors explaining achievement on cognitive and affective outcomes: Establishing a dynamic model of educational effectiveness. *Scandinavian Journal Of Educational Research, 54*(3), 263-294. doi:10.1080/00313831003764529

Creemers, B., & Kyriakides, L. (2010b). Using the dynamic model to develop an evidence-based and theory-driven approach to school improvement. *Irish Educational Studies,* 29(1), 5-23. doi:10.1080/03323310903522669

Creemers, B., Stoll, L., & Reezigt, G. (2008). *Effective school improvement ingredients for success: The results of an international comparative study of best practice case studies.* London, England: Routledge.

Creswell, J.W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* New York, NY: Teachers College Press.

De Cremer, D., van Dijke, M., & Mayer, D. (2010). Cooperating when "you" and "I" are treated fairly: The moderating role of leader prototypically. *Journal of Applied Psychology, 95*(6), 1121-1133. doi:10.1037/a0020419

Deming, W.E. (1994). *The new economics: For industry, government, education* (2nd ed.). Cambridge, MA: The MIT Press.

Department of Defense Education Association. (2012). *DoDEA Data Center.* Retrieved from http://www.dodea.edu/datacenter/testdata.cfm

Dewalt, K.M., & Dewalt, B.R. (2011). *Participant observation: A guide for fieldworkers* (2nd ed.). Plymouth, United Kingdom: AltaMira Press.

DiPaola, M., & Guy, S. (2009). The impact of organizational justice on climate and trust in high schools. *Journal of School Leadership, 19*(4), 382-405.Retrieved from https://rowman.com/page/JSL

Duncan, D. (2011). *Ontario budget: Budget papers.* Retrieved from http://www.fin.gov.on.ca/en/budget/ontariobudgets/2011/papers_all.pdf

Dutton, J., Roberts, L., & Bednar, J. (2011). Pathways for positive identity construction at work: Four types of positive identity and the building of social resources. *Academy of Management Review, 35*(2), 265-293. Retrieved from http://aom.org/AMR/

Ehren, M.C.M., & Visscher, A.J. (2008). The relationship between school inspections, school characteristics, and school improvement. *British Journal of Educational Studies, 56*(2), 205-227. doi:10.1111/j.1467-8527.2008.00400x

Finn, C.E. (1993). *We must take charge.* New York, NY: Free Press.

Friedman, T. (2005). *The world is flat: A brief history of the twenty-first century.* New York, NY: Farrar, Straus, and Giroux.

Friedman, T. (January 24, 2012). Average is over. *The New York Times.* Retrieved from http://www.nytimes.com

Friere, P. (1970). *Pedagogy of the oppressed.* New York, NY: Continuum.

Fuller, J., Hester, K., Barnett, T., Beu, D., Frey, L., & Relyea, C. (2009). Extending the group engagement model: An examination of the interactive effects of prestige, respect, and employee role identity. *Journal of Managerial Issues, 21*(1), 119-139. Retrieved from http://www.pittstate.edu/department/economics/journal-of-managerial-issues/

Garcia, E. (2005). Writing as analysis. *Online QDA.* Retrieved from http://onlineqda.hud.ac.uk./Intro_QDA/writing_analysis.php

Graham, P., & Ferriter, B. (2008). One step at a time. *Journal of Staff Development, 29*(3), 38-42. Retrieved from http://www.learningforward.org/publications/jsd

Griffore, R.J., Phenice, L.A., Schweitzer, J.H., & Green, R.L. (2010). *Implicit models of school improvement: A mixed-method analysis.* Retrieved from http://www.academicleadership.org/

Gumuseli, A., & Eryilmaz, A. (2011). The measurement of collaborative school culture (CSC) on Turkish schools. *New Horizons in Education, 59*(2), 13-26. Retrieved from http://www.hkta1934.org.hk/NewHorizon/index2.html

Gunbayi, I. (2007). School climate and teachers' perceptions on climate factors: Research into nine urban high schools. *Turkish Online Journal of Educational Technology, 6*(3), 70-78. Retrieved from http://www.tojet.net

Hallinger, P., & Heck, R.H. (2011). Exploring the journey of school improvement: Classifying and analyzing patterns of change in school improvement processes and learning outcomes. *School Effectiveness and School Improvement, 22*(1), 1-27. doi:10.1080/09243453.2010.536322

Hargreaves, A., & Shirley, D. (2012). *The global fourth way: The quest for educational excellence.* Thousand Oaks, CA: Corwin Press.

Hargreaves, A., & Shirley, D. (2009). *The fourth way: The inspiring future for educational change.* Thousand Oaks, CA: Corwin Press.

Hatch, J.A. (2002). *Doing qualitative research in educational settings.* Albany, NY: State University of New York Press.

Haugen, L. K., & Davis, A. S. (2009). The engagement process: Examining the evidence from diverse perspectives. *Journal of Behavioral and Applied Management, 10*(3), 396-414. Retrieved from http://www.ibam.com

Heck, R.H., & Hallinger, P. (2010). Testing a longitudinal model of distributed leadership effects on school improvement. *The Leadership Quarterly, 21*, 867–885. doi:10.1016/j.leaqua.2010.07.013

Hofman, R.H., Dijkstra, N.J., & Hofman, W.H.A. (2009). School self-evaluation and student achievement. *School Effectiveness and School Improvement, 20*(1), 47-68. doi:10.1080/09243450802664115

Institute of Education Sciences. (2012). *National assessment of educational progress (NAEP) overview.* Retrieved from http://nces.ed.gov/nationsreportcard/about/

James, F. (2008, September). *An exploration of school improvement theory and practice in secondary schools in Trinidad and Tobago.* Paper presented at the British Educational Research Association Annual Conference, Edinburgh, Scotland. Retrieved December 12, 2012 from http://www.leeds.ac.uk/educol/BEID.html

Janesick, V.J. (2011). *Stretching exercises for qualitative researchers* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Jensen, B., Hunter, A., Sonnemann, J., & Burns, T. (2012). *Catching up: Learning from the best school systems in East Asia.* Melbourne, Australia: Grattan Institute.

Jimmieson, N., & White, K. (2010). Predicting employee intentions to support organizational change: An examination of identification processes during a re-brand. *British Journal of Social Psychology, 50*(2), 331-341. doi:10.1111/j.2044-8309.2010.02005.x

Katz, S., & Earl, L. (2010). Learning and networked learning communities. *School Effectiveness and School Improvement 21*(1), 27-51. doi:10.1080/09243450903569718

Korach, S. (2012). You are the curriculum: Participant identification of experience and practice with impact. *Planning & Changing, 43*(1/2), 149-160. Retrieved from http://planningandchanging.illinoisstate.edu/

Kyriakides, L. (2008). Testing the validity of the comprehensive model of educational effectiveness: A step towards the development of a dynamic model of

effectiveness. *School Effectiveness & School Improvement, 19*(4), 429-446. doi:10.1080/09243450802535208

Kyriakides, L., & Creemers, B. (2008a). Using a multidimensional approach to measure the impact of classroom-level factors upon student achievement: A study testing the validity of the dynamic model. *School Effectiveness & School Improvement, 19*(2), 183-205. doi:10.1080/09243450802047873

Kyriakides, L., & Creemers, B. (2008b). A longitudinal study on the stability over time of school and teacher effects on student outcomes. *Oxford Review Of Education, 34*(5), 521-545. doi:10.1080/03054980701782064

Kyriakides, L., & Creemers, B. (2009). The effects of teacher factors on different outcomes: Two studies testing the validity of the dynamic model. *Effective Education, 1*(1), 61-85. doi:10.1080/19415530903043680

Kyriakides, L., & Creemers, B. (2010). Explaining stability and changes in school effectiveness by looking at changes in the functioning of school factors. *School Effectiveness & School Improvement, 21*(4), 409-427. doi:10.1080/09243453.2010.512795

Kyriakides, L., Creemers, B., & Antoniou, P. (2009). Teacher behavior and student outcomes: Suggestions for research on teacher training and professional development. *Teaching and Teacher Education*, 25, 12-23. doi:10.1016/j.tate.2008.06.001

Kyriakides, L., Creemers, B., Antoniou, P., & Demetriou, D. (2010). A synthesis of studies searching for school factors: Implications for theory and research. *British Educational Research Journal, 36*(5), 807-830. doi:10.1080/01411920903165603

Langley, G.J., Moen, R.D., Nolan, K.M., Nolan, T.W., Norman, C.L., & Provost, L.P. (2009). *The improvement guide: A practical approach to enhancing organizational performance.* San Francisco, CA: Jossey-Bass.

Lima, J.A., (2007). Teachers' professional development in departmentalized, loosely coupled organizations: Lessons for school improvement from a case study of two curriculum departments. *School Effectiveness and School Improvement, 18*(3), 273-301. doi:10.1080/09243450701434156

Lima, J.A. (2008). Department networks and distributed leadership in schools. *School Leadership and Management, 28*(2), 159-187. doi:10.1080/13632430801969864

Lipponen, J., & Wisse, B. (2011). Shared perceptions of perceived justice as a predictor of externally rated departmental level academic performance. *Journal of Occupational and Organizational Psychology*, *83*(4), 1065-1074. doi:10.1348/096317909X479727

Lomos, C., Hofman, R.H., & Bosker, R.J. (2011). Professional communities and student achievement: A meta-analysis. *School Effectiveness and School Improvement, 22*(2), 121-148. doi:10.1080/09243453.2010.550467

Luginbuhl, R., Webbink, D., & De Wolf, I. (2007). Measuring the effect of school inspections on primary school performance: A study based on Cito test scores.

Educational Evaluation and Policy Analysis, 31(3), 221-237. doi:10.3102/0162373709338315

Merriam, S.B. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

Miller, P.M., Brown, T., & Hopson, R. (2011). Centering love, hope, and trust in the community: Transformative urban leadership informed by Paulo Freire. *Urban Education, 46*(5), 1078-1099. doi:10.1177/0042085910395951

Muhammad, A. (2009). *Transforming school culture: How to overcome staff division.* Bloomington, IN: Solution Tree Press.

Muijs, D., West, M., & Ainscow, M. (2010). Why network? Theoretical perspectives on networking. *School Effectiveness and School Improvement, 21*(1), 5-26. doi:10.1080/09243450903569692

Nel, L.J. (2009). *Shared values and organizational culture a source for competitive advantage: A comparison between Middle East, Africa and South Africa using the Competing Values Framework.* Pretoria, South Africa: University of Pretoria, Gordon Institute of Business Science (GIBS).

Ontario Ministry of Education. (2011). *Ontario focused intervention partnership (OFIP).* Retrieved from http://www.edu.gov.on.ca/eng/literacynumeracy/effectiveness.html

Ontario Ministry of Education. (2010). *School effectiveness framework: A support for school improvement and student success.* Retrieved from http://www.edu.gov.on.ca/eng/literacynumeracy/Framework_english.pdf

Onwuegbuzie, A., & Leech, N. L. (2007). Sampling designs in qualitative research: Making the sampling process more public. *The Qualitative Report, 12*(2), 238-254. Retrieved from http://www.nova.edu/ssss/QR/QR12-2/onwuegbuzie1.pdf

Opdenakker, M.C., & VanDamme, J. (2005). Do school context, student composition and school leadership affect school practice and outcomes in secondary education? *British Educational Research Journal, 33*(2), 179-206. doi:10.1080/01411920701208233

Organization for Economic Cooperation and Development. (2009). *Creating effective teaching and learning environments: First results from TALIS* [Teaching and Learning International Survey]. Retrieved from http://www.oecd.org/dataoecd/17/51/43023606.pdf

Organization for Economic Cooperation and Development. (2011). *Strong performers and successful reformers in education: Lessons from PISA for the United States.* Paris, France: OECD Publishing. doi:10.1787/9789264096660-en

Ozdemir, M. (2011). Opinions of high school administrators on teachers' organizational dissent behaviors. *Educational Sciences: Theory and Practice, 11*(4), 1905-1908. Retrieved from http://www.edam.com.tr/kuyeb/en/default.asp?act=detay&ID=55

Padma, R. N., & Nair, V. (2009). Organizational culture and its impact on organizational commitment in public and private organizations. *Global Management Review, 4*(1), 32-39. Retrieved from http://www.sonamgmt.org/gmr.html

Partnership for 21st Century Skills. (2012). *Principles and recommendations for 21st century readiness for every child: A guide to the reauthorization of the Elementary and Secondary Education Act.* Retrieved from http://www.p21.org/storage/documents/Principles%20and%20Recommendations%20for%2021st%20Century%20Readiness_ESEA%20Reauthorization_100326.pdf

Perez-Johnson, I., Walters, K., & Puma, M. (2011). *Evaluating AFFA programs and other educational reforms: A guide for states.* Washington, DC: The American Institutes for Research.

Ray, J. L., Baker, L. T., & Plowman, D. (2011). Organizational mindfulness in business schools. *Academy of Management Learning & Education, 10*(2), 188-203. doi:10.5465/AMLE.2011.62798929

Riketta, M., & Nienaber, S. (2007). Multiple identities and work motivation: the role of perceived compatibility between nested organizational units. *British Journal of Management,* 1861-1877. doi:10.1111/j.1467-8551.2007.00526.x

Sammons, P., Mujtaba, T., Earl, L., & Gu, Q. (2007). Participation in network learning community programmes and standards of pupil achievement: Does it make a difference? *School Leadership & Management, 27*(3), 213-238. doi:10.1080/13632430701379412

Sarason, S. (1996). *Revisiting the culture of the school and the problem of change.* New York, NY: Teachers College Press.

Schein, E. (2010). *Organizational culture and leadership.* (4th ed.). San Francisco, CA: Jossey-Bass.

Shapiro, D. L. (2010). Relational identity theory: A systematic approach for transforming the emotional dimension of conflict. *American Psychologist, 65*(7), 634-645. doi:10.1037/a0020004

Singapore Ministry of Education. (2009). *Desired outcomes of education.* Retrieved from http://www.moe.gov.sg/education/files/desired-outcomes-of-education.pdf

Stoll, L., & Fink, D. (1998). The cruising school: The unidentified ineffective school. In L. Stoll & K. Meyers (Eds.), *No Quick Fixes* (pp. 189-206). London: Falmer Press.

Stringer, P.M. (2009). Capacity building for school improvement: A case study of a New Zealand primary school. *Educational Research Policy and Practice, 8*, 153–179. doi:10.1007/s10671-009-9073-6

Sun, H., (2003). *National contexts and effective school improvement: An exploratory study in eight European countries.* Groningen, The Netherlands: Groningen Institute for Educational Research (GION).

United States Department of Education. (2008). *The nation's report card: Trends in academic progress.* Washington DC: National Center for Education Statistics.

United States Department of Education. (2011). *Elementary and Secondary Education Act (ESEA) Flexibility.* Washington, DC: US GPO.

Valli, L., Croninger, R.G, & Walters, K. (2007). Who (else) is the teacher? Cautionary notes on teacher accountability systems. *American Journal of Education, 113*, 635-662. Retrieved from http://www.press.uchicago.edu/ucp/journals/journal/aje.html

Van Houtte, M., & Van Maele, D. (2011). The black box revelation: In search of conceptual clarity regarding climate and culture in school effectiveness research. *Oxford Review of Education, 37*(4), 505-524. doi:10.1080/03054985.2011.595552

Vaughn, C. (2012, June 27). *Panetta says educating military children a national security issue.* Retrieved from http://www.stripes.com/news/army/panetta-says-educating-military-children-a-national-security-issue-1.181514

Wagner, T. (2012). *Creating innovators: The making of young people who will change the world.* New York, NY: Scribner.

Walden University. (2012). *Commitment to social change.* Retrieved from http://www.waldenu.edu/News-and-Events/35187.htm

Weick, K.E. (1976). Educational organizations as loosely coupled systems. *Administrative Science Quarterly, 21*(1), 1-19. Retrieved from http://www.jstor.org/

Weick, K. E. (2009). *Making sense of the organization: The imperament organization.* West Sussex, England: Wiley & Sons.

Weiss, R.S. (1994). *Learning from strangers: The art and method of qualitative interview studies.* New York, NY: The Free Press.

Whalan, F. (2012). *Redefining what falls between the cracks for school reform.* Rotterdam, The Netherlands: Sense.

Wikeley, F., Stoll, L., Murillo, J. & De Jong, R. (2005). Evaluating effective school improvement: case studies of programmes in eight European countries and their

contribution to the effective school improvement model. *School Effectiveness and School Improvement, 16*(4), p. 387-405. doi:10.1080/09243450500234617

Wolcott, H.F. (2003). *Teachers versus technocrats.* (updated ed.) Walnut Creek, CA: AltaMira Press.

Appendix A: Networked Learning Community

A Networked Learning Community (NLC) is the project recommended from this research. This NLC is a networked professional learning community professional development program designed to positively impact the important context-level factors, school-level factors, and teacher-level factors that have been shown to be strongly correlated with increased student achievement. The purpose of the NLC is to improve the mediocre or stagnant student achievement in schools that serve the children of United States armed service members. Building teacher capacity for long term improvement is an important teacher-level factor that will be a goal of the NLC, cultivating collective responsibility amongst all stakeholder groups is an important school-level factor that will be a goal of the NLC, and empowering innovation is an important school-level factor that will be a goal of the NLC. These factors also compare with the research-based Fourth Way practices used by the highest performing school systems in the world (Hargreaves & Shirley, 2012). These factors, or Fourth Way practices, have all been shown to improve organizational culture (Cameron & Quinn, 2011), an important context-level factor that will also be a goal of the NLC. The target audience of this NLC is all educators and schools throughout the case study school's system.

Implementation Plan

The following five learning outcomes, which will be the learning outcomes for this NLC, have been found to enable successful networked learning communities because they are strongly correlated with changes in educators' thinking as well as improved student learning outcomes (Katz & Earl, 2010):

- Learning Outcome 1: The NLC will engage formal school leaders with other participants across the network thus providing opportunities for formal leaders to demonstrate their commitment to lifelong learning and enhance organizational mindfulness.
- Learning Outcome 2: The NLC will provide opportunities to distribute leadership across the network. The work of the NLC will be driven by the needs and goals of its participants thus fostering collective responsibility.
- Learning Outcome 3: The NLC will increase communication, increase the sharing of knowledge and ideas across the network, and increase collaboration amongst participants thus enabling risk-taking and empowering innovation.
- Learning Outcome 4: The NLC will provide safe opportunities for open discussions about differing views as well as opportunities for collective struggle thus improving relationships across the network. The trust developed through the NLC will build capacity for continuous improvement.
- Learning Outcome 5: The NLC will increase network participants' systematic analysis of their school improvement efforts and stimulate professional reflective practice. Participants will study research literature pertaining to their problems or challenges, consider diverse perspectives and potential solutions, apply their joint-learning to specific problems or challenges in their unique professional settings, and share their experiences openly. The potential solutions developed in the NLC will be adapted and implemented in various contexts.

As soon as this project study is approved by the researcher's doctoral committee and university, this NLC proposal will be submitted to the superintendent of the case study school's district and to the director of research for the case study school's system. The researcher will request permission to solicit participants from across the district and/or across the system to begin implementation at the beginning of the next school term. If permission for district-wide and/or system-wide implementation is not granted or is delayed, the researcher will implement a NLC at her own school at the beginning of the earliest possible school term. The NLC will be presented as a 2-credit graduate online course opportunity to take place over a period of nine weeks with participants completing approximately three hours a week of course work using BlackBoard, the system's existing online communication portal. The researcher will work through the University of San Diego and The University of Maryland to provide graduate credit because the case study school's system has an existing agreement with these two universities and the researcher has offered numerous other courses through these universities in the past. The activities for each of the nine weeks can be found below.

Activities

Week 1: This week you will engage in introductory activities.

Discussion 1: Post your response in this discussion area by Wednesday. By the end of the week, reply to at least three of your NLC colleagues' responses by telling a related story or sharing openly about your differing views/opinions/values.

Introduce yourself and your role in the organization. Share your reason for participating in the NLC. Discuss your specific interest in at least two of the five learning

outcomes of this NLC. (See *NLC Learning Outcomes* document found in the information link of this course.)

Discussion 2: Post your response in this discussion area by the end of the week.

This NLC will work on innovative ways to improve the outcomes of the school improvement process. Since the process is complex, you will begin by focusing on one of the five required accreditation standards. The five standards are:

Standard 1: Purpose and Direction

The school maintains and communicates a purpose and direction that commit to high expectations for learning as well as shared values and beliefs about teaching and learning.

Standard 2: Governance and Leadership

The school operates under governance and leadership that promote and support student performance and school effectiveness.

Standard 3: Teaching and Assessing for Learning

The school's curriculum, instructional design, and assessment practices guide and ensure teacher effectiveness and student learning.

Standard 4: Resources and Support Systems

The school has resources and provides services that support its purpose and direction to ensure success for all students.

Standard 5: Using Results for Continuous Improvement

> The school implements a comprehensive assessment system that generates a range of data about student learning and school effectiveness and uses the results to guide continuous improvement. (AdvancED, 2011)

Which of the five standards would you like to focus on? Indicate your first choice and why. Then, indicate your second choice and why.

Week 2: This week you will engage in two relationship-building activities.

Discussion 1: Post your response in this discussion area by Wednesday. By the end of the week, read over all participants' responses and reply as desired.

Possibility Thinking is an acknowledgment that both worst and best outcomes are present and inherent in each situation (Korach, 2012). Expressing the worst possible outcomes of a situation allows the fears to be assessed. The reason that one negative individual can prevent an entire group from moving ahead on a decision is because expressing her worst fears triggers worst fears in all of us. Expressing the best possible outcomes requires that we think ahead and be proactive. In order to move ahead, we must be reactive, then proactive (Korach, 2012). Reflect on the following two questions and share:

What is the worst possible outcome of this NLC experience?

What are the best possible outcomes of this NLC experience?

Discussion 2: Post your response in this discussion area by Wednesday. By the end of the week, reply to at least three of your NLC colleagues' responses by telling a related story, asking questions, or sharing openly about your differing views/opinions/values.

When everyone in a group is not participating there is a loss of communication. Also, there is a loss of commitment on the part of those not participating to carry out any decision made. Therefore, full participation by all is vital to the success of this NLC. Below are some possible reasons why people do not fully participate in an opportunity to solve problems or make potentially positive changes:

THEY ALREADY KNOW IT ALL: Why speak, when they--the powers that be--already appear to know it all? I know their information is incomplete, but if I add my two bits they will just challenge me. It is not worth it.

THEY WILL SHOUT ME DOWN: I know, as soon as I speak, and before I finish my point, they will interrupt, and try to discount what I am saying. Then I am trapped into trying to answer them, and they won't let me.

THEY WON'T LET ME IN: What's the use? They won't let me talk anyway.

I AM AFRAID OF THE CONFLICT: Look, I have enough conflict in my life without adding more. I am afraid of conflict, always have been, I don't want the feelings and emotions that are attached to it. If they want a deliberative discussion, I will participate, but that is not what they want.

I AM DISGUSTED BY THEIR BEHAVIOR: I mean, look at them acting like kids, or animals even. I just don't want to be a part of it.

I WILL BE EMBARRASSED: If I say something, I will be embarrassed by them in front of the boss and my friends. The risk is just too great. My boss likes me, let's leave it that way.

NOTHING WILL COME OF IT ANYWAY: This will go on until they make a decision that no one is committed to anyway. We will all just go on and do our own thing. (Langley et. al., 2009, p.102)

Share at least one time you have personally used one of these reasons to not fully participate in an opportunity to solve problems or make potentially positive changes. Tell your story with as much detail as possible including when this happened, what you did, and how you felt about it.

Week 3: This week you will engage in an *Open Frame Activity*.

Discussion: Your responses to the four prompts must be posted in this discussion area by Wednesday. Then, by the end of the week, reply to at least three of your NLC colleagues by stating something positive about their ideas and/or actions, telling a related story, and/or sharing openly about your differing views/opinions/values.

The Open Frame Activity will encourage authentic issues to emerge that will potentially become the focus for the NLC's continued work. You will share struggles and/or triumphs that you have experienced. Along with these replays of action you will have an opportunity to consider multiple perspectives. Activities that critically examine actions and challenge existing values and assumptions, like this activity, prepare adaptive educators capable of implementing and sustaining second order change (Korach, 2012).

1. Share something you have dealt with regarding _____ (the standard chosen by the majority of participants during the first week). Tell the story with as much detail as possible including when it happened, what you did, and how you felt about it.

2. What was the basis of your decision(s) to do what you did? What criteria did you consider when choosing your approach?
3. Consider the alignment between your espoused criteria and your actual actions. Does what you chose to do match up with why you believe you chose to do it? Or, did other factors impact your decision too such as time, effort, affection for "x", dislike of "y", intuition, etc? Reflect and share.
4. Weigh the consequences of your decision(s) and share. Be sure to state something positive.

Week 4: This week you will create an *Affinity Diagram*.

Discussion: Your brainstormed list must be posted in this discussion area by Wednesday. Your diagram must be posted in this discussion area by the end of the week.

This activity will help the NLC develop school-improvement related targets to begin working on. Affinity Diagrams allow a team to imaginatively generate a large number of issues/ideas and then organize and summarize natural groupings among them to understand the essence of a problem and the potential breakthrough solutions (Langley et. al., 2009).

What are the issues involved in _____? (One overall problem will be chosen based on participants' responses during the first few weeks.)

1. Brainstorm 10 issues or ideas. Write out the issues/ideas using one noun and one verb, at minimum (four to seven words works well when describing an issue/idea). Separate each issue/idea with a blank line so it is easy to read and understand.

2. Read over all of the issues/ideas generated by the NLC participants. Compile (joining any items you believe are redundant) and sort the issues/ideas into 5-10 related groupings. It is OK for some groupings to include more items than others or for some items to stand alone. For each grouping, compose a header that captures the central theme of the grouping. Draw and write neatly or use concept mapping software or text boxes and line tools to create your Affinity Diagram placing the headers at the top of their respective grouping. (See sample Affinity Diagram)
3. Examine all of the brainstormed lists and diagrams noting similarities and differences.

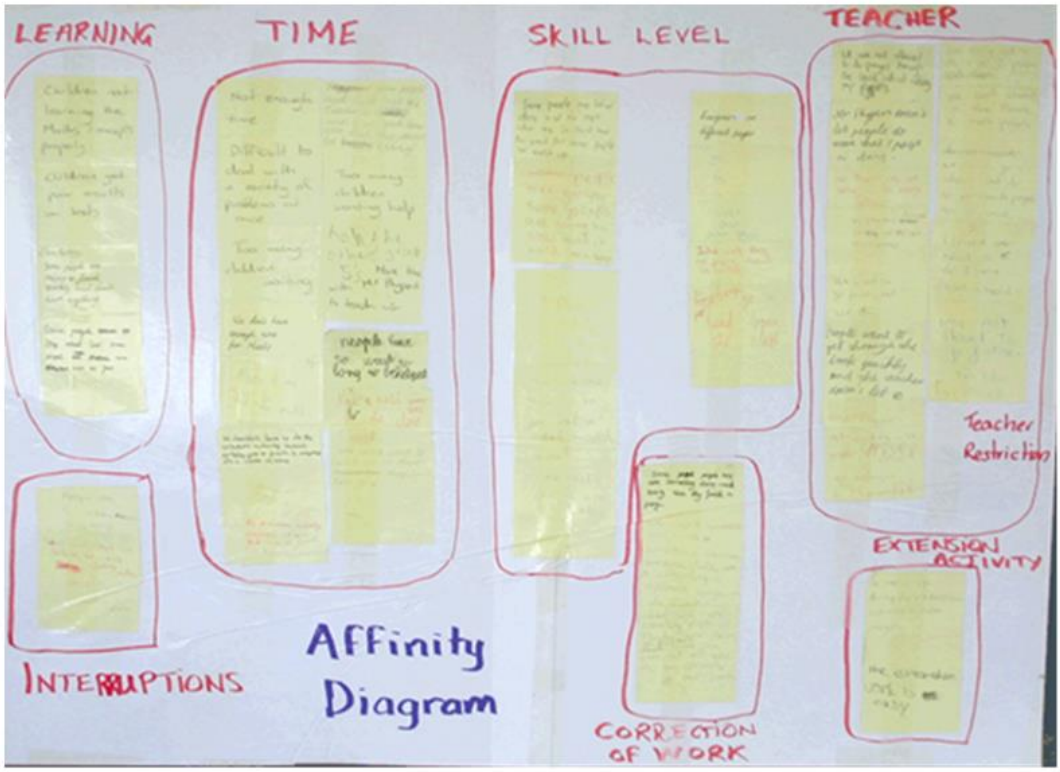

Figure A1. Sample affinity diagram.

Week 5: This week you will create a *Cause & Effect Fishbone Diagram.*

Discussion: Your diagram must be posted in this discussion area by Wednesday. By the end of the week, reply to at least three of your NLC colleagues by suggesting alternatives, questioning, or sharing openly about your differing views/opinions/values.

This activity will help the NLC identify the causes related to a school improvement issue. Cause & Effect Fishbone Diagrams enable a team to accumulate their collective knowledge around a problem and focus on causes rather than symptoms or the history of the problem (Langley et. al., 2009). You will be assigned one of the groupings from the Affinity Diagrams developed last week. Compose a concise sentence that combines your assigned grouping's central idea as expressed in the header with all of the specific ideas found under the header. This will be the problem statement for the Fishbone Diagram and will be written in the box on the right hand side. (See Fishbone Diagram template on next page.)

1. Brainstorm causes of the problem.
2. Categorize the brainstormed causes and write one major category on each *bone* of the diagram. Some causes may legitimately belong in two categories so place them on both bones.
3. After filling in each bone, ask repeatedly for each cause, "Why does this happen?" For each cause, push for deeper understanding of its root cause. Use common sense about when to stop probing for root causes.
4. Draw and write neatly or use concept mapping software or text boxes and line tools to create your Fishbone Diagram.

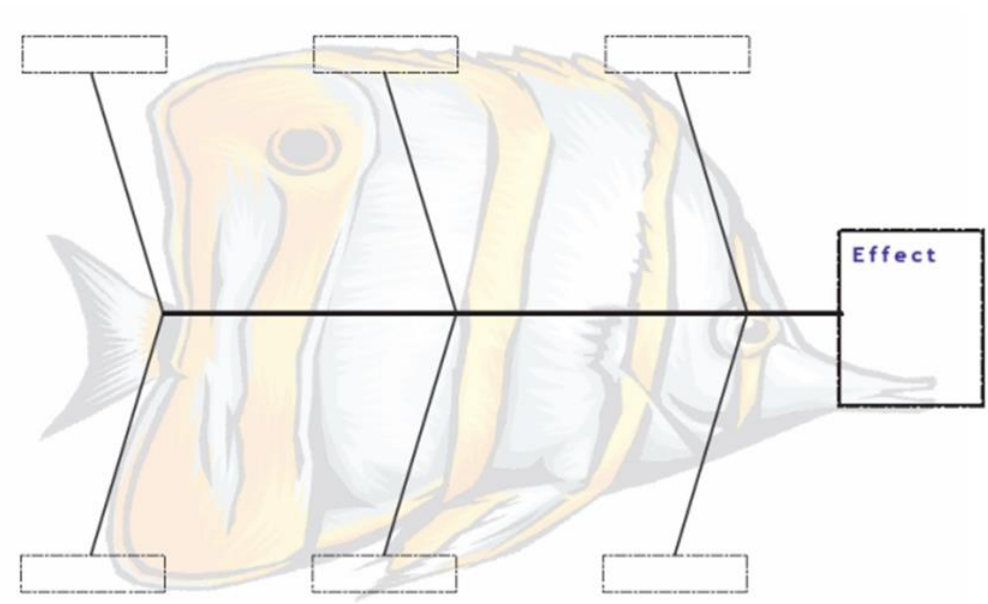

Figure A2. Sample cause & effect fishbone diagram.

5. Examine all of the participants' Fishbone Diagrams. Reflect on their contents and considering alternatives.

Week 6: This week you will begin a *Plan-Do-Study-Act Protocol*.

Discussion: Your answers must be posted in this discussion area by Wednesday. By the end of the week, you must reply to your partner(s).

The Plan-Do-Study-Act (PDSA) protocol helps a team "understand what works when, for whom and in which contexts" (Bryk et al., 2011, p. 25). Rather than endlessly planning, the PDSA protocol "embraces a spirit of rapid prototyping" (Bryk et al., 2011, p. 29). It will take three weeks to finish working through all of the steps of the PDSA protocol. This week you will start to figure out what potential solution to try. Within two weeks you will try a potential solution and share details about your attempt as well as the

adaptations you employed and your local constraints. This transparent sharing will document differences and build knowledge about how solutions might be made to work under varied circumstances. Based on your input from the Open Frame Activity you will be assigned a Fishbone Diagram which you will use as a starting point for completing the PDSA protocol. At least one other person will be assigned as your partner.

1. Consider your assigned Fishbone Diagram. Refer back to the Affinity Diagrams if needed. Compose answers to the following questions:

   How do you understand the problem, including the issue(s) in which it is embedded?

   What should you try to accomplish? What should be the target(s) for your improvement efforts?

   What changes might you introduce toward these ends? Why do you think these changes will work?

   How will you know if these changes result in improvement?

2. Examine your partner(s)' answers. By the end of the week, reply to your partner(s) by suggesting alternatives, questioning, weighing the possible consequences of the proposed changes, or sharing openly about your differing views/opinions/values.

Week 7: This week you will continue the Plan-Do-Study-Act Protocol you began last week.

Discussion: Your research summary including a citation must be posted in this discussion area by Wednesday. By the end of the week, read over your colleagues' summaries and reply as desired.

1. Do research to identify at least one potential solution to your problem from the research literature. Summarize what you learned from your research.
2. Reexamine your initial ideas from last week's discussion. Refine your hypothesized plan based on your research. Also, consider your colleagues' research findings and feedback as you further develop a hypothesized solution.

Week 8: This week you will complete the Plan-Do-Study-Act Protocol.

Discussion: Your response must be posted in this discussion area by Wednesday. By the end of the week, reply to your partner(s) by providing positive feedback, suggesting alternatives to try next time, questioning, telling related stories, or sharing openly about your differing views/opinions/values.

1. Try your hypothesized solution to the problem (or imagine trying the hypothesized solution if you are not able to actually carry out the action).
2. Share details about your attempted solution (or imagined attempt if you were unable to take action) including what you did, when you did it, for whom, and describe all relevant contexts. Share the adaptations to your hypothesized solution that you employed and why you made those adaptations. Share constraints you had to work within.
3. Examine your partner(s)' responses and consider similarities and differences.

Week 9: This week you will reflect on the work you have done in this course.

Discussion: Your response must be posted in this discussion area by Wednesday. By the end of the week, reply to your partner(s) by providing positive feedback, questioning, or sharing openly about your differing views/opinions/values.

1. Why did you think your hypothesized solution would work? (FYI--This suggests a theory.) What theory was your improvement change idea/plan based on? What research was your improvement change idea/plan based on?
2. "All improvement requires change but not all change will result in improvement. So, how do we balance the need to do something with the desire to be sure we know what we are doing before we take action?" (Langley et. al, 2009, p. 43). Reflect on this statement and share.
3. Discuss your thoughts and feelings regarding at least two of the activities you completed during the work of this NLC. (I.e. Possibility Thinking, Open Frame Activity, Affinity Diagram, Fishbone Diagram, Plan-Do-Study-Act Protocol, the use of storytelling, the use of Appreciate Inquiry techniques such as providing positive feedback). How might you use these activities in your future work to foster improvement?

Evaluation Plan

As potential solutions are attempted through the NLC activities, details about implementation, adaptations employed, and local constraints will be recorded. The success of the primary NLC outcome, Learning Outcome 5 above, will be evaluated based on how well this record of school improvement efforts documents implementation differences, builds knowledge about how solutions might be made to work under varied

circumstances, and facilitates more effective planning of the next steps of continuous improvement. The success of Learning Outcomes 1 and 2 will be evaluated based on a count of the number of formal school leaders and other organizational members who participate in the NLC. The success of Learning Outcomes 3 and 4 will be evaluated based on an analysis of the NLC participants' responses to a brief post-course survey (see below) intended to find out the NLC's impact on communication, collaboration, innovation, collective responsibility, and capacity to improve. Since the overall goal of the NLC is to increase student achievement to solve the problem of moderate or stagnant student achievement which was the reason for this study, standardized student achievement scores, published publically online, will be analyzed to determine if they are trending upward during the three to five year time period following initial implementation of this NLC project.

Post-Course Survey

What impact did this NLC have on communication?

What impact did this NLC have on collaboration?

What impact did this NLC have on innovation?

What impact did this NLC have on collective responsibility?

What impact did this NLC have on building capacity for improvement?

Appendix B: Trend Data

2009-2011 Standardized Test Data for 13 Schools in the Case Study School's District Green highlighting indicates that scores went up and red highlighting indicates that scores went down or stayed the same.						
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
		Percentile				
School 1	3	88th	85th	70th	77th	90th
2010	3	72th	70th	89th	81th	85th
2009	3	76th	69th	75th	89th	80th
2011	4	78th	85th	88th	64th	78th
2010	4	65th	67th	63th	59th	60th
2009	4	69th	79th	69th	78th	80th
2011	5	77th	74th	77th	76th	76th
2010	5	82th	77th	73th	82th	77th
2009	5	58th	50th	58th	64th	71th
2011	6	82th	88th	80th	78th	89th
2010	6	67th	72th	73th	71th	66th
2009	6	77th	72th	70th	73th	75th
2011	7	75th	77th	80th	77th	78th
2010	7	80th	82th	86th	83th	78th
2009	7	76th	86th	88th	81th	89th
2011	8	81th	84th	82th	87th	77th
2010	8	81th	86th	81th	86th	82th
2009	8	76 h	77th	76th	70th	73th

2011	9	91th	92th	87th	86th	87th
2010	9	81th	73th	86th	77th	82th
2009	9	85th	75th	87th	69th	79th
2011	10	90th	94th	87th	86th	94th
2010	10	87th	85th	90th	82th	89th
2009	10	85th	83th	89th	83th	88th
2011	11	86th	83th	84th	89th	91th
2010	11	86th	79th	91th	88th	85th
2009	11	85th	79th	79th	74th	81th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 2	3	72th	66th	62th	70th	74th
2010	3	63th	60th	61th	72th	75th
2009	3	61th	65th	59th	74th	79th
2011	4	61th	68th	59th	60th	65th
2010	4	61th	63th	62th	61th	70th
2009	4	48th	61th	43th	59th	61th
2011	5	64th	65th	66th	75th	66th
2010	5	59th	68th	54th	62th	62th
2009	5	62th	65th	57th	65th	65th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 3	6	71th	68th	58th	67th	66th
2010	6	68th	71th	57th	68th	72th
2009	6	72th	73th	63th	71th	76th
2011	7	67th	68th	69th	68th	71th

2010	7	69th	67th	68th	66th	75th
2009	7	67th	66th	63th	61th	71th
2011	8	62th	72th	62th	74th	76th
2010	8	69th	70th	66th	75th	74th
2009	8	72th	75th	76th	77th	75th
2011	9	76th	75th	71th	68th	71th
2010	9	79th	76th	78th	74th	75th
2009	9	84th	80th	76th	76th	74th
2011	10	78th	76th	76th	71th	79th
2010	10	84th	81th	76th	71th	80th
2009	10	77th	71th	67th	70th	74th
2011	11	80th	74th	68th	71th	77th
2010	11	70th	65th	63th	65th	73th
2009	11	78th	71th	66th	71th	72th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 4	3	63th	79th	60th	73th	69th
2010	3	68th	74th	60th	60th	61th
2009	3	56th	67th	62th	76th	74th
2011	4	55th	58th	52th	50th	56th
2010	4	61th	63th	58th	61th	71th
2009	4	49th	56th	58th	58th	55th
2011	5	66th	74th	65th	60th	65th
2010	5	58th	58th	58th	51th	56th
2009	5	70th	69th	68th	76th	73th

2011	6	68th	70th	62th	62th	62th
2010	6	80th	88th	70th	80th	81th
2009	6	68th	72th	69th	70th	78th
2011	7	67th	77th	73th	65th	68th
2010	7	78th	74th	68th	74th	78th
2009	7	70th	75th	69th	65th	68th
2011	8	73th	79th	75th	78th	76th
2010	8	71th	80th	68th	78th	73th
2009	8	61th	78th	70th	70th	78th
2011	9	79th	73th	70th	73th	79th
2010	9	76th	73th	64th	80th	69th
2009	9	72th	73th	64th	66th	67th
2011	10	78th	71th	80th	73th	81th
2010	10	74th	77th	70th	67th	77th
2009	10	73th	76th	68th	64th	70th
2011	11	80th	65th	66th	75th	78th
2010	11	87th	71th	74th	78th	78th
2009	11	71th	87th	67th	68th	66th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 5	3	74th	64th	69th	77th	75th
2010	3	63th	70th	57th	68th	80th
2009	3	60th	53th	38th	67th	75th
2011	4	54th	49th	46th	47th	54th
2010	4	57th	67th	60th	58th	67th
2009	4	55th	57th	46th	57th	57th

2011	5	60th	66th	57th	63th	67th
2010	5	47th	61th	58th	56th	45th
2009	5	50th	54th	52th	62th	62th
2011	6	59th	65th	63th	55th	66th
2010	6	63th	69th	60th	60th	77th
2009	6	68th	69th	60th	66th	74th
2011	7	68th	69th	74th	68th	71th
2010	7	77th	70th	76th	75th	76th
2009	7	59th	76th	76th	68th	73th
2011	8	72th	81th	80th	79th	82th
2010	8	65th	73th	66th	75th	76th
2009	8	73th	75th	78th	77th	80th
2011	9	85th	76th	71th	82th	74th
2010	9	85th	84th	84th	87th	80th
2009	9	76th	74th	68th	69th	70th
2011	10	84th	76th	84th	74th	78th
2010	10	61th	78th	60th	74th	71th
2009	10	71th	71th	61th	68th	73th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 6	3	69th	70th	67th	73th	80th
2010	3	66th	68th	55th	65th	76th
2009	3	73th	67th	59th	70th	74th
2011	4	59th	65th	60th	62th	67th
2010	4	64th	72th	63th	65th	71th
2009	4	61th	63th	60th	59th	72th

2011	5	67th	72th	73th	77th	73th
2010	5	66th	61th	66th	72th	65th
2009	5	69th	59th	68th	66th	64th
2011	6	71th	71th	65th	71th	72th
2010	6	73th	74th	64th	72th	78th
2009	6	73th	70th	64th	71th	79th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 7	7	70th	72th	66th	71th	72th
2010	7	73th	72th	74th	71th	75th
2009	7	69th	74th	69th	67th	78th
2011	8	74th	79th	75th	77th	76th
2010	8	75th	80th	75th	80th	76th
2009	8	67th	70th	69th	68th	70th
2011	9	79th	80th	73th	70th	79th
2010	9	81th	75th	73th	77th	77th
2009	9	75th	74th	74th	71th	72th
2011	10	76th	78th	66th	72th	81th
2010	10	81th	78th	71th	72th	81th
2009	10	83th	81th	75th	81th	84th
2011	11	79th	77th	72th	69th	75th
2010	11	82th	79th	76th	71th	77th
2009	11	74th	70th	70th	72th	74th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 8	3	62th	64th	59th	71th	72th

2010	3	64th	66th	69th	66th	83th
2009	3	64th	60th	59th	75th	84th
2011	4	72th	65th	72th	72th	71th
2010	4	54th	62th	56th	71th	76th
2009	4	66th	76th	87th	75th	85th
2011	5	64th	66th	56th	75th	67th
2010	5	69th	65th	67th	73th	70th
2009	5	65th	64th	58th	70th	72th
2011	6	80th	73th	70th	75th	73th
2010	6	74th	68th	70th	72th	81th
2009	6	69th	70th	67th	69th	71th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 9	7	73th	71th	66th	68th	70th
2010	7	75th	77th	69th	73th	76th
2009	7	69th	78th	61th	59th	76th
2011	8	73th	74th	72th	83th	68th
2010	8	67th	74th	66th	66th	70th
2009	8	63th	72th	77th	68th	73th
2011	9	77th	77th	77th	70th	79th
2010	9	74th	63th	66th	64th	64th
2009	9	87th	75th	80th	73th	75th
2011	10	63th	60th	65th	56th	68th
2010	10	87th	79th	77th	76th	80th
2009	10	83th	84th	77th	75th	82th
2011	11	81th	74th	74th	68th	72th

2010	11	77th	67th	78th	74th	77th
2009	11	77th	77th	71th	74th	84th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 10	3	68th	63th	62th	75th	76th
2010	3	59th	61th	60th	65th	70th
2009	3	62th	66th	59th	71th	75th
2011	4	71th	58th	64th	71th	74th
2010	4	62th	62th	64th	58th	71th
2009	4	60th	64th	50th	63th	70th
2011	5	60th	69th	70th	67th	70th
2010	5	66th	69th	57th	65th	76th
2009	5	59th	56th	62th	77th	74th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 11	6	65th	72th	58th	67th	82th
2010	6	68th	73th	54th	68th	78th
2009	6	73th	80th	64th	76th	87th
2011	7	72th	69th	71th	73th	75th
2010	7	75th	72th	60th	72th	81th
2009	7	65th	66th	52th	61th	68th
2011	8	78th	74th	71th	72th	82th
2010	8	71th	75th	61th	78th	77th
2009	8	68th	76th	64th	69th	78th
2011	9	78th	75th	68th	69th	69th
2010	9	73th	78th	69th	72th	72th

2009	9	81th	75th	68th	72th	68th
2011	10	80th	79th	70th	75th	78th
2010	10	71th	71th	55th	67th	75th
2009	10	76th	75th	65th	68th	72th
2011	11	70th	69th	66th	64th	79th
2010	11	80th	67th	61th	66th	69th
2009	11	80th	70th	63th	66th	71th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 12	3	61th	57th	50th	67th	68th
2010	3	57th	48th	48th	62th	64th
2009	3	56th	56th	44th	62th	65th
2011	4	69th	62th	50th	66th	71th
2010	4	58th	61th	46th	64th	64th
2009	4	62th	60th	55th	65th	70th
2011	5	62th	61th	44th	61th	60th
2010	5	66th	60th	62th	64th	64th
2009	5	58th	56th	61th	69th	65th
2011	6	67th	69th	60th	69th	76th
2010	6	76th	71th	61th	73th	74th
2009	6	75th	67th	61th	69th	75th
Year	Grade	Reading	Language Arts	Math	Science	Social Studies
School 13	7	79th	79th	69th	71th	79th
2010	7	73th	71th	68th	71th	76th
2009	7	70th	68th	65th	63th	75th

2011	8	76th	81th	68th	70th	75th
2010	8	69th	77th	64th	70th	75th
2009	8	70th	70th	72th	75th	81th
2011	9	81th	75th	69th	79th	74th
2010	9	82th	81th	83th	79th	82th
2009	9	72th	74th	70th	75th	69th
2011	10	86th	87th	82th	81th	84th
2010	10	74th	68th	69th	59th	71th
2009	10	75th	76th	72th	69th	78th
2011	11	74th	69th	70th	68th	75th
2010	11	78th	65th	67th	65th	76th
2009	11	81th	81th	79th	71th	79th

2011-2009 SAT Scores for the 8 High Schools in the District (DoDEA, 2012)				
High School	**Year**	**Reading/Verbal**	**Math**	**Writing**
School 1	2011	503	486	489
	2010	524	510	506
	2009	494	481	483
School 2	2011	485	461	484
	2010	518	465	498
	2009	508	498	506
School 3	2011	515	514	502
	2010	529	510	513
	2009	541	520	533
School 4	2011	514	496	489
	2010	537	516	514
	2009	485	485	472
School 5	2011	474	444	428
	2010	512	482	520
	2009	556	524	550
School 6	2011	521	517	513
	2010	504	499	493
	2009	490	490	484
School 7	2011	507	495	483
	2010	491	481	475

	2009	501	487	497
School 8	2011	538	584	518
	2010	Too few students to report		
	2009	546	550	541

Appendix C: Interview Guide

Since I will be conducting qualitative semi-structured interviews, this interview guide will be used as a reference tool. It is not a script; it will not be strictly followed. If I am not sure what to ask or if I want to make sure I have covered all important lines of inquiry, I will be able to quickly glance at this guide for suggestions. I designed the guide so it will help me try to get the respondents to provide concrete descriptions of things they have seen, heard, thought, or felt that are related to the nature of school improvement at their school. The wording of the prompts will be appropriately adjusted depending on which stakeholders are being interviewed. The wording below is intended for the teacher focus group interviews.

- What is the primary goals that you are trying to accomplish as a teacher at this school?
- What it is like to try to accomplish this?
- Tell me, how do the most important things get done in your classroom? At this school? In this school system?
- What do you think would improve student learning in your classroom? In this school? In the DoDEA school system?
- What do you think would improve the quality of your teaching?
- Describe the typical culture of this school. Describe the school culture at its best. Describe the school culture at its worst.
- Describe the barriers that you think prevent you from increasing your students' achievement. That prevent the school from increasing student academic achievement.

That prevent the system from increasing student academic achievement. Why do you think this happens?

- Describe what you think the school needs in order to improve student academic achievement. What makes you say that?

Appendix D: Observation Protocol

Date of Observation: _____

Start Time of Observation: _____

Ending Time of Observation: _____

Place of Observation: _____

Observation Jot Notes (taken during observation):

Events Observed--Chronologically Listed	Relevant Counts and Descriptions

Expanded Observation Notes (taken immediately after observation):

Details about observed behaviors and what people said:

Details about what the meeting environment looked like and what the meeting culture felt like:

Other details and/or impressions:

Appendix E: Codes Used for Analysis

Exported from Atlas Ti HU: Redmond Dissertation Data 2013 Updated

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ADMIN_Administrative Stakeholders

Families (1): All Stakeholder Groups
Quotations: 169
Comment:

Stakeholder group made up of the case study school's principal and assistant principal.

ADMIN_Assumptions

Families (1): Competing Assumptions
Quotations: 96
Comment:

Shared assumptions made by the case study school's principal and assistant principal.

ADMIN_Values

Families (1): Competing Values
Quotations: 12
Comment:

Value statements made by the case study school's principal and assistant principal.

ASSUME_CapacityBuilding

Families (1): ASSUME
Quotations: 16
Comment:

An assumption that supporting and building the capacity of teachers improves teaching and learning.

ASSUME_Communication

Families (1): ASSUME
Quotations: 23
Comment:

An assumption that communication is a valuable component of the school improvement process.

ASSUME_Curriculum and Assessment

Families (1): ASSUME
Quotations: 12
Comment:

An assumption that student learning and/or student achievement is improved by curriculum requirements and/or administering summative assessments.

ASSUME_Data Analysis

Families (1): ASSUME
Quotations: 19
Comment:

An assumption that analysis of data is a necessary part of the school improvement process.

ASSUME_DifficultNature

Families (1): ASSUME
Quotations: 64
Comment:

An assumption that carrying out the school improvement process is difficult.

ASSUME_Goals and Interventions

Families (1): ASSUME
Quotations: 9
Comment:

An assumption that the determination of or revision of school goals or intervention strategies has either a positive or negative impact on school improvement.

ASSUME_ImproveMath

Families (1): ASSUME
Quotations: 30
Comment:

An assumption that the intervention selected by the school along with other specific strategies will improve students' math achievement.

ASSUME_ImproveReading

Families (1): ASSUME

Quotations: 35
Comment:

An assumption that the intervention selected by the school along with other specific strategies will improve students' reading comprehension.

ASSUME_Leadership

Families (1): ASSUME
Quotations: 12
Comment:

An assumption that school and system leadership is an important aspect of the school improvement process.

ASSUME_MathProficiencyDemonstrated

Families (1): ASSUME
Quotations: 4
Comment:

An assumption that proficiency in math is demonstrated by the results of a summative assessment.

ASSUME_ParentCommunity Support and Effort

Families (1): ASSUME
Quotations: 28
Comment:

An assumption that input from parents and community members is a valuable component of the school improvement process.

ASSUME_Positive Recognition and Feedback

Families (1): ASSUME
Quotations: 6
Comment:

An assumption that giving teachers and/or students positive recognition and constructive feedback has a positive impact on student achievement.

ASSUME_Professional Learning

Families (1): ASSUME
Quotations: 20
Comment:

An assumption that teachers engaging in collaborative professional learning improves teaching and learning.

ASSUME_QAR

Families (1): ASSUME
Quotations: 14
Comment:

An assumption that participating in a periodic Quality Assurance Review (QAR) external review process as well as completing its related tasks such as updating the school executive summary and data profile has either positive or negative impact.

ASSUME_ReadProficiencyDemonstrated

Families (1): ASSUME
Quotations: 8
Comment:

An assumption that proficiency in reading comprehension is demonstrated by the results of a summative assessment.

ASSUME_Reputation and Public Info

Families (1): ASSUME
Quotations: 4
Comment:

An assumption that the reputation of the school and system and that publically published school achievement data matters.

ASSUME_School Vision

Families (1): ASSUME
Quotations: 7
Comment:

An assumption that the existence of or revision of the school vision or focus has a positive impact on school improvement.

ASSUME_Shared Assumption

Quotations: 307
Comment:

"Unconscious deeply held beliefs held by groups" (Nel, 2009, p. 19).

ASSUME_SSA

Families (1): ASSUME
Quotations: 4
Comment:

An assumption that collaboratively engaging in an annual School Self-Assessment (SSA) as well as completing its related tasks such as updating the school executive summary and data profile has a positive impact.

ASSUME_Student Input and Effort

Families (1): ASSUME
Quotations: 18
Comment:

An assumption that effort from students and input from students are valuable components of the school improvement process.

ASSUME_Teacher Input and Effort

Families (1): ASSUME
Quotations: 37
Comment:

An assumption that effort from teachers and input from teachers are valuable components of the school improvement process.

ASSUME_Technology

Families (1): ASSUME
Quotations: 6
Comment:

An assumption that the use of technology improves teaching and learning.

CFACT_Accountability

Families (1): CFACT
Quotations: 25
Comment:

"Means that staff engage in systematic, continuous improvement and that they measure their success by how well each student progresses" (Ontario Ministry of Education, 2010, p. 3).

CFACT_Capacity Building

Families (1): CFACT
Quotations: 42
Comment:

"Enabling conditions that allow process to affect product. Enabling conditions include staff development, enquiry and reflection on progress, involvement of students in the teaching and learning process, distributed leadership, collaborative planning and coordinated school-wide activity that establishes coherence" (Stringer, 2009, p. 165).

CFACT_Context-Level Factor

Quotations: 157
Comment:

Context-level factors include: model of school improvement, organizational culture, and capacity building and accountability framework (Creemers & Kyriakides, 2010b).

CFACT_Org Culture

Families (1): CFACT
Quotations: 89
Comment:

"Patterns of espoused values and shared assumptions developed over time and producing behavioral norms that are adopted in day to day operations and when solving problems" (Nel, 2009, p. 12).

CFACT_SI Model

Families (1): CFACT
Quotations: 24
Comment:

Includes statements related to the School Self Assessment (SSA), Quality Assurance Review (QAR), or any related tasks, processes, or paperwork.

KEYLEAD_Assumptions

Families (1): Competing Assumptions
Quotations: 18
Comment:

Shared assumptions made by the key community leaders associated with the case study school.

KEYLEAD_Key Community Leader Stakeholders

Families (1): All Stakeholder Groups
Quotations: 40
Comment:

Stakeholder group made up of key community leaders associated with the case study school.

KEYLEAD_Values

Families (1): Competing Values
Quotations: 16
Comment:

Value statements made by the key community leaders associated with the case study school.

PARENT_Assumptions

Families (1): Competing Assumptions
Quotations: 15
Comment:

Shared assumptions made by the case study school's participating parents.

PARENT_Parent Stakeholders

Families (1): All Stakeholder Groups
Quotations: 25
Comment:

Stakeholder group made up of parents of students who attend the case study school.

PARENT_Values

Families (1): Competing Values
Quotations: 8
Comment:

Value statements made by the parents associated with the case study school.

SFACT_Leadership

Families (1): SFACT
Quotations: 18
Comment:

Includes characteristics of school and system leaders as well as duties they are expected to perform.

SFACT_School-Level Factor

Quotations: 92
Comment:

School-level factors include: participative professionally-oriented leadership and opportunities to learn in a positive student learning environment. The three dimensions of school policy related to the student learning environment are student behavior, teacher collaboration, and stakeholder partnerships (Creemers & Kyriakides, 2010a).

SFACT_Stakeholder Partnerships

Families (1): SFACT
Quotations: 18
Comment:

Includes formal and informal relationships/partnerships with students, parents, and community members.

SFACT_Teacher Collaboration

Families (1): SFACT
Quotations: 55
Comment:

Includes any teacher collaboration-related aspects such as logistics of collaborating, time for collaborating, characteristics of collaboration, etc.

TEACH_Assumptions

Families (1): Competing Assumptions
Quotations: 52
Comment:

Shared assumptions made by the case study school's participating teachers.

TEACH_Teacher Stakeholders

Families (1): All Stakeholder Groups
Quotations: 100
Comment:

Stakeholder group made up of teachers at the case study school.

TEACH_Values

Families (1): Competing Values
Quotations: 11
Comment:

Value statements made by the participating teachers in the case study school.

TFACT_Assessment

Families (1): TFACT
Quotations: 13
Comment:

Includes formative, summative, formal, and informal assessments used by the teacher.

TFACT_Teacher Role in Learning Environment

Families (1): TFACT
Quotations: 24
Comment:

Includes classroom structures used by the teacher such as learning centers, instructional design and delivery including planning modifications and differentiated instruction, and teachers' relationships and rapport with students.

TFACT_Teacher/Classroom-Level Factor

Quotations: 44
Comment:

Teacher-level factors include: orientation, structuring, questioning, teaching modeling, application, management of time, teacher role in making classroom a learning environment, and classroom assessment (Kyriakides et al., 2009).

TFACT_TechnologyUse

Families (1): TFACT
Quotations: 4
Comment:

Includes the application of technology tools to enhance teaching and learning.

VAL_CharacterTraits

Families (1): VAL
Quotations: 17
Comment:

An espoused value that character development as well as displays of good character traits are important components of the school improvement process.

VAL_Community

Families (1): VAL

Quotations: 15
Comment:

An espoused value that community ideals are important components of the school improvement process.

VAL_DemonstrateProficiency or Improvement

Families (1): VAL
Quotations: 22
Comment:

An espoused value that the demonstration of academic proficiency is the measure of a successful school improvement process.

VAL_Espoused Value

Quotations: 86
Comment:

Espoused Values-- "Statements about what ought to be in organizations and about what ought not to be in organizations" (Nel, 2009, p. 18).

VAL_Ought Not to Be

Families (1): VAL
Quotations: 14
Comment:

Espoused Values--"Statements about what ought to be in organizations and about ***what ought not to be*** in organizations" (Nel, 2009, p. 18).

VAL_Ought to Be

Families (1): VAL
Quotations: 73
Comment:

Espoused Values--"Statements about ***what ought to be*** in organizations and about what ought not to be in organizations" (Nel, 2009, p. 18).

VAL_Student Centered

Families (1): VAL
Quotations: 19
Comment:

An espoused value that the teachers, school, and system being student-centered is a critical focus of the school improvement process.

VAL_Vision Statement

Families (1): VAL
Quotations: 14
Comment:

An espoused value that having and communicating a vision is an integral aspect of the school improvement process.

Appendix F: List of Primary Documents Analyzed

Identification number assigned by the ATLASti program: Primary document file name

P 1: 12-13 CSI Action Plan.pdf

P 2: 2011 Executive Summary CSI.pdf

P 3: 2012 Communication Survey 1 March.pdf

P 4: CSI Self Assessment 2011.pdf

P 5: Final Required Actions Report 2010-2011.pdf

P 6: School Administrator Stakeholder 1 Interview.rtf

P 7: School Administrator Stakeholder 2 Interview.rtf

P 8: Teacher Interview1.rtf

P 9: Teacher Interview2.rtf

P10: Key Leaders Interview.rtf

P11: Parent Interview.rtf

P12: School Administrator Stakeholder 3 Interview.rtf

P13: Teacher Interview3.rtf

P14: 29 Jan 13 CSI Agenda Task Sheet.rtf

P15: 29 Jan 13 CSI Meeting Notes.rtf

P16: 19 Feb 13 CSI Chair Person Meeting Notes.rtf

Curriculum Vitae
Kimberley Redmond

Professional Webfolio: https://www.teacherweb.com/USA/Portfolio/Redmond/

Education

- Ed.D. Walden University in Educational Leadership
- 80+ Graduate Hours beyond the MA and before the Ed.D.
- MA in Secondary Education
- BA in Business Administration
- Secondary Business, Computer Science, and Mathematics Teaching Certifications from TX, VT, NJ, and DoDEA International

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Professional Writing and Collaborative Work

- Doctoral research dissertation entitled "An Action Plan for Improving Mediocre or Stagnant Student Achievement".
- Wrote several Lego Robolab curriculum guides for Vision Education, New York, NY entitled:
  - "Lego Robotic Rainforest"
  - "Interpretations of Important Inventions"
  - "Representations of Early American History"
- Planned and wrote a New Jersey State Systemic Initiative Grant entitled "Renewing Math and Science Teaching".
- Wrote $60,000 Technology Literacy Challenge Grant for Bass River Township School District
- Planned, wrote and was awarded grant entitled "Problem Solving with Probability: Exploring Information".
- Planned, wrote, and was awarded a Vermont School-to-Work Grant entitled "Writing for the World of Work: Business English Career Study".
- Writer/Instructional Designer for book entitled "Buyer Representation Training Course".
- Co-course Designer and Co-Instructor of **"*Leaders of Learning*"** Video-Tele-Conference (VTC) Networked Learning Community, *DoDEA,* 2012-2013
- Selected as participant in the ***DoDEA Leadership Academy***, 2010-2012
- Member, **AdvancEd Quality Assurance Review (QAR) Team**, 2011
- Course Designer and Instructor of **"*The Art & Science of Teaching*"** BlackBoard Virtual Professional Learning Community (PLC), *DoDEA,* 2010-2011, and 2012-2013

- Course Designer and Instructor of **"*Collaborative Data Team"*** Course , Sigonella Middle High School, *DoDEA*, 2010-2011
- Co-course Designer of ***"Bavaria District Creativity Software"*** BlackBoard Distance Learning (DL) Course Template, *DoDEA,* 2007
- Instructor for various ***"Bavaria District Creativity Software"*** BlackBoard DL Courses, *DoDEA,* 2007-2010
- Elected as the Robinson Barracks Elementary Middle School Faculty Representative Spokesperson (FRS) and Faculty Representative (FR) for the local teachers' union (FEA), 2007-2010
- Chosen for a ***DoDEA School Management System (SMS) Task Force***. This group was tasked with analyzing and upholding DoD legal and regulatory mandates in order to define the purchasing contract requirements and to recommend a new system-wide student data management system.
- Technology Leadership Team Chair Person, 2000-2010
- School Improvement Chair Person, 2000-2006
- School Intranet and Extranet Web Master, 2000-2010
- Curriculum Implementation Facilitator (CIF), *DoDEA,* 2002-2004
- Instructor at annual ***Educators' Days*** throughout the Pacific, *DoDEA,* 2000-2004
- Conference Instructional Designer and Instructor, ***Far East Technology Conference*** in Tokyo, *DoDEA,* 2003, 2004
- Bass River Township Network Administrator, 1998-2010
- Co-presenter at NECC 1999
- Co-presenter at Classroom Connect National Conference 1999
- Harwood Union School District Professional Development Committee, 1996-1998
- Harwood Union School District Curriculum Committee, 1996-1998
- Harwood Union School District Technology Committee, 1996-1998

Career History

Aug. 2010 to present:
Department of Defense Dependents Schools
Acting Principal, Assistant Principal
Aviano Middle High School, Northern Italy (2012 to present)
Sigonella Middle High School, Sicily, Italy (2010-2012)

Aug. 2000 to 2010:
Department of Defense Dependents Schools
Educational Technologist
Robinson Barracks Elementary Middle School, Stuttgart, Germany (2004 to 2010)
M.C. Perry Elementary and High Schools, Iwakuni, Japan (2000 to 2004)

Aug. 98 to July 2000:
Bass River School District, New Gretna, New Jersey
District Technology Coordinator

Aug. 96 to July 98:
Harwood Union High School, Duxbury, Vermont
Business Education and Computer Teacher and Co-Department Head

Jun. 93 to July 96:
Louisiana Collaborative for Excellence in the Preparation of Teachers (LaCEPT), Baton Rouge, Louisiana
Research Assistant

Jan. 91 to Jan 93:
John Tyler High School, Tyler, Texas
Mathematics Teacher