Exploring the Strategic Implementation of Common Core State Standards in Small School Districts of Northern California

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Exploring the Strategic Implementation of Common Core State Standards in Small School Districts of Northern California

A Dissertation by

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Submitted in partial fulfillment of the requirements for the degree Doctor of Education in Organizational Leadership

May, 2016

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ABSTRACT

Exploring the Strategic Implementation of Common Core State Standards in Small School Districts of Northern California

by Michael Gulbransen

This Delphi study involved examining the implementation of Common Core State Standards (CCSS) in small school districts of Northern California. This dissertation presents an overview of CCSS implementation, a review of the literature, statement of the problem, purpose of the study, research questions, significance, and the anticipated methodology for the intended qualitative research design. The review of literature explores the historical context of education in the United States and increasingly focuses on the new national Common Core State Standards and their implementation in small school districts.

The Delphi study uses the participants’ opinions to identify CCSS implementation strategies and related organizational factors that are perceived as necessary for successful implementation in small school districts in northern California. The researcher provides a detailed analysis of the experts’ opinions and offers findings, conclusions, and recommendations for future study.
# TABLE OF CONTENTS

## CHAPTER I: INTRODUCTION

- Background ........................................................................................................ 4
- Statement of the Research Problem ................................................................. 12
- Purpose Statement .......................................................................................... 14
- Research Questions .......................................................................................... 14
- Significance of the Problem ............................................................................. 15
- Definitions ......................................................................................................... 19
- Delimitations ..................................................................................................... 20
- Organization of the Study ............................................................................... 20

## CHAPTER II: REVIEW OF THE LITERATURE

- Introduction ....................................................................................................... 21
- Historical Context of Educational Reform in America .................................... 22
- Introduction of Common Core State Standards .............................................. 26
- Instructional Shifts of CCSS Implementation .................................................. 28
- Implementation Philosophy ............................................................................. 31
- Organizational Factors for Implementation ..................................................... 35
- Perceived Benefits of CCSS ............................................................................ 44
- Perceived Challenges of CCSS ........................................................................ 49
- CCSS in California ............................................................................................ 53
- Implementation Strategies ................................................................................ 58
- Small School Challenges .................................................................................. 62
- Synthesis Matrix ............................................................................................... 65
- Conclusion ........................................................................................................... 66

## CHAPTER III: METHODOLOGY

- Overview ............................................................................................................ 68
- Purpose Statement ............................................................................................ 68
- Research Questions ........................................................................................... 68
- Research Design ................................................................................................ 69
- Population .......................................................................................................... 75
- Sample ................................................................................................................ 80
- Instrumentation .................................................................................................. 83
- Validity ................................................................................................................. 86
- Reliability .............................................................................................................. 88
- Data Collection .................................................................................................. 89
- Data Analysis ..................................................................................................... 91
- Limitations ......................................................................................................... 92
- Conclusion ......................................................................................................... 93
# CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>94</td>
</tr>
<tr>
<td>Purpose Statement</td>
<td>94</td>
</tr>
<tr>
<td>Research Questions</td>
<td>94</td>
</tr>
<tr>
<td>Methodology</td>
<td>95</td>
</tr>
<tr>
<td>Population</td>
<td>97</td>
</tr>
<tr>
<td>Sample</td>
<td>98</td>
</tr>
<tr>
<td>Presentation of the Data</td>
<td>99</td>
</tr>
<tr>
<td>Round One</td>
<td>99</td>
</tr>
<tr>
<td>Round Two</td>
<td>102</td>
</tr>
<tr>
<td>Round Three</td>
<td>106</td>
</tr>
<tr>
<td>Commentary</td>
<td>109</td>
</tr>
<tr>
<td>Summary</td>
<td>114</td>
</tr>
</tbody>
</table>

# CHAPTER V: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>116</td>
</tr>
<tr>
<td>Purpose Statement</td>
<td>117</td>
</tr>
<tr>
<td>Research Questions</td>
<td>117</td>
</tr>
<tr>
<td>Methodology</td>
<td>118</td>
</tr>
<tr>
<td>Population</td>
<td>120</td>
</tr>
<tr>
<td>Sample</td>
<td>121</td>
</tr>
<tr>
<td>Major Findings</td>
<td>122</td>
</tr>
<tr>
<td>Unexpected Findings</td>
<td>129</td>
</tr>
<tr>
<td>Conclusions</td>
<td>130</td>
</tr>
<tr>
<td>Implications for Action</td>
<td>137</td>
</tr>
<tr>
<td>Recommendations for Further Research</td>
<td>142</td>
</tr>
<tr>
<td>Concluding Remarks and Reflections</td>
<td>143</td>
</tr>
</tbody>
</table>

REFERENCES..................................................................146

APPENDICES..................................................................159
LIST OF TABLES

Table 1: Butte County Small School Districts Including Average Daily Attendance......76
Table 2: Glenn County Small School Districts Including Average Daily Attendance.....77
Table 3: Butte County Small School Districts Including Administrators and Teachers..78
Table 4: Glenn County Small School Districts Including Administrators and Teachers..80
Table 5: Delphi Study Schedule.................................................................85
Table 6: Survey One: Most Frequent Implementation Strategy Responses.............100
Table 7: Survey One: Most Frequent Organizational Factors Responses..............101
Table 8: Survey Two: Implementation Strategy Rating Responses......................103
Table 9: Survey Two: Organizational Factor Responses.................................104
Table 10: Survey Three: Implementation Strategy & Organizational Support Factor Rankings.................................................................107
CHAPTER I: INTRODUCTION

Today’s ever-shrinking world is increasingly in need of an educated population. With rapidly changing technology and increased globalization, the schools of America are being challenged to teach students in new, innovative ways. In today’s world, “Competitive and expanding labor markets in countries with strong economies drive the citizenry to seek higher levels of education” (Tienken, 2011, p. 60). Producing citizens who are prepared for a new world and for new ways of doing things is the imperative of all school districts in America.

Creating an innovative, rich curriculum that provides a meaningful, rewarding education for all students is a fundamental component of every school. In an educational system in which states have long been responsible to develop their own curricula, “A common core curriculum of demanding content and high performance standards would be a major departure from the current policy and practice of American education” (McPartland & Schneider, 1996, p. 66). With the implementation of Common Core State Standards (CCSS) in California, schools have been charged to develop students who are college or career ready through demanding content and high performance standards. The CCSS have become the impetus for addressing the needs of students in an ever-shrinking, global world that emphasizes critical thinking skills over information-based curriculums. As Moua (2010) described in Culturally Intelligent Leadership, “Innovation will be a key driver of work force skills, requiring an overhaul of the education system” (p. 4).

The implementation of CCSS to increase student skills is the driving force behind the overhaul of the educational system. Globalization and ever-increasing technology make the process of learning just as important as the content of learning. Accessing
information is easier now than ever before; knowing what to do with the information is the challenge. In Kober and Rentmer’s (2011) view, the drive to develop the standards “grew out of concerns that the current array of different standards in every state is not adequately preparing students in our highly mobile society with the knowledge and skills needed to compete globally” (p. 3). They also stated that “these standards aim to set clear, realistic expectations for learning that are consistent from state to state and will ensure high school graduates are prepared for college and the workforce” (Kober & Rentmer, 2011, p. 3). The imperative for schools to prepare students for today’s global society is now strongly connected to the CCSS in the majority of states that have adopted the standards.

With the California state adoption of the CCSS, small school districts are faced with effectively implementing them in their schools. Without the resources of larger school districts, it is vital for small school leaders to implement these new standards in an efficient, effective manner that allows for teacher efficacy and mastery. Teachers have to evaluate themselves and ask themselves the following questions:

- How do I hope to implement CCSS?
- How will my district support me with implementation?
- What type of professional development do I need to be prepared?
- How will the CCSS prepare students for the future?
- How will my planning and instruction change? (Long, 2013)

Because all but five states have adopted the CCSS, it is imperative there ultimately be a process or “blueprint” for implementing these standards (MetLife Foundation, 2013). To accomplish the intended goals of CCSS of increasing rigor, critical thinking, and
communication skills, schools are faced with an unprecedented opportunity to transform the way students are taught. Because school boards remain responsible for creating and executing a vision for their respective districts, an established blueprint is increasingly necessary for implementing the new standards and for helping students reach them (Common Core State Standards: Myths and Facts, 2013).

In Cristol and Ramsey’s (2014) study, they examined school districts that implemented CCSS early and discovered the following:

1. Teachers and administrators are the primary faces and voices of the Common Core standards in their communities;
2. Implementation works best when district and school leaders lock into the Common Core standards as the linchpin of instruction, professional learning, and accountability in their buildings;
3. In the absence of externally vetted, high quality, Common Core materials, districts are striving—with mixed success—to devise their own;
4. The scramble to deliver quality CCSS-aligned professional development to all who need it is as crucial and (so far) as patchy as the quest for suitable curriculum materials; and
5. The lack of aligned assignments will make effective implementation of the Common Core challenging for another year. (Cristol & Ramsey, 2014)

These findings illustrate the difficulty small school districts are now faced with. Without a plan for implementing CCSS, high-quality CCSS curriculum, CCSS aligned textbooks, or operational CCSS testing, small school districts are challenged to identify the necessary strategies for successful implementation and to establish them immediately.
Background

Since the era of one-room schoolhouses in the twentieth century, teachers have held the burden of delivering curriculum with little guidance (Bellanca, Fogarty, & Pete, 2012). As states began adopting uniform standards and as the federal government enacted the No Child Left Behind legislation, school districts began to focus more on skills that would reflect well on standardized test scores (Bellanca et al., 2012). With the state adoption of CCSS, however, districts are now focusing more on skills that will make students more college and career ready.

Historical Context of Transformational Change in Education

“In this transforming world, educational systems are often charged with the responsibility for bringing about change in the culture. They become, or are intended to become, agents of modernization” (Strouse, 2001, p. 23). Since America’s inception, it has been at the forefront of transformation in education. From the concept of a free education for all to the inclusion of all cultures under one educational umbrella, America has been a world leader in educating its citizens (Strouse, 2001).

This country has gone through a significant amount of transformation in over two centuries. From a mainly agrarian society to an industrialized nation to its current high levels of technological advancement, America has consistently had a very high quality of life, and along with it, a high level of education (Strouse, 2001). Constant transformation to American education has been necessary to keep pace with America’s transformation as a nation. Freire (1985) believed that recognizing this and working towards education transformation is the real transformation of society. As Strouse (2001) stated, “The focus and primary function of education is to prepare children for their roles as workers and
members of the larger society” (p. 47). To prepare children for a constantly transforming society, education should in turn be continually transformational, “The learning process demands an understanding of the deeper meaning of the world” (Freire, 1985, p. 10). Preparing students for a continually transforming world has always included assisting them in developing an understanding of that deeper meaning.

Education has a central role in a continually transforming society. Strouse (2001) explained that education has served two basic needs of society:

1. To be sure that children are prepared in adequate numbers to fill a wide variety of social roles needed for a complex modern society such as ours and to adapt and survive as the world’s and our society’s conditions change, and

2. To be sure that children acquire the attitudes, skills, and values needed to ensure that society can both achieve and maintain enough social solidarity to survive, and that workers and citizens believe in the system and want to remain a part of it (p. 47).

To accomplish this over time, the teaching profession has required “not only rigorous conviction from base educators but also ongoing evaluation of their own work” (Freire, 1985, p. 23). Transformation in education has happened through the idea that teachers are the moral authority and the continual stressing that education is important (Strouse, 2001).

“Transformational education reflects a major challenge facing our nation’s educators in the 21st century. Needed changes in public schools will not happen simply with the passage of time” (Strouse, 2001, p. 291). Educational transformation has been accomplished at the local level through cooperation from all stakeholders, including not
only teachers but also parents, students, and administrators. Transformational educators have gone beyond merely teaching subject matter and have begun empowering students by teaching them to think, to reflect, and to engage in the critical dialogue of exploring the world (Strouse, 2001). As Freire (1985) propounded, “How does one make education meaningful in a way that makes it critical and, hopefully, emancipatory?” (p. 14). The common thread for transformational education has been to make it meaningful for the student.

**Transformational Change of Common Core State Standards**

As states have long developed their own standards for preparing students for college and career readiness, each state has traditionally been responsible for doing what it believed to be best with little regard for what other states were doing (King, 2011). According to King (2011), the transformational outcomes for CCSS are manifold:

- to align with college and work expectations,
- to include rigorous content and application of knowledge through higher-order skills,
- to build upon strengths and lessons of current state standards,
- to reflect expectations of top-performing countries so that all U.S. students are prepared to succeed in our global economy, and
- to be evidence and/or research-based (p. 2)

The real transformations that implementation of CCSS generates are increased focus on (a) critical thinking, (b) creative problem solving, (c) collaboration, and (d) communication (Bellanca, 2012; Wingert, 2013). According to the National Governors
Association Center for Best Practices (NGACBP, 2010), the CCSS are “Building on the excellent foundation of standards states have laid [to] provide young people with a high-quality education” (p. 1). The CCSS have prompted significant change in the educational world by producing a more consistent, uniform, and rigorous set of national standards that will prepare students to be college or career ready based on a common process and set of standards. This common set of standards has been devised to focus on thinking skills and to provide similar instruction that will create students who are ready for an increasingly complex world on a national level.

The increased focus on thinking skills has created a new approach regarding teachers’ instructional practices. The CCSS have established the process of analyzing cognitive expectations that will meet the demands of the curriculum (Measured Progress, 2013). The CCSS are centered on conceptual understandings starting in the early grades and on giving students the opportunity to master them over time (NGACBP, 2010). Teachers now have the obligation to develop lessons with the following in mind:

- How do teachers embed these thinking skills into curricular content so that student achievement rises and so that all students have an equitable opportunity to develop the quality of their thinking and problem solving, not just for tests, but for a lifetime of learning?

- How do the new standards help teachers empower all learners with the discriminating and enduring skills of proficient thinkers, such as analyze critically, interpret meaning, determine evidence, discern themes, clarify relationships, and identify point of view, nuance, and bias?
• How do teachers make sure they are not falling to the low expectation of merely asking students to memorize facts and regurgitate figures? (Bellanca, 2012).

These new approaches to developing students’ thinking skills require teachers to instill rigorous cognitive skills within their students. After years of teachers being required to focus on students’ memorizing facts that will serve well on standardized tests, the CCSS offer schools the potential to create a transformational approach to educational practices and strategies (Wingert, 2013). Wingert (2013) saw this not as a wholesale change but as improving on what teachers have already been doing, such as putting more focus on informational texts like those students will see when they enter college or the work world.

**Implementation of Common Core State Standards**

“The impact of the Common Core on student learning in the U.S. will be determined not only by the quality and relevance of the standards but also by how we approach their implementation” (Hill, 2013, p. 1). Implementation of the CCSS is becoming a more urgent process as formalized testing looms, creating a perception of the need for a clear and deliberate plan (Confrey & Krupa, 2010). Confrey and Krupa (2010) asserted that we are currently in a time in which the task for

the coalition of states and experts to produce new assessments affiliated with the CCSS represents a critical transition period, replete with the combined opportunities and responsibilities to define the meaning of CCSS in relation to classroom practices on a large scale. (p. 2)

The pressure to formally assess the CCSS has caused states to implement the standards in an expedient way (Calkins, Ehrenworth, & Lehman, 2012). Although states
will decide how assessments will be utilized, student data will be analyzed, shared, and used to improve instruction (Association of California School Administrators, 2015). Some states have already discussed using assessment results to evaluate teachers (Ujifusa & Sawchuk, 2014). The high stakes of CCSS related assessment has made effective implementation even more valuable.

Aside from assessment, CCSS implementation has become beneficial to equip students with 21st century skills (Kyllonen, 2012). American companies have identified these skills as valuable when seeking to hire employees. The 21st century skills (or applied skills) include some of the same concepts as the CCSS (Tienken, 2011)—skills such as communication, collaboration, problem solving, and critical thinking. Effective CCSS implementation strategies will allow teachers to incorporate these skills into their lessons with skill and efficacy, and effective CCSS implementation strategies also offer students greater opportunities to learn. The demanding content and high standards of a common core set of standards provide rich and meaningful learning opportunities for students as they develop the skills necessary for the 21st century (McPartland & Schneider, 1996).

According to Cristol and Ramsey (2014), “Implementation gains traction when district and school leaders lock onto the Common Core standards as the linchpin of instruction, professional learning, and accountability in their buildings” (p. 2). School leaders such as principals and teachers are the crucial stakeholders in assuring that the CCSS are implemented thoughtfully and effectively. Implementation strategies should be coupled with structures that will allow teachers to be effective, such as changes in teacher preparation programs and an added component of professional growth (Kober, 2011). At
the state level, planning for implementation requires aligning curriculum, assessment, and
teacher policies (Kober, 2012).

**CCSS Implementation Challenges**

The state adoption of the CCSS has been met with challenges across the nation. Some CCSS opponents believe no relevant data support the effectiveness of the standards (Tienken, 2012). In some cases in which data are presented, there are both logical and methodological flaws that decrease their accuracy (Tienken, 2011). Tienken (2012) claimed that there is no causal relationship between educational test scores and economic growth, asserting that the idea that the CCSS will create students who are college or career ready is a faulty house of cards.

Some legislators have expressed concern over the possibility of states adopting CCSS based on the promise of federal funding through Race to the Top grants rather than based on the merits of the standards (Klein, 2014). Additionally, many in Congress do not want legislation or federal dollars tied to the CCSS, believing that states should have the autonomy to set their own standards. Some legislators further want standards to be a state-led effort and are fearful of tying any funding to the CCSS, in some cases proposing that no federal dollars be allocated for implementation or assessment (Klein, 2014). In some states, legislation has been proposed to repeal the CCSS. In Indiana, the House of Representatives voted to repeal the Common Core, and in New York, teachers’ unions have been very critical of the CCSS (Ujifusa & Sawchuk, 2014). Teachers in New York have been strongly opposed to the CCSS and to the proposal to tie teacher evaluations and salaries to CCSS assessments (Ujifusa & Sawchuk, 2014). Even with the continuing debate surrounding the effectiveness or predictability of economic markers based on the
implementation of CCSS, the CCSS are still being implemented nationally (Common Core State Standards Initiative, 2015).

At present, there is no research on effective implementation strategies in small school districts. Effective implementation strategies have been recommended from several sources, but none have provided a clear plan for implementation or explored the unique aspects of implementation in small schools. In their brief *Gearing up to Teach the Common Core State Standards for Mathematics in the rural Northeast Region*, Walters, Smith, Ford, and Scheopner-Torres (2014) discussed the challenges for all educators in implementing the CCSS but specifically noted that “educators in small, rural schools often feel isolated and overburdened when asked to make substantial changes” (p.2) and “often desire additional instructional resources and supports” (p. 2). Along with the feelings of isolation, small school teachers also expressed concern over the lack of resources necessary to meet their most pressing needs of time to review standards and to plan instruction and support for changing instructional practices (Walters et al., 2014). In addition, in *Implementing the Common Core State Standards in California*, Warren and Murphy (2014) cited a California Department of Education survey in which only 21% of small school districts completed the implementation planning process compared to more than half of larger school districts. Warren and Murphy’s brief indicated that the unique challenges connected to smaller school districts have hindered the implementation process. There currently is a significant gap in the literature surrounding effective implementation strategies for small school districts, for which this study will contribute towards providing a solid background.
Statement of the Research Problem

When California adopted the CCSS for the 2013-14 school year, the state was faced with answering the question of how to implement these new standards into all California schools. The CCSS are a departure from the standards that California focused on since before the era of No Child Left Behind, requiring school districts to provide teachers with the strategies and skills necessary for effective implementation. The impact of CCSS can be significant based on the approach schools take with implementation (Hill, 2013). CCSS are an extreme change of mindset about how student learning should take place (Hill, 2013). With formal assessments measuring the degree to which students have learned the content of the CCSS beginning during the 2014-15 school year, the urgency to develop impactful implementation strategies grows by the day.

This urgency has created a great deal of tension and distress among those being tasked to implement the standards (Ujifusa & Sawchuk, 2014). Successful implementation will be greatly dependent upon strong, well-prepared teachers. Many believe that “Common Core is ultimately going to rise and fall on the commitment and engagement of teachers” (Ujifusa & Sawchuk, 2014, p. 1). Teachers need the necessary strategies for successful implementation to be identified and provided to them to achieve the engagement that is so paramount. Teachers in New York have been asked to prepare students for assessment and to be subjected to evaluations based on the CCSS, standards that they had not been trained for (Ujifusa & Sawchuk, 2014).

The stress and tension among teachers further illustrates the necessity to create a plan for CCSS implementation. The federal government has provided millions of dollars
for the development of CCSS aligned tests but has left the critical task of implementation to local school districts and the boards that govern them (Klein, 2014; Common Core State Standards, 2013). A study from the National Center for Literacy Education unveiled that 32% of teachers were not involved in planning for their school’s CCSS implementation (Heitin, 2014). The study further revealed that 56% of teachers did not feel well-prepared to implement CCSS, that 50% believed a lack of collaboration time with colleagues was a challenge, and that 80% felt they were not well-prepared to implement CCSS with struggling student populations such as students at risk for dropout or those with disabilities (Heitin, 2014). There is a clear need to identify necessary strategies that will enable teachers to implement CCSS with skill and efficacy.

The challenge of successfully implementing the CCSS has even greater implications for small school districts because they do not possess the resources to invest in creating structures and supports for teachers the way larger ones do. For example, a large district might hire a full time staff person as a Common Core expert, one who can spend all of his or her time creating strategies and providing the support and coaching teachers need to implement CCSS successfully. Conversely, small school districts are faced with giving teachers the skills to teach the CCSS with skill and self-efficacy within the limited resources they have (Cristol & Ramsey, 2014).

Small school districts are working to find effective strategies that will aid in successful CCSS implementation (Cristol & Ramsey, 2014). The CCSS directive of preparing students for college or career has produced a serious shift in the mindset of all school leaders (Cristol & Ramsey, 2014). The larger issue that comes with CCSS implementation is establishing a curriculum that focuses more on developing critical
thinking skills than on memorizing information. Small school administrators and teachers would benefit from a plan that addresses this issue within the framework of a small school culture of community and accountability (Irmsher, 1997).

A review of the literature revealed a gap in existing research related to effective implementation strategies for the CCSS. Although numerous strategies are being presented for effective teaching of CCSS, a lack of research exists in determining the most effective implementation strategies and how they can be successfully implemented in small school districts. A number of best practices have been suggested for successful CCSS implementation, such as (a) aligning policies for college readiness, (b) developing assessments and alignment with college policies, (c) developing CCSS aligned curricula and instructional materials, and (d) professional development for teachers (King, 2011). However, there is no offer a specific plan for implementation, nor do they address small school districts’ unique needs and challenges.

Purpose Statement

The purpose of this Delphi study was to identify the strategies essential for small school districts to successfully implement the Common Core State Standards (CCSS) as identified by a panel of experts. The data from the study also revealed the organizational support factors small school districts should have in place to support the effective implementation of the identified CCSS strategies as perceived by a panel of experts.

Research Questions

1. What strategies are essential for small school districts to successfully implement the Common Core State Standards (CCSS) as perceived by a panel of experts?
2. What strategies are rated as most important to successful implementation of the CCSS in small school districts as perceived by a panel of experts?

3. What organizational support factors are essential for small school districts to successfully implement the identified CCSS strategies as perceived by a panel of experts?

4. What organizational support factors are rated as most important for successful implementation of the identified CCSS strategies in small school districts as perceived by a panel of experts?

5. What implementation strategies and organizational support factors are ranked as most important for small school districts to effectively implement the CCSS as perceived by a panel of experts?

Significance of the Problem

The CCSS that California adopted need to be strategically introduced with effective strategies that will allow small school districts to provide teachers with proper training and support. Proper implementation strategies will enable small school districts’ staff to deliver instruction with self-efficacy and expertise despite the challenge of limited resources. Lacking a clear implementation plan, many states have moved very slowly with this process. Struggling with implementation of Math and ELA standards, only eight states have adopted the new CCSS Science Standards (Heitin, 2014). A clear plan would not only help expedite the process of CCSS implementation, but it would also expedite the process of adopting and implementing content specific standards. The fact that most states are not requiring districts to make changes in curriculum and teacher
training programs serves only to inhibit an implementation process that provides no clear plan for small districts (Kober, 2011).

Researchers have conducted numerous reports, studies, and implementation plans for CCSS, but none have identified a ranked list of most effective strategies and related organizational support factors for successful CCSS implementation. They also do not address small school districts’ unique needs and resource limitations. As an example, the K-12 Center at Educational Testing Systems produced a report on measuring 21st century skills related to CCSS implementation (Kyllonen, 2012). Additionally, the Thomas B. Fordham Institute released a report examining the process of early CCSS implementation and the results of their struggles and successes (Cristol & Ramsey, 2014). These represent only a sampling of studies and reports that focus on Common Core implementation. However, none either offer a ranked list of effective strategies and related organizational support factors or address the specific needs of small school districts.

Small school districts need to have clear CCSS implementation strategies that will guide and direct them towards developing effective strategies to help support schools in their quest to become Common Core ready. Notwithstanding some implementation maps and guides for school districts, none are specifically tailored to the needs of small districts. The limited resources, small schools, and lower number of teachers teaching the same subjects at those schools are a small sample of the numerous issues that relate specifically to small districts. Kober (2011) has produced a series of reports that track the progress and challenges that states have faced as they have attempted to implement CCSS, but she merely reports on others’ efforts. She offers no clear strategy for
implementation. King’s (2011) report for the American Council on Education discussed an action agenda for CCSS implementation in which she discussed the goals of implementation, such as to align curriculum with college and work expectations and to build upon the strengths and lessons of current state standards, but she also offered no real plan for small school implementation. She proceeded to exhort administrators and teachers across the nation to “Seize this historic moment” (King, 2011, p. 7) but has left the states to accomplish it.

This study provides a set of suggested practices that small school districts will be able to follow in a manner that will provide teachers the ability to effectively implement the standards. Hill (2013) believed that the quality and relevance of the CCSS will depend on how they are implemented. At a time when education stakeholders are shifting their mindsets, the process of implementation will determine the success of CCSS. Without a guide of ways to implement them, they will not be successfully implemented (Hill, 2013). In Confrey and Krupa’s (2010) summary report of a CCSS conference in Virginia, they stated that one of the goals of the conference was to develop curriculum and research to support the long-term implementation of CCSS. In their report, they listed five preeminent strategies in CCSS implementation but offered no guidance regarding what organizational factors should be in place to support the strategies (Confrey & Krupa, 2010).

Part of the difficulty regarding CCSS implementation is the controversy surrounding it. Many teachers across the country have experienced difficulties with implementation that have eliminated their effectiveness. Teachers in a number of states have been asked to begin teaching with the CCSS without being given the time or
training needed to implement them (Ujifusa & Sawchuk, 2014). Because teachers are the most responsible for CCSS implementation, they should not only be equipped with effective implementation strategies, but they also need to understand the vision, reasoning, and rationale for transitioning to these new standards. Controversy has also been rife at the federal level; members of Congress have argued over whether states should have more control of developing standards and how much money, if any, should be allocated for CCSS implementation (Klein, 2014). Any controversies or disagreements with implementation should be reduced, if not completely eliminated. This study will provide a clear path towards small school CCSS implementation, which will work to decrease any controversies surrounding it.

Currently, numerous gaps exist in the knowledge base regarding Common Core implementation, especially concerning small school districts. Small districts’ limited resources mean they need to be able to refer to a plan or guide that will assist them in developing strategies that ameliorate their unique needs and challenges, which larger school districts do not face. The goal of the study is to provide small school districts with such strategies.

This study will provide great significance for anyone attempting to implement CCSS in small school districts. A ranked list that identifies effective implementation strategies and related organizational support factors that can be successfully applied to small school districts contributes greatly to the existing literature and addresses the unique needs of small schools. In addition, the findings from this study can reduce possible controversies regarding implementation.
Definitions

**Common Core State Standards:** The Common Core is a set of high-quality academic standards in mathematics and English language arts/literacy (ELA). These learning goals outline what a student should know and be able to do at the end of each grade. The standards were created to ensure that all students graduate from high school with the skills and knowledge necessary to succeed in college, career, and life, regardless of where they live (Common Core State Standards Initiative).

**Delphi Technique:** A communication structure aimed at producing a detailed critical examination and discussion that produces a convergence of thinking that often produces new guidelines and standards in a variety of settings, including in education (Green, 2014).

**Implementation Strategy:** A plan of action performed for the purpose of carrying out, executing, or practice of a plan, method, or design for achieving an overall goal.

**Organizational Support Factors:** Activities, behaviors, initiatives, and functions that determine the structure, aims, and goals of an organization.

**Policy Delphi:** Differs from a traditional Delphi in that its purpose is to address and create new organizational policy in which there are no current experts, only informed advocates and referees (Manley, 2013).

**Professional Learning Communities:** a group of educators who (a) meet regularly, often across grade and subject levels to share expertise; (b) collaborate on the
development and evaluation of instructional and assessment practices; and (c) participate in activities that focus on improving student learning.

**Small School Districts:** Small to mid-size school districts in California consisting of fewer than 5,000 students (Small School Districts’ Association of California).

**Delimitations**

This study was delimited to teachers and administrators working in small school districts of northern California during the 2015-2016 school year. The study was specifically focused on determining effective CCSS implementation strategies according to teachers and administrators working at small schools in Butte and Glenn Counties.

**Organization of the Study**

The organization of this study includes five chapters, references, and appendices. Chapter 1 provides an introduction and overview of the entire study, including a background and basic components of the problem that will be studied. Chapter 2 provides a review of literature that describes a more comprehensive background of the history of education in America, the origination and implementation of CCSS, and controversy surrounding it. Chapter 3 encompasses a review of the design and methodology of the study. Chapter 4 contains a description, analysis, and explanation of the findings of the study. A summary, findings, conclusions, and recommendations for further studies can be found in chapter 5.
CHAPTER II: REVIEW OF THE LITERATURE

Introduction

The review of the literature contains an in-depth examination of the written works related to Common Core State Standards (CCSS) implementation and the unique challenges small school districts face. The historical context of education reform in America is discussed along with the introduction of a national set of CCSS. The literature addresses CCSS instructional shifts and implementation philosophy as well as the related organizational support factors necessary for effective implementation. The literature explores both the perceived challenges and benefits to the CCSS and how they relate to the state of California and its many small school districts. Lastly, suggested implementation strategies are examined along with the accompanying organizational support factors that should also be in place.

The United States government has highly prioritized education since America’s founding fathers first created the Constitution. According to the U.S. Department of Education (2004), “Satisfying the demand for highly skilled workers is the key to maintaining competitiveness and prosperity in the global economy” (p. 1). In today’s globalized world, the CCSS are the proposed answer to America’s demand for students who are college and career ready (California Department of Education, 2014). Heining-Boynton and Redmond (2013) described the perceived link between CCSS and career skills, “The success of the Common Core State Standards is critical. It is essential that all students be prepared to succeed in our global economy and society” (p. 52).
Historical Context of Educational Reform in America

As early as the 18th century, Americans saw great value in education. In that time, education had long been viewed as only for the rich and elite. However, America’s founding fathers believed that education is not only important for all citizens, but it is also a prerequisite for participation in a successful democracy (Neem, 2014; U.S. Department of Education, 2004). John Adams believed that education should belong to all people regardless of social class or socioeconomic status (Neem, 2014; U.S. Department of Education, 2004). Thomas Jefferson believed that people could not govern themselves properly unless the tools of knowledge were placed in the hands of all citizens (Neem, 2014). Subsequently, although most agreed upon the necessity of education for all, “the task of educating the people has historically been left up to state and local governments” (U.S. Department of Education, 2004, p. i). Jefferson believed that centralized control of knowledge was a threat to the civil liberties of citizens (Neem, 2014).

In the 20th century, educational reform came to the forefront of the consciousness of the United States government when President Johnson enacted the Elementary and Secondary Education Act (ESEA) in 1965 as part of his war on poverty campaign (Federal Education Budget Project, 2015; Jorgensen & Hoffmann, 2003). This act became transformational legislation that authorized the federal government to spend money on programs that support K-12 education, such as Title I, which provides funds to support the education of socioeconomically disadvantaged children (Federal Education Budget Project, 2015; Rudalevige, 2003). Currently, ESEA and its various reauthorizations under various titles (Improving America’s Schools Act, No Child Left
Behind, and Race to the Top) “is the largest source of federal spending on elementary and secondary education” (Federal Education Budget Project, 2015, p. 1).

In 1983, the National Commission on Excellence in Education released a report titled *A Nation at Risk* (Jorgensen & Hoffmann, 2003; Rudalevige, 2003). Included in the report were several indicators of risks to American education, such as up to 40% of minority youth being functionally illiterate and a 72% increase in remedial math courses in four year colleges (Jorgensen & Hoffmann, 2003). The risk indicators suggested in the report coupled with findings such as diluted content lacking a central purpose and teacher preparation programs needing substantial improvement prompted the drive for reforms that would demand “the best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college, the farm, or industry” (as cited in U.S. Dept. of Ed., 1983e, 1983x; Jorgensen & Hoffmann, 2003, p. 3). *A Nation at Risk* became the driving force behind educational reform based on standardized achievement testing and standards-based education (Jorgensen & Hoffmann, 2003; Rudalevige, 2003).

*A Nation at Risk* led to the Improving America’s Schools Act (IASA) of 1994 (Federal Education Budget Project, 2015). The act required states to develop key performance standards and to establish accountability measures to ensure continued progress towards reaching proficient academic levels for all students (Rudalevige, 2003; Federal Education Budget Project, 2015). The IASA also required states to conduct assessments aligned with the standards they created (Jorgensen & Hoffmann, 2003). However, the act included no consequences for failing to meet the accountability
requirements of each state, resulting in a lack of compliance on the part of many states (Rudalevige, 2003; Jorgensen & Hoffmann, 2003).

The absence of consequences for failing to meet the accountability measures of the IASA led to the passing of President George W. Bush’s No Child Left Behind (NCLB) legislation in 2002 (Rudalevige, 2003; U.S. Department of Education, 2004). NCLB emphasized the accountability portion of the IASA, mandating annual testing in reading and math in grades 3 through 8 and in grade 10 (Jorgensen & Hoffmann, 2003; Hawkins, 2014). Schools were required to demonstrate adequate yearly progress and faced sanctions if progress goals were not met (Hawkins, 2014). NCLB also required that schools have 100% of all students demonstrating proficiency in reading and math by 2014 (Hawkins, 2014; Federal Education Budget Project, 2015). Furthermore, NCLB required that all teachers show proof of being highly qualified. Following all of these requirements would afford states the benefit of receiving an increase in federal education dollars (U.S. Department of Education, 2004).

The impact of NCLB has been met with mixed perceptions (Federal Education Budget Project, 2015; Jorgensen & Hoffman, 2003; Rudalevige, 2003). Most states have created curriculum standards and standards-aligned assessments and have received federal dollars to support student learning. However, (a) disagreement over what constitutes AYP, (b) the impossibility of 100% of students reaching proficiency in reading and math, and (c) the proliferation of “failing” schools due to the lofty expectations of NCLB led to a great deal of political backlash (Rudalevige, 2003). Fear of the consequences of not making adequate yearly progress also led to the perception that teachers were adapting by using teaching methods that emphasized memorization of
material over critical thinking and the phenomena of teaching to the test (Turley, 2013; Hawkins, 2014). Despite the backlash, NCLB caused a fundamental shift in the mindset of educators across the land.

Another wrinkle in America’s educational reform is President Barack Obama’s Race to the Top legislation, which promised additional federal funds for schools that meet certain criteria in areas such as improved (a) student test scores, (b) state standards-aligned tests, (c) student attendance, (d) graduation rates, and (e) learning climate (Hawkins, 2014). Although Race to the Top has done little to further a transformational change in educational reform, it has caused states to focus more on the process of developing clear standards, standards-aligned assessment, and school accountability (Hawkins, 2014).

The next step in the evolution of educational reform in America led to the creation of the CCSS. The CCSS are a set of standards created in 2010 that delineate what all K-12 grade students should know in ELA and in mathematics to be prepared for college or for their careers (CCSS: Myths and Facts, 2013; National Governors Association, 2010). These benchmark standards were created to provide a common set of expectations for students across the nation for the first time. Led by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO), educators, consultants, and researchers collaborated with state leaders to create the standards (CCSS: Myths and Facts, 2013; NGA, 2010).
Introduction of Common Core State Standards

Stemming from the 1983 report *A Nation at Risk*, in which one of the recommendations suggested establishing a national common core curriculum, the federal government began to call for national standards (Frontline, 2015). Despite a national education summit in 1989 under President George H.W. Bush’s direction, which resulted in drafting a set of six national goals, it wasn’t until 1994’s IASA that standards and accompanying aligned assessments became a requirement (Hamilton, Stecher, & Yuan, 2008; Frontline, 2015). The required standards of the IASA became a focal point of 2002’s NCLB (Hamilton, Stecher, & Yuan, 2008). However, states were responsible for creating their own standards, creating a variance from state to state (Frontline, 2015). By 2008, education advocates Gene Wilhoit and David Coleman called for a uniform national standards movement that would “transform every public classroom in America” (Layton, 2014, p. 1) and prevent America from falling farther behind its foreign competitors (Heining-Boynton & Redmond, 2013; Layton, 2014).

Agreeing with the perceived need for consistent learning goals across the country, CCSSO and NGA led an effort to develop the CCSS in 2009 (Hawkins, 2014). Beginning in 2010, states began adopting the CCSS, with the current total of 45 states and the District of Columbia implementing them during the 2014-2015 school year (MetLife Foundation, 2013; Hawkins, 2014). CCSS “focuses on developing the critical-thinking, problem-solving, and analytical skills students will need to be successful” (State of Connecticut, 2014, p. 5). The standards do not replace school curricula but provide a set of benchmarks for each grade in ELA and mathematics for students across the nation as schools attempt to provide more rigor and depth into student instruction (Anderson et
al., 2012; MetLife Foundation, 2013). The mission of the CCSS Initiative is to “provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them” (CCSS Initiative, 2015, p. 1). The intention of this mission is to ensure that American students are prepared for success in college and in their careers, enabling our communities to successfully compete in today’s global economy (California Department of Education, 2014).

Although the majority of the states have adopted CCSS, the federal government does not mandate them. However, the voluntary standards are incentivized by NCLB waiver requirements and Race to the Top grants (CCSS: Myths and Facts, 2013). Those states that have chosen to adopt the CCSS and to receive the Race to the Top grants must submit to one of two CCSS-aligned assessments created by Partnership for Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced Assessment Consortium (SBAC).

The stated goal of the CCSS is to prepare students for college and for their careers (Anderson et al., 2012; California Department of Education, 2014; CCSS Initiative, 2015). College ready includes having the reading and mathematics skills and knowledge to participate in college level classes (California County Superintendents Educational Services Association [CCSESA], 2013; CCSS Initiative, 2015). The standards establish not a curriculum but specific skills that students should be able to do at each grade level (Layton, 2014). For example, math standards focus on multiple ways to solve problems and the ability to explain answers, while the English standards emphasize nonfiction texts and the ability to provide written and oral arguments based on textual evidence (Layton, 2014).
Instructional Shifts of CCSS Implementation

The instructional shifts required for successful CCSS implementation are not only monumental but also transformative (Neason, 2014). Schools are obligated to completely change the way they teach, lead instruction, and assess student learning (Killion, 2012; MetLife Foundation, 2013). Seeking new and effective ways to teach is at the core of the CCSS implementation and is essential in helping students achieve success (Killion, 2012; Wingert, 2013). In the MetLife Foundation’s (2013) brief *Implementing the Common Core State Standards*, several instructional shifts are discussed. The brief describes six ELA shifts:

1. Balancing informational and literary text by ensuring at least 50% of text read is informational (Calkins et al., 2012; Wingert, 2013);

2. Building knowledge in the disciplines through the focus of domain-specific text in social studies and science classrooms (Chicago STEM Education Consortium, 2013);

3. Staircase of complexity derived from close and careful reading that is supported and equipped with necessary scaffolding (Calkins et al., 2012);

4. Text-based answers that form the basis of rich and rigorous evidentiary arguments in both writing and conversation;

5. Writing from sources that focus on using evidence to inform and argue (Calkins et al., 2012); and

6. Academic vocabulary built upon the need to strategically comprehend complex and commonly used words. (MetLife Foundation, 2013)
The MetLife (2013) brief also described six necessary mathematical instructional shifts for effective CCSS implementation. The mathematical shifts reflect the CCSS emphasis on wholesale changes on mathematics instruction, including (a) less content;(b) more focused content;(c) coherent content;(d) deeper development;(e) a stronger balance between procedure, application, and understanding; and (f) the modeling of expectations. Each component is expounded on below, respectively.

1. Focusing deeply on foundational knowledge and conceptual understanding that can be generalized across grades and concepts (C-STEMEC, 2013).
2. Coherence of learning that spirals new understanding onto previously built foundations.
3. Fluency with speed and accuracy for simple equations.
4. Deep understanding through the ability to develop understanding of concepts through a variety of perspectives (Measured Progress, 2013).
5. Applications of concepts through a number of real-world situations (Measured Progress, 2013).
6. Dual intensity of both practicing and understanding concepts (MetLife Foundation, 2013).

To achieve these transformational instructional shifts, the MetLife Foundation suggested to conduct short, focused projects and long, in-depth research, to produce coherent writing, to communicate findings, to model quantitative problems, to persevere in solving problems, and to reason deeply by applying mathematical concepts to real world situations (C-STEMEC, 2013). Regardless of the approach taken to effectively implement CCSS, it is essential for instructional leaders to lead the way to effect change
through these instructional shifts. According to the MetLife Foundation brief, successfully implementing the aforementioned instructional shifts starts with school wide changes, including (a) cultural changes that include being more adaptable to change, (b) stronger motivation and commitment, (c) more collaboration and innovation, and (d) being more prepared to meet CCSS implementation goals (C-STEMEC, 2012; 2013). To support the CCSS instructional shifts, the MetLife Foundation (2013) brief also suggested focusing on a number of strategies such as literacy instruction that emphasize (a) cross-content literacy, providing students with reading, writing, speaking, and listening skills; (b) more rigorous text complexity using informational text; (c) close reading and text-based response; (d) writing across content areas; (e) mathematics instruction with a deeper focus that balances procedure, application, and understanding; (f) actions that increase student engagement and collaboration; (g) creating answers over memorizing information; and (h) technology integration.

In *Pathways to the Common Core*, Calkins et al. (2012) described the CCSS instructional shifts as an emphasis on higher-level comprehension, an equal focus on reading and writing, stressing the importance of critical citizenship, and emphasizing complex texts. They believed that along with a clear design and intellectual growth over time, these instructional shifts lead to an educational system that provides proficiency, complexity, and independence for all students that puts all states on the same playing field (Calkins et al., 2012).
Implementation Philosophy

In their report *Opportunities to Learn and Student Diversity: Prospects and Pitfalls of a Common Core Curriculum*, James McPartland and Barbara Schneider (1996) offered a basic philosophy for a common core curriculum. Common Core standards that establish demanding content and high expectations are a “major departure from the current policy and practice of American Education” (McPartland & Schneider, 1996, p. 66). Implementing national curricular standards is an opportunity for all students to receive a rigorous education (Confrey & Krupa, 2010; McPartland & Schneider, 1996). McPartland and Schneider advised to avoid the pitfalls of implementation such as political, economic, and attitudinal forces. They warned of standards that are too broad and assessments that are too narrow, political forces that lower the standards to avoid excessive failure on assessments, and evasive testing procedures that muddy clear assessments by exempting large numbers of students (King, 1996; 2011).

McPartland and Schneider (1996) also offered the promise of a number of prospects regarding implementation philosophy. They believed effective implementation relies on a massive reallocation of resources to provide all students with (a) the help they need to learn the new standards, (b) a clear alignment of the standards to assessments (Measured Progress, 2013), (c) a deep exposure to all content, (d) effective teaching strategies, and (e) strong standards-based instructional resources. The biggest key to McPartland and Schneider’s implementation philosophy is to have flexibility with all resources to meet the varying needs of all students. Flexibility of resources allows schools to meet the needs of students with different achievement levels, learning styles, ability levels, and socioeconomic statuses (Confrey & Krupa, 2010; King, 1996; 2011).
Hill, Kettlewell, and Salt (2014) saw an effective philosophical approach to CCSS implementation as “a part of how good practice is supported every day in classrooms where learning is the core activity for adults and students” (p. 4). Hill et al. also believed that “Common Core has been developed by educators who know that their successful implementation requires teachers to work together across subject areas, courses, and fields of knowledge” (p.5). Any approach to effective implementation should go outside the normal way of doing things and go beyond the one size fits all approach that generally focuses on what is best for the majority (Hill et al., 2014). Hill et al.’s opinion is that implementation strategies must be generalized to be applicable to all schools, regardless of their capacity.

A number of researchers and educational experts have examined CCSS implementation. In Cristol and Ramsey’s (2014) study *Common Core in the Districts: An Early Look at Early Implementers*, they examined four school districts and their attempts to implement the CCSS. In their “in-depth examination of real educators in real districts” (p. 1), Cristol and Ramsey “probed five areas that are key to smooth implementation of any standards-based reform: communications, leadership, curricular materials, professional development, and assessment and accountability” (p. 1). Based on these five areas, Cristol and Ramsey presented the five following key findings.

1. Teachers and principals are the primary faces and voices of the Common Core standards in their communities. Strategic communication from districts will provide the community with accurate information that is likely to reduce the major challenges that stem from public opinion related to assessment;
2. Implementation gains traction when district and school leaders lock onto the Common Core standards as the linchpin of instruction, professional learning, and accountability in their buildings. School leaders should be instructional leaders and trained appropriately to perform those duties;

3. In the absence of externally vetted, high-quality Common Core materials, districts are striving—with mixed success—to devise their own. Districts are tasked with creating their own instructional materials that not only are needed due to the dearth of published CCSS-aligned materials but also create a stronger buy-in from staff that had a hand in the creation of those materials;

4. The scramble to deliver quality CCSS-aligned professional development to all who need it is both as crucial and (so far) as patchy as the quest for suitable instructional materials. Teachers need to gain new expertise related to Common Core in meaningful ways through updated delivery methods; and

5. The lack of aligned assessments will make effective implementation of the Common Core difficult for another year. Currently, assessments do not accurately measure student growth or allow districts to evaluate whether or not their CCSS implementation efforts are effective (Cristol & Ramsey, 2014, p. 4).

These findings not only provide a direction for small school districts in their implementation strategy efforts, but they also warn of a number of issues that districts need to be aware of when developing effective strategies. The greatest lesson to be learned from Cristol and Ramsey’s (2014) findings is that districts must “take a serious look at the quality of their own implementation efforts” (p. 4).
NEA President Dennis Van Roekel (2014) believed that effective implementation can happen if policymakers take two steps. The first step is to listen to what teachers have to say about the standards regarding time (a) to learn the standards, (b) to collaborate on implementation, (c) to create curriculum that aligns to CCSS, and (d) to field test. The second step is to include educators in the process of determining how to properly administer CCSS-aligned assessments in the classroom. Van Roekel believed that states that are truly committed to effective CCSS implementation will heed his following recommendations:

1. States should work with teachers’ unions to determine the appropriateness of standards and to recommend any improvements;
2. Implementation plans must be developed collaboratively, given proper resources, and overseen by all stakeholders;
3. Teachers should be central characters in developing aligned curriculum, professional development, and assessments;
4. Standardized tests must be CCSS aligned and accurately measure what students are learning in the classroom;
5. Educators should be an integral part in field testing and improving assessments;
6. Schools and teachers should not be held accountable for assessments until the 2015-2016 school year; and
7. Assessment and accountability systems must be created by stakeholders that include standardized tests as only a part of the puzzle (Walker, 2013; Van Roekel, 2014).
Tim Walker (2013) agreed with Van Roekel’s suggestions, believing that teachers are a key component to effective implementation. He asserted that because teachers are being asked to rewrite curriculum and to develop new instructional strategies, they are concerned about having to adapt their classrooms without proper training. Despite the excitement surrounding the opportunity to have a creative and inspirational impact in their classrooms, teachers will only embrace these changes if they are part of the stakeholder groups that create effective CCSS implementation plans (Measured Progress, 2013; Walker, 2013; Van Roekel, 2014).

The CCSESA (2013) have a number of additional components that increase the foundation of implementation philosophy. The areas of curriculum and instruction must address rigorous curricular standards and powerful instructional strategies. Instructional assistance and support programs must also be aligned to support the change in skills and knowledge expectations for students. Instruction, data, and assessment must be supported by technology and a technological infrastructure that promotes quality learning. In addition, resources both human and fiscal must be refocused to support effective CCSS implementation. Furthermore, collaboration must be present with outside institutions to facilitate student transitions to college and their careers. The CCSESA believes that these components are part of a process of continuing improvement as part of effective CCSS implementation.

**Organizational Factors for Implementation**

When implementing change in any organization as large as a school district or as small as a school, a number of factors must be addressed (CCSESA, 2013; CDE, 2014;
Cristol & Ramsey, 2014). In their book *The Change Leader’s Roadmap*, organizational change experts Linda Ackerman Anderson and Dean Anderson focused on the need for any organization implementing change to build capacity for change by clarifying the change strategy and by creating organizational vision, commitment, and capability for that change (Ackerman-Anderson & Anderson, 2010). California has the opportunity to transform education by implementing the CCSS in a successful manner that will allow students to gain the skills necessary to compete with the rest of today’s globalized world (CCSESA, 2013). The important questions of CCSS implementation will be answered by the organizations tasked with the implementation. Each organization must develop a plan and create specific strategies for any potentially transformational change, in this case the implementation of the CCSS (CCSESA, 2013; CDE, 2014; Cristol & Ramsey, 2014).

Effective CCSS implementation strategies stem from the five key areas mentioned in Cristol and Ramsey’s (2014) study: communications, leadership, curricular materials, professional development, and assessment and accountability. Clear communication with all stakeholders is the first key (CDE, 2014; State of Connecticut, 2014). According to Cristol and Ramsey, “unfamiliarity apparently breeds susceptibility to misinformation” (p. 9), and “lack of knowledge about the new standards poses a large problem for districts” (p. 9). Teachers and administrators partnering with parents to promote student learning with the CCSS is essential. Effective implementation relies on all stakeholders possessing a clear understanding of the standards. Controversy surrounding the CCSS often stems from a lack of understanding from stakeholders and from the public in general. Understanding the standards promotes a greater amount of support for them. The CCSESA (2013) agreed with Cristol and Ramsey in their CCSS leadership planning
guide, in which they described the implementation component of two-way communication with all stakeholders to be critical throughout the process of implementation (CDE, 2014). According to the CCSESA (2013), “the history of school reform and improvement has been fraught with misunderstandings and erroneous assumptions” (p. 19).

In the Thomas B. Fordham Institute’s report *The State of State Standards-and the Common Core-in 2010*, the authors reinforced Cristol and Ramsey’s (2014) findings by stating that “Standards often end up like wallpaper. They sit there on a state website available for download, but mostly they’re ignored” (Carmichael, Martino, Porter-Magee, & Wilson, 2010, p. 2). The authors believed that there is no real correlation between the quality of state standards and student performance because the standards are not always communicated well, nor are they always implemented effectively (Carmichael et al., 2010).

To support stronger communication and understanding of the CCSS, several districts have developed a number of implementation strategies. District 54 in Kenton County, Illinois, provides a booklet to parents that reflects the standards and what their children should know by the end of each year. Washoe County School District in Reno, Nevada, sends emails to parents that explain what the students are learning through the CCSS. Additionally, metro Nashville public schools use parent academies to help parents better understand the standards (Cristol & Ramsey, 2014). Whatever ways districts are communicating the CCSS, the public’s understanding of the standards is a valuable piece to effective implementation. Cristol and Ramsey (2014) offered the suggestion that “districts should avoid the political tug-of-war over the Common Core, and get on to the
hard work of helping parents understand the substance of the standards and what schools are doing to help kids meet them” (p. 25).

The key area of leadership addresses the question of who is in charge of effective implementation (Chicago STEM Education Consortium [C-STEMEC], 2013; State of Connecticut, 2014; MetLife Foundation, 2013). School leaders set the tone for effective CCSS implementation. The CCSESA (2013) has argued that leaders must be developed to “better support teachers, to utilize their leadership skills, to support increased collaboration and professional learning, and to support them in engaging parents” (p. 16). Administrators, master teachers, and instructional coaches are examples of school leaders who are responsible for prioritizing the standards and for assuring that they are being taught with skill and efficacy. For example, Kenton County principals are expected to walk through fifty classrooms each week to be sure the CCSS are being taught properly and to provide feedback on teaching strategies (Cristol & Ramsey, 2014). Despite the time pressures of performing other duties, school leaders must be fluent in the CCSS and set a positive example for all. Cristol and Ramsey (2014) suggested that for leaders to be effective, they “require effective, knowledgeable leadership and focus at multiple levels” (p. 25).

Common Core-aligned materials have also become an important key to successful CCSS implementation (Carmichael et al., 2010; Walters et al., 2014). Because the CCSS are only a framework and not a curriculum, curricular materials must align to the standards. Currently, most publishers have claimed that their materials are Common Core-aligned, but few have yet to produce materials that are designed to adhere to the standards and to address the major shifts reflected in the CCSS (Cristol & Ramsey,
2014). The Thomas B. Fordham report has supported this, stating that many textbook publishers make superficial adjustments and assert that they are aligned with the CCSS (Carmichael et al., 2010). It is essential that all instructional materials and resources be CCSS-aligned (California Department of Education [CDE], 2014; CCSESA, 2013). There is currently a dearth of CCSS-aligned curricular materials, a problem that can only be solved by giving publishers time to develop them.

In the absence of CCSS-aligned materials, the majority of the districts in Cristol and Ramsey’s (2014) study relied on creating their own curricular materials or adapting old ones. Most school districts are creating common curriculums for all schools in at least one subject, one in which teachers assisted in creating (C-STEMEC, 2013; King, 2011). Districts have hoped that teachers will display a greater level of buy-in when “they (or their building peers) helped write the curriculum and had input on its pacing—and because their feedback is taken seriously in continuing to revise it” (Cristol & Ramsey, 2014, p. 15). Lesson plan templates, curriculum maps, and pacing guides are all being used to assist teachers in adapting materials for use in CCSS implementation. Cristol and Ramsey believed it is essential for districts to “provide teachers with well-aligned curricular materials” (p.25) along with “a lot of time, effort, and new material” (p. 25).

Professional development represents another important area for effective CCSS implementation (Killion, 2012; King, 2011; Murphy et al., 2012; State of Connecticut, 2014; Walters et al., 2014). Professional development must be made available to all schools, paying special attention to smaller, rural schools that tend to have fewer resources than larger ones do (Walters et al., 2014). The CCSESA (2013) believed that “educators must deeply understand the CCSS, and all staff that impact and influence
teaching and learning” (p. 32). The Thomas B. Fordham report expressed that the standards are the foundation on which professional development should rest (Carmichael et al., 2010). Therefore, extensive and ongoing professional development is essential. Large amounts of time, money, and effort are spent each year on providing professional development for teachers and administrators, yet the results have been mixed. According to Cristol and Ramsey (2014), “Professional development must be improved and dollars dedicated to it must be spent more wisely” (p. 18). Regarding CCSS, professional development must be reinvented with extensive, fundamental changes that match the fundamental changes that CCSS bring to education (California Department of Education, 2014).

CCSS professional development needs to account for changes in the mindsets of teachers and administrators, who are now required to approach instructional practices in a different way than in previous decades (Confrey & Krupa, 2010; C-STEMEC, 2013). When pursuing meaningful professional development, teachers and administrators should consider the emphases on text complexity, evidence-based reading and writing, in-depth analysis of a single text, and going deeper into conceptual understanding of math and English (Confrey & Krupa, 2010; Cristol & Ramsey, 2014; King, 2011). Just understanding what the standards are will not allow teachers to teach with efficacy. Effective professional development need to take into account that “teachers need extensive opportunities to deeply understand, practice, revise, and practice again the changes in content and instruction reflected in the Common Core” (Cristol & Ramsey, 2014, p. 18). Essentially, “the content of districts’ professional development must focus
on teacher understanding and application of the standards” (Cristol & Ramsey, 2014, p. 27).

In Cristol and Ramsey’s (2014) study, all of the districts they examined incorporated some type of instructional coaching. Each district in the study pulled its instructional coaches mostly from the teaching ranks, choosing those who were deemed highly skilled in improving instruction, and provided them with extensive training (Cristol & Ramsey, 2014). With the knowledge that ineffective instructional coaches can potentially harm CCSS implementation, each district in the study has aligned its coaches to some type of training program (CCSESA, 2013; MetLife Foundation, 2013). For example, metro Nashville had its coaches trained through the Tennessee Department of Education, and Kenton County utilized the national Literacy Design Collaborative and Math Design Collaborative to train its coaches (Cristol & Ramsey, 2014). Each district in the study highly prioritized providing teachers with skilled instructional coaches and providing sufficient time to work with them. These coaches have allowed their teachers to become effective at Common Core instruction without having to leave their districts for professional development (Cristol & Ramsey, 2014; Killion, 2012).

The last key area that Cristol and Ramsey (2014) examined in their study is assessment and accountability. The Thomas B. Fordham report implores states to use the CCSS to guide assessment and accountability systems (Carmichael et al., 2010). Determining the effectiveness of CCSS implementation must in part include examining how districts measure student learning (CDE, 2014; C-STEMEC, 2013; Cristol & Ramsey, 2014; King, 2011). The CCSESA (2013) believed that “the goal is to design and implement a comprehensive assessment strategy that places instruction and
actionable data for teachers at its center” (p. 37). Cristol and Ramsey (2014) believed that “the assessment and accountability components of the Common Core may be the area where these districts—and the field in general—still have the furthest to travel” (p. 22) and that “the reality is that these districts are currently implementing new standards without state summative assessments in place that will measure student performance on them” (p. 22). Cristol and Ramsey discovered that the teachers and administrators in their study “are concerned that the major Common Core shifts in teaching and learning are not well reflected in their current state summative assessments” (p. 22).

The lack of CCSS-aligned tests has served to “undermine the district efforts to emphasize the Common Core across subject areas” (Cristol & Ramsey, 2014, p. 23). Misaligned tests not only fail to measure student learning, but they also create anxiety from teachers who are tasked with teaching the standards (Van Roekel, 2014). Teacher anxiety is only increased when districts attempt to tie teacher evaluations to test scores. National Education Association President Dennis Van Roekel (2014) believed that assessments that are not aligned to what is actually being taught not only fail to provide useful information to teachers and parents, but they also waste learning time. He also considers it malpractice when misaligned tests are being used for accountability purposes (Van Roekel, 2014). Common Core assessment consortia such as Partnership for Assessment of Readiness for College and Careers (PARCC) and Smarter Balanced Assessment Consortia (SBAC) are attempting to create assessments that truly measure student growth, but teachers in Cristol and Ramsey’s 2014 study showed little confidence in them.
Other issues of accountability aside from assessments have surfaced, such as creating an accountability culture (Confrey & Krupa, 2010; Cristol & Ramsey, 2014). Cristol and Ramsey (2014) stated that the teachers in their study felt the greatest sense of accountability with effective CCSS implementation towards their peers and instructional leaders. Although feeling accountable to peers and instructional leaders is not a new concept, it is an effective means of ensuring teachers’ continued efforts to master CCSS instructional strategies.

In addition to the five key organizational factors discussed in Cristol and Ramsey’s 2014 study, the Thomas B. Fordham Institute’s report emphasizes the need for the organizational capacity to implement the CCSS in a way that is “More than lip-service—a façade of adoption that conceals the same old teachers teaching the same old stuff and assessing it via the same old tests” (Carmichael et al., 2010, p. 4). The political, organizational, and financial capacity for successful CCSS implementation must be in place (Carmichael et al., 2010). Most notably, the authors believe that the districts must be committed to providing the financial resources to successfully implement the standards (Carmichael et al., 2010). Lastly, the report identifies commitment and resolve as major organizational factors necessary to build capacity for successful CCSS implementation. A switch to different, possibly more demanding standards could produce a number of probable negative consequences, such as political backlash, students failing, decreasing graduation rates, and the possibility of families leaving for schools that do not have similar requirements (Carmichael et al., 2010).
Perceived Benefits of CCSS

Many stakeholders believe CCSS adoption generates great benefits. According to Tim Walker (2013), a NEA poll stated that “75 percent of its teachers and educational support professionals supported the standards outright or supported them with reservations” (p. 2). Educational experts believe teachers are very excited about the opportunity to have (a) tighter, deeper content focus; (b) deeper critical thinking; (c) creativity back in the classroom; (d) more rigor through the emphasis on nonfiction texts; and (e) increased student and teacher collaboration (Long, 2013; Walker, 2013; Crawford, 2014).

In her article Six Ways the Common Core is Good for Students, Cindy Long (2013) argued that CCSS promotes equity in education because the rigorous standards will create a higher level of education for all students, whether they may be affluent, poor, rural, or urban. She believed that the “achievement and opportunity gaps for poor and minority children” (Long, 2013, p. 4) will close because all students will have a high bar to meet (Walker, 2013). The MetLife Foundation (2013) agreed, stating that “all students in every state will be expected to meet the same rigorous standards which will prepare each of them to be college and career ready” (p. 25).

In addition to the MetLife Foundation, other researchers have argued that CCSS implementation will help students be college and career ready (Long, 2013; Walker, 2013; Crawford, 2014). The increased rigor that prepares students for college and for their careers has great appeal to most stakeholders connected to education. Successful students will be able to access and analyze information from nonfiction texts, to think
critically, and to understand and explain mathematical concepts, all skills that will help them be successful in college and in their careers (Long, 2013; MetLife Foundation, 2013; Crawford, 2014).

The elimination of the “drill and kill” and teach to the test mentalities would be another positive outcome of CCSS adoption (Walker, 2013). When states first began adopting CCSS, part of the rationale was to create uniform, national standards that would not only allow states to better align instruction to assessment but also to put greater focus on what students would be expected to know from grades K-12 and what they should know to be prepared for college and for their careers (CCSS Initiative, 2015).

Under NCLB, each state was allowed to develop its own standards and assessments, creating a lack of uniformity among state assessments and a great deal of variance between what students were expected to know in each state (Anderson, Harrison, & Lewis, 2012). This led to a teach to the test mentality as schools attempted to demonstrate growth in student learning each year. The CCSS provides a parity between the states that lessens the pressure of high-stakes testing (Anderson et al., 2012). The CCSS allow students to spend less time memorizing facts and formulas and filling in multiple-choice quizzes (Neason, 2014). Critical thinking, reasoning, citing textual evidence, and providing a rationalization for solved problems will change expectations for students (Neason, 2014). Students will see that there is more than one way to come up with an answer and possibly more than one answer.

Another perceived benefit the MetLife Foundation proffered includes results that show significant gains in student learning that are critical to competing in a globalized
world with countries that have nationalized standards (Murphy, Regenstein, & McNamara, 2012). A nationalized system of education such as the CCSS clarifies what schools should and should not teach and prepares students for the demanding challenges of a global economy (U.S. Department of Education, 2011; Wall Street Journal, 2012). According to the Wall Street Journal (2012) article Should All U.S. Students Meet a Single Set of National Proficiency Standards?, young Americans are falling behind their counterparts in other countries because individual states and communities are no longer serving their students well.

Countries like Japan, Singapore, and Finland have experienced great success from setting high national standards, setting clear expectations, and ensuring they are being followed correctly (U.S. Department of Education, 2011; Wall Street Journal, 2012). Some have argued that America’s inability to follow the example of other very successful countries by establishing rigorous national standards has greatly hindered America’s standing in the international educational community and has contributed to low test scores and decreased economic competitiveness, which are strong arguments in favor of the CCSS (U.S. Dept. of Education, 2011; Wall Street Journal, 2012). Finland has often been credited as a country excelling in educational reform, having national standards, a common core curriculum, and equitable implementation (Darling-Hammond, 2010). Japan, another country that has consistently ranked near the top of educational surveys, has also been cited as benefiting greatly from demanding national curriculum standards (OECD, 2011). As part of their core curriculum, Japanese students take the time to go into greater depth in their core subjects (OECD, 2011).
Other countries have already shown national standards to be linked with improved teacher preparation programs (Darling-Hammond, 2010; OECD, 2011). National standards such as the CCSS require effective teachers in order to be successful (Wall Street Journal, 2012). Proper national standards teacher training programs ensure that each state does not have to develop its own instructional supports and resources and allow for collaboration among new teachers regarding CCSS implementation strategies and for teaching innovation in instructional strategies (Murphy, Regenstein, & McNamara, 2012). Great teachers are the key to building the higher-order skills needed in today’s world, so effective training programs are a necessity (U.S. Department of Education, 2011).

According to the U.S. Department of Education (2011), the entire educational system can only be as good as its teaching force. The educational system needs to entail recruiting, training, and professionally developing quality teachers, and a system can accomplish this more effectively when it has one clear set of national standards (U.S. Department of Education, 2011). Teacher preparation programs such as Finland’s that are based on national standards can provide high quality training when supported by an agreed upon set of goals that clearly state what teachers are expected to know and do in all subjects and grade levels (Darling-Hammond, 2010; U.S. Department of Education, 2011). Finland’s success in creating a national standards curriculum for its students has derived from its focus on intensive investment in teacher education (Darling-Hammond, 2010). Teacher quality is also one of the highest educational priorities in Japan (OECD, 2010). Countries such as Finland and Japan have proven that coupling national standards with strong priority and investment in teacher preparation programs have been critical in

The United States has already undergone great changes in its teacher preparation programs to accommodate the CCSS (Association of Public and Land-Grant Universities [APLU], n.d.; Baron, 2014; Paliokas, 2014). Teacher preparation programs across the country have already made pedagogical changes to reflect the educational shifts produced by the Common Core (APLU, n.d.; Baron, 2014; Paliokas, 2014). According to the Center on Great Teachers and Leaders, teacher preparation programs across the nation have already aligned their practices in four common areas:

1. aligning teaching standards and licensure requirements to the CCSS,
2. professional development that supports faculty with CCSS implementation,
3. integrating CCSS into program approval and accountability policies, and
4. state teacher assessments integrated to the CCSS (Paliokas, 2014).

Nationalized standards have streamlined teacher preparation by creating processes that all states can use, such as online training modules, modeling of best practices for all states, and CCSS based lesson planning strategies (APLU, n.d.; Baron, 2014; Murphy & Regenstein, 2012; Paliokas, 2014). Aligning the CCSS with teacher preparation has also made it easier to connect higher education with K-12 curricula across the nation (APLU, n.d.). CCSS has also influenced teacher preparation by increasing selectivity and proactive recruitment, by altering the content of disciplinary courses, by altering professional preparation courses, by identifying and nurturing field experience, and by
identifying data collection processes that will ensure continuous improvement in implementing the CCSS for new teachers (APLU, n.d.).

**Perceived Challenges of CCSS**

CCSS adoption and implementation has been met with abundant resistance across the nation. Pauline Hawkins (2014) believed that for many people opposed to the standards, “the greatest fear is that the federal government has taken too much control of our children’s education and is dictating to our teachers what must be taught at each level and when it must be mastered” (p. 4). Christopher Tienken (2011), an associate professor of education administration at Seton Hall University and a researcher on school reform issues, recalled that the Soviet Union showed that central planning does not work on a long term basis. Tienken believed that “mandating a singular curricular program for the entire country is terribly naïve” (p. 4) because it “lacks a basic understanding of diversity and developmental psychology” (p. 4). The belief is that the federal government is too large to understand the nuances of state and local education needs and to establish equity to all students. According to Tienken, “equality of curriculum is inherently inequitable” (p. 5).

Jonathan Turley (2013), an educational blogger and legal scholar, proposed that one of the reasons people oppose the standards is that the states were coerced to adopt the CCSS by the promise of federal dollars through Race to the Top grants. This type of manipulation only perpetuates the fear that federal intrusion is evidence that states are losing control of education (Turley, 2013). The fear of federal intrusion has created a political backlash from people who believe that the states should decide what is taught
and how it is taught (Walker, 2014). Walker (2014) argued that educators and the public would not have such strong negative opinions if not for fear of the federal government’s trying to force greater control over educational policy. Part of the money attached to CCSS adoption comes with the mandate that teacher evaluation frameworks are tied to standardized tests (Karp, 2014). Many educational stakeholders are concerned that the federal government is usurping state and local control (Ujifusa & Sawchuk, 2014).

Hawkins (2014) also believed that the CCSS perpetuate a teach to the test mentality that became prevalent during the NCLB era. CCSS may be just an extension of NCLB, a failed experiment (Karp, 2014; Zhao, 2015). Stan Karp (2014), the editor for Rethinking Schools, said, “the CCSS emerged from the wreckage of NCLB” (p. 4). This emphasis on high stakes testing has created a stressful and anxiety provoking school atmosphere for teachers and students.

Another cause of CCSS controversy is the belief that the standards were created not by professional educators but by private consultants such as those hired by the Bill and Melinda Gates Foundation (Turley, 2013; Karp, 2014). Turley (2013) believed in a possible conflict of interest involving these consultants because many of them have ties to testing companies. According to Turley, very few current teachers and administrators and no parents—key stakeholders who should have had a strong voice in the creation of the CCSS—were part of the process of creating the standards through Achieve, Inc., the company the NGA hired to develop the standards. The question is whether or not testing companies are financially motivated to lobby for the creation of new, standardized tests that would be required for all states that
adopt the CCSS (Karp, 2014; Zhao, 2012). If so, these companies would be suspected of manipulating the states to implement the standards for the wrong reasons (Karp, 2014; Zhao, 2012). Karp (2014) believed rampant profiteering by educational consultants and publishers represents a defining characteristic of CCSS. Karp went so far as to say the focus of CCSS allows corporations to have an inordinate amount of power due to their influence in creating standards, assessments, and standards-aligned materials. Karp said, “Common Core has become part of the corporate reform project now stalking our schools” (p. 8).

Another concern regarding the CCSS is the rush to adopt and implement them despite their not being tested and despite no evidence to support their effectiveness (Tienken, 2011; Zhao, 2012). Yong Zhao (2015) maintained, “if anything, standards and testing in the U.S. have not amounted to much in curing the ills of inequity and inefficiency” (p. 2). Zhao believed there is little evidence that the Common Core will be effective, making implementation without proper testing premature. Karp (2014) agreed, stating that “whatever potentially positive role standards might play in truly collaborative conversations about what schools should teach and children should learn has repeatedly been undermined by bad process, suspect political agendas, and commercial interests” (pp. 3-4). Karp also said that “the way the standards are being rushed into classrooms across the country is further undercutting their credibility” (p. 7). Rushing these standards into the classroom without evidence supporting their effectiveness goes against the grain of today’s data-driven educational philosophy (Tienken, 2011). Putting a great deal of resources in the form of time and money could possibly be a colossal waste if the CCSS prove to be ineffectual. Focusing resources on an unproven initiative keeps them
from being allocated to areas that are proven. As Tienken (2011) stated, “this nation will base the future of its entire public education system, and its children, upon this lack of evidence” (p. 4).

Teacher preparedness is another controversial issue related to CCSS implementation (Baron, 2014; Darling-Hammond, 2010; Neason, 2014; Ujifusa & Sawchuk, 2014). Teachers are being asked to make major changes in how they instruct students but have not been given adequate training to make these changes (Baron, 2014; Darling-Hammond, 2010; Neason, 2014). Neason (2014) stated that one of the ironies of the attempts to prepare teachers for CCSS implementation is that they are required to sit through lectures, which represent one of the very instructional strategies that they are being asked to shift away from (Baron, 2014; Neason, 2014; Paliokas, 2014). Neason referred to a report from the Center for Public Education that asserts the largely ineffectiveness of teacher professional development. Although training is being provided for CCSS implementation, “if the Common Core is going to live up to expectations, teacher training needs to change, and fast” (Neason, 2014, p. 2). A Learning Forward study reported that student test scores rose by 21 percentile points when taught by teachers who received at least 49 hours of training (Neason, 2014). Unfortunately, most teachers do not receive that much training.

A number of educational experts such as Tim Walker (2014) believe that CCSS adoption and implementation has been sabotaged by the politicization of the issue and bipartisan bickering. A number of Republican lawmakers in Congress have introduced bills that would admonish the pro-CCSS Obama administration to bar the use of federal grants or waivers connected to adoption (Klein, 2014). Legislation that has little chance
of passing has only served to create a political debate over standards that were adopted by the states, not mandated by the federal government (Klein, 2014). Klein (2014) believed that Republican-led efforts to force the federal government to not coerce the states into adopting the standards only serves to perpetuate a negative attitude towards the Common Core. Some Democrats have also pushed legislation that would bar any federal dollars to go towards CCSS implementation or towards accompanying assessments, declaring CCSS implementation to be a state-led effort (Klein, 2014). Bipartisan disagreement over the CCSS has served only to undermine their adoption and implementation.

**CCSS in California**

The implementation of CCSS in California has been relatively smooth in comparison to other states. According to Louis Freedberg (2014), CCSS is “one of the most ambitious reform strategies in the post-World War II era” (p. 1). The CCSESA (2013) views CCSS implementation as a means to validate California’s claim to have an expansive liberal arts education that offers a “full and complete educational experience” (p. 9). California’s CCSS implementation provides a positive outlook for schools that have long lacked the time or resources to provide such a well-rounded curriculum (CCSESA, 2013). Despite opposition in some states, implementation in California has been without significant resistance. Freedberg believed a number of factors account for this lack of resistance.

- Most legislative bodies and office holders such as Governor Jerry Brown support the CCSS.
- There has been little public opposition.
• Higher education systems in California strongly endorse the CCSS.
• Teachers’ unions support the CCSS.
• CCSS are integrated with other reforms such as school finance reforms.
• Significant resources have been invested to support CCSS.
• California has worked to develop standards-aligned assessments.
• Field tests were previously conducted in 2014 to prepare for formal testing in the spring of 2015 (Walker, 2013; Freedberg, 2014; Van Roekel, 2014).

Along with these factors, California has embraced CCSS implementation in an attempt to be prepared for formal assessment. The state has taken on the philosophy of supporting and improving student learning rather than supporting testing and punishing (Association of California School Administrators [ACSA], 2015; Freedberg, 2014; Warren & Murphy, 2014). California had all eligible students in grades 3-8 take the smarter balanced field test, preparing stakeholders such as students, teachers, and parents for formal assessment. California has also allocated resources to make all schools technologically capable of administering the tests. Teachers have felt less pressure regarding implementation because the state has refused to apply for federal NCLB waivers that would require teacher evaluation to be tied to test scores (Baron, 2014; Freedberg, 2014; Warren & Murphy, 2014). Freedberg (2014) opined that “California appears set to move ahead with the new standards without running into significant opposition” (p. 3).

As of April, 2014, the CDE has developed an implementation plan for California. The CDE’s implementation plan recommends that local educational agencies develop their own plans to meet their own needs, but it does provide an explanation of (a) the
CCSS, (b) their implementation philosophy, (c) strategies for implementation, and (d) resources that local educational agencies can use to apply to their own plans (CDE, 2014). The CDE (2014) explained that ineffective CCSS implementation puts the success of the entire educational system at risk, but it does believe that the CCSS “system of clear expectations for student achievement promotes educational equity” (p. 1). The CDE stated that this equity is the cornerstone of its philosophy, and it believes that CCSS adoption is evidence of its commitment to providing its students a world-class education while working to ensure clear communication and expectations that address the needs of California’s diverse population.

To successfully implement the CCSS, the CDE’s structural framework is grounded in seven guiding strategies:

1. Facilitate high quality professional learning opportunities for educators to ensure that every student has access to teachers who are prepared to teach to the levels of rigor and depth required by the CCSS. Educators will have access to professional learning opportunities that promote best practices for teaching all students, including our youngest students, gifted students, students with disabilities, English learners, and underperforming students.

2. Provide CCSS-aligned instructional resources designed to meet the diverse needs of all students. Students will have the opportunity to access CCSS-aligned curriculum via a variety of formats, including digital technology that will also be capable of supporting assessment administration.

3. Develop and transition to CCSS-aligned assessment systems to inform instruction, establish priorities for professional learning, and provide tools for accountability.
As the system is transformed, teachers will have access through a digital library to Smarter Balanced formative strategies and tools to use in their classrooms.

4. Collaborate with parents, guardians, and the early childhood and expanded learning communities to integrate the CCSS into programs and activities beyond the K-12 school setting. California’s early childhood programs will use the early learning foundations, their companion curriculum frameworks, and Desired Results child assessments results to inform curriculum planning and practices, leading to more positive child outcomes.

5. Collaborate with postsecondary and business communities and additional stakeholders to ensure that all students are prepared for success in college and in their careers. Stakeholders will have an agreed upon and clear understanding of the purpose of high school and the definition of career and college readiness.

6. Seek, create, and disseminate resources to support stakeholders as CCSS systems implementation moves forward. Proper and adequate funding will support implementation.

7. Design and establish systems of effective communication among stakeholders to continuously identify areas of need and to disseminate information. Stakeholders may access CCSS systems implementation information and resources via a variety of communication venues and may provide feedback and participate at every stage of the implementation process (CDE, 2014, p. 4-36).

These strategies serve as the foundation for California’s CCSS implementation plan. The strategies prescribed by the CDE align with The Change Leader’s Roadmap’s directive to prepare to lead the change by building capacity for change and creating a
clear strategy for implementation (Ackerman-Anderson & Anderson, 2010). Each of the CDE’s strategies leads California’s schools towards the transformation to a CCSS-based system that will enable its students to graduate with the skills to be ready for college and for their careers (CDE, 2014).

In addition to these strategies, the CCSESA (2013) offered next steps by (a) completely evaluating what is working and what is not, (b) analyzing the needs to teach the standards, (c) examining how teachers are supported, (d) looking at the instructional uses of technology, (e) analyzing instructional resources, and (f) reviewing assessment practices. The CCSESA proposed that effective implementation comes with adherence to four phases:

1. awareness of all CCSS standards by all stakeholders,
2. transitioning to implementation of the standards through preparation,
3. implementing the standards with rigorous instruction for all students, and
4. continuously improving the implementation process (2013, p. 11-14).

These phases are CCSESA’s keys to a successful CCSS implementation that satisfies all stakeholders’ needs.

Despite the number of controversial issues surrounding the adoption of CCSS, California has begun their implementation, rendering these issues less relevant than the key issue of proper implementation. NEA President Dennis Van Roekel has expressed his opinion that most educators are not against the CCSS but mostly have concerns about how it is being implemented and the level of accountability that will follow (Walker, 2014). Van Roekel (2014) also believed that “it won’t come as a surprise to hear that in
far too many states, implementation has been completely botched” (p.1). According to Van Roekel, in February of 2014, “seven of ten teachers believe that implementation of the standards is going poorly in their schools” (p. 1) and “that two thirds of all teachers report that they have not even been asked how to implement these new standards in their classrooms” (p. 1). Educational experts such as Walker and Van Roekel have argued that teachers should play a key role in CCSS implementation, allowing them to provide their expertise and advice to implementation plans. Proper implementation is being hindered by teacher perceptions of a lack of commitment to implementing the standards in an effective manner (Neason, 2014; Van Roekel, 2014). Proper implementation must take into account all stakeholders’ opinions and perspectives. Karp (2014) added that “supporters of the Common Core don’t sufficiently take into account how these larger forces define the context in which the standards are being introduced, and how much that context is shaping implementation” (p. 2).

Implementation Strategies

“The impact of the Common Core on student learning in the U.S. will be determined not only by the quality and relevance of the standards but also by how we approach their implementation” (Hill, 2013, p. 1). A successful approach to effective CCSS implementation lies in what strategies are being used and how they are being used. In their report, Confrey and Krupa (2010) recommended to create a process that involves continually reviewing, evaluating, and updating the standards in a way that is transparent and ensures all stakeholders’ involvement. They believe that the standards should be a living document (Killion, 2012; Chicago STEM, 2013).
Researchers have suggested revising instructional materials to align to the Common Core and to create new CCSS-aligned materials (Confrey & Krupa, 2010; Chicago STEM, 2013). The creation and revision of instructional materials should also reflect advances in technology, such as the use of instructional software and tablets (Murphy & Regenstein, 2012). Nancy Kober (2012) stated that “states generally agree that implementing the new standards will require new or substantially revised curriculum materials” (p. 4).

Kober (2011) cited the need for aligning teacher evaluation systems to reflect the ability to teach the CCSS, and paramount to accomplishing this is developing a classroom-based method of leadership observation and evaluation that focuses on the CCSS (Confrey & Krupa, 2010; Killion, 2012, Chicago STEM, 2013).

Confrey and Krupa (2010) conveyed the importance of creating implementation plans that all schools can follow and gradually effectuate. The State of Connecticut’s (2014) implementation task force determined that school districts that have successfully implemented CCSS have developed strategic plans that provided a scripted roadmap, including implementation phases, benchmarks, and instructional pace. Chicago STEM (2013) also recommended crafting a specific strategy plan that targets specific CCSS content.

Developing a technological capacity to introduce and implement technological strategies is another important strategy for CCSS implementation. Kober (2012) believed that potential inability to provide students with enough technology access and adequate internet access and bandwidth represent major challenges to CCSS implementation.
To further facilitate successful CCSS implementation, researchers have also suggested establishing CCSS-aligned professional development across the professional continuum (Confrey & Krupa, 2010; Killion, 2012; Chicago STEM, 2013). Murphy and Regenstein (2012) argued that professional development should include purposeful consideration and should “not mean the same training for all teachers; it should be customized and targeted” (p. 22). Often professional development consists of districts (a) creating leadership teams in districts to train staff, (b) creating professional development positions such as instructional specialists or Common Core coaches, and (c) adding teacher release time to focus on developing the skills necessary for effective implementation (State of Connecticut, 2014). Professional development might also include workshops to unpack the standards as well as cross-grade level teams that can collaborate for cohesion of the standards (Chicago STEM, 2013).

Along with professional development for all staff working with students, an effective implementation strategy is to develop leaders who understand the standards and how to teach them (Chicago STEM, 2013). Leaders such as administrators, department chairs, and teacher leaders should be able to provide instructional support, to empower teachers to develop new instructional strategies, and to enable ongoing collaboration and learning among peers. Leaders also should be able to establish external partnerships with experts who can teach and support staff.

Another strongly suggested strategy is to create CCSS-aligned assessments that not only measure student learning but can also provide feedback and drive instruction and school and teacher accountability (Chicago STEM, 2013). Assessments should be able to help schools learn more about their students and evaluate how they are doing. It is
essential that assessments actually evaluate what is being taught and generate a conversation regarding how to improve instruction (Chicago STEM, 2013).

Professional learning communities constitute another important CCSS implementation strategy meant to use collaboration as a means to “change practice and increase student achievement” (Killion, 2012, p. 19). A professional learning community “occurs within communities of learners who share goals aligned with the school” (Killion, 2012, p. 19). Collaborative professional learning communities allow teachers to design instruction with peers, to compare samples of student work, to reflect on successes and problems, to analyze their practices, and to “evaluate their progress to determine future learning needs” (Killion, 2012, p. 26).

The State of Connecticut’s (2014) implementation task force posited time as the most important implementation strategy. Successful districts devote time for teachers to “learn, develop, and implement the standards in their classroom” (State of Connecticut, 2014, p. 11). Teachers need to be provided the time to work with fellow teachers and instructional coaches (Killion, 2012). According to the State of Connecticut, teachers agree that the most productive time is spent working with peers at their grade levels and those above or below them. Time is often provided through release days, late start, early release, and paid time during summer for professional development and collaboration. Time is also one of the key organizational factors mentioned in The Change Leader’s Roadmap as necessary for building capacity for change and for developing an organizational strategy for change (Ackerman-Anderson & Anderson, 2010).
**Small School Challenges**

Small school districts hold a unique place in the CCSS implementation conundrum. The differences between small and large school districts need to be addressed because both have specific challenges that require varying strategies and solutions. It is essential for smaller school districts to be especially cognizant of effectively implementing the standards despite being limited in resources such as money, staffing, and school infrastructure.

The Association of California School Administrators’ (ACSA, 2015) definition of small school districts identifies those school districts as having fewer than 2,500 students. Based on this definition, approximately 57% of school districts in California are small (ACSA, 2015). With the majority of school districts in California meeting the definition of small, it is valuable to consider their unique needs, challenges, and perspectives.

Understanding the demographics of small school districts is important for effective CCSS implementation. These districts are often found in rural, smaller communities with low population densities and are somewhat far from urban centers (Burton, 2011; Reeves, 2003; Smarick, 2014). Small school districts often experience a geographic isolation that separates them from other districts and makes them more susceptible to having a population of students from lower socioeconomic statuses than more urban or suburban districts do (Burton, 2011; Reeves, 2003; Smarick, 2014). In part due to these unique characteristics of small school districts, a CDE study found that 21% of districts comprising fewer than 10,000 students had finished the CCSS implementation planning process compared to over half of larger districts (Warren & Murphy, 2014). These facts
make considering small school districts’ unique needs and challenges paramount (Warren & Murphy, 2014). These districts lack two essential resources that larger districts can offer, time and money (Burton, 2011; Hill et al., 2014; Reeves, 2003). The ACSA (2015) has stated that the majority of school districts in California are small yet still have the same expectations of larger school districts equipped with more resources. Increasing expectations, such as adhering to education codes, fiscal responsibility, and student achievement requirements, must be met despite the lower amount of resources available to smaller districts (ACSA, 2015).

Budget constraints are a large hurdle hindering CCSS implementation in small school districts. Change initiatives are harder to manage in smaller districts because of budget pressures related to implementation (ACSA, 2015; Hill et al., 2014). In her report for the North Central Regional Educational Laboratory, Cynthia Reeves (2003) claimed that numerous studies illustrate the disparities in educational funding due to dependence on property taxes, which tend to be lower in the rural areas in which most smaller school districts exist. Reeves also claimed that numerous studies illustrate the lack of funding from federal programs that favor allocating money on a per-pupil basis that provides little for smaller districts. Reeves also argued that smaller districts do not benefit from economies of scale. Smaller school districts must also maintain facilities, staff, transportation, food service, and more that require a much larger proportion of their budgets than is required for larger districts (Hill et al., 2014).

Time is another constraint that inhibits effective CCSS implementation. Teachers and school leaders have a large number of responsibilities despite lacking many of the internal supports that larger districts have (ACSA, 2015; Burton, 2011; Hill et al., 2014;
Reeves, 2003). Overburdened teachers and school leaders are being asked to do more in smaller school districts because schools in these districts have fewer staff members to deal with issues such as student discipline, teaching a broad curriculum, planning time, intervention, and a multitude of other roles that need to be filled (ASCA, 2015; Burton, 2011; Reeves, 2003). In addition, many teachers in smaller districts are expected to teach a wider range of classes, requiring them to prepare for up to five different classes a day and sometimes to teach subjects out of their fields, which greatly increases the time necessary to implement and teach the CCSS across a broad curriculum (Hill et al., 2014; Reeves, 2003). Conversely, a teacher in a larger district may only have to prepare for one subject (Hill et al., 2014; Reeves, 2003). Because time is precious for all educators, smaller districts are faced with the challenge of creating CCSS-aligned lessons, developing as professionals, and adapting materials to be CCSS-aligned despite being spread thin by numerous responsibilities that larger districts do not have to contend with (ASCA, 2015).

Smaller districts also have difficulties with teacher recruitment and retention, which affect not only time but also the quality of instruction (Hill et al., 2014; Reeves, 2003; Smarick, 2014). Smaller districts with less money experience more difficulty in paying competitive salaries, creating the potential to have to hire less effective teachers than larger districts have (Hill et al., 2014; Reeves, 2003; Smarick, 2014). Furthermore, because many smaller districts tend to be rural or more geographically isolated than larger districts are, it is challenging to get teachers to move to a smaller district where they become professionally isolated and make less money; the lack of time, money, and geographical distance from urban areas makes smaller districts less attractive to teachers
(Hill et al., 2014; Reeves, 2003; Smarick, 2014). With less staff on hand, teachers are asked to do more, such as preparing for multiple classes each day, making the job less appealing in smaller districts (Hill et al., 2014; Reeves, 2003; Smarick, 2014).

Isolation, both professionally and geographically, also inhibits CCSS implementation in smaller districts and decreases the amount of time that can be dedicated to it (ASCA, 2015; Burton, 2011; Hill et al., 2014; Reeves, 2003; Smarick, 2014). Geographically smaller districts tend to be isolated from urban areas, increasing commute times and distance to professional development opportunities and decreasing collaboration between schools and access to technology (Burton, 2011; Hill et al., 2014; Reeves, 2003; Smarick, 2014). Professional isolation due to smaller districts makes it a challenge to (a) collaborate with peers who teach similar grades and subjects, (b) work in professional learning communities, (c) achieve professional development, (d) have access to educational service providers, and (e) participate in professional networks and associations (ASCA, 2015; Reeves, 2003; Smarick, 2014).

Synthesis Matrix

The synthesis matrix found in appendix A provides an overview of the literature in table form, demonstrating the themes and subtopics discussed by the authors. The synthesized list of literature is deconstructed into two tables and ten themes or subtopics. Table 1 reflects the authors’ discussion of the historical context of education in America, the introduction of the CCSS, instructional shifts related to CCSS implementation, implementation philosophy, and related organizational factors for implementation. Table 2 demonstrates the authors’ discussion of perceived benefits of CCSS, perceived
challenges, the CCSS in California, implementation strategies, and specific challenges to implementation that small schools face. Both tables synthesize the literature into a quick view of the relationships of the various concepts covered in the literature review.

**Conclusion**

“In the end, the most important aspect of the Common Core State Standards is the part that has yet to be figured out: the implementation” (Calkins et al., 2012, p. 13). The adoption of the CCSS is ambitious because educational reform in America has historically yielded limited success. The success of the CCSS depends on proper, effective implementation. Numerous possible implementation strategies exist; the key is to choose the most effective ones within the context of research in successful organizational change and how they fit within the framework of the unique challenges and limited resources of small schools. The unique aspects of small schools need to be addressed specifically for a successful strategic implementation. But the path to successful implementation is unclear; “The Common Core State Standards have been written, but the plan for implementing them has not. The goal is clear. The pathway is not” (Calkins et al., 2012, p. 13).

This researcher has found numerous articles and treatments related to CCSS implementation and has found planning guides and implementation strategies but has found nothing that specifically relates to effective implementation in small school districts. Given the gap in the literature addressing the need for effective implementation in small school districts, this study will add to the body of knowledge that will allow teachers to implement and teach the standards successfully to their students.
With increased accountability, American schools and people who work in them are being asked to do something new—to engage in systematic, continuous improvement in the quality of the educational experience of students and to subject themselves to the discipline of measuring their success by the metric of students’ academic performance. (Killion, 2012, p. 7)

The newest way American schools are viewing this task is to use the CCSS to prepare students for college and for their careers. Using the CCSS as the basis for a common understanding for how education should look nationally, educators are tasked with the mission of transforming education in a way that is equitable for all students. The practice of teaching is to understand that “the mere transfer of knowledge and skills is inadequate to address the complexity of the task of reaching, especially the teaching essential to bring all students to high academic standards” (Killion, 2012, p.8). The mission now is to develop effective strategies that ensure the full and successful implementation of CCSS. According to Calkins et al. (2012), “The CCSS provide an urgently needed wake-up call” (p. 8). As the perception of education’s effectiveness in America declines, effectively implementing the standards will be a valuable key to its educational rebound.
CHAPTER III: METHODOLOGY

Overview

This chapter contains the methodology used in this study, including a purpose statement delineating the goal of the research, research questions that drove the direction of the study, and a description of the research design that provide a rationale for the appropriateness of a Delphi study. The population and sample of the study will be defined as well as the process involved in creating the instruments used to collect participant data. The validity and reliability of the instruments will be justified, and the chapter will also include an examination of the appropriateness of data collection methods and analysis of collected data. Lastly, this chapter will include the possible limitations of the study and a summary of material covered in this chapter.

Purpose Statement

The purpose of this Delphi study was to identify the strategies essential for small school districts to successfully implement the Common Core State Standards (CCSS) as identified by a panel of experts. The data from the study also revealed the organizational support factors small school districts should have in place to support the effective implementation of the identified CCSS strategies as perceived by a panel of experts.

Research Questions

1. What strategies are essential for small school districts to successfully implement the Common Core State Standards (CCSS) as perceived by a panel of experts?
2. What strategies are rated as most important to successful implementation of the CCSS in small school districts as perceived by a panel of experts?
3. What organizational support factors are essential for small school districts to successfully implement the identified CCSS strategies as perceived by a panel of experts?

4. What organizational support factors are rated as most important for successful implementation of the identified CCSS strategies in small school districts as perceived by a panel of experts?

5. What implementation strategies and organizational support factors are ranked as most important for small school districts to effectively implement the CCSS as perceived by a panel of experts?

**Research Design**

This research entailed incorporating a Delphi methodology in which a panel of experts was identified to elicit expert opinions and strategies regarding CCSS implementation. Although the Delphi technique is traditionally considered more of a quantitative research method, this study involved both a qualitative and quantitative approach to the data. A Delphi study involves using the identified group of experts to obtain subjective opinions and to identify important issues in their field. The Delphi technique is used to

- solicit expert opinion on a particular subject,
- provide group interaction without a face-to-face meeting, and
- avoid direct confrontation of people with opposing views (Taylor-Powell, 2002).

The Delphi study is a structured communication process conducted in a series of rounds in which the information gained from each round is used to gain deeper
information in the next round (Okoli & Pawlowski, 2004). This group decision making process assisted in ascertaining the strategic planning efforts for effective CCSS implementation in small schools (Okoli & Pawlowski, 2004). In this case, the group of experts was asked to identify necessary CCSS implementation strategies and related organizational support factors in Round 1, to rate the identified strategies and organizational support factors in Round 2, and to rank a combined list of the most highly rated implementation strategies and organizational support factors in Round 3.

The Delphi methodology involves examining the views and perspectives of the participants (the experts) and will not “apply predetermined definitions or ideas about how people will think” (McMillan & Schumacher, 2010, p. 323). It involves examining participants’ perspectives and focuses on their points of view. As McMillan and Schumacher (2010) stated, “This approach involves multiple realities as different people construct meaning from the same event” (p. 323). Ultimately, the results of the study involved participant perspectives because the participants’ subjective opinions constituted the essence of this study (McMillan & Schumacher, 2010). A Delphi method was especially useful because the opinions of these experts and practitioners were needed, but factors such as distance and time made it difficult for them to work together (Yousef, 2007).

This study required soliciting information and the opinions of “key knowledgable…es” (Patton, 2002, p. 200), or experts in the field of education. Expert small school administrators and teachers were enlisted to identify the effective strategies and related organizational support factors necessary for successful CCSS implementation. Once the expert administrators and teachers identified the strategies and factors, they
were asked to participate in a second round of feedback by taking the findings of the implementation strategies and identified organizational support factors and rating each by their degree of importance using a 5-point Likert scale (Patton, 2002). A third round of feedback from the administrators and teacher experts involved in the study generated a ranked list of the top implementation strategies and organizational factors that small school districts should incorporate into their CCSS implementation processes.

A Delphi study was especially appropriate in an educational setting because it exhibits unique characteristics such as anonymity that provide the panel with (a) the freedom to express opinions without fear, (b) a controlled feedback process that limits panel interaction and reduces conflict, and (c) data collection that reflects the opinions of all panel members (Yousef, 2007). Anonymity alleviates the common concern among groups in which a dominant member can affect the opinions of the other group members (Hsu & Sandford, 2007). Controlled feedback not only reduces conflict, but it also minimizes biases and individual interests that distort the data (Hsu & Sandford, 2007). The data collection through a Delphi study includes input from all panel members as information gathered is averaged to find a mean score. These characteristics provide the flavor of a controlled debate (Gordon, 1994).

With a Delphi study, educators have the capacity to communicate and develop strategies that will guide educational policy and create alternative mechanisms to implement new policy (Yousef, 2007). As in the past, the Delphi technique can assist in predicting trends in CCSS implementation and in forming new guidelines that will address those trends (Green, 2014). This process not only resulted in delineating what could be in CCSS implementation but also what should be (Hsu & Sandford, 2007).
Ultimately, the Delphi method served to “represent a synthesis of opinion” (Gordon, 1994, p. 4) meant to “evoke a consensus” (Gordon, 1994, p. 4) among the teacher and administrator experts of the panel. These experts created a desired state for the most highly effective CCSS implementation strategies and related organizational support factors, which may also help guide and form future CCSS educational policy.

In this study, the most distinct application of the Delphi technique is a policy Delphi. The policy Delphi not only entails seeking the consensus of an expert panel, but its goal is also to identify those experts’ various opinions and to analyze those divergent opinions (Yousef, 2007). Policy Delphi studies are often used in an educational setting because they set a course for educational policy and create a set of best practices for establishing guidelines for future policy. Because the CCSS have become a major part of California’s educational future, the policy implications of a Delphi can inform policy makers charged with guiding CCSS implementation at the state and local levels. The results from a Delphi policy study can be used to add to the list of possible CCSS implementation strategies and related organizational support factors, to assist in evaluating these strategies and support factors, and to predict the future consequences of those strategies and support factors (Gordon, 1994).

By exploring implementation strategies and related organizational support factors before enacting them or as part of a strategically evaluative process, educational experts can develop a meaningful body of opinions that can guide policy in a more effective, productive way (Manley, 2013). In addition, “The researcher will provide the reader with a methodological blueprint for identifying consequences of past policy changes” (Manley, 2013, p. 756). Although consensus is possible, the Delphi method focuses on
providing the experts the ability to rate and evaluate the opinions of the panel without having to confront or criticize others. Because consensus is not critical, the Delphi method also focuses more on using a heterogeneous group of experts that can offer a wide variety of opinions and perspectives when addressing the problem of CCSS implementation. In cases such as this, the goal of the Delphi method is often to “address a policy issue in which there are no experts, only informed advocates and referees” (Manley, 2013, p. 757).

When conducting a policy Delphi, the basic steps are as follows:

1. Develop the initial Delphi probe for questions.

The review of literature unveiled a gap in research investigating effective implementation strategies and related organizational support factors that address the unique challenges and benefits of CCSS implementation that small school districts face.

2. Select the expert panel.

The researcher determined that an expert panel of small school district administrators and teachers would be selected to provide their unique insights and opinions stemming from their experiences working in small school districts. The panel consisted of 10 teachers and 10 administrators with at least 10 years of experience in education. The entire panel was derived from educators working on site in schools in Butte and Glenn counties. The panelists were informed of the parameters and details of the study, were provided demographic information, and agreed to the study with full knowledge of their rights and protections as prescribed by the Brandman University Institutional Review Board.
3. Distribute the first round survey.

The first round survey was sent to each panelist through email as an attachment (see Appendix B). The survey asked the experts to create a brainstormed list of effective CCSS implementation strategies and related organizational support factors (see Appendix B). The panelists were given one week to return the list through email to the researcher.

4. Collect and analyze Round 1 responses.

Once the researcher collected panelist responses, a list of the most frequently appearing implementing strategies and related organizational support factors was created. The list was limited to no more than 40 of the combined most frequent responses.

5. Formulate second survey from Round 1 responses and distribute to panel.

The second round survey involved taking the list of most frequent responses from the first round and asking the panel to rate each one on a 10-point Likert scale through a link to Survey Monkey. Each panelist accessed the survey through Survey Monkey and responded to each item on the list within one week.


Responses for the second round were collected through Survey Monkey. Panelist responses were given a mean score for each item on the survey. Responses were analyzed to determine the 10 implementation strategies with the highest mean scores and the 10 organizational support factors with the highest mean scores.

7. Formulate third survey from Round 2 responses and distribute to panel.
The 10 highest mean scores for implementation strategies and organizational support factors were used to create a randomized list of all 20 items. Respondents were given this list through a link to Survey Monkey and were asked to rank all 20 items based on level of importance. Panelists were also given the opportunity to offer commentary to their responses. The panel was given one week to respond through the Survey Monkey link.

8. Collect and analyze Round 3 responses.

Panelist responses to the third survey were collected through Survey Monkey and were given a mean score for each item on the list based on respondents’ rankings. A final ranked list of the 10 implementation strategies and the 10 organizational support factors was created based on the mean scores of each item.

9. Distribute results to panelists (Green, 2014, p. 3).

The final ranked list was provided to the panel for review through an email attachment.

Population

As McMillan and Schumacher (2010) stated, “A population is a group of elements or cases, whether individuals, objects or events, that conform to specific criteria and to which we intend to generalize the results of the research” (p. 129). More simply, a population “is the group in which researchers are ultimately interested” (Patten, 2012, p. 45). The population of this study included the 586 (of 1,028) small school districts in California (California Dept. of Education, 2014). The target population of a study is the actual list of sampling units from which the sample is selected (Creswell, 2003). The
target population in this study comprised teachers and administrators in small school districts in Butte and Glenn counties of northern California. With 57% of districts in California being small, Butte and Glenn counties accurately represent the majority of California school districts. According to the Butte County Office of Education, 11 of 14 districts in Butte County are small (79%), and the Glenn County Office of Education lists eight of eight districts to be small (100%). The 11 small school districts in Butte County comprise 31 schools, and the eight Glenn County small school districts comprise 20 schools. These counties were chosen not only for their large percentage of small school districts but also due to their proximity to the researcher. Tables 1 and 2 show a breakdown of the schools in Butte County and Glenn County, California.

Table 1

**Butte County Small School Districts Including Average Daily Attendance**

<table>
<thead>
<tr>
<th>District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangor Union Elementary School District</td>
<td>140</td>
</tr>
<tr>
<td>Bangor Elementary School</td>
<td>140</td>
</tr>
<tr>
<td>Biggs Unified School District</td>
<td>516</td>
</tr>
<tr>
<td>Biggs Elementary School</td>
<td>343</td>
</tr>
<tr>
<td>Richvale Elementary School</td>
<td>31</td>
</tr>
<tr>
<td>Biggs High School</td>
<td>142</td>
</tr>
<tr>
<td>Durham Unified School District</td>
<td>1,015</td>
</tr>
<tr>
<td>Durham Elementary School</td>
<td>441</td>
</tr>
<tr>
<td>Durham Intermediate School</td>
<td>250</td>
</tr>
<tr>
<td>Durham High School</td>
<td>324</td>
</tr>
<tr>
<td>Feather Fall Union Elementary School District</td>
<td>47</td>
</tr>
<tr>
<td>Feather Falls Elementary School</td>
<td>47</td>
</tr>
<tr>
<td>Golden Feather Union Elem. School District</td>
<td>150</td>
</tr>
<tr>
<td>Concow Elementary School</td>
<td>150</td>
</tr>
<tr>
<td>Gridley Unified School District</td>
<td>2,109</td>
</tr>
<tr>
<td>McKinley Elementary School</td>
<td>341</td>
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<tr>
<td>Wilson Elementary</td>
<td>625</td>
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<tr>
<td>Sycamore Middle School</td>
<td>435</td>
</tr>
<tr>
<td>Gridley High School</td>
<td>680</td>
</tr>
<tr>
<td>Esperanza High School</td>
<td>28</td>
</tr>
<tr>
<td>Manzanita Elementary School District</td>
<td>Average Daily Attendance</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>Manzanita Elementary School</td>
<td>250</td>
</tr>
<tr>
<td>Oroville City Elementary School District</td>
<td>2,614</td>
</tr>
<tr>
<td>Bird Street School</td>
<td>185</td>
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<tr>
<td>Central Middle School</td>
<td>357</td>
</tr>
<tr>
<td>Ishi Hills School</td>
<td>327</td>
</tr>
<tr>
<td>Oakdale Heights School</td>
<td>433</td>
</tr>
<tr>
<td>Ophir School</td>
<td>491</td>
</tr>
<tr>
<td>Stanford Avenue School</td>
<td>522</td>
</tr>
<tr>
<td>Wyandotte Avenue School</td>
<td>299</td>
</tr>
<tr>
<td>Palermo Union School District</td>
<td>1,297</td>
</tr>
<tr>
<td>Golden Hills Elementary School</td>
<td>301</td>
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<tr>
<td>Helen Wilcox School</td>
<td>575</td>
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<tr>
<td>Honcut Elementary School</td>
<td>16</td>
</tr>
<tr>
<td>Palermo Middle School</td>
<td>405</td>
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</table>

<table>
<thead>
<tr>
<th>Pioneer Union Elementary School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berry Creek Elementary School</td>
<td>64</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermalito Union School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nelson Avenue Middle School</td>
<td>410</td>
</tr>
<tr>
<td>Plumas Avenue School</td>
<td>275</td>
</tr>
<tr>
<td>Poplar Avenue School</td>
<td>216</td>
</tr>
<tr>
<td>Sierra Avenue School</td>
<td>447</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2</th>
</tr>
</thead>
</table>

**Glenn County Small School Districts Including Average Daily Attendance**

<table>
<thead>
<tr>
<th>Capay Joint Union Elementary School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capay Joint Union Elementary School</td>
<td>200</td>
</tr>
<tr>
<td>Hamilton Unified School District</td>
<td>735</td>
</tr>
<tr>
<td>Hamilton Elementary School</td>
<td>448</td>
</tr>
<tr>
<td>Hamilton High School</td>
<td>270</td>
</tr>
<tr>
<td>Ella Barkely High School</td>
<td>17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lake Elementary School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Elementary School</td>
<td>170</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Orland Unified School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mill Street School</td>
<td>526</td>
</tr>
<tr>
<td>Fairview Elementary School</td>
<td>463</td>
</tr>
<tr>
<td>CK Price Middle School</td>
<td>468</td>
</tr>
<tr>
<td>Orland High School</td>
<td>714</td>
</tr>
<tr>
<td>North Valley High School</td>
<td>49</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plaza Elementary School District</th>
<th>Average Daily Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaza Elementary School</td>
<td>133</td>
</tr>
</tbody>
</table>
The panel of expert participants was selected from the target population of expert administrators and teachers from small school districts in Butte and Glenn counties in northern California. The Butte and Glenn County teachers and administrators who constituted the target population of this study have experienced similar conditions and constraints that come from working in small school districts with fewer available resources that can be applied to change initiatives such as CCSS implementation. This target population has specific insight and knowledge regarding how to maximize small districts’ limited resources. Butte County comprises 33 site administrators and 486 teachers, and Glenn County comprises 22 site administrators and 248 teachers. Tables 3 and 4 below show administrators and teachers in each district and school (some administrators cover more than one school).

Table 3

<p>| Butte County Small School Districts Including Administrators and Teachers |
|-----------------------------|----------------|----------------|
| Bangor Union Elementary School District | Administrators | Teachers |
| Bangor Elementary School | 1 | 7 |
| Biggs Unified School District | Administrators | Teachers |
| | 3 | 32 |</p>
<table>
<thead>
<tr>
<th>School District</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biggs Elementary School</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Richvale Elementary School</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Biggs High School</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Durham Unified School District</td>
<td>Administrators 3</td>
<td>Teachers 66</td>
</tr>
<tr>
<td>Durham Elementary School</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>Durham Intermediate School</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Durham High School</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Feather Fall Union Elementary School District</td>
<td>Administrators 1</td>
<td>Teachers 1</td>
</tr>
<tr>
<td>Feather Falls Elementary School</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Golden Feather Union Elem. School District</td>
<td>Administrators 1</td>
<td>Teachers 7</td>
</tr>
<tr>
<td>Concow Elementary School</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Gridley Unified School District</td>
<td>Administrators 7</td>
<td>Teachers 107</td>
</tr>
<tr>
<td>McKinley Elementary School</td>
<td>1</td>
<td>20</td>
</tr>
<tr>
<td>Wilson Elementary</td>
<td>1</td>
<td>35</td>
</tr>
<tr>
<td>Sycamore Middle School</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Gridley High School</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>Esperanza High School</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Manzanita Elementary School District</td>
<td>Administrators 1</td>
<td>Teachers 14</td>
</tr>
<tr>
<td>Manzanita Elementary School</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Oroville City Elementary School District</td>
<td>Administrators 7</td>
<td>Teachers 119</td>
</tr>
<tr>
<td>Bird Street School</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Central Middle School</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Ishi Hills School</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Oakdale Heights School</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Ophir School</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Stanford Avenue School</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>Wyandotte Avenue School</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Palermo Union School District</td>
<td>Administrators 4</td>
<td>Teachers 63</td>
</tr>
<tr>
<td>Golden Hills Elementary School</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Helen Wilcox School</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>Honcut Elementary School</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Palermo Middle School</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Pioneer Union Elementary School District</td>
<td>Administrators 1</td>
<td>Teachers 4</td>
</tr>
<tr>
<td>Berry Creek Elementary School</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Thermalito Union School District</td>
<td>Administrators 4</td>
<td>Teachers 66</td>
</tr>
<tr>
<td>Nelson Avenue Middle School</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Plumas Avenue School</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Poplar Avenue School</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Sierra Avenue School</td>
<td>1</td>
<td>22</td>
</tr>
</tbody>
</table>
### Table 4

**Glenn County Small School Districts Including Administrators and Teachers**

<table>
<thead>
<tr>
<th>District</th>
<th>Administrators</th>
<th>Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capay Joint Union Elementary School District</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Capay Joint Union Elementary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamilton Unified School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Hamilton Elementary School</td>
<td>4</td>
<td>19</td>
</tr>
<tr>
<td>Hamilton High School</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Ella Barkely High School</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lake Elementary School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Lake Elementary School</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Orland Unified School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Mill Street School</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Fairview Elementary School</td>
<td>1</td>
<td>24</td>
</tr>
<tr>
<td>CK Price Middle School</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Orland High School</td>
<td>2</td>
<td>31</td>
</tr>
<tr>
<td>North Valley High School</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Plaza Elementary School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Plaza Elementary School</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Princeton Joint Unified School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Princeton Elementary School</td>
<td>2</td>
<td>15</td>
</tr>
<tr>
<td>Princeton Jr.-Sr. High School</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Princeton Jr.-Sr. High School</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Stony Creek Joint Unified School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Elk Creek Elementary School</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Indian Valley School</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Elk Creek Jr.-Sr. High School</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Willows Unified School District</td>
<td>Administrators</td>
<td>Teachers</td>
</tr>
<tr>
<td>Murdock Elementary School</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>Willows Intermediate School</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Willows High School</td>
<td>1</td>
<td>19</td>
</tr>
<tr>
<td>Willows Community High School</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

---

**Sample**

The sample of any study is a smaller group of participants selected from the target population that is to be studied (Patten, 2012). The large population of administrators and teachers in small school districts led to the selection of purposive sampling for this
study. Purposive sampling is the selection of subjects who possess certain characteristics that will be representative or informative regarding the topic to be studied (McMillan & Schumacher, 2010). Using this type of sampling, individuals were selected to serve on the panel based on their experience working in small school districts, making them good sources of information (Patten, 2012, p. 51). The expert panel of small school district teachers and administrators was chosen from a group that had been identified as (a) having 10 or more years of experience in education, (b) holding appropriate teaching or administrative credentials, (c) having participated in CCSS implementation for at least two years, (d) having experience in school leadership, (e) having participated in the development or adoption of curriculum, (f) showing the willingness and confidence to provide honest opinions, and (g) being limited to those working for small school districts in Butte and Glenn counties. This is also an example of criterion sampling (Patton, 2002, p. 238). With criterion sampling, the sample population is determined by preset criteria, which in this study are at least 10 years of experience and their location in the aforementioned Butte and Glenn counties. The study’s participants were selected based on the above criteria and on their willingness to participate in the study.

A sample size of the target population consisting of 10 administrators and 10 teachers identified as experts was chosen to participate. Special consideration was made to ensure a fair distribution of teachers and administrators in Butte and Glenn counties. Ultimately, Butte County, the larger of the two counties, had six teacher and six administrator representatives as opposed to four of each from Glenn County. The panel provided a sampling of experienced, knowledgeable people who were in a position to provide valuable opinions (Gordon, 1994). Because the Delphi technique is dependent
on the perspectives and opinions of the experts selected to participate and not on statistical analysis, the sample size can remain relatively low (Gordon, 1994).

The specific sample of 10 teachers and 10 administrators in Butte and Glenn counties was chosen for a number of reasons. The majority of Delphi studies have used between 15 and 20 respondents, providing a sample that is not too small as to underrepresent the views of the experts and not too large as to create low response rates or to make the process too time consuming (Hsu & Sandford, 2007). The specific number of 20 panelists was chosen to remain in the traditional range of Delphi studies and to provide a balance of opinions between 10 expert teachers and 10 expert administrators. Participants were chosen to ensure stakeholders who have experienced firsthand the challenges of implementing CCSS strategies were included in this study. The purpose of this research was to elicit specific responses from these experts (Hsu & Sandford, 2007). Twenty was an optimal number because the sample was not too large to properly conduct the study yet still provided a large enough number of experts to offer a heterogeneous group of panelists that a Delphi requires (Manley, 2013).

To avoid bias, small district teachers and administrators in Butte and Glenn counties had been selected purposefully through email queries from the researcher to site administrators at each small district school in Butte and Glenn counties (see Appendix B). The email query asked not only for panelist participation from those who met the required criteria, but it also requested the names of possible teachers who met the required criteria. Teachers recommended by administrators for the panel were sent an email requesting their participation (see Appendix C). The 10 administrators and 10 teachers who met the required criteria and demonstrated a willingness to participate were
chosen for the panel in order of response. After receiving approval from the Brandman Institutional Review Board, teachers and administrators at each school in small Butte and Glenn County school districts were contacted through email and asked to participate on the Delphi panel. They were provided an informed letter of consent, which included (a) participant safeguards, (b) the request for demographic information, (c) information regarding the study’s purpose, and (d) directions and timelines for completing the surveys (see Appendix D).

Ultimately, the choice of 10 teachers and 10 administrators in small Butte and Glenn county school districts was an appropriate sample. These practitioners had relevant skills, knowledge, and experience to provide meaningful opinions necessary for a Delphi study. These participants were very well equipped to provide a ranked list of effective implementation strategies and related organizational support factors for developing CCSS implementation policies (Okoli & Pawlowski, 2004). Not only were these experts experienced practitioners, but they were also official (administrators) and unofficial (senior teachers) leaders within their school districts.

Instrumentation

Three instruments were used to measure respondent feedback from the expert panel. The first instrument was a survey, which asked experts to identify the most effective strategies and related organizational support factors necessary for successful CCSS implementation. The respondents were asked to create a list of specific possible implementation strategies appropriate for small school districts and a list of the related organizational support factors that should be in place to implement the strategies.
Respondents were asked to keep the list under 10 total responses, with approximately three to five in each category (see Appendix E).

This initial identification of essential strategies was a critical piece to the Delphi process because it was the basis for all following communication with the panel of experts and was explicitly used to generate the second survey (Okoli & Pawlowski, 2004). The panel’s initial responses were the cornerstone for the information that was converted to the second survey (Hsu & Sandford, 2007). The results of the respondents’ first survey were used to compile a list of the implementation strategies and organizational support factors that appeared most frequently on the initial surveys. The researcher reviewed the responses to create the list based on the most frequently appearing responses. Vague and unintelligible responses were not considered, and the dissertation chair reviewed all responses to ensure that all responses were accurately inputted. The list was limited to no more than the 40 most frequently appearing suggestions.

The second instrument was a survey listing the strategies and organizational factors that emerged from Round 1. The expert panel was asked to rate the degree of importance for each item using a 5-point Likert scale, with 5 indicating high importance and 1 indicating no importance. In this round of instrumentation, areas of consensus and disagreement began to form (Hsu & Sandford, 2007). With the responses from the second survey, the researcher compiled the answers from the experts and calculated a mean score for each item. The researcher, with the advice of the dissertation chair, identified the top 20 implementation strategies and related organizational support factors based on the
The highest mean scores. These items were then combined into a single list using a random number table for use in Round 3.

The Round 3 instrument contained the most highly ranked implementation strategies and organizational support factors combined into one list. The list was distributed to the expert panel and asked them to rank the items from highest importance to lowest importance. Additionally, all panelists were provided with both the score they gave each of the items in Round 2 and the mean score from the entire panel for each item. This list allowed the respondents to review their previous rating in combination with the group rating to assist them in creating their Round 3 rankings. The purpose of the Round 3 instrument was to allow the respondents to review the results of the entire panel’s responses, to combine them into an overall ranked list, to offer new opinions, or to provide additional explanations of opinions (Manley, 2013). The instrument also offered respondents a section in the Round 3 survey (a) to provide additional explanation for their opinions, (b) to provide reasons for their rankings, (c) to specify their reasons for disagreement, and (d) “to make further clarifications of both the information and their judgments of the relative importance of the items” (Hsu & Sandford, 2007, p. 3). Table 5 shows the specifics for each round of this Delphi study.

Table 5

Delphi Study Schedule

<table>
<thead>
<tr>
<th>Round</th>
<th>Activity</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prior to Round 1</td>
<td>Email directions, informed consent, schedule of study</td>
<td>Week one</td>
</tr>
<tr>
<td>Round 1</td>
<td>Email first survey, respondents brainstorm list of implementation strategies and related organizational</td>
<td>Week two</td>
</tr>
<tr>
<td>Round</td>
<td>Description</td>
<td>Week</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>Round 2</td>
<td>Respondents access list of most frequent responses through Survey Monkey and rate each item on list. Ratings are given a mean score and turned into a new list of the 10 most highly rated strategies and 10 most highly rated organizational structures.</td>
<td>Week three</td>
</tr>
<tr>
<td>Round 3</td>
<td>Respondents access list of 20 most highly rated items through Survey Monkey and rank each item. Researcher compiles final ranked list of strategies and structures based on mean score of rankings.</td>
<td>Week four</td>
</tr>
<tr>
<td>After Round 3</td>
<td>Respondents receive final ranked list through email attachment</td>
<td>Week five</td>
</tr>
</tbody>
</table>

**Validity**

The validity of a study is connected to whether or not it measures what it is designated to measure (Patten, 2012, p. 61). The validity of this Delphi study is based on the experts’ own opinions that represent the goal of this study. Because of the nature of the panel members, their opinions are essentially valid as they have not only been identified as experts, but they are also offering their own opinions and perspectives. In addition, the panel of experts represents a group’s opinion rather than an individual’s, which increases the validity of the results. Theory triangulation represents another way to ensure validity of this study (Patton, 2002, p. 247). Theory triangulation is “the use of multiple perspectives to interpret a single set of data” (Patton, 2002, p. 247). The various experts offered their perspectives to not only identify necessary strategies but to also determine which ones are the most highly effective and to determine how they can be successfully implemented with the necessary related organizational support factors.

The validity of this study was established by the creation of instruments that were both field tested by an expert panel derived from a sample population of teachers and
administrators from small school districts in Butte and Glenn counties who have 10 or more years of experience and reviewed and approved by the dissertation committee for clarity and understandability. The field test panel consisted of 10 teachers and 10 administrators, providing both the heterogeneity of varying viewpoints and the homogeneity of experts in the educational field. The heterogeneity of the experts is an essential key to preserving the study’s validity (Green, 2014); a Delphi study’s validity relies on a broad collective of varying viewpoints from the expert panel, allowing the researcher to analyze all sides of the implementation issue (Manley, 2013).

A portion of the study’s validity also relies on the experts’ roles as practitioners in the educational field and their expertise in implementing previously introduced standards and instructional strategies. Additionally, the respondents were able to validate their initial responses by not only adding to the original list but also by using language and clear definitions of the implementation strategies and related organizational support factors that educational practitioners commonly use (Okoli & Pawlowski, 2004). This allowed them to make “subjective judgments on a collective basis” (Yousef, 2007, p. 4).

The construct of the Delphi methodology also adds validity. Avoiding face to face communication eliminates the possibility of conflict that may promote bias, pressure to change opinions, and groupthink that may be influenced by a few dominant people (Yousef, 2007). Each panelist worked in anonymity, eliminating any influence by outside forces. Additionally, before each round, two teachers and two administrators who are not in the study reviewed the survey to verify clarity of the instructions and process and to verify that the strategies and support factors were understandable. Ultimately, the
validity of the study is guaranteed by the consensus from the expert panel, which is a main goal of the study.

**Reliability**

The reliability of any study is secured when it produces consistent results (Patten, 2012, p. 72). The reliability of this study was guaranteed because the Delphi method led to identifying the themes, patterns, and common structures the experts presented. The results were consistent because the experts themselves were offering their opinions and perspectives of necessary implementation strategies and related organization support factors, and they ranked which ones they believed to be most effective. In the final portion of the study, only the strategies and organizational support factors most highly ranked by all of the experts were considered.

For the study to have reliability, it is obligated to be “accurate, trustworthy, and reasonable” (McMillan & Schumacher, 2010, p. 102). This study was reliable because its results accurately identified the necessary implementation strategies and organizational support factors the experts presented. In addition, only the most highly rated strategies and organizational support factors were considered, eliminating any outlier strategies or organizational support factors that might be considered less effective. The Delphi technique is dependent on the participants being experts, making them inherently trustworthy and reasonable in their opinions.

The reliability of this research is additionally assured by the design of the Delphi technique. A Delphi study can be replicated with ease because the population of teachers and administrators in California is vast, and the communication structure is simple.
Communication for the field tests was done digitally. Through email, each member of the panel received the instruments by round. For Round 1, the experts received the first survey. Upon responding, the panel members sent the survey back to the researcher. For Round 2, they received the second survey, rating each strategy and organizational support factor and sending it back via email. In the third round, the panel received the third survey, which asked them to rank the combined list of strategies and organizational support factors and to provide commentary regarding the final ranked strategy and factor list. The third questionnaire was then returned to the researcher. Final results were determined, and the panel was provided with a copy. This process was clear and easy to replicate.

Additionally, the reliability lies in its instrumentation. The original list of implementation strategies and related organizational support factors can be used multiple times, with each expert panel being able to choose, rate, rank, and provide opinion on the most essential strategies and factors that promote successful implementation. Consistently averaging the ranked lists will ensure the reliability of the experts’ opinions to be accurate and clear. Lastly, including possible outliers offering differing opinions provided ability to offer comment and to express disagreeing views in relative safety.

Data Collection

To collect data for this Delphi study, the expert panel was provided with a survey attached through email asking them to identify the effective strategies and related organization support factors that should be in place for successful implementation of CCSS in small school districts. A strength of the Delphi method is the anonymity of the
participants, which helps avoid many of the pitfalls resulting from experts debating in face to face groups. To achieve this anonymity, participants’ identities were not revealed to one another, nor were responses credited to any participants. All panelists filled out the survey based on their opinions and beliefs and returned it to the researcher through email. The panelists were asked to return the survey within one week of its receipt.

Upon receiving the feedback from the panel through a returned email, the researcher compiled the list of CCSS implementation strategies and related organizational support factors based on items most frequently occurring. For Round 2, the experts were then asked to rate the proposed strategies and related organizational support factors using the 5-point Likert scale through a link to a survey conducted through Survey Monkey. Panelists were reminded on day five to return the survey by the desired one week after receipt. Survey Monkey was used to assemble the ratings and to determine the mean score for each item to discover which strategies and organizational support factors were the most highly rated.

For Round 3, the researcher compiled a list of the 10 most highly rated implementation strategies and the 10 most highly rated organizational support factors. The list was presented to the panelists through a link to another Survey Monkey, asking them to rank the entire list. Lastly, the experts were allowed to offer any opinion or commentary on their final ranked list. The panelists’ comments were categorized and listed as described in the instrumentation section.
Data Analysis

Inductive reasoning was employed in Round 1, with a quantitative approach in the later rounds. The data were collected in three rounds and synthesized after each round. The data were subsequently examined for themes and patterns with the goal of establishing theories and hypotheses based on the feedback from the responses of the expert panel.

As part of Round 1, the respondents provided their individual lists of strategies and related organizational support factors necessary for CCSS implementation. The researcher compiled the original lists into two comprehensive lists of strategies and organizational support factors by identifying the most frequently occurring items and eliminating answers which were unclear or vague. These lists constituted the survey that was used to conduct Round 2 through the Survey Monkey.

In Round 2, participants rated the data from the list of strategies and organizational support factors, and the mean was score calculated for each item. The items were then assembled into ranked lists for strategies and support factors. The rankings were determined by using the overall mean score for each item on each list and listing them from highest to lowest. The researcher calculated the mean score for each item.

The final analysis was conducted by examining the respondents’ rankings from the list of the most effective implementation strategies and organizational support factors by creating two synthesized ranked lists of the 10 implementation strategies and 10 organizational support factors based on the mean score of the respondents’ rankings.
These data were compiled into a list identifying the 10 most effective strategies and 10 most effective organizational support factors. The list was created by using the strategies with the 10 highest mean ranks and the organizational support factors with the highest mean rank scores. The analysis also included a written summary of respondents’ comments. The summary included themes, patterns, and commonality of opinions in addition to a delineation of findings that might assist in creating a future CCSS implementation plan.

In addition, the comments the respondents provided were categorized by the following:

1. general: not specific enough to be meaningful,
2. redundant: same comment repeated throughout,
3. uninterpretable: not able to read or understand, and
4. meaningful: opinion that can be used to guide findings (Manley, 2013).

After being categorized, the comments were assembled into a list and used by the researcher to provide additional insights to the data that are discussed in the findings of the study.

**Limitations**

There are several possible limitations with a Delphi study, including the time necessary to administer the study, the reliability of the participants, and the clarity of the survey instructions. The population sample might also be considered too small to establish reliability and validity (Gordon, 1994).
In this study, the scope of the population was limited to small school districts in Butte and Glenn counties of northern California. This might be too small a population to generalize the study to all small districts in California and across the nation. Additionally, the size of the expert panel may prove to be too small to develop a comprehensive list of implementation strategies and related organizational support factors. Finally, guaranteeing that all participants filled out the surveys according to their true beliefs is virtually impossible. The researcher organized the study and the surveys in a manner to elicit honest feedback from the participants, but ensuring that they answered honestly is outside of the realm of this study.

Conclusion

Using the policy Delphi technique as the methodology for this study was appropriate for studying the implementation of CCSS in small school districts. The expert panel of teachers and administrators working in small school districts had abundant knowledge, skill, and experience with implementing new standards and policies. The methodology of this study included a Delphi process involving three rounds to elicit responses from the panel of expert teachers and administrators as identified by their levels of experience working in a small school district setting. The sample chosen from the population of teachers and administrators in Butte and Glenn county small school districts represents a sampling of California educators working in small school districts. The researcher developed the instrumentation and determined the instruments to be valid and reliable. Data collection and analysis processes were also described in this chapter. The collected data and their analysis will be discussed further in Chapter 4.
CHAPTER IV: RESEARCH, DATA COLLECTION, AND FINDINGS

Introduction

This chapter describes the findings from the data collected during the Delphi study process. Along with the purpose of this study and research questions, this chapter describes the data collection process, a description of the population and sample, and a presentation of the data collected. The Delphi process used in this study was designed to determine the 20 most effective CCSS implementation strategies and related organizational support factors. The study’s research questions were answered through three surveys that Delphi panel members completed, providing feedback that was used to compile the final ranked list of implementation strategies and related organizational support factors.

Purpose Statement

The purpose of this Delphi study was to identify the strategies that a panel of experts believe are essential for small school districts to successfully implement Common Core State Standards (CCSS). The data from the study also revealed the organizational support factors necessary for small school districts to effectively implement the identified CCSS strategies as perceived by a panel of experts.

Research Questions

1. What strategies are essential for small school districts to successfully implement the Common Core State Standards (CCSS) as perceived by a panel of experts?

2. What strategies are rated as most important to successful implementation of the CCSS in small school districts as perceived by a panel of experts?
3. What organizational support factors are essential for small school districts to successfully implement the identified CCSS strategies as perceived by a panel of experts?

4. What organizational support factors are rated as most important for successful implementation of the identified CCSS strategies in small school districts as perceived by a panel of experts?

5. What implementation strategies and organizational support factors are ranked as most important for small school districts to effectively implement the CCSS as perceived by a panel of experts?

**Methodology**

The design of this study was to utilize the expertise of administrators and teachers working onsite at schools in small school districts in order to create a ranked list of the most effective CCSS implementation strategies and the most effective related organizational factors. The study involved utilizing the Delphi method, which entailed creating a panel of 10 expert teachers and 10 expert administrators working in small school districts from the northern California counties of Butte and Glenn. Both counties were chosen because of their large percentage of small school districts. Butte County is comprised of 79% small districts, while 100% of Glenn County’s school districts are small.

In creating the expert panel, every administrator working onsite in small school districts in Butte and Glenn Counties was contacted through email and was asked to participate. Along with the invitation to participate, administrators were asked to recommend teachers who would be appropriate candidates for the study. Recommended
teachers were sent an invitation to participate through email. The first 10 teachers and first 10 administrators who agreed to participate and who met the required criteria were accepted as members of the panel. The panelists were anonymous other than to the Delphi coordinator (the researcher).

Once panel members were selected, they received an informed consent letter that explained the study, the process (including the three surveys), and a description of established safeguards to protect the participants. Participants signed and returned a copy of the letter, and they also provided demographic information, including school name, district, position, and contact information. All 20 participants returned the informed consent letter.

Round 1 consisted of an initial survey sent by email asking panelists to provide a list of effective CCSS implementation strategies and related necessary organizational factors. The entire panel responded to the first survey by completing it and returning it through email. Respondents provided 177 implementation strategies and related organizational factors.

The survey responses from Round 1 were used to create the Round 2 survey. Data collected from the first survey were synthesized and appeared on the second survey in the form of the 30 most frequently occurring responses. Seventeen of the responses were implementation strategies, and 13 responses were related organizational factors. The 30 most frequently occurring responses were randomly listed in the second survey. The second survey asked panelists to rate each of the 30 survey items using a five point Likert scale. A score of 1 represented **of little importance**, and a score of 5 represented **of most**
importance. Panelists were sent a link to this survey through Survey Monkey, and all 20 responded online.

Data collected from the second survey were synthesized and scored by compiling the mean score for each of the 30 items. The third survey was created with the intention of putting the 10 implementation strategies and 10 organizational factors with the highest mean scores in a randomized order on. However, the third survey ended up consisting of 22 items because three organizational factors with identical mean scores were tied for the 10th highest mean score. One hundred percent of the panelists responded to the third survey online through a link to a Survey Monkey. The third survey asked respondents to rank the 22 items from most important (1) to least important (22). The panelists were also invited to comment on their rankings.

Round 3 survey results were collated to create ranked lists of the 10 most important implementation strategies and 10 most important related organizational factors based on the mean scores of the respondents’ rankings. Scores were tabulated by using the lowest mean scores to compile the list of ranked items from most important (1) to least important (10) according to the panel of experts. The final two ranked lists of the 10 most important implementation strategies and the 10 most important related organizational factors were garnered from the three survey process, in which the panelists identified, rated, and ranked the strategies and factors to result in the final product. The resulting ranked lists were used as the basis for the analysis and findings in this chapter.

**Population**

The population of this study included the 586 (of 1,028) small school districts in California (California Dept. of Education, 2014). The target population in this study
comprised teachers and administrators in small school districts in Butte and Glenn counties of northern California. With 57% of districts in California being small, Butte and Glenn counties accurately represent the majority of California school districts. According to the Butte County Office of Education, 11 of 14 districts in Butte County are small (79%), and the Glenn County Office of Education lists eight of eight districts to be small (100%). The 11 small school districts in Butte County comprise 31 schools, and the eight Glenn County small school districts comprise 20 schools.

Sample

Individuals were selected to serve on the panel based on their experience working in small school districts. The expert panel of small school district teachers and administrators was chosen from a group that had been identified as (a) having 10 or more years of experience in education, (b) holding appropriate teaching or administrative credentials, (c) having participated in CCSS implementation for at least two years, (d) having experience in school leadership, (e) having participated in the development or adoption of curriculum, (f) showing the willingness and confidence to provide honest opinions, and (g) being limited to those working for small school districts in Butte and Glenn counties. The study’s participants were selected based on the above criteria and on their willingness to participate in the study.

A sample size of the target population consisting of 10 administrators and 10 teachers identified as experts was chosen to participate. Special consideration was made to ensure a fair distribution of teachers and administrators in Butte and Glenn counties. Ultimately, Butte County, the larger of the two counties, had six teacher and six administrator representatives as opposed to four of each from Glenn County. The panel
provided a sampling of experienced, knowledgeable people who were in a position to provide valuable opinions (Gordon, 1994).

Participants were chosen to ensure stakeholders who have experienced firsthand the challenges of implementing CCSS strategies were included in this study. The purpose of this research was to elicit specific responses from these experts (Hsu & Sandford, 2007). Twenty was an optimal number because the sample was not too large to properly conduct the study yet still provided a large enough number of experts to offer a heterogeneous group of panelists that a Delphi requires (Manley, 2013).

Presentation of the Data

Round One

The first round of the Delphi study addressed Research Questions 1 and 3. These questions are related to the identification of the essential CCSS implementation strategies and related organizational support factors.

Research question 1. Research Question 1 asked: What strategies are essential for small school districts to successfully implement the Common Core State Standards (CCSS) as perceived by a panel of experts?

The survey administered for Round 1 addressed the first research question, asking the 20 expert panelists to identify the most essential CCSS implementation strategies. Panelists responded with 89 essential strategies. The responses are identified in Table 6, which shows the 17 most frequent implementation strategy responses and the frequency of each response.
Table 6

Survey One: Most Frequent Implementation Strategy Responses

<table>
<thead>
<tr>
<th>Implementation Strategy</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alignment of current curriculum to CCSS</td>
<td>6</td>
</tr>
<tr>
<td>Teacher professional development for CCSS instructional strategies</td>
<td>5</td>
</tr>
<tr>
<td>Time dedicated to developing the understanding and efficacy of the CCSS</td>
<td>5</td>
</tr>
<tr>
<td>Professional learning communities focusing on CCSS implementation</td>
<td>5</td>
</tr>
<tr>
<td>Unpack standards and establish common expectations for instructional practices and CCSS proficiency</td>
<td>5</td>
</tr>
<tr>
<td>Focus on developing effective collaboration skills for students</td>
<td>4</td>
</tr>
<tr>
<td>Encouraging students to take a more critical approach to thinking, seeking a depth of knowledge</td>
<td>4</td>
</tr>
<tr>
<td>Providing rich and varied writing opportunities</td>
<td>4</td>
</tr>
<tr>
<td>Applying frequent formative assessments</td>
<td>4</td>
</tr>
<tr>
<td>Time dedicated to practicing CCSS instructional strategies</td>
<td>2</td>
</tr>
<tr>
<td>Teachers providing feedback and sharing expectations for quality, high level answers</td>
<td>2</td>
</tr>
<tr>
<td>On site coaching with debrief time</td>
<td>2</td>
</tr>
<tr>
<td>Creation and integration of literature-based thematic units that address multiple concepts</td>
<td>2</td>
</tr>
<tr>
<td>Teaching topics that address social justice issues that directly affect the students and their communities</td>
<td>2</td>
</tr>
<tr>
<td>Apply project based learning</td>
<td>2</td>
</tr>
<tr>
<td>Develop pacing guides that include scope and sequence</td>
<td>2</td>
</tr>
<tr>
<td>Develop CCSS-aligned lesson plans</td>
<td>2</td>
</tr>
</tbody>
</table>

The table shows little consensus as to what strategies are the most effective. The range of responses is minimal, from between two similar responses to six. The implementation strategy that appears most frequently, alignment of curriculum to CCSS, only appears six times. There are eight responses that only appear two times.
**Research question 3.** Research Question 3 asked: What organizational support factors are essential for small school districts to successfully implement the identified CCSS strategies as perceived by a panel of experts?

The survey administered for Round 1 also addressed the third research question, asking the 20 expert panelists to identify the essential organizational support factors that need to be in place for effective CCSS implementation. Panelists responded with 88 organizational support factors. The responses are identified in Table 7, which shows the 13 most frequently mentioned organizational factors and the frequency of each response.

Table 7

*Survey One: Most Frequent Organizational Factors Responses*

<table>
<thead>
<tr>
<th>Organizational Factors</th>
<th>Frequency of Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of CCSS-aligned curriculum</td>
<td>12</td>
</tr>
<tr>
<td>Site and district administrators facilitating and supporting professional development opportunities</td>
<td>7</td>
</tr>
<tr>
<td>Funding to purchase supplementary materials</td>
<td>6</td>
</tr>
<tr>
<td>On site CCSS coaches and related resources</td>
<td>6</td>
</tr>
<tr>
<td>Provide adequate time for subject and grade level collaboration</td>
<td>6</td>
</tr>
<tr>
<td>Professional learning community time devoted to analyzing adopted curriculum</td>
<td>6</td>
</tr>
<tr>
<td>Adequate access to appropriate technology</td>
<td>5</td>
</tr>
<tr>
<td>Provide multiple measures for benchmark assessments</td>
<td>4</td>
</tr>
<tr>
<td>Vertical and horizontal alignment of staff to promote equal accessibility to standards among all grade levels</td>
<td>4</td>
</tr>
<tr>
<td>Provide release time for common planning purposes</td>
<td>4</td>
</tr>
<tr>
<td>Administration understanding and efficacy of CCSS</td>
<td>3</td>
</tr>
<tr>
<td>Provide professional development opportunities on site that allow teachers to share best practices towards literacy development across all subjects</td>
<td>2</td>
</tr>
<tr>
<td>County office of education support for professional development and curriculum assessment of new adoptions</td>
<td>2</td>
</tr>
</tbody>
</table>
This table shows a greater level of consensus than Table 6 did; six items in Table 7 appeared with a frequency of response of at least six. The adoption of CCSS-aligned curriculum factor appeared most often, with 12 responses. Two factors, provide professional development opportunities on site that allow teachers to share best practices towards literacy development across all subjects and county office of education support for professional development and curriculum assessment of new adoptions, appeared with the least amount of frequency (2).

**Round Two**

The second round of the Delphi study addressed Research Questions 2 and 4. The questions are related to rating the most frequently occurring CCSS implementation strategies and related organizational support factors.

**Research question 2.** Research Question 2 asked: What strategies are rated as most important to successful implementation of the CCSS in small school districts as perceived by a panel of experts?

The survey administered for Round 2 addressed the second research question, asking the 20 expert panelists to rate the most important CCSS implementation strategies on a Likert scale of 1-5. Table 8 shows the 17 identified implementation strategies from Round 1 and displays them from the highest mean score to the lowest. The implementation strategies shown in bold type represent the 10 most highly rated items.
Table 8

Survey Two: Implementation Strategy Rating Responses

<table>
<thead>
<tr>
<th>Implementation Strategy</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher professional development for CCSS instructional strategies</td>
<td>4.65</td>
</tr>
<tr>
<td>Provide rich and varied writing opportunities</td>
<td>4.65</td>
</tr>
<tr>
<td>Focus on developing effective collaboration skills for students</td>
<td>4.5</td>
</tr>
<tr>
<td>Teachers providing feedback and sharing expectations for quality high level answers</td>
<td>4.5</td>
</tr>
<tr>
<td>Professional learning communities focusing on CCSS implementations</td>
<td>4.5</td>
</tr>
<tr>
<td>Time dedicated to developing the understanding and efficacy of the CCSS</td>
<td>4.45</td>
</tr>
<tr>
<td>On site coaching with debrief time</td>
<td>4.4</td>
</tr>
<tr>
<td>Time dedicated to practicing CCSS instructional strategies</td>
<td>4.35</td>
</tr>
<tr>
<td>Applying frequent formative assessments</td>
<td>4.35</td>
</tr>
<tr>
<td>Unpack standards and establish common expectations for instructional practices and CCSS proficiency</td>
<td>4.3</td>
</tr>
<tr>
<td>Encouraging students to take a more critical approach to thinking, seeking a depth of knowledge</td>
<td>4.25</td>
</tr>
<tr>
<td>Develop CCSS-aligned lesson plans</td>
<td>4.2</td>
</tr>
<tr>
<td>Alignment of current curriculum to CCSS</td>
<td>4.15</td>
</tr>
<tr>
<td>Apply project based learning</td>
<td>3.95</td>
</tr>
<tr>
<td>Develop pacing guides that include scope and sequence</td>
<td>3.75</td>
</tr>
<tr>
<td>Creation and integration of literature-based thematic units that address multiple concepts</td>
<td>3.75</td>
</tr>
<tr>
<td>Teaching topics that address social justice issues that directly affect the students and their communities</td>
<td>3.65</td>
</tr>
</tbody>
</table>

The Round 2 survey demonstrated some interesting findings. There is a slight range of difference (.35) between the highest rated strategy, focus on developing effective
collaboration skills for students, and the 10th rated strategy, unpack standards and establish common expectations for instructional practices and CCSS proficiency. The most frequently appearing implementation strategy from Round 1, alignment of current curriculum to CCSS, was only rated as the 13th most important. Conversely, the second most frequently appearing implementation strategy from the first survey was the most highly rated in the second survey. The second most highly rated implementation strategy was in a cluster of strategies that were referenced four times in Round 1.

**Research question 4.** Research Question 4 asked: What organizational support factors are rated as most important for successful implementation of the identified CCSS strategies in small school districts as perceived by a panel of experts?

The survey administered for Round 2 also addressed the fourth research question, asking the 20 expert panelists to rate the most important organizational support factors for effective CCSS implementation on a Likert scale of 1-5. Table 9 shows the 13 identified organizational support factors from Round 1 and displays them from the highest mean score to the lowest. The implementation strategies shown in bold type represent the 12 most highly rated items. Three items shared identical mean scores as the 10th most highly rated items.

Table 9

*Survey Two: Organizational Factor Responses*

<table>
<thead>
<tr>
<th>Organizational Factor</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site and district administrators facilitating and supporting professional development opportunities</td>
<td>4.55</td>
</tr>
<tr>
<td>Provide adequate time for subject and grade level collaboration</td>
<td>4.45</td>
</tr>
<tr>
<td>Adequate access to appropriate technology</td>
<td>4.45</td>
</tr>
<tr>
<td>Provide professional development opportunities on site that allow teachers to share best practices toward literacy development across all subjects</td>
<td>4.45</td>
</tr>
<tr>
<td>Administration understanding and efficacy of CCSS</td>
<td>4.25</td>
</tr>
<tr>
<td>Professional learning community time devoted to analyzing adopted curriculum</td>
<td>4.2</td>
</tr>
<tr>
<td>Providing release time for common planning purposes</td>
<td>4.15</td>
</tr>
<tr>
<td>Funding to purchase supplementary materials</td>
<td>4.15</td>
</tr>
<tr>
<td>Provide multiple measures for benchmark assessments</td>
<td>4.15</td>
</tr>
<tr>
<td>Adoption of CCSS-aligned curriculum</td>
<td>4.05</td>
</tr>
<tr>
<td>Vertical and horizontal alignment of staff to promote equal accessibility to standards among all grade levels</td>
<td>4.05</td>
</tr>
<tr>
<td>County office of education support for professional development and curriculum assessment for new adoptions</td>
<td>4.05</td>
</tr>
<tr>
<td>On site CCSS coaches and related resources</td>
<td>3.6</td>
</tr>
</tbody>
</table>

The range difference between the most highly rated organizational support factor, site and district administrators facilitating and supporting professional development opportunities, and the 10th rated factors, adoption of CCSS-aligned curriculum, vertical and horizontal alignment of staff to promote equal accessibility to standards among all grade levels, and county office of education support for professional development and curriculum assessment for new adoptions, was noticeably higher (.50) than the implementation strategy range was (.35). In Table 9, there is a clear gap between the items rated 10th and the 13th rated item, on site CCSS coaches and related resources (.45). The 13th rated item was tied for the third most frequently mentioned item in Round 1.
The most highly rated organizational support factor was listed as the second most frequently appearing response in the first survey.

**Round Three**

The third round of the Delphi study addressed Research Question 5. The question relates to ranking the most frequently occurring CCSS implementation strategies and related organizational support factors. The rankings resulted in a list of the 22 most important implementation strategies and organizational support factors.

**Research question 5.** What implementation strategies and organizational support factors are ranked as most important for small school districts to effectively implement the CCSS as perceived by a panel of experts?

The 20 expert panelists were asked to rank the top 22 implementation strategies and organizational support factors placed in randomized order in one list. The panelists placed a ranking of 1 to 22 next to each of the items, with 1 being *of greatest importance* and 22 being *of least importance*. Table 10 shows the mean score for each of the 10 implementation strategies and 12 organizational support factors ranked in the third survey. Items are listed from lowest mean score to highest mean score. Lowest mean score indicates greatest importance; highest mean score indicates least importance. Implementation strategies are shown in bold type.
Teacher professional development for CCSS instructional strategies was clearly ranked first on this list; its mean score of 4.84 is 3.84 lower than the mean score of the next item, site and district administration facilitating and supporting professional development opportunities (8.68). This represented the largest gap between two items.
other than the last two, administration understanding and efficacy of CCSS (14.10) and county office of education support for professional development and curriculum assessment for new adoptions (17.94), which also had a gap of 3.84.

Several notable similarities and differences existed between the results of the second and third surveys. One difference was that the second highest rated implementation strategy from Round 2, provide rich and varied writing opportunities (4.65), was the lowest ranked implementation strategy to make the top 22 at 13.84 (20th overall). Another difference was that one of the second highest rated organizational support factors, adequate access to appropriate technology (4.45), fell to 11th on the combined rankings list (10.78).

As a similarity, the organizational support factor site and district administration facilitating and supporting professional development opportunities, which scored the highest mean rating (4.55) for organizational support factors on the second survey, scored the second highest mean ranking (8.68) on the third survey. One of the second highest rated support factors, provide adequate time for subject and grade level collaboration (4.45), was also the third highest ranked item (8.94). This represents one of the few areas of consensus among the panelists. Additionally, county office of education support for professional development and curriculum assessment for new adoption was not only the lowest mean rated (4.05) organizational support factor in the second survey to make the third survey, it was also the lowest mean ranked (17.94) score in the third survey.

The top six implementation strategies and organizational support factors on the combined ranked list could be paired with one another to show a direct similarity. The
first item, teacher professional development for CCSS (instructional strategy), connects to the second item, site and district administration facilitating and supporting professional development opportunities (organizational support factor). Next, item three, provide adequate time for subject and grade level collaboration (organizational support factor), connects to item four, professional learning communities focusing on CCSS implementation (instructional strategy). Items five, provide release time for common planning purposes (organizational support factor), and six, time dedicated to practicing CCSS instructional practices (instructional strategy), also have a close connection. The following items show a connection by theme that will be later discussed in the findings:

Items 1 and 2- Professional Development

Items 3 and 4- Collaboration

Items 5 and 6- Time

**Commentary**

In the third survey, the panelists were provided the space and opportunity to provide comments related to their rankings. Three respondents chose to offer comments. The comments the respondents provided were categorized by the following:

1. general: not specific enough to be meaningful,
2. redundant: same comment repeated throughout,
3. uninterpretable: not able to read or understand, and
4. meaningful: opinion that can be used to guide findings (Manley, 2013).
At the end of each comment, the item the comment is referring to is shown in parentheses as follows:

**Implementation Strategy: IS-#**  
Example: (IS-1)

**Organizational Support Factor: OSF- #**  
Example: (OSF-1)

**General:**

- It’s not a matter of which one is more important than the other; they are all important. It’s a matter of balancing the needs of the staff and the demands put on the site, district, and state (IS-1-10 & OSF-1-10).

**Redundant:**

- See #17 (OSF-2)
- We teachers are our most valuable resource (OSF-8).
- Only as part of a well-organized PLC (OSF-3)
- See comments regarding PLC (ISF-3)

**Uninterpretable:**

- Ranked lower because teachers need the instructional strategies first (IS-9)
- Curriculum is last because teachers need to know what the shifts are in the CCSS first (OSF-did not make final list)
- Really more important, but only if teachers instructional tools PD (ISF-10)
- Only as a tool (OSF-6)

**Meaningful:**

- How can I teach new material with new strategies without training in same (IS-1)?
• Isn’t all instruction expected to be CCSS practices- so why “practice” when I should be doing (IS-3)?

• My experience is seeing technology replace human interaction skills = bummer (OSF-6).

• We teachers are our own best resource (IS-4).

• Nothing like getting a crop of fifth graders who were not taught what is needed for me to deliver my curriculum, so this will be sure I am getting what I expect with my new group and I know what the next year’s teacher is expecting of me (OSF-7).

• Classroom teachers should not be expected to write/develop curriculum. Their time is better spent planning and instructing (OSF-5).

• This is done with appropriate assessment (IS-8).

• With CCSS there is no time for supplemental materials (OSF-10).

• On-going, on-site, with immediate feedback (IS-1).

• Only as part of a well-organized PLC process focused on student achievement and instructional strategies (OSF-2).

• In conjunction with PD (professional development), focused on student work, and instructional practices (OSF-4).

• This is a monitoring tool, for the big picture, better to use formative assessments (OSF-9).

• More important in some subjects because of the shifts in practice and rigor. Teachers may see this as the “solution” but it is generally not so (OSF-5).

• Depends on the subject (OSF-10)
• This can only happen effectively when teachers understand the CCSS and shifts in instructional practices (OSF-8).

The ranked list and the respondents’ comments provided findings that helped the researcher generate major findings and recommendations in Chapter 5. The ranked list of implementation strategies and organizational support factors provided several findings. First, there was an emphasis on professional development as a strategy. The first item on the list explicitly recommends professional development for CCSS instructional strategies along with a number of other items that would require professional development to accomplish, such as establishing common instructional practices and developing student collaboration skills. The panel’s responses show their belief that not only is professional development vital, but the support and facilitation of administration to make it happen in a meaningful way is also important. Respondents’ opinions show their belief that professional development is a key part of successful CCSS implementation.

The second finding indicates the respondents’ belief that there should be time provided to collaborate on CCSS implementation and to practice teaching instructional strategies. Whether it is time for common planning purposes, time to debrief with an instructional coach, time to work in professional learning communities with a CCSS focus, or time to develop an efficacy of the CCSS, the panel believes that time needs to be provided to collaborate with peers and to practice instructional methods. Several organizational support factors were identified that supported collaboration with peers. Collaboration involving professional learning communities was recognized with the need to focus on subject and grade level collaboration, common planning, vertical and
horizontal alignment of staff, and the analysis of adopted curriculum. Collaboration was a key component of both lists.

The third finding from the panel’s responses shows three main areas that need to be focused on regarding student learning. First, students need to be taught effective collaboration skills for working with peers. Next, they need to be provided with rich and varied writing opportunities across the curriculum. Lastly, students need to be given frequent formative assessments to drive instruction effectively.

The last finding was related to the provision of material necessary for effective CCSS implementation. The need for CCSS-aligned curriculum to be adopted and provided was clearly established, and so was access to appropriate technology that would allow for effective CCSS instruction. Providing multiple measured benchmark assessments and additional funding to provide supplementary materials as needed were also indicated. Along with the opportunity to learn and build efficacy with the standards through professional development and collaboration, the need for CCSS related materials was deemed critical to successful CCSS implementation.

Commentary provided by the panelists offered little value or insight towards the findings. One comment expressed the opinion that all implementation strategies and organizational support factors were equally important, which was counterproductive to the creation of ranked lists of each. However, the commentary supported the general findings related to the need for professional development, collaboration, and the provision of necessary CCSS related materials.
Summary

The data presented in this chapter addressed each of the five research questions. The Delphi panel of 20 expert teachers and administrators responded to three separate surveys in which they identified the essential strategies necessary for successful implementation of the CCSS and related organizational support factors. They rated each list on a scale of 1 to 5 and ranked the final randomized, combined list with numbers 1 through 22, one representing most important and 22 representing least important. The completion of these surveys resulted in final, ranked lists of the 10 most essential implementation strategies and 10 most essential related organizational support factors according to the panel of experts.

In Round 1, the most frequently occurring implementation strategy was alignment of current curriculum to CCSS, which had six responses. Eight implementation strategies were listed twice, bottoming out the list. Seventeen strategies were mentioned more than once, thus making the list in Round 2. Thirteen related organizational support factors made the frequently appearing list for the Round 2 survey by being mentioned at least twice. The top organizational support factor, adoption of CCSS-aligned curriculum, appeared 12 times. Two support factors appeared only twice.

In Round 2, the top rated implementation strategies were teacher professional development for CCSS instructional strategies and provide rich and varied writing opportunities, which tied with a mean score of 4.65. The lowest rated strategy to make the list of 10 was unpack standards and establish common expectations for instructional practices and CCSS proficiency, which had a mean score of 4.35. The highest rated organizational support factor was site and district administrators facilitating and
supporting professional development opportunities, which had a mean score of 4.55. Three organizational support factors made the bottom of the list of 12 at a mean score of 4.05, eliminating only onsite CCSS coaches and related resources (which had a mean score of 3.6) from making the Round 3 survey.

In Round 3, the final ranked list of 22 combined implementation strategies and related organizational support factors started with teacher professional development for CCSS instructional strategies, which had a mean score of 4.84, ranking it first. At the bottom of the list was provide rich and varied writing opportunities, which had a mean score of 13.84. The final ranked list of 12 organizational support factors started with site and district administration facilitating and supporting professional development opportunities, which had a mean score of 8.68, ranking it first. The last item on the list was county office of education support for professional development and curriculum assessment for new adoptions, which had a mean score of 17.94.

The final ranked list of combined essential implementation strategies and essential related organizational support factors will be the basis of the summary, conclusions, implications, and recommendations in Chapter 5.
CHAPTER V: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

As America undergoes the transformational process of reinventing its educational system to meet the needs of a globalized, 21st century world, implementing a set of common, national standards has become one of the most significant change initiatives. The Common Core State Standards (CCSS) have become the nation’s answer to a universal, guiding set of national standards. Although not all states have adopted or embraced the new standards enthusiastically, California has embraced them. Now that the CCSS have been adopted by California and are an integral part of the state’s educational landscape, implementing these standards in an effective manner that educators can teach with efficacy has become necessary. This will provide students with skills that will allow them to thrive in the 21st century (Kyllonen, 2012).

For California’s schools to successfully operate under the CCSS, they should be implemented in a well-planned, effective manner. This is especially true of smaller school districts, as they lack the resources that larger ones have. With the limited resources that small school districts possess, they need to be wise in crafting effective CCSS implementation strategies and choosing the necessary related organizational factors that should accompany such implementation. The onus of applying effective implementation strategies and related organizational factors lies on the educators who work within these small school districts (Cristol & Ramsey, 2014). These educators have the experience of working within the parameters of a small school district with limited resources and over time have gained a great deal of insight and expertise regarding how to function successfully under such circumstances. Many small school district
administrators and teachers have become experts at providing a well-rounded education for their students under these conditions. These experts became the basis for the research done in this study.

**Purpose Statement**

The purpose of this Delphi study was to identify the strategies that a panel of experts believe are essential for small school districts to successfully implement Common Core State Standards (CCSS). The data from the study also revealed the organizational support factors necessary for small school districts to effectively implement the identified CCSS strategies as perceived by a panel of experts.

**Research Questions**

1. What strategies are essential for small school districts to successfully implement the Common Core State Standards (CCSS) as perceived by a panel of experts?

2. What strategies are rated as most important to successful implementation of the CCSS in small school districts as perceived by a panel of experts?

3. What organizational support factors are essential for small school districts to successfully implement the identified CCSS strategies as perceived by a panel of experts?

4. What organizational support factors are rated as most important for successful implementation of the identified CCSS strategies in small school districts as perceived by a panel of experts?
5. What implementation strategies and organizational support factors are ranked as most important for small school districts to effectively implement the CCSS as perceived by a panel of experts?

**Methodology**

The design of this study was to utilize the expertise of administrators and teachers working onsite at schools in small school districts in order to create a ranked list of the most effective CCSS implementation strategies and the most effective related organizational factors. The study involved utilizing the Delphi method, which entailed creating a panel of 10 expert teachers and 10 expert administrators working in small school districts from the northern California counties of Butte and Glenn. Both counties were chosen because of their large percentage of small school districts. Butte County is comprised of 79% small districts, while 100% of Glenn County’s school districts are small.

In creating the expert panel, every administrator working onsite in small school districts in Butte and Glenn Counties was contacted through email and was asked to participate. Along with the invitation to participate, administrators were asked to recommend teachers who would be appropriate candidates for the study. Recommended teachers were sent an invitation to participate through email. The first 10 teachers and first 10 administrators who agreed to participate and who met the required criteria were accepted as members of the panel. The panelists were anonymous other than to the Delphi coordinator (the researcher).

Once panel members were selected, they received an informed consent letter that explained the study, the process (including the three surveys), and a description of
established safeguards to protect the participants. Participants signed and returned a copy of the letter, and they also provided demographic information, including school name, district, position, and contact information. All 20 participants returned the informed consent letter.

Round 1 consisted of an initial survey sent by email asking panelists to provide a list of effective CCSS implementation strategies and related necessary organizational factors. The entire panel responded to the first survey by completing it and returning it through email. Respondents provided 177 implementation strategies and related organizational factors.

The survey responses from Round 1 were used to create the Round 2 survey. Data collected from the first survey were synthesized and appeared on the second survey in the form of the 30 most frequently occurring responses. Seventeen of the responses were implementation strategies, and 13 responses were related organizational factors. The 30 most frequently occurring responses were randomly listed in the second survey. The second survey asked panelists to rate each of the 30 survey items using a five point Likert scale. A score of 1 represented of little importance, and a score of 5 represented of most importance. Panelists were sent a link to this survey through Survey Monkey, and all 20 responded online.

Data collected from the second survey were synthesized and scored by compiling the mean score for each of the 30 items. The third survey was created with the intention of putting the 10 implementation strategies and 10 organizational factors with the highest mean scores in a randomized order on. However, the third survey ended up consisting of 22 items because three organizational factors with identical mean scores were tied for the
10th highest mean score. One hundred percent of the panelists responded to the third survey online through a link to a Survey Monkey. The third survey asked respondents to rank the 22 items from most important (1) to least important (22). The panelists were also invited to comment on their rankings.

Round 3 survey results were collated to create ranked lists of the 10 most important implementation strategies and 10 most important related organizational factors based on the mean scores of the respondents’ rankings. Scores were tabulated by using the lowest mean scores to compile the list of ranked items from most important (1) to least important (10) according to the panel of experts. The final two ranked lists of the 10 most important implementation strategies and the 10 most important related organizational factors were garnered from the three survey process, in which the panelists identified, rated, and ranked the strategies and factors to result in the final product. The resulting ranked lists were used as the basis for the analysis and findings in this chapter.

**Population**

The population of this study included the 586 (of 1,028) small school districts in California (California Dept. of Education, 2014). The target population in this study comprised teachers and administrators in small school districts in Butte and Glenn counties of northern California. With 57% of districts in California being small, Butte and Glenn counties accurately represent the majority of California school districts. According to the Butte County Office of Education, 11 of 14 districts in Butte County are small (79%), and the Glenn County Office of Education lists eight of eight districts to be small (100%). The 11 small school districts in Butte County comprise 31 schools, and the eight Glenn County small school districts comprise 20 schools.
Sample

Individuals were selected to serve on the panel based on their experience working in small school districts. The expert panel of small school district teachers and administrators was chosen from a group that had been identified as (a) having 10 or more years of experience in education, (b) holding appropriate teaching or administrative credentials, (c) having participated in CCSS implementation for at least two years, (d) having experience in school leadership, (e) having participated in the development or adoption of curriculum, (f) showing the willingness and confidence to provide honest opinions, and (g) being limited to those working for small school districts in Butte and Glenn counties. The study’s participants were selected based on the above criteria and on their willingness to participate in the study.

A sample size of the target population consisting of 10 administrators and 10 teachers identified as experts was chosen to participate. Special consideration was made to ensure a fair distribution of teachers and administrators in Butte and Glenn counties. Ultimately, Butte County, the larger of the two counties, had six teacher and six administrator representatives as opposed to four of each from Glenn County. The panel provided a sampling of experienced, knowledgeable people who were in a position to provide valuable opinions (Gordon, 1994).

Participants were chosen to ensure stakeholders who have experienced firsthand the challenges of implementing CCSS strategies were included in this study. The purpose of this research was to elicit specific responses from these experts (Hsu & Sandford, 2007). Twenty was an optimal number because the sample was not too large
to properly conduct the study yet still provided a large enough number of experts to offer a heterogeneous group of panelists that a Delphi requires (Manley, 2013).

**Major Findings**

The ranked list of essential CCSS implementation strategies and related organizational support factors provided six major findings that are supported by the literature review.

1. Specific, targeted professional development that will build CCSS efficacy
2. Time provided to focus on CCSS implementation
3. Prioritization of specific CCSS related collaboration opportunities
4. Provision of materials necessary for effective CCSS implementation
5. Developing effective instructional strategies that align student learning with CCSS
6. Providing access to appropriate technology

**Specific, Targeted Professional Development**

Successful CCSS implementation begins with professional development. Having specific, targeted professional development that will build CCSS efficacy was a clear theme from the Delphi panel. According to the panel, professional development should be provided that not only teaches effective instructional strategies but also ensures that teachers are given the skills and tools to accomplish other items on the instructional strategy list, such as developing collaboration skills and establishing common instructional practices. The mean score for this area was 3.84 lower than the mean score for the second ranked item on the list, which is evidence of how crucial the panel of
experts believe this kind of professional development is for successful CCSS implementation in small school districts.

The literature review in Chapter 2 supports the panel’s consensus that professional development is an essential component to effective CCSS implementation. A survey that Scholastic and the Bill and Melinda Gates foundation (2014) conducted revealed that 84% of teachers identified quality professional development as critical to ensure successful CCSS implementation. In addition, the Leadership Planning Guide for California states that the CCSS English Language Arts standards should be emphasized through professional development (CCSESA, 2013). Additionally, Cristol and Ramsey’s (2014) report for the Thomas Fordham Institute contends that for CCSS implementation to gain traction, professional development must be one of its linchpins. Along with the ranked list the panelists created, the literature clearly shows that professional development is an essential part to an effective, strategic CCSS implementation plan.

Due to the transformational nature of the CCSS, organizational support for meaningful CCSS related professional development is essential (Paliokas, 2014). The CCSS is a radical departure from the scattershot nature of standards across the nation, and it is essential that professional development grow and adapt with it. Cristol and Ramsey (2014) contended that professional development in America has been unimpressive, as it has long lacked the cohesion and effectiveness to effect positive, lasting change among our nation’s educators.

As the Delphi panel determined, small school districts need to make meaningful, productive professional development a priority to support successful CCSS
implementation strategies (Walters, Smith, Ford, & Scheopner Torres, 2014). For this to happen, professional development should be supported and facilitated by small school district administrators who have a clear plan and vision for how this professional development will be conducted. For example, Cristol and Ramsey’s (2014) report suggests that professional development should focus on (a) text and evidence based reading strategies, (b) mastering the challenges of comprehending text complexity, (c) teaching deeper math concepts, and (d) teaching students to interpret math problems in various ways that not only help students arrive at the correct answer but also articulate how they got there. In its CCSS Systems Implementation Plan for California, the California Department of Education (2014) has listed the facilitation of “high quality professional learning opportunities for educators to ensure that every student has access to teachers who are prepared to teach to the levels of rigor and depth required by the CCSS” (p. 4) as one of its guiding strategies.

**Time to Focus on CCSS Implementation**

It is critical to provide time for activities that will focus on CCSS implementation. The panelists believed that a focus on providing time would assist CCSS implementation in a number of ways. They believed that time should be set aside in professional learning communities to focus on CCSS implementation and to practice CCSS instructional strategies. Also, they expressed that time should be provided in order to unpack the standards and establish common expectations for instructional practices. They additionally stated that time is needed to develop the understanding and efficacy of the CCSS. Lastly, the panel conveyed that time to receive onsite coaching with opportunity to debrief implementation efforts would be a key implementation strategy.
The literature also supports the need for time to develop an efficacy of the CCSS. The Chicago STEM Education Consortium (2013) advocates the need for time for teachers to learn how to use mathematical knowledge with flexibility to help students learn through the CCSS and learn new math content and pedagogy that will help engage them in new “mathematical ideas demanded by the CCSS” (p. 6). In their CCSS implementation plan, Anderson, Harrison, and Lewis (2012) promoted a timeline for providing time to educators for planning, developing materials, and training. In addition, Cristol and Ramsey (2014) discussed in their report the need to put a great deal of thought and energy into cultivating CCSS expertise and to ameliorate the inconsistencies of instructional quality through analysis of lesson plans and student work.

**Prioritization of Specific CCSS Related Collaboration Opportunities**

Effective implementation of the CCSS requires prioritization of specific CCSS related collaboration opportunities. Especially in small school districts where resources are limited, educators often initially rely on their peers for information rather than seek outside sources such as costly consultants and conferences. The panel not only identified professional learning communities as an important implementation strategy, but it also viewed a number of forms of collaboration as essential, such as subject and grade level collaboration, opportunities for common planning, teachers being allowed to share best practices towards literacy development across all subjects, vertical and horizontal alignment of staff to ensure and promote equal accessibility to standards among all grade levels, and professional learning community collaboration dedicated to analyzing adopted curriculum.
Collaboration has become a norm among most school settings. Much time and energy has been dedicated to building the infrastructure and capacity in schools to provide meaningful collaboration opportunities through professional learning communities. These opportunities need to be adapted to build CCSS efficacy among all educators. One of the California County Superintendents Educational Services Association’s (CCSESA, 2013) suggested steps for reviewing and developing a coherent and sequenced curriculum for the CCSS is to work with teachers to “redesign school time to ensure adequate collaboration time for teachers (p. 28). The panel’s several items on the ranked list relating to collaboration suggest that it is critical for small school districts to make it an integral part of their CCSS implementation plan.

**Providing Necessary Materials**

Providing materials necessary for effective CCSS implementation is a key piece to their effective implementation. Appropriate and useful materials are essential in any instructional setting; implementing a major change initiative such as the CCSS makes them even more important. The panel listed several examples of materials that would be considered necessary, such as adequate access to appropriate technology, CCSS-aligned curriculum, multiple measures for benchmark assessments, and funding to purchase supplementary materials. Because educators are being asked to teach in a very different manner than that prescribed by the No Child Left Behind initiative, it is extremely valuable to provide materials that will allow students to learn in a deeper, more meaningful way that adheres to the CCSS.
The literature also reflects this need for school districts to provide necessary materials for CCSS implementation. The Bill and Melinda Gates foundation survey (2014) found that 86% of teachers believed that providing CCSS-aligned instructional materials is critical to ensure successful implementation. The Chicago STEM Educational Consortium (2013) also recommended that the selection, adoption, and implementation of instructional materials and tools are critical. Cristol and Ramsey’s (2014) report was especially concerned with providing necessary materials; they warned that it takes time to create high quality textbooks that are aligned to the CCSS. They asserted that in absence of these textbooks, districts must be cautious when spending dollars on material claiming to be CCSS-aligned. In the absence of such materials, districts need to be able to identify, vet, and develop the materials that will ensure successful CCSS implementation.

**Develop Effective Instructional Strategies**

The panelists’ input revealed the importance of developing instructional strategies that reflect the instructional shifts of the CCSS. Aligning student learning with these CCSS instructional shifts is imperative to effectively implement the standards. The panelists especially noted areas such as (a) providing rich and varied writing opportunities, (b) teaching students collaborative skills, (c) applying frequent and formative assessments, and (d) teacher feedback to students and sharing expectations for high quality answers as necessary instructional strategies for effective implementation.

In their brief, Walters, Smith, Ford, and Scheopner Torres (2014) contended that shifting the focus of instructional strategies to deepen students’ understanding was identified as a means to address the instructional challenges of implementing the CCSS.
In addition, Walker (2013) suggested that developing effective instructional strategies aligned with the CCSS promotes cross curricular learning. According to Long (2013), CCSS aligned instructional strategies enhance student learning by putting creativity back in the classroom and by allowing students to delve deeper into subject matter. Long also asserted that CCSS aligned instructional strategies ratchet up the rigor of the content being taught to students and do a better job at preparing students for college.

**Provide Access to Appropriate Technology**

According to the panel, frequent access and use to appropriate technology is also essential to effective CCSS implementation. Technology that has the necessary infrastructure such as broadband, a time and place to use it, properly trained staff and students, and software that allows students to gain proficiency of the standards can be a powerful tool in effective CCSS implementation. As the panel indicated, technology should be useful and needs to promote student learning in a manner that builds 21st century skills within students.

The need for access to appropriate technology is also supported by the literature. Connecticut’s Common Core Implementation Task Force recommended that teachers are given useful technology and technological assistance to support successful CCSS implementation (State of Connecticut, 2014). The Center on Educational Policy specifically identified adequate technology as one of the major challenges facing successful CCSS implementation (Kober, 2012). Having an adequate number of computers, necessary bandwidth, and technical assistance were all areas that technology would present a challenge. Killion’s (2012) report recommended that the purchase of and
access to quality technology should be coordinated by the states and their school districts (2012).

**Unexpected Findings**

There was one unexpected finding that affects the entire point of the research. The scope of this study was to view the effective implementation of the CCSS through the lens of a small school district. This researcher’s premise for this study was that small school districts had a unique set of circumstances stemming from a lack of resources that large districts possess. Fewer resources meant that small school districts had to be more creative and innovative in obtaining the necessary tools that were needed to provide educators with the skills to teach the CCSS with efficacy.

Despite a clear difference in the availability of resources between large and small school districts, the ranked lists of CCSS implementation strategies and related organizational support factors seemed interchangeable from what one might expect the differences to be between large school districts and small school districts. It was expected by the researcher that the small school district lists would look remarkably different than ones compiled by experts from large school districts. Based on the panel responses, it appeared that there was little discernible difference between the two. Although no research was done specific to large school districts, the literature suggests that the list of necessary instructional strategies and organizational support factors for large school districts would look very similar to the list derived from this research.

The creation of a Delphi panel consisting of administrators and teachers with experience and expertise in a small school district setting was intended to access the
unique perspectives and experiences of people who are used to being innovative with implementing change initiatives with limited resources. Aside from a few exceptions found in the literature but not seen in the panel’s findings such as hiring a consultant to provide professional development for staff or staffing each school with a full time CCSS implementation coach, the panel’s responses appeared to be similar to those this researcher would expect from a panel consisting of administrators and teachers working in large school districts. The lack of unique insight from a small school district perspective proved to be an unexpected finding.

**Conclusions**

This study was intended to gain insight into the most effective ways to strategically implement the CCSS into small school districts. Based on the findings and the literature review, several conclusions can be drawn to successfully integrate the CCSS in a meaningful, lasting manner. Successful CCSS implementation is dependent upon prioritization and focus in the six following areas:

1. Based on the findings and literature, it is concluded that professional development focused on CCSS efficacy for teachers developing and utilizing staff expertise within the district is a critical to build the culture needed for successful CCSS implementation.

2. As time is identified as a necessary strategy, it is concluded that structured time allocation for activities related to CCSS implementation should be a key component to any effective implementation plan and a requirement for all schools.
3. The findings and supporting literature show that teacher collaboration opportunities such as professional learning communities focused on CCSS strategies and grade level CCSS articulation need to be provided to in order to develop CCSS efficacy and allow teachers to improve their instructional practices as a school team.

4. Based on the findings of this study as supported by the literature, the development of CCSS aligned materials made available to teachers is a necessity for a strategic and successful implementation.

5. The findings and literature show that educators need to focus on student learning and shifting instructional strategies towards attainment of CCSS student proficiency in order to gain a sense of efficacy and increase student achievement.

6. When educators and students receive meaningful access and use of technology, including online course offerings, flipped classrooms, and the creation of digital projects, teacher efficacy and student learning increase through the development of 21st century skills.

**Professional Development Focused on CCSS Efficacy**

The need for targeted professional development that builds CCSS efficacy as identified in the findings indicates the paramount nature of meaningful, appropriate professional development that is cost effective. Professional development can consist of training from outside sources, such as attending conferences, receiving training from county offices of education, or contracting a consultant to come in and train staff. Despite the great deal of expertise that can be gained from sources such as these, these sources are often ineffective because they lack the ability to follow through, to supervise...
practice, or to evaluate progress. As a negative result of these types of professional development, a person can experience the growth and development from such training and gain enthusiasm for the new knowledge but see it slowly drain away over time.

There is great power and potential in professional development from within. Training provided onsite by district staff or through collaborative efforts can be more meaningful and lasting. This type of professional development promotes more buy-in from staff; allows the team to decide what professional development is necessary and appropriate for the circumstances; and provides the opportunity to revisit it, evaluate it, and gain efficacy over time rather than trying to learn it all at once. As Cristol and Ramsey (2014) advocated, instructional leaders constitute one of the main keys to this process. These leaders can take the pulse of the staff and see what is needed for successful CCSS implementation. Additionally, many small school districts have staff that already possesses expertise that can be shared with peers. Through accessing the expertise of peers or through the collective knowledge gained through collaborative efforts, high quality professional development can be delivered with the added benefit of following through with the implemented practices, team evaluation and course correction, and additional training when needed (Walters, Smith, Ford, & Scheopner Torres, 2014).

**Structured Time Allocation for Activities Related to CCSS Implementation**

Based on the findings and literature, it is concluded that structured time should be allocated for educators to participate in activities that will build efficacy in the CCSS implementation process. According to the Educators’ Common Core Task Force, one of the key lessons learned is that time is a critical component in CCSS implementation
(State of Connecticut, 2014). In the task force’s report, it is stated that “districts that demonstrated successful implementation of the standards all devoted enough time for teachers to learn, develop, and implement the standards in their classrooms” (State of Connecticut, 2014, p. 11).

The panelists’ responses indicated that allocating time to participate in activities such as (a) professional development, (b) alignment of curriculum to the CCSS, (c) developing the understanding and efficacy of the standards, (d) practicing new instructional strategies, (e) onsite coaching with debrief time, (f) subject and grade level collaboration, (g) release time for common planning purposes, and (h) unpacking the standards and creating common practices for developing CCSS proficiency was crucial. Time is precious in education; districts that prioritize the allocation of time to develop CCSS efficacy will experience a great deal of success (King, 2011).

Teacher Collaboration Opportunities

The findings show that building efficacy for implementing the CCSS within a small school district teaching staff should be achieved in part through collaboration. To ensure the successful implementation of the CCSS, districts need to prioritize collaboration. The Leadership Planning Guide for California specifically recommends collaboration through professional learning communities as a major component to effective CCSS implementation planning (CCSESA, 2013). Because educators have grown accustomed to the process of collaborating in grade and subject levels that are focused on student learning, professional learning communities have the potential to
effect great change. These communities represent a powerfully effective collaboration tool that can continually integrate the CCSS into the learning environment.

Aside from professional learning communities, there are numerous ways to allow for collaboration among staff to build efficacy for the CCSS. Common lesson planning time or sharing of lesson plan files through cloud based technology, staff meetings and trainings, minimum days with a CCSS collaboration focus, co-teaching opportunities, peer coaching, and the creation of a literacy map for an entire school or district are all ways that CCSS related collaboration can take place as long as the district and/or school make it a priority (King, 2011; State of Connecticut, 2014).

**Availability of CCSS Aligned Materials**

Effective implementation of the CCSS is also contingent upon the prioritization of resources such as CCSS aligned materials. Teachers need to be given necessary and effective materials to build CCSS efficacy within themselves and their classrooms (Kober, 2012). Instructional materials that will allow educators to unpack the standards, to become comfortable with them, to develop instructional strategies, to create a rigorous and challenging curriculum, and to accurately assess students are essential. Teachers are asked to accomplish a great deal in their work day, and for them to be able to build efficacy with the standards, they need to be given CCSS aligned materials to successfully teach the standards rather than having to make do with whatever they can cobble together. The expectation for teachers to become proficient at teaching the CCSS without dedicating the necessary materials to do so is a recipe for failure.
It is essential for proper alignment across grade levels and subjects to also be considered in regards to the attainment and development of instructional materials (King, 2011). This alignment should in part be developed by teachers who have the first-hand knowledge and experience to develop materials that address the rigor of the CCSS and meet the needs of their students (Cristol & Ramsey, 2014).

Focus on Student Learning and Shift Instructional Strategies

The literature supports the findings that with the implementation of the CCSS, there needs to be a shift in instructional strategies that address the new student learning focus areas of the CCSS. Teachers must participate in the remodeling of curriculum that would meet the challenges of the CCSS (Killion, 2012). This would include activities that involve (a) embedding the literacy standards in all classrooms, (b) planning new curricular units, (c) creating formative assessments and individual lessons, and (d) adapting previous curriculum to the CCSS (Killion, 2012). Instructional shifts must be addressed with new strategies to prepare students for career and college readiness. Student learning needs to focus on delving deeper into subject matter and giving more attention to critical thinking and analytical skills (Killion, 2012).

The instructional shifts of the CCSS and expectation of addressing literacy standards across the curriculum are requiring all teachers to refine and adapt the instructional strategies they use to teach the curriculum (Measured Progress, 2013). Many educators have come into the profession trained to teach state standards that focus on different priorities that do not necessarily align to the CCSS, causing the pressing need for them to shift instructional strategies away from the way they were initially trained. A
deeper understanding of how to teach in a way that does not simply transfer knowledge of subject matter but addresses the thinking, collaboration, and other important 21st century skills must be attained through the challenging task of shifting instructional strategies (Confrey & Krupa, 2010). Along with shifting instructional strategies, teachers should align these shifts along the K-12 and higher education spectrum, increasing the effectiveness of preparing students for college and career readiness (King, 2011; MetLife Foundation, 2013).

Meaningful Access and Use of Technology

The findings show that another essential resource for successful CCSS implementation is technology. For any change initiative to be successful and lasting in today’s globalized society, appropriate technology is a necessity. Small school districts should prioritize the investment in infrastructure such as broadband, an appropriate type and number of devices for their student population, and technical help to ensure that all technology is up to date and running smoothly (Murphy, Regenstein, & McNamara, 2012). In addition, the identification and staff training of software that will support CCSS implementation is critical. Educators must not only have access to appropriate technology, but they must also have the skills to use it effectively (Killion, 2012; State of Connecticut, 2014).

It is essential for technology to also become a meaningful part of student learning throughout the curriculum, promoting student access in areas such as writing, researching, and project presentation (MetLife Foundation, 2013). The access and integration of technology is essential to achieving the overarching goal of preparing
students for college and their careers. Integrating technology is an adaptable and relevant way to link literacy across the curricular spectrum because technology can be used in virtually every subject. As the Leadership Planning Guide for California declares, “students are expected to use technology and digital media strategically and capably” (CCSESA, 2013, p. 23).

**Implications for Action**

The conclusions offered above might seem straightforward, but this researcher has seen firsthand how these pathways to success can be ignored. With the current political climate in which the overall effectiveness of the CCSS is being called into question, it is even more critical for school districts to stay the course and be sure that the standards are being implemented in an effective, lasting manner (Karp, 2014; Van Roekel, 2014; Walker, 2014; Zhao, 2012). Now that the CCSS have been in schools for a few years, some school districts have moved on to new priorities and focus areas with hardly a mention, re-visitation, or evaluation of the effectiveness of CCSS implementation. To ensure the successful implementation and lasting effectiveness of the CCSS, the following actions are recommended:

1. Integrate CCSS related professional development into already established collaboration activities, such as professional learning communities, minimum day staff development meetings, and weekly staff meetings. To do this, staff who already possess the expertise necessary to provide CCSS related professional development should be identified and empowered to teach the rest of the staff. For example, a teacher who has expertise in project based learning and is
integrating it into her classroom should be given the opportunity to train other teachers during a minimum day training. Also, a teacher who has become adept at using Google educational applications should be allowed to lead a professional learning community as his peers develop the skills and efficacy to use the educational technology to integrate the CCSS in their classrooms.

2. Require all schools within the district to build time into their schedules to allow for the resident experts mentioned above to provide training to the rest of the staff. Early release days, minimum days, and weekly or biweekly staff meetings focused on CCSS implementation training are all common examples of scheduled collaboration/training time. Additionally, task force members should be given release time to visit other classrooms working on new instructional strategies, to share lessons and developed resources, to provide individual training/coaching to staff, and to further develop their skills.

3. Require staff who are attending outside professional development sessions to come back to their schools and share their new-found knowledge through staff development trainings, staff meetings, and professional learning communities. Rather than spend limited resources on sending all staff one specific conference, create task forces comprised of a small team of staff members who have a particular interest or passion for an identified skill or resource that will assist in implementing the CCSS more effectively. This task force will be responsible for coming back to campus and providing the training and instruction needed to the rest of the staff to implement the change initiative successfully. For example, a task force can be created to become experts at creating a STEM (Science,
Technology, Engineering, Math) curriculum on campus. They can undergo the necessary training, develop a plan for implementation, and provide training to give the rest of the staff the agency to make STEM a meaningful part of the school’s learning environment.

4. Establish a cloud-based clearinghouse for shared lesson plans, rubrics, assignments, CCSS related documents and information, and exemplary student work that all staff members can access, use, and adapt into their classrooms. For instance, Google Apps for Education has a Google Drive feature that provides a cloud-based application for storing resources and materials that can be shared with all staff. Rather than requiring every teacher to reinvent the wheel, all staff members can have access to previously created materials that can be shared, used, and adapted to fit the needs of every teacher. As an added opportunity, Google offers a Google Classroom feature in which teachers can provide access to all assignments and documents that are necessary to a student’s success. An application such as Google Classroom should be required for all teachers because it allows students access to the cloud-based documents without actually giving students access to the cloud-based clearinghouse.

5. Create universal documents such as a literacy map and subject or grade level scope and sequences that will allow teachers to effectively teach the CCSS in a thorough, rigorous manner across the entire spectrum of each school site. Because resources might not allow a small school district to employ someone specifically for this task, small school districts should employ the same task force strategy to recruit small teams of teachers to create such documents. Not only
will this strategy be more cost effective, but it will also promote buy-in within the staff. Task forces should be formed to create a literacy map that will guarantee the proper implementation of all CCSS literacy standards across all subjects and grade level scope and sequences to ensure that all students across each grade level will have similar experiences related to the CCSS goals and subject level scope and sequences that will require all teachers to teach the same CCSS subject matter with the same level of fidelity.

6. Build a long term CCSS implementation plan that focuses on meaningful, standards driven professional development; specific, measureable goals; and a delineated process for utilizing professional learning communities that build teacher efficacy and agency in teaching the standards. Small school district educational leaders need to build a plan that not only introduces the standards to staff but also includes planning for the future. The plan needs to address the goals and objectives for each task force to focus on for the next three years, to create measures to assess how well staff is implementing the standards, to evaluate the effectiveness and direction of collaboration time, and to create specific guidelines for teacher evaluations that will measure their effectiveness in teaching the CCSS.

7. Invest in technological resources that allow teachers to gather, develop, and explore materials and assist in teaching the CCSS to students. Educators from small schools should participate in professional learning committees remotely with other schools, participate in webinars, and utilize education based websites such as PBS Learning. Due to continual technological innovations and the lack of CCSS-aligned printed materials, the utilization of technology is a rich, vast
resource for teaching the standards effectively. The strongest current educational
technology that small school districts should incorporate is Google Apps for
Education. These apps provide a rich variety of features that allow students to
explore, create, collaborate, communicate, and demonstrate the work they have
created through the critical thinking process. Google apps provide a search
engine that provides access to informational text, opportunities for research, and
instant answers to difficult questions. The featured apps such as slides, sites, and
blogs also allow students the opportunity to create, present, and demonstrate their
learning. Google Docs allows the opportunity to write using 21st century methods
and to collaborate with peers by sharing and editing documents online. Other
recommended educational technologies are Khan Academy for math practice,
Dipity for creating digital timelines, and Prezi for online presentations.

8. Through the collaboration process, create a list of best practices for teaching
targeted CCSS focus areas. These best practices could include instruction of
student collaboration, rich and varied writing opportunities, and the use of
frequent and formative assessments to ensure the maximization of student growth
in every classroom. This list of best practices should be a living document that is
reviewed by all, applied, adapted, and continually added to. The best practices
list should be revisited at each staff meeting, with teachers being given the
opportunity to share the exciting instructional strategies they are using in their
classrooms.

9. Students should be invested in creating a seminal project each semester that
requires applying subject matter standards as well as literacy standards. For
example, students should be required to participate in a “Change the World” project that will require them to identify, explore, and create a solution to a problem facing the world today. As part of this project, they will be expected to write a formal research report, create a digital presentation in the classroom, and participate in an end of semester symposium in which they will share their project to fellow students, parents, and other community stakeholders in a “science fair” type setting.

**Recommendations for Further Research**

This study offered insight into a panel of expert’s opinions regarding successful implementation of the CCSS. Additional research would be beneficial to further the understanding of this issue, to add to the literature base, and to deepen the foundation of knowledge regarding effective CCSS implementation.

1. Conducting a Delphi study using the same methodology to determine the implementation strategies and organizational support factors that large school districts find to be critical and correlating the results to this study is recommended.

2. Conducting a Delphi study using the same methodology to examine the process of CCSS implementation in small school districts across all states is recommended.

3. An examination of the implementation strategies and organizational support factors that large school districts, alternative education, private schools, or charter schools identify as critical to the effective implementation of the CCSS is recommended.
4. Conducting a longitudinal study of change initiatives over time in a district and measuring effectiveness through student performance is recommended.

5. A Delphi examination and evaluation of the ranked lists derived from this study by nationally recognized educational experts is recommended.

6. Studying the implementation strategies and organizational support factors in K-5 schools, middle schools, and high schools separately is recommended.

7. Conducting a comparative study based on SBAC scores between a sampling of small school districts that incorporate the ranked lists derived from this study and small school districts that do not is recommended.

8. A case study of three school districts utilizing technology effectively in their CCSS implementation plan is recommended.

9. Comparing the strategies used in schools showing strong performance under the CCSS and schools showing below average performance under the CCSS is recommended.

10. It is recommended that a case study examining the role of teachers and their instructional practices in successful CCSS implementation be conducted.

**Concluding Remarks and Reflections**

The ability to prepare students for today’s increasingly globalized world is dependent upon embracement of change. The world is changing at an incredibly fast pace, and education in America must adapt and evolve at a similar rate. Education in America must be reinvented with a view toward innovation, environmental scanning, and providing American students with 21st century skills. America must examine all facets of how it educates its students and what it teaches, using all available methods including the
use of technology, blended learning, and the emphasis of process over content. The CCSS are a critical part of this process. All school districts, not just small ones have the imperative to teach the CCSS at a high level that prepares students for the future.

Examining how this critical set of national standards can be implemented successfully in small school districts has been a rewarding experience. As an educator in a small to medium size school district over the past 20 years, I have watched the pendulum swing from one change initiative to another. The lasting effects of the broad memorization of facts that became the focal point of No Child Left Behind left many teachers feeling the pressure of cramming a great deal of information into a school year to prepare them for the high stakes of each spring’s round of standardized testing. The integration of technology into the classroom has created a large amount of stress among teachers who lack the skills to not only incorporate new teaching strategies into the classroom but also to overcome the lack of infrastructure and organizational support to make such changes successful. The rise of Common Core brings about a new sense of apprehension for some and a promise of a bright future for others. Will it be another swing of the pendulum or a lasting change that precipitates the reemergence of America as a world educational leader?

As many states prepared for the CCSS along with California, there were many ideas for successful implementation and preparation for the instructional shifts that were to take place. The gap in the literature that I recognized was the lack of opinions that addressed the unique perspective of small school districts and their need to successfully implement the CCSS to ameliorate the challenges that come from their limited resources. Although the results of this study were not groundbreaking, the process of enlisting
administrators and teachers with direct experience and expertise in a small school district setting was a positive one. I believe that my premise that these educators would have a unique perspective was correct, but I am not sure that the major changes that are taking place with Common Core have allowed them to feel confident in speaking to the necessary implementation strategies and related organizational support factors that will facilitate successful CCSS implementation. This convinces me even more of the need for a clear implementation plan that is tailored to the specific needs of small school districts. The results and findings of this study can contribute significantly to the establishment of best practices that can be the foundation of such a plan and should be used to create school district policy that would ensure that any CCSS implementation plan would be successful.

Ultimately, the choice to become an educator is a noble one, with the potential to make a significant difference in the lives of many students. That desire to make a difference motivates us educators to become dedicated professionals who seek to perform at the highest level possible. To perform at a high level, there needs to be a clear path to how to successfully teach students that consists of a communally understood mission, a strategic plan for implementation, and the organizational support to ensure success. Common Core has the potential to be an instrumental part of this path that will result in a generation of students who are prepared to take on the world. I have great enthusiasm and hope for the promise of Common Core and believe strongly that its success will hinge on the effectiveness with which we as educators weave it into the fabric of our educational system.
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# Appendix A

## Synthesis Matrix

Patterns, Themes, and Topics Related to Common Core State Standards

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Appendix B

Email Request for Delphi Participation-Administrator

Dear (insert name):

My name is Mike Gulbransen and I am a teacher for the Paradise Unified School District. I am a doctoral candidate, currently completing a dissertation on Common Core State Standards implementation in small school districts. In this dissertation, I am applying a Delphi technique, one that seeks the opinions of experts regarding the implementation strategies and related organizational factors unique and necessary to small school districts. As an administrator in a small district, you are the expert.

I would be extremely grateful if you would agree to be a participant in this study. It will require little of your time, but the value of your expertise will add greatly to the studies’ findings. This Delphi study will be conducted through three short anonymous surveys, each one based on the results of the previous one. Each survey will take about 20-30 minutes of your time.

Your willingness to take part in this study will not only be of extreme value to me, it will be beneficial for you and your school as well. I will share all findings with you, providing the opportunity to evaluate them, adapt them, and implement as you see fit. I will also be happy to provide my expertise regarding CCSS implementation based on my research. I will make myself available to you and your staff, offering any assistance I can, based on my research.

Thank you for taking the time to consider this opportunity. I would be truly appreciative of your agreement to participate. Lastly, if you have teachers on your staff that you could recommend to also participate in this study, please provide their names and school email addresses.

Thank You Very Much,

Mike Gulbransen
Gulb7201@mail.brandman.edu
530-228-6567
Appendix C

Email Request for Delphi Participation-Teacher

Dear (insert name):

My name is Mike Gulbransen and I am a teacher for the Paradise Unified School District. I am a doctoral candidate, currently completing a dissertation on Common Core State Standards implementation in small school districts. In this dissertation, I am applying a Delphi technique, one that seeks the opinions of experts regarding the implementation strategies and related organizational factors unique and necessary to small school districts. As a teacher in a small district, you are the expert.

I would be extremely grateful if you would agree to be a participant in this study. It will require little of your time, but the value of your expertise will add greatly to the studies’ findings. This Delphi study will be conducted through three short anonymous surveys, each one based on the results of the previous one. Each survey will take about 20-30 minutes of your time.

Your willingness to take part in this study will not only be of extreme value to me, it will be beneficial for you and your school as well. I will share all findings with you, providing the opportunity to evaluate them, adapt them, and implement as you see fit. I will also be happy to provide my expertise regarding CCSS implementation based on my research. I will make myself available to you and your staff, offering any assistance I can, based on my research.

Thank you for taking the time to consider this opportunity. I would be truly appreciative of your agreement to participate.

Thank You Very Much,

Mike Gulbransen
Gulb7201@mail.brandman.edu
530-228-6567
Appendix D

Informed Consent Letter

Date: November, 2015

To: Delphi Panel Member

From: Michael Gulbransen, Delphi Coordinator

Subject: Delphi Study Agreement & Directions

Dear Panel Member:

Thank you for agreeing to be a member of the expert panel of teachers and administrators for this Delphi study. The goal of this study is to identify the most effective strategies and necessary organizational support factors for successful implementation of the Common Core State Standards (CCSS) in small school districts of California. This study asks an expert panel of ten teachers and ten administrators to provide their insights and opinions regarding proper CCSS implementation. Your expertise is derived from having at least ten years of experience working in education, and your first-hand knowledge of the unique aspects of the challenges and opportunities that come with small school districts.

Delphi Study Process

This Delphi study will consist of three rounds:

1. Round One will consist of a survey attached to an email that asks you to identify CCSS implementation strategies and necessary related organizational support factors.
2. Round Two will be a list of most frequent responses from the first round that you will receive through a link to Survey Monkey. For each response on the list, you will be asked to rate it by level of importance on a five point scale.
3. Round Three will be a randomized list of the top ten rated implementation strategies and the top ten related organizational support factors that you will receive through a link to Survey Monkey. With this list you will rank them one through twenty by order of importance. You will also have the opportunity to provide any commentary related to your rankings.

Dates of Study

The study will be conducted over the course of three weeks in December. You will receive the survey for each round at the beginning of the week and will be asked to respond by the end of that week. Each additional round will take place at the beginning of
the next week. At the end of the three weeks, you will receive the synthesized results of all respondents.

**Requirements of Study**

In order to guarantee the validity and timely completion of this study, participants are asked to review these requirements and confirm you willingness and ability to complete the study.

One of the key elements to a Delphi study is anonymity. Neither your name nor your answers will be shared with other members of the panel. Please do not discuss your survey feedback with others throughout the Delphi process.

Panel members are chosen by their willingness to participate, over ten years of experience in education, and are currently working as a teacher or site administrator for a small school district in Butte or Glenn County.

Instructions will be provided for each round through email. Unless otherwise directed, all email responses, questions, or other contacts should be directed to:

**Mike Gulbransen, Delphi Coordinator:**  michaelgul@aol.com

During the study period, panelists will receive an email with instructions for that round on Monday. It is imperative that responses are returned promptly by the end of the day on Friday. The next round will take place the following Monday. Each survey will take fifteen to thirty minutes to complete.

At the completion of the study, each participant will receive a copy of the results of the study. No individual responses will ever be published or shared by the researcher. Although no individual’s identity will be revealed, it is imperative to have specific demographic information about the panel.

**Please answer the following questions:**

**Name:**

_______________________________________________________________________

**Email Address:**

_______________________________________________________________________

**Phone:**

_______________________________________________________________________
School District:  
__________________________________________________________________________

School:  
__________________________________________________________________________

Position:  
__________________________________________________________________________

Years in Education:  
__________________________________________________________________________

Informed Consent: Please read the following and sign below

I understand that I may refuse to participate in or I may withdraw from this study at any time without any negative consequences. Also, the researcher may stop the study at any time. I also understand that no information that identifies me will be released without my separate consent and that all identifiable information will be protected to the limits allowed by law. If the study design or the use of the data is to be changed I will be so informed and my consent obtained. I understand that if I have any questions, comments, or concerns about the study or the informed consent process, I may write or call the Office of the Vice Chancellor of Academic Affairs, Brandman University, 16355 Laguna Canyon Road, Irvine, Ca., 92618.

Telephone: (949)-349-7641.

I acknowledge that I have received a copy of this form.

Signed:
__________________________________________________________________________

Please return the demographic information and informed consent as a scanned pdf to:

michaelgul@aol.com

or fax to 530-877-2299

Thank you for agreeing to be a part of this study
Appendix E

Round 1 Survey

Delphi Study:

Strategies and related organizational support factors necessary for effective implementation of Common Core State Standards (CCSS) in California small school districts.

Instructions

Please respond to the following questions and return this survey to gulb7201@mail.brandman.edu by Friday. If you have any questions or need further instruction, feel free to email or call 228-6567.

Provide 3-5 answers (up to ten) for each of the following questions:

1. What are the most effect CCSS implementation strategies?
2. What are the most necessary related organizational support factors?

An implementation strategy would be something that is utilized to implement the CCSS. A related support factor would be something that must be in place or provided in order for the strategy to happen.

Effective Implementation Strategies:

1.
2.
3.
4.
5.

Related Organizational Support Factors:

1.
2.
3.
4.
5.