AN ANALYSIS OF COMMON CORE IMPLEMENTATION IN HIGH SCHOOLS IN A NORTHERN CALIFORNIA SCHOOL DISTRICT

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by

Colin R. W. Blattel

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Department of Public Policy and Administration
Abstract

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AN ANALYSIS OF COMMON CORE IMPLEMENTATION IN HIGH SCHOOLS IN A NORTHERN CALIFORNIA SCHOOL DISTRICT

by

Colin Blattel

Adoption of the Common Core State Standards in California and across the nation marks an ambitious plan to overhaul the country’s educational standards in favor of new more rigorous standards, which has changed the way teachers approach both curriculum and instruction. California’s State Board of Education adopted a gradual implementation plan that phased in the different components of Common Core State Standards in an effort to make the transition more manageable for districts and schools.

This thesis focuses at the school level and shares a unique view of the experience of educators and staff at two schools in a high school district in Northern California implementing Common Core State Standards. In this thesis, I used structured interviews with educators as my primary source of data and interviewed six staff members at the school district office and nine individuals at each high school consisting of administrators and teachers of English, mathematics, and science. From the literature, I developed a comprehensive analytical framework that focuses on a bottom-up approach and aligns with the large degree of local discretion that exists in public education. I then selected five variables to analyze the data: collaboration, communication, teacher buy-in, applying technology, and professional development.
I found that the educators that were interviewed reported that they are optimistic about the long-term benefits of Common Core but are worried about the more immediate challenges of implementation. Educators and staff perceive time and capacity to be the biggest constraint to success because of the huge workload required to provide training for teachers and develop new curriculum. Teachers reported that they think the best tool they received to help them address the challenges of Common Core implementation was their Teachers On Special Assignment counterparts (TOSAs). TOSAs provided intensive support and guidance to each team of teachers to help the teams stay on top of trainings, curriculum design, and new student assessments.

Additionally, stakeholders should note that Science teachers voiced additional concerns around a lack of support, guidance, and to understand and integrate both Common Core and NGSS standards concurrently. California’s educational stakeholders would benefit from further research on the opportunities discovered in this thesis around 1) aligning Professional Learning Communities (PLCs) across subject areas 2) investing in TOSAs to provide support and guidance to teacher teams 3) focusing on digital fluency for students to meet the increased use and focus on technology.

_______________________, Committee Chair
Andrea Venezia, Ph.D.

_______________________
Date
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Chapter 1

INTRODUCTION

In 2007, state education chiefs met in Columbus, Ohio to brainstorm about the idea of developing the first set of “common” nationally accepted education standards with high expectations aligned with college and career readiness. By 2009, governors from 48 states, two territories, and the District of Columbia volunteered to coordinate a state-led coalition to build a new set of standards that would prepare students to become college and career ready. The process was a coordinated effort between the Council of Chief State School Officers (CCSSO) and the National Governors Association Center for Best Practices (NGA Center). They convened a team of practitioners and academics from across the nation to support the construction and feedback process of the Common Core State Standards (“Common Core”). The new standards aimed at 21st century skills covered English Language Arts; mathematics; and literacy in social studies, science, and technical subjects (Common Core State Standards Initiative [CCSSI], 2015). In July 2009, the United States Department of Education announced more than $4 billion in competitive federal Race to the Top grants, which awarded extra points to states that agreed to adopt new common standards (ASCD, 2012). Under the Race to the Top rules, states could either choose to adopt Common Core or they could develop and adopt their own common standards to receive the extra points in their application. This announcement expedited the adoption process of the Common Core by state governments and also accelerated its prominence in the national spotlight and debate around its place in education.
In August 2010, the California’s State Board of Education (SBE) voted unanimously to adopt the Common Core, which gave California a stronger proposal to apply for federal dollars through the Race to the Top grant program. California’s SBE developed an implementation plan with different stages spread out over several years, which was slower and more incremental in comparison to other states that rushed the adoption of new standards and paired them with high-stakes testing right away (Sacramento Bee, 2015). California recognized that Common Core implementation would take time and sought a more deliberate and incremental path than other states like New York that expected swift adoption of the new standards and carried out statewide assessments that were used to demonstrate proficiency of Common Core in its second year of implementation (Sacramento Bee, 2015).

California’s more gradual process allowed for capacity building at schools, professional development for teachers, and time for students to adjust to a new and more rigorous way of learning. The SBE implementation plan for California is considered a living document by the SBE, which is unique in comparisons to other states and speaks to the malleability its authors intended during the implementation process (CDE, 2014). Furthermore, the SBE implementation plan provides support for local school districts to create their own implementation plan and shares information from outside organizations that are available to assist them. In 2013, the California legislature appropriated $1.25 billion for the California Department of Education (CDE) to distribute to local school districts to support their Common Core implementation plan and the increase of teacher training and curriculum development that was required (CDE, 2015). The most notable
difference between California and other states in the nation however, is the amount of time the SBE built into the implementation plan before high-stakes accountability and testing begins. California gave schools a practice field test in the 2013-14 school year and didn’t hold a full statewide assessment until the 2014-15 school year, which allowed districts and teachers time to create materials, develop instructional shifts, practice a new way of testing, and increase the technological capacity of schools to handle computer-based assessments. The increased flexibility and support of the SBE implementation plan may have helped the state avoid the scrutiny and political pressure that other states are experiencing from a rushed implementation process.

What is the Common Core?

According to the official website for the Common Core, hosted by CCSSO and the NGA Center, the Common Core is a set of high-quality standards in English Language Arts/literacy and mathematics (CCSSI, 2015). The goal of the Common Core is to better prepare students with the skills necessary to succeed in their college and careers. The newly adopted Common Core provide new expectations for what content and skills students will learn in elementary and secondary education with a focus on higher order thinking skills and real world application of materials.

The standards are meant to consolidate the best state standards that already exist, use international benchmarks, incorporate practices that are research and evidence-based, and involve input from teachers and experts from across the nation (CCSSI, 2015). Additionally, Common Core standards are fewer than the previous California State Standards and go into more depth with rigorous content and application of knowledge.
that engages critical thinking skills. The Common Core adoption process supports the call from national education leaders to create a common set of standards, and perhaps more importantly a common set of assessments to more accurately determine the progress of students across demographics and across states. Now, in 2015, 43 states, the District of Columbia, and four United States territories have adopted and are implementing the Common Core (CCSSI, 2015). Five of the original 48 states that volunteered to participate in the creation of the Common Core decided not to adopt the Common Core to begin with or chose to adopt the Common Core but then dropped it after a period of time because of political opposition. The opposition generally stemmed from teachers’ anxiety of a rushed implementation process tied to high-stakes standardized testing with Common Core and the public’s fear of encroachment by the federal government in state and local education (Bidwell, 2014). In its place, these states are currently implementing their own college and career standards or have adopted some of the Common Core but not in its entirety. Each state’s process has been unique and has experienced varying levels of success and challenges during implementation. California’s implementation process has been aided by the incremental roll out, flexible implementation plans, and teacher buy-in around the Common Core standards that addressed the critique of California’s previous standards that they were too broad and superficial (Sacramento Bee, 2015). The focus on fewer but more rigorous standards, embedded with critical thinking skills, appeals to teachers and increases their buy-in (Ellison & Freedberg, 2015).

*Common Core Implementation in Northern California*
This thesis solely focuses on implementation of Common Core in a Northern California high school district in attempt to gain an understanding of the knowledge, expectations, and processes at play in one district. The high school district studied for this thesis is a small district with six schools in a wealthy community. The student population has roughly 20% of students on Free and Reduced Priced Meals (an indicator of poverty) and 10% of students are English Language Learners (ELL). The district has also consistently performed above the statewide average in its standardized testing results. Thus, it is important to note for purposes of generalizability that the district is a more affluent and high-performing district than the average school district in California and will most likely have an easier time with implementation in comparison to larger and poorer school districts.

Through interviews at two of the high schools within the Northern California school district, I analyze the activities and perceptions of educators at the school level and the factors that might affect successful implementation. The interviews I conducted for this thesis were done as part of my graduate research assistantship with the Education Insights Center (EdInsights). EdInsights is a non-profit organization focused on research, policy analysis, technical assistance, and evaluation for services provided to K-12 and higher education. EdInsights conducted a larger study independent of this thesis that focused on Common Core implementation in California for grades 9-13 at the state, county, district, and school levels and is funded by a two-year grant from The William and Flora Hewlett Foundation.
I conducted interviews at the school district central office and the two high schools. At the district office I had 6 staff members participate and I had 9 staff members at both high schools participate in the research, which gave me a total of 24 participants. At the district level, the survey was structured to interview the superintendent, superintendent of instruction, director of curriculum, district technology coordinator, district mathematics coach, and district ELA coach. At the high school level, the survey was structured to interview at least one person from the following roles at each high school: English teacher, mathematics teacher, science teacher, guidance counselor, and school administrator.

California is an important state to study within United States education policy because it educates over 10% of the nation’s students and has a diverse student population with a large percentage of ELL students. Additionally, more than one in four children are below the poverty line in California, which disproportionately affects students of color, and California is also an important benchmark in examining the growing Hispanic and immigrant populations, with over 25% of California’s students being ELL (Children’s Defense Fund California, 2015; Bohn & Levin, 2013). It is important to examine a diverse student population to determine the affects Common Core has on at-risk student populations.

The purpose of my thesis is threefold: 1) conduct exploratory research to better understand the progress of Common Core implementation in a district in Northern California, 2) make some baseline comparisons between the two schools within the Northern California high school district around their process of Common Core
implementation, and 3) provide some implications for future research to education stakeholders in California. In order to understand the context of Common Core implementation in California, it is important to understand the history of the standards movement and the progression of education in the United States over the last several decades.

*History of Modern Education Reforms in America*

On April 26, 1983, the National Commission on Excellence in Education (1983) released a seminal report *A Nation At Risk* with the support from the Secretary of Education Terrel Bell that thrust educational policy onto the national agenda. The scathing report pointed to the decline of the American education system and falling student performance. The report was eventually embraced by President Ronald Reagan and led to a new era in educational policies that pushed states and local entities to create rigorous and measurable standards to ensure that students were meeting benchmarks of educational excellence (McDonnell, 2005). The report garnered widespread media attention and led to an increased awareness and involvement of stakeholders to begin what is now still referred to as the modern education reform movement.

The federal role in education reforms was still largely hands-off through the 1980s, with the exception of federal authority over issues of equity and postsecondary financial aid, but each president did use the bully pulpit to push states toward adopting rigorous standards and ultimately voluntary assessments. In the 1990s, the federal role expanded to create high stakes testing environments where federal funding was tied to adopting challenging content standards, statewide assessments, and accountability
systems to improve student outcomes (Louis, Fabay, & Schroeder, 2005). The high stakes accountability movement was layered on top of the states’ previous initiatives to incorporate new standards and assessments, which was not standardized across states so there was a good deal of variability (McDonnell, 2005). Different states had different expectations for their students and how they defined proficiency in a given subject area. Under President George W. Bush, a strong bi-partisan congressional effort passed the legislation known as the No Child Left Behind Act (NCLB) in 2001 and both streamlined and mandated a lot of the standards and assessment reforms that were formerly voluntary.

Policymakers from both sides of the aisle justified NCLB by pointing out the growing amount of federal dollars spent on education with no strings attached, no accountability measures in place, and the on-going concern about failing schools’ lack of progress. The NCLB reforms required that states incorporate an annual standardized assessment and that schools meet certain performance benchmarks (McDonnell, 2005). If a school fell short of the benchmark, then the school was required to make Adequate Yearly Progress (AYP) in their test scores. States developed their own AYP metrics that each elementary and secondary school was held accountable to meet. If a school continued to fall short and miss its AYP targets, it was marked “in need of improvement” after two years and if the school missed AYP goals for six years then the school could be closed, converted into a charter school, or the state department of education could take over the school and carry out its operations (Dillon & Rotherham, 2007).

Some reformers heralded NCLB for its focus on clear standards, accountability, and its ability to separate performance metrics for at-risk populations to monitor their
progress and address issues of equity (McDonnell, 2005). Though NCLB began with strong bi-partisan support, it also drew a lot of criticism as educators and stakeholders observed the vast changes that were occurring in the classroom. Critics argued that NCLB’s increased focus on high-stakes standardized testing forced teachers to focus on a narrow subset of skills and incentivized “teaching to the test” (Louis, Febey, Schroeder, 2005). Critics also argued that NCLB was more punitive than supportive. For schools with larger populations of disadvantaged students, even though they may make strong gains in their assessment scores, schools and students will still be considered “failing” if they do not meet the “proficient” benchmark level set by the state. NCLB was also criticized for its nation-wide goal of 100 percent proficiency in English Language Arts and mathematics by the year 2014, which critics said was neither realistic nor possible. The strong high-stakes pressure on states incentivized states to adopt lower standards so their students would perform better and pushed some schools and school districts to manipulate test results (Kingsbury, Olson, Cronin, Hauser & Houser, 2003; Rich, 2013; Conley, 2014). Moreover, the discrepancy between states’ expectations created a disparity in the educational attainment of students and impacted America’s ability to produce high school graduates who were ready to compete in a more complex and competitive workforce.

In the mid-2000s, education leaders were beginning to pivot their focus from the standards developed by states with NCLB and to the skills and knowledge that were needed to be successful in college and their careers. Stakeholders were beginning to rally behind the need for high schools to produce students that were ready for a complex and
interconnected 21st century economy (Conley, 2014). The focus on postsecondary success resonated with state policymakers along with education and workforce leaders. In 2008, the NGA Center, CCSSO, and Achieve released an important report *Benchmarking for Success: Ensuring U.S. Students Receive a World-Class Education*, which recommended that states adopt more rigorous standards through a “common core of internationally benchmarked standards in math and language arts for grades K-12” (CCSSI, 2015; Conley, 2014).

The development of the Common Core marked a pivot away from more stringent federal top-down directives and back towards a balanced approach to reform that employed both direct and voluntary changes with some power and choice returned to the states. The Common Core process was led by a coordinated effort between the CCSO and NGA, and was driven by a team of practitioners and academics from across the nation (CCSSI, 2015). The new standards demand more of both students and teachers, as the learning expectations are clearer, deeper, aligned to real world applications, and more rigorous than the previous state standards.

In 2009, the United States Department of Education accelerated the adoption of Common Core by using the $4 billion in Race to the Top grants to incentivize and support the development college and career readiness standards (ASCD, 2012). But state leaders maintained it was the importance of having strong educational outcomes for students that drove the adoption process, not federal actions. Critics were concerned that states rushed into adopting the Common Core in order to go after federal dollars during
an economic recession, but proponents argued that states were already interested in Common Core before there was any federal involvement (ASCD, 2012).

**California’s Adoption of the Common Core**

In California, on January 7, 2010 Senate Bill 1 from the Fifth Extraordinary Session (Senate Bill X51) established the Academic Content Standards Commission (ACSC) to develop new standards in English Language Arts and mathematics (California Department of Education [CDE], 2015). The commission was comprised of appointees by the governor, the majority of whom were educators, and was allowed to supplement the Common Core with up to 15 percent of additional materials. The ACSC was then directed to make its recommendations to California’s State Board of Education (SBE), which the SBE would then vote on.

On August 2, 2010 the SBE voted unanimously to adopt the standards as outlined by ACSC. The new standards covered English Language Arts; mathematics; and literacy in social studies, science, and technical subjects. On June 9, 2011, California joined the Smarter Balanced Assessment Consortium (“Smarter Balanced”) to help develop a new student assessment system that aligned with the Common Core (CDE, 2015). Smarter Balanced is a consortium of 23 states that are working collectively to develop the statewide summative assessments and other ongoing testing materials and supports to align with the Common Core. The Smarter Balanced summative assessments are computer-based exams that test students annually in English Language Arts and mathematics from 3rd to 8th grade and again in 11th grade. Smarter Balanced also provides
teachers with ongoing formative assessments to monitor student growth and inform teachers’ instruction.

In 2012, the SBE presented its *Common Core State Standards Systems Implementation Plan for California*, which identified major benchmarks in successful implementation of Common Core for local school districts to use in producing their own local plans. To support districts in the implementation of Common Core, California allocated $1.25 billion in August 2013 to be distributed among school districts and county offices to help cover the costs associated with the adoption of the new standards (CDE, 2015). Additionally, to give schools and districts more time to adjust to the new standards California negotiated a waiver with the United States Department of Education from the NCLB requirement to administer state assessments during the 2013-14 academic year (McNell, 2014). The NCLB waiver allowed schools to focus on Common Core implementation without the pressure of having a high stakes summative assessment that teachers and students weren’t ready for. My thesis will help to understand how the unique pace and strategy of California’s implementation process is affecting educators’ experience of carrying out Common Core reforms at the ground level.

*Organization of Thesis*

This thesis will examine Common Core implementation at a Northern California high school district and provide insight into how the reforms are being carried out. In this chapter, I described what Common Core is, the context of modern history of education reforms in the United States, and California’s process of adopting Common Core. In Chapter 2, I provide a review of the literature that is currently available on policy
implementation and education policy implementation. I use the literature review to develop the theoretical framework for my analysis. Chapter 3 provides my methodology for collecting and analyzing the data. Chapter 4 presents the findings of my research. In Chapter 5, I explain my results and share basic interpretations of my findings and offer some preliminary suggestions for educators and policymakers to support the implementation process in California.
In this chapter, I provide a summary of policy implementation literature in order to frame how policies and directives pass from legislative actors through different governmental agencies and are put into practice by street-level bureaucrats. Street-level bureaucrat is a term used in implementation literature to describe public employees who actually carry out the services and enforcements that are required by public policy (Weatherley & Lipsky, 1977).

I also take a deeper dive into education policy implementation literature that focuses on education to understand the nuances of educational bureaucracies and the processes of implementation within districts and schools. Through these explorations, I will build the theoretical foundation and framework for my analyses and identify the variables that I will study in my research of common core implementation at two high schools in a Northern California high school district. Since my research was exploratory in nature, the scope of my literature and variables of interest are broad to cover the breadth of activities involved in reform and will build the foundation for future research that is narrower in focus.

Policy Implementation

Overview

The study of policy implementation developed in the 1960s and 1970s after the period on the War on Poverty (McDonald, Eyster, Nightingale, & Bovbjerg, 2013). The public’s optimism about Great Society programs was being called into question that
legislation alone could effectively eradicate widespread problems such as racism, poverty, and inequality (Sarbaugh-Thompson & Zald, 1995). Early research on the implementation process was used to better understand how antipoverty programs operated and to explore what caused variations in programmatic success. Though several pieces of research had been conducted previously, the seminal study by Pressman and Wildavsky (1973) examining a federally funded economic development program in Oakland, California set the standard for policy implementation research and marked the beginning of a quick acceleration and growth of research in the field. Policy implementation was heralded as “the missing link” between policy analysis and the institutional analysis of public administration, highlighting a new set of processes that were previously ignored (Hargrove, 1975; Hjern, 1982). Though the field of policy implementation gained rapid attention and is now widespread amongst research, there still lacks a consensus on its definition and methodology (Werner, 2004).

The policy implementation process is challenging to define because it involves a “black-box” process with both political and administrative actors. The approach of policy implementation from a political science perspective studies the process of implementation as influenced by institutional structure, procedural design, and political systems. The political science perspective acknowledges that individual actors make decisions and influence the implementation process but focus on the political and institutional factors that drive their behavior. The public administration perspective acknowledges the political forces and systems that shape policy at the macro level but focuses more on the applied science and sense-making that street-level bureaucrats
undergo in the interpretation of policy directives that have a great deal of influence in policy outcomes.

Implementation research has grown in sophistication through three different stages. First, there was a focus on policymakers creating unclear or unrealistic goals and its ramifications. Then the literature grew to focus on implementers with negligent attitudes and abilities. Finally, the literature settled on more sophisticated analyses that balance the complexities between both the proposed change by policymakers and the existing norms, beliefs, and knowledge structures of practitioners providing the services (Timperley & Parr, 2007). To understand the complexities of policy implementation, the literature summarizes the development of the field into three different generations of research: first-generation, second-generation, and third-generation research.

**First-Generation Research**

When Goggin, Bowman, Lester, and O’Toole (1990) tried to consolidate and bring to light various challenges within the implementation literature, they also coined the use of first-, second-, and third-generation implementation research. The first-generation of implementation studies grapples with issues of conceptualizing and understanding the complex systems involved in implementation and how the program was carried out at the local level (McDonald et al., 2013). The research however, was critiqued by second-generation and third-generation researchers for using quasi-scientific measurements that overstated causality and overly simplified outcomes. Some researchers postulated that first-generation research was too pessimistic by focusing on isolated policy failures and producing theoretical frameworks that could not be
practically applied outside their own contexts (Schofield, 2001). Additionally, some critics charged that first-generation researchers were partly subjective and motivated by perceived failures of Great Society programs (Sabatier, 1991). Perhaps most notable of first-generation pessimism is Bardach’s (1977) strong assertion that even the best crafted policy is almost sure to go awry in the implementation process, which is referenced frequently in the literature.

Additionally, first-generation research is criticized for incorporating rational choice theory in its analytical framework and fails to take into account the complexities of individual beings. Rational choice theory is a framework for understanding social and economic behavior and is commonplace in economics and political science. The rational choice framework centers on the rationality of an individual to make choices that maximize utility and weigh the costs and benefits of each action. This theory assumes that all decisions are made in a logical manner and therefore policy implementation success and failure can be linked back towards the inability of policymakers to formulate clear directives or to provide adequate supervision of implementers to ensure that the policy is properly carried out (Sarbaugh-Thompson & Zald, 1995). Today, rational choice theory is generally discredited in policy implementation literature as overly simplified because it does not explore the variability of success and conditions that exist at the micro-organizational level and cannot explain how a vague policy directive may be successful in some localities and not others (Spillane, Reiser, & Reimer, 2002).

Though the first generation research is generally regarded as incomplete by today’s standards, it is praised for drawing the necessary attention and excitement to the
field of implementation (O’Toole, 2004). The first-generation research brought a very important focus to the actual outcomes of policies and attempted to establish causal relationships for the first time.

*Second-Generation Research*

Second-generation research sought to address some of the criticisms levied against the policy implementation field and to increase the rigor in its methodology. The second-generation research attempted to turn the corner on the implementation field’s pessimistic beginnings, and grounded itself in studies that were more analytical and comparative in nature (Sabatier, 1991). Second-generation research also attempted to create different typologies within the field to create predictions about outcomes and focused on identifying variables that would impact the implementation process. Researchers sought to incorporate theoretical frameworks and identify specific variables in their studies to account for the varying degree of success and failure in implementation (Van Meter & Van Horn, 1975).

The initial studies of the second-generation still incorporated a rational choice model but incorporated analytical frameworks and began the work of identifying causal variables. These studies formed what would be later called as the “top-down” perspective in implementation literature because the research focused on a policy directive or statute as the core of implementation and studied the way in which formal objectives were achieved or not. This perspective maintained that the essential characteristics of implementation remained at the legislative level and emphasized the role of central government.
In the latter part of the second-generation, researchers began to challenge the common rational choice model that focused on a top-down perspective of how policy directives were crafted (Sabatier & Mazmanian, 1980; Van Meter & Van Horn, 1975). The top-down model was challenged by new research that demonstrated different levels of success and failure that stemmed not from the policy directive at the top but by varying challenges of implementation at the ground-level (Bullock & Lamb, 1984). This new perspective became known as the “bottom-up” perspective and focused on street-level actors and their ability to interpret and carry out policies and the local environment in which they operated. The bottom-up models moved away from single-actor, single-case approaches to more complex interactions of multiple-actors, multiple-organizations that affect policy implementation (Schofield, 2001). The difference between top-down and bottom-up perspectives will be explored in greater detail later in this chapter.

The second-generation research also tried to create a system of identifying variables that could be used as strong indicators and measures of implementation success. These variables have been broadly categorized into policy structure, organization, and people (Goggin et al., 1990). Notable research comes from Sabatier and Mazmanian (1980) who developed a model that focused on 16 variables (both statutory and non-statutory) that could be used to analyze empirical studies. This model was widely used and deemed more practical than most other second-generation theories, which provided no limitation or frame to the multitude of variables used (Goggin et al., 1990).

Though the field of implementation was maturing, the long list of variables and the inability for second-generation research to create studies with testable and
explanatory theories prevented the literature from being practical and consumed by practitioners. The first- and second-generation models had failed to synthesize the literature into a comprehensive and cohesive approach to implementation, which is what the third-generation models attempt to do (Schofield, 2001).

Third-Generation Research

Goggin et al. (1990) were concerned with identifying the causal patterns associated with implementation outcomes and their relationship to the different independent variables. The complex nature of implementation often led first- and second-generation researchers to favor one or a small sample of case studies rather than embark upon a more complex multivariate analysis or a long-term longitudinal study (Goggin, 1986). Third-generation research attempts to incorporate the dynamism and complexity of broad policy implementation while retaining the practicality of its research that can be useful to practitioners. Third-generation research uses studies with multiple-organizations; differentiations between federal, state, and local entities; governmental and non-governmental forces; and a wider arrange of methodological approaches such as social experimentation, qualitative regressions, and network analysis (Goggin et al., 1990; Schofield, 2001). The new body of research also applies more rigorous standards of empirical research and attempts to combine both qualitative and quantitative approaches (McDonald et al., 2013). New approaches are more likely to incorporate rigorous methodologies and synthesize findings to promote evidenced-based practices.

Though challenges still exist in the field, researchers are finding more agreement in language and analytical rigor (O’Toole, 2004). Additionally, more of the findings in
third-generation literature have a practical recommendation that is valuable to share amongst the field, such as research incorporating variables that practitioners have a great chance of being able to influence (O’Toole, 2004). From the third-generation research, a body of work has begun to synthesize and focus around education, criminal justice, and social service programs in a systematic analytical manner (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). There is still a gap in creating practical applications of the implementation research, but the field has made improvements and is continuing to refine its approach. I will expand upon the literature about education policy implementation later in this chapter.

Top-Down & Bottom-Up

The two major conceptual frameworks in policy implementation are described as top-down and bottom-up perspectives. The top-down and bottom-up models illustrate the normative disagreements among researchers with competing models of what constitutes the foundation and core of implementation research. The top-down approach operates on the assumption that legislation and policy directives drive implementation in a relatively linear and rational process. The bottom-up approach focuses on the street-level bureaucrat and local discretion instead of centralized government.

Political science lends itself more readily to the top-down approach, focusing on the policy makers and the policy signal created that affects the program operations and eventual outcomes (McDonald et al., 2013). The top-down approach makes an assumption of a more rational and linear path to policy implementation and focuses on
statutory variables. Top-down approaches acknowledge the important and expansive powers of centralized government, which in turn affect the local environment.

The bottom-up approach analyzes the non-statutory variables and local context that affect the process and outcomes on the street level. The bottom-up conceptual framework focuses on variables that affect actors’ motivations, abilities, and understanding and give credit to policymakers as an indirect influencer that can create certain structures around funding and incentives to influence actor behavior. Elmore (1982) developed the “backward mapping” process, which tracks the implementation process at the final stage of implementation when it engages with the service recipient and the works back up towards the policy makers to align policy intent and outcomes. Backward mapping focused on variables that could only be indirectly influenced by policymakers, such as implementer skill-sets, incentive structures, and the use of funds to influence discretion (Elmore, 1982).

Many analysts today utilize some combination of both frameworks to address issues in policy implementation (McDonald et al., 2013). Both the macro-level top-down perspective and the micro-level bottom-up perspective contribute important findings to the implementation research. Sabatier is often cited as the staunch supporter and contributor of top-down models who has since embraced a combined approach (Sabatier 1991; Schofield, 2001). Choosing what combination of top-down and bottom-up variables to study requires prior examination of the policy and agencies involved to understand their interplay. The more prescriptive a policy arena is the more benefit there
is in focusing on top-down variables and the more discretion and complexity that occurs at the local level benefits from incorporating bottom-up variables into study.

*On-going Challenges in Policy Implementation*

In the complex arena of multi-actor, multi-organizational settings, the literature often provides brief recommendations without a large amount of substantive information (O’Toole, 1986). Elmore (1982) finds that implementation research often provides verbose descriptions of findings but rarely a pithy and practical application that can be useful for implementers. Additionally, third-generation research sought to address Goggin’s (1986) criticisms of the literature by including more complex multivariate analyses and long-term longitudinal studies. But the number of long-term longitudinal studies actually completed and empirical studies with validated findings is quite rare (O’Toole, 2004).

The common complaint of the literature is the lack of cohesiveness to provide any clear or consistent practical offerings to those in the field seeking improve their outcomes. The dissemination of the research to practitioners also appears to be at a lower rate than other policy and administration fields (Schofield, 2001). Though the policy implementation field as a whole has not quite reached a consensus, the arena of education policy implementation does benefit from a more focused and aligned research approach that translates more effectively to educators in the field.

**Education Policy Implementation**

Education policy implementation literature is meant to supplement and not supplant traditional policy implementation literature. Education policy implementation
research provides greater specificity and has a clearer and cohesive language and framework than generic policy implementation literature. This thesis will attempt to build a baseline of understanding and exploration for Common Core implementation literature, which will command the attention of educators for the foreseeable future, and whether or not Common Core implementation is driving the policy outcomes it set out to achieve. In education policy implementation literature, the language describing street-level bureaucrats is used to describe implementers at the local level: namely teachers, counselors, support staff, administrators, and sometimes school district personnel.

**Overview**

New education reforms, beginning with the standards movement, require large holistic changes from our schools and dominate the focus of education policy implementation (Louis,Febey,& Schroeder, 2005). State lawmakers cannot be too demanding or rigid in their requirements of educators or else there will be public pushback, but some push is required for large-scale implementation changes. Education policy implementation literature studies the interplay of how policies attempt to direct local action and how that direction is created locally (Spillman).

Most of education policy implementation credits the standards movement as the foundation and genesis of the field. The 1983 report *A Nation at Risk*, was a seminal movement in the education world and in education implementation study (Louis, Febey, & Schroeder, 2005). The report and the subsequent standards movement drew attention to the idea of accountability and the level of rigor in curriculum and to the outcomes of student understanding. Proponents pointed to the need to draw attention, and hopefully
more resources, to schools that were providing low-quality education for minority students.

Following the initial accountability reforms of the 1990s, educational leaders created different approaches that incorporated teacher preparation, teacher evaluation, school assessment, student assessment, and sanctions (Louis, Febey, & Schroeder, 2005). This also aligns with the education implementation literature, which increasingly incorporates a more robust framework with educators’ experiences at the core.

Sense-making

There is a growing trend in education implementation literature to incorporate sense-making as part of its framework to study the way educators engage with, interpret, and carry out policies, which ultimately has a great effect on student learning (Louis, Febey, & Schroeder, 2005). Sense-making is a cognitive framework that contributes to our understanding of implementation of policy by unpacking how implementing agents construct ideas from and about state and national standards (Spillane, Reiser, & Reimer, 2002; Werts & Brewer, 2015). Sense-making is defined by Louis, Febey, and Schroeder (2005) as “a process by which teachers’ and administrators’ interpretations of external demands culminate in formal or informal decisions about how they collectively respond to externally initiated policies.”

Champions of cognitive frameworks argue that implementers’ behavior is more than the traditional approach of examining incentives and consequences and gives insight into why a policy succeeds or fails at the “street-level” in education. Sense-making is also valuable in education as it addresses the dynamic of collective sense-making and how
learning evolves in groups, sub-groups, and individually at the school level (Spillane, Reiser, & Reimer, 2002). Collective sense-making is a bottom-up process where individuals and groups interact over a period of time and the understanding of policy directives is shared and evolves.

The sense-making framework is also useful in examining common core implementation because it aligns well with large-scale education reforms where implementers must make substantial changes in their processes and restructure current behaviors and knowledge structures (Louis, Febey, Schroeder, 2005; Spillane, Reiser, & Reimer, 2002). When teachers and administrators receive new policy directives, their interpretations of the policy through sense-making processes will affect whether they engage in substantial change, superficial change, or insubordination (Gold, 2002). The sense-making framework helps to address the extensive local discretion in education and the variability in implementers’ understanding of policy directives, and how they combine together to create differences in implementation.

*Technological Pedagogical Content Knowledge*

Technological advances have changed the way organizations operationalize activities, provide services, disseminate communications, and process large quantities of data. Advances in technology have also affected education as advocates champion opportunities to dramatically improve the quality and efficiency of different learning outcomes/opportunities (Mishra & Koehler, 2006). But recent studies have found that the effectiveness of technology-based interventions depended on factors affecting the teacher’s involvement more than the nature of the technology intervention itself (Gerard,
Varma, Corliss, & Linn, 2011). Therefore, finding a framework that effectively incorporates a teacher’s understanding and efficacy at utilizing technology with instruction is critical to accurately predicting implementation outcomes that involve some form of technology.

The pedagogical content knowledge framework, which provides the foundation for the technology pedagogical content knowledge framework, presented by Shulman (1986) conceptualizes the intersection of content and pedagogy. The theoretical framework of pedagogical content knowledge demonstrates that educators’ understanding of content and pedagogy alone does not guarantee the material will be accessible to learners. The framework argues that the subject matter must be transformed in its delivery by simultaneously addressing content and pedagogy (Mishra & Koehler, 2006). Successful instruction occurs when teachers interpret the subject matter and find different strategies to present the material and make it accessible to students.

The technological pedagogical content knowledge framework adds an additional layer to the pedagogical content knowledge framework by asking teachers to integrate and test their ideas around integrating technology into pedagogy and content. In the process of integrating technology, the best outcomes occur when teachers follow an iterative process of adding and eliciting new ideas, using evidence to distinguish which ideas are working well, and analyzing and integrating new ideas (Gerard et al., 2011). Teachers also benefit from on-going professional development to support the challenging process of integrating technology, pedagogy, and content.

The literature serves as an important reminder that new forms of technology
without proper guidance and support of teachers often fall short of its potential and intended outcomes.

>Selecting the Variables in Common Core Implementation

As Goggin described in *Too Few Cases, Too Many Variables* (1986) there is an abundance of variables used in the implementation field and research advises scholars to narrow the scope of study and focus on a number of variables that researchers can handle to analyze case studies. This section provides a summary of the pertinent variables to the analysis of common core implementation in Northern California at the local level for two high schools in a high school district. As described earlier in this chapter, implementation research that involves agencies with a large amount of discretion for street-level bureaucrats benefit by examining frameworks and variables with a bottom-up perspective. The bottom-up variables under examination are collaboration, communication, teacher buy-in, professional development, and technology. Four of these variables, collaboration, communication, teacher buy-in, and professional development, are under the umbrella of the sense-making framework, which the literature describes as the central component in how implementers in schools carry out instructional policies (Coburn, 2006). The other variable is technology, which is a critical component of common core implementation and falls under the umbrella of the technological pedagogical content knowledge framework, which the literature describes as a critical process for teachers incorporating new technological pedagogical devices into instruction (Gerard et al., 2011).
These variables cover the broad range of modified activities that common core reforms demand of educators and the manner in which they carry out implementation from a street-level perspective. These variables are not meant to be exhaustive, but are meant to effectively cover a large portion of the activities required in implementation by educators.

The research conducted in this thesis was exploratory in nature and was intended to align with the basic parameters of the implementation experience for teachers. The variables selected here are intended as a baseline and foundation for common core implementation studies and examining the variables that will provide the most practical application for others in the field to use.

*Collaboration:*

Collaboration is the degree of coordinated sense-making, skill-building, and coalition building across groups of implementers and experts. One of the areas of consensus within the implementation literature is the challenge of coordinating policies and services across multiple organizations and involving different actors. Hjern and Porter (1981) provide a strong contribution through the integration of organizational theory and implementation. They describe how each entity in a multi-organizational process creates its own implementation structure, which in totality helps to achieve the intended policy outcomes. This is achieved by the restructuring of parts of each organization, often in clusters and is supported when the organizations have similar goals and objectives (Schofield, 2001). But the probability of successful policy implementation is proportional
to the number of organizations and actors involved: decreasing the likelihood of success when increasing the scope of collaboration (Pressman and Wildavsky).

In addition to the logistical and programmatic challenges of multi-organizational collaboration, policies are transmitted through multiple institutions that each have a structure with a political undercurrent in its set of social values and goals (Schofield, 2001). The structure of inter-organizational work has important implications for the coordination, control, and command systems contained in each entity and in the way they interact (O’Toole, 1993). Collaboration and multi-organizational coordination in education is marked by the different entities in education and the numerous non-governmental organizations that are involved. Additionally, researchers are increasingly acknowledging the importance of approaching reform through the involvement of the entire school rather than individual teachers (Timperley & Parr, 2007). Researchers acknowledge that teachers do not work in isolation and that engaging teacher teams and learning communities will support the informal and social reorganizing that occurs during implementation.

When policy makers and state leaders engage the entire school in the learning process around implementation, not just teachers and their supervisors, then the schools’ capacity to respond to implementation challenges increases (Timperley & Parr, 2007). Learning opportunities were created in problem-solving processes because implementation problems were more frequently viewed as collective rather than individual. If an individual encountering a challenge did not have the capacity to approach or respond, the learning community as whole would step in to support and solve
(Timperley & Parr, 2007). Additionally, it is becoming increasingly valuable to use teacher groups as a unit of change when examining the progress towards implementation for a whole school. This aligns with the changing structure of schools to create professional learning communities and dialogue (Louis, Febey, & Schroeder, 2005).

Intermediary organizations outside of the formal hierarchy of educational entities can also collaborate and add capacity to schools during implementation as well. Significant institutional shifts occurring in implementation are eased with short-term supports and resources focused on facilitating the reform. Intermediary organizations can also provide insight and support through a larger interconnected regional effort broadening the scope of educators’ collaboration (Honig, 2004). A challenge for intermediary organizations is that they can be beholden to funders if there is a disagreement about goals and strategies (Honig, 2004).

Education policies that promote school-community collaboration are designed to use district offices to support in the coordination and outreach with community-based public, private, and non-profit organizations. School districts often fall short because district administrators fail to provide the systematic support needed. However, in recent years school districts have increased their likelihood of assigning specific staff members to work in-between the district, schools, and community-based organizations to organize these new partnerships and supports (Honig, 2006) District personnel can be used in a facilitative role to enable collaboration between schools and community-based groups rather than through a more traditional top-down director (Honig, 2006).

*Communication:*
Communication is a critical component of implementation as it affects how implementers interpret policy, share views and beliefs with peers, and how administrators and teacher-leaders skillfully frame reform efforts to increase implementers understanding and adoption. With large-scale reforms, it is important for a district office to have comprehensive and consistent communication to help mediate differing views of implementation (Werts & Brewer, 2015). Since education in the U.S. is often decentralized, there can be competing and conflicting educational policies that were created at different levels of government. Implementation is supported when local actors generate a logical synthesizing of policies and articulate that amongst their peers (Honig & Hatch, 2004).

Administrators play a large role in structuring the organization of the school staff, which supports or hinders the ability for educators to interact and share information (Louis, Febey, & Schroeder, 2005). Groups that have more frequent communication and interaction with peers are better positioned to create social expectations to create a change in understanding and behavior (Louis, Febey, & Schroeder, 2005). Consistent communication by teachers and administrators allows for a collective understanding and interpretation of new policies that helps to keep individual preferences and biases from interfering (Louis, Febey, & Schroeder, 2005; Spillane, Reiser, & Reimer, 2002).

The literature also describes the issue of problem framing in which problems are interpreted and constructed through observations and will naturally emphasize certain aspects of a situation and will deemphasize others, such as a focus on the deficiency of school support staff to address behavioral challenges instead of teachers (Coburn, 2006;
Weiss, 1989). The way the problem is framed and then communicated assigns responsibility and creates logic around which policy solutions should be adopted (Coburn, 2006). Authority also plays an important role in the social process of sense-making for policy implementation. Though administrators often have more influence in the problem framing process, teacher leaders also play a particularly important role in mediating differences in policy interpretation and tailoring the communication to the specific subject and grade-level cohorts (Coburn, 2006). Skillful framing is also important as teachers have a history of autonomy and administrators must be skilled in how they frame new reforms to get teacher buy-in and support. Unskilled framing can result in superficial change or full on opposition from teachers (Coburn, 2006). Sense-making frameworks fall short when researchers categorize motivation solely as an individualistic experience without acknowledging the skill and interactions of superiors in the framing and execution of reform.

The pace and speed of implementation is also important since overly quick and forceful change can create unintended consequences and hampers the communication that’s necessary to facilitate and systematize the process. Implementers must negotiate and communicate their needs as they navigate multiple and sometimes conflicting demands for change. Effective long-term implementation involves on-going reflection, communication, and support in decision-making (McLaughlin, 1987). Implementation processes also create an increased demand on information and analysis to process and refine the changes. Strategies of analysis are multi-staged and iterative and require key
actors at each level to engage in strong communication loops and regularize systems of feedback (McLaughlin, 1987).

Communication plays an integral role in the interpretation and sense-making that is required in large multi-actor, multi-organizational change. Communication is a complex and dynamic process that involves actors from every level of the organization and transcends the top-down and bottom-up perspectives in its relevance. Effective communication also plays a role in the attitudes and beliefs of implementers and their views on how to carry out educational reforms.

Teacher Buy-In:

Teacher buy-in is the measurement of teachers’ willingness, attitudes, and beliefs towards a particular policy implementation process and their ability to carry out the proposed reforms. In education, “street-level bureaucrats” are given a larger degree of discretion and control, and are critical players in successful education policy implementation. Additionally, it is important to note that educators are among those public employees that are tasked to serve citizens for whom the degree of need is never-ending and the resources available are always limited (Weatherley & Lipsky, 1977). They accomplish this by modifying their goals, distributing their support, prioritizing tasks, and limit the clientele they can serve. This is another way to illustrate that the educator’s job is filled with discretion.

Educators are also continuously negotiating the tradeoffs between the demands of their daily work and the demands of their “inner selves” (Moore). Teachers do not work in a social or psychic isolation. Actors outside of the local school, often are unable to
provide behavioral guidance to change or dictate behavior of teachers (Weatherley & Lipsky, 1977). And the ability for lawmakers to impose work-performance measures to change implementer behavior has been weak. In this sense then, the street-level bureaucrat is the policymaker in their respective arena.

There is a growing consensus that emotions play an important role in educators development and (re)orientation of pedagogy and practice (Britzman & Pitt, 1996). Accounting for the emotional and socio-symbolic frame is important in shaping the experience the practitioner has around negative changes in implementation and whether or not they prove “fatal” (Moore). Providing reflexive support that allows for implementers to grapple with implementation challenges in a supportive but professional environment, can help implementers reach a more positive eventual outcome. Another factor in teacher participation is preexisting culture of teacher collaboration within a school (Stoelinga, 2008).

The literature also describes how principals play a role in teachers’ buy-in, trust, and support of school reforms. (Hallinger, 2003) Principals sometimes exert influence indirectly through the use and support of an instructional coach, department head, or assistant principal to observe and support teachers in reform implementation (Matsumura & Sartoris). Administrative observation provides critical information to understand teachers’ instructional needs and provide feedback.

An effective strategy for principals is to explicitly endorse an instructional coach as a content-area specialist and a resource for teachers (Matsumura & Sartoris). Principals who provide opportunities for instructional coaches to gain the trust of teachers
and create routines of collaboration and support are more likely to see growth from their 
teacher.

The manner in which teachers collectively create sense of policy changes was 
directly correlated to teacher buy-in and willingness to change their practices (Louis, 
Febey, & Schroeder, 2005). Collective sense-making plays an important role in the 
amount of effort that teachers’ were willing to exert to implement state policies. Data 
suggests that the differences amongst educators is tied to the level of understanding of the 
policy, the district’s role as sense-maker and communicator, and the teachers’ collective 
views about their level of importance and authority in their school and district (Louis, 
Febey, & Schroeder, 2005).

Professional Development:
Professional development is the complex process of on-going teacher learning in both the 
formal school-wide trainings and in the informal classroom-based learning that attempts 
to equip teachers with new skills to address the evolving needs of implementation. There 
is a need to distinguish the role of implementation that involves new innovations and 
significant changes to existing protocols (Weatherley & Lipsky, 1977). Policies that 
require fundamental changes to current frameworks and practices are harder to 
implement then procedural reforms, and additional training and professional development 
is critical to ensure the implementation change is both rational and feasible to 
implementers.

Learning opportunities are most effective when they are consistent and on-going 
and administered through an entire school staff. Greater implementation coherence was
attributed not to more detailed policy instructions, but through consistent learning opportunities (Timperley & Parr, 2007). A greater focus on effective facilitation and improving learning opportunities for educators would be useful and yield strong returns. Supervision in combination with professional development can also help promote teacher learning in the context of larger programmatic changes. (Hoekstra & Korthagen, 2011) Schools experience challenges when the sense-making at the school is not connected to any long-term, holistic professional development produced at the local level to help in understanding and delivering the new policies.

The role of informal learning has been underplayed in traditional professional development studies, which focus more on explicit trainings, and plays a role in a teacher’s pedagogy. However, informal learning doesn’t provide enough structure to foster profound changes that are needed in large-scale reform, such as common core implementation (Hoekstra & Korthagen, 2011). The deep professional learning comes with a self-awareness beyond teaching strategies, and into the awareness of one’s own feelings, beliefs, attitudes, and needs and links the capacity of one’s self-perception with the perception of student outcomes and pedagogy. This deeper learning arguably will not occur without external supervision or support.

The quality and politics of professional development are also important. If district personnel lead discussions of policy implementation and they are viewed to be at odds with educators’ political norms and autonomy, it can lead to implementer opposition to change (Louis, Febey, & Schroeder, 2005). If this occurs, then the collective sense-making stops.
Professional development sometimes has negative connotations where teachers and implementers have deficiencies that need fixing, which is provided by the district and state personnel (Werts & Brewer, 2015). Professional development and informal learning that occurs with an emphasis of thinking through challenges and problems may not promote learning (Hoekstra & Korthagen, 2011). Instructional change occurs not only because of logic and pedagogical deconstruction, but also by engaging emotion and motivations (van Veen, Sleegers, & van de Ven, 2005). Theories of positive psychology show how positive emotions support implementers in their ability to imagine a broader and more holistic set of ideas of how to approach challenges (Hoekstra & Korthagen, 2011). A more balanced outlook of professional development that is not deficiency based, emphasizes the success of teachers and their core ideals and qualities which can be expanded. (Hoekstra & Korthagen, 2011)

Additionally, professional learning communities are important tools for the sense-making and understanding of state policies and developing new learning tools for implementation (Spillane, Reiser, & Reimer, 2002; Coburn, 2006; Louis, Febey, & Schroeder, 2005) There is a growing body of evidence that peer-to-peer conversations among educators are valuable for most teachers (Louis, Febey, & Schroeder, 2005).

*Applying Technology:*

Technology is defined here as the adoption of digital technology embedded in routines of educational teaching and learning. Technology has been incorporated in educational practices at an increasing rate and educators are working hard to keep pace. A common challenge in the use of technology is the common practice to examine the whether or not
technology has been purchased and installed without examining how it is used and if implementers are trained (Mishra & Koehler, 2006). To use technology, street-level bureaucrats often have to undergo some sort of adaptation process to their institution. Regardless of how effective a technology might be, the interaction and installation of a technology and a new institutional setting is uncertain and can experience unforeseen challenges (Mishra & Koehler, 2006).

Additionally, technology adds an extra layer of complexity to implementation literature. To determine the efficacy of policy implementation embedded with technology, the implementers’ efficacy and the technology’s efficacy must be separated when analyzing implementation (Gerard et al., 2011). And a core component in ensuring that technology will be implemented properly is the professional development that teaches educators how to restructure and embed technology into their processes.

Technology-based professional development programs that engage teachers in a comprehensive and practical learning module that lasts for more than one year can significantly improves student outcomes. Teachers who only experienced professional development programs that lasted one year or less were much more likely to experience technical and instructional obstacles that limited student success (Gerard et al., 2011). Research has demonstrated that the teacher might exert greater influence than the quality of the technology intervention itself. The quality and outcomes of the technology intervention relied upon the teacher’s pedagogy and content knowledge.

Successful professional development programs provided teachers the opportunity to integrate ideas, customize instruction and assessments, and make refinements on an
on-going basis (Gerard et al., 2011). This requires professional developments to continue for a long enough period of time.

Conclusion

This chapter provided an overview of the policy implementation and education policy implementation literature and the conceptual frameworks that aligned with common core state standards implementation. The conceptual frameworks provide the foundation to conduct the analytical work when examining the implementation process at two different high schools in a Northern California high school district. The frameworks provide a strong base to begin the analytical work, which is exploratory in nature and is not meant to be exhaustive.

In chapter three, I provide the methodology for my research, in which I combine my conceptual framework with my interview questions and protocols, coding process, and analytic work.
Chapter 3

METHODOLOGY

In this chapter, I outline the methodology used for this thesis. The main objective of my thesis is to conduct exploratory research to better understand the progress of the implementation of the Common Core in California. As discussed in my introduction, the Common Core is in its initial implementation phase in California, which is why there is little scholarly research on its implementation. Furthermore, existing research mostly focuses on statutory variables and top-down perspectives and does not focus on bottom-up perspectives with data that comes from the street-level. The focus of my thesis is to begin filling this gap and collecting critical qualitative data from two high schools in a Northern California high school district to peer into the “black box” of policy implementation and determine the extent to which implementers are succeeding in carrying out the Common Core reforms within the scope of my study. The second objective of this thesis is to make some baseline comparisons between the two schools and their processes of Common Core implementation and provide some preliminary recommendations to schools and educators in the field who are currently implementing Common Core reforms in California.

To meet my objectives, I used structured interviews as my primary data source. Structured interviews were the best tool to uncover in-depth information around both the activities and the perspectives of educators carrying out Common Core implementation. Additionally, interviews are a more personal form of research and ideally allow
respondents to build a sense of trust and comfort in sharing sensitive information around the difficult parts of Common Core implementation.

As discussed in my literature review, policy implementation literature does not reach a consensus on theoretical models to use for future research. The literature does however offer valuable frameworks regarding variable selection. In this thesis, I focus on a bottom-up approach and variables that align with the sense-making framework and the large degree of local discretion that exists in public education in California.

Research Partnership with EdInsights

Education Insights Center (“EdInsights”), where I was formerly employed as a graduate researcher, brought together the team of researchers that conducted the in-person interviews used in this thesis. EdInsights conducted a larger study independent of this thesis that focused on Common Core implementation for grades 9-13 at the state, county, district, and school levels and is funded by a two-year grant from The William and Flora Hewlett Foundation. The Common Core implementation research was led by EdInsights’s Executive Director Dr. Andrea Venezia and Research Specialist Jodi Lewis. Under their leadership, EdInsights Graduate Researcher Sara Adan and I also worked on this project for EdInsights and helped to conduct the research for the project. I obtained permission to use the qualitative data from the face-to-face interviews for my own thesis process. EdInsights received Institutional Review Board (IRB) approval and since I used the exact same interview protocols as the rest of the EdInsights team, I did not need to re-submit any protocol applications to the Sacramento State IRB. The interview data that I use in this thesis will also be used by EdInsights to produce its own reports and findings.
Partnering with EdInsights was logical for two reasons. First, since I was already conducting the field research with EdInsights, it made sense not to waste limited time and resources to duplicate the research process on my own terms. Second, it is quite hard to gain access to educators in the field for in-person interviews or otherwise. The stressful high-stakes nature of education often makes administrators wary of outsiders and the potential fallout that can occur from bad publicity and internal complaints. Therefore, it made sense to partner with EdInsights to share data and resources and produce a thesis that took a more focused examination of one of the school districts being studied.

The second phase of this two-year study by EdInsights was focused on the street-level implementation process by local school districts and their high schools. I utilized the data that resulted from this second phase of research for my thesis. The interviews conducted in the first phase informed the development of the interview protocols that were used in the second phase research with school and school district personnel. The first phase of the EdInsights research involved interviewing stakeholders at the state level and stakeholders at the county level. These stakeholders occupied various positions of leadership in state departments of education, county offices of education, and different institutions of higher education. The first component was to interview 15 state policy leaders in California to understand the process and expectations of implementation for California’s local counties and school districts. Then, EdInsights interviewed four policymakers from other states to see if they could discover useful insights around Common Core that could be beneficial to California. Finally, EdInsights interviewed 10 County Office of Education representatives from across California to understand their
process of working with both the California Department of Education and their local school districts.

Professor Venezia and Ms. Lewis orchestrated the outreach process to school district leaders and acquired permission to conduct interviews at both the district and high school level. Each district and school leadership team was sent the interview protocols ahead of time for approval. Once approved, EdInsights researchers conducted interviews at two different high school district offices and then at two local high schools within each of those school districts (resulting in a total of four high schools). The EdInsights team interviewed two school districts and their corresponding high schools and I selected one of the two districts as the focus of my thesis because I wanted to explore a narrower perspective of the implementation process within a single school district.

**Strategy for Inquiry**

This thesis used a structured face-to-face interview protocol as the research instrument. To collect cross-sectional data, the interviews were done at relatively the same point in the school year and all the data for the different variables were collected at the same time. This approach provides a snapshot in time of the implementation process for fall of the 2014-2015 school year.

It would have been hard to use a quantitative research methodology due to the lack of assessments and quantifiable metrics that are publicly available on Common Core implementation. A questionnaire with closed-ended questions could also have been employed, but would most likely yield narrower and more surface-level responses and left out important information in the sense-making framework.
Therefore, in order to achieve this thesis’s objective, I used structured in-person interviews with open-ended questions to gather my qualitative data. I used EdInsights’s interview protocol (see Appendix A for interview protocol) that included a small number of variables over nine different sections and cover the majority of implementation sense-making activities that affect educators’ implementation process. The topics covered current changes in curriculum, instruction, and assessments for educators and also investigated what outcomes and changes educators expected to see in assessments and college readiness levels. Table 3.1 contains the different topics covered in the interview protocol.

Table 3.1 Interview Protocol Topics

<table>
<thead>
<tr>
<th>Interview Protocol Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  General Questions</td>
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<tr>
<td>2  Professional Development’</td>
</tr>
<tr>
<td>3  Curriculum and Practice</td>
</tr>
<tr>
<td>4  Linked Learning, Career Pathways, &amp; Career Technical Education</td>
</tr>
<tr>
<td>5  Technology</td>
</tr>
<tr>
<td>6  Smarter Balanced Assessments</td>
</tr>
<tr>
<td>7  Closing the Achievement Gap</td>
</tr>
<tr>
<td>8  Developing Pathways Between High School and Postsecondary</td>
</tr>
<tr>
<td>9  Closing Questions</td>
</tr>
</tbody>
</table>

The first step for EdInsights to conduct interviews at the local level was to decide which school districts to target for the study. The EdInsights team decided to select school districts in Northern California to allow for a closer proximity and logistical feasibility for each researcher to conduct their interviews. Next, the EdInsights team deliberated about which school districts were farther ahead in their Common Core implementation process and were known for doing something interesting that could be
studied. We agreed that studying a school district that was behind on Common Core implementation would not yield valuable information and would likely be a waste of research-related time and funding. But, the EdInsights team was also conscious of choosing school districts that were not outliers in their level of success and resources and we aimed to have school districts that had a mixture of success to allow for comparisons. As part of the Hewlett Foundation grant, The EdInsights team committed to interviewing between two to three school districts, and we ended up interviewing two school districts.

The interviews were agreed to take place under a condition of anonymity, which is why all identifying information about the district, schools, and personnel have been removed from this thesis. The anonymity is important to teachers and staff because it allows the interviewees to speak more openly about sensitive information at a time when Common Core receives a lot of positive and negative publicity across the nation.

Research Sample

This qualitative study employs a non-random sample of volunteer subjects. A random sample was not realistic because of the sensitive nature of the research that needs to be managed and coordinated by a school administrator and because we wanted to include teachers from specific grades and subjects. After obtaining permission to conduct interviews at the school district and high schools, EdInsights coordinated with a local liaison at each school and district office to help recruit and select the survey participants. The school district central office had 6 staff members participate and both high schools had 9 individuals participate in the research, for a total of 24 participants.
At the district level, the survey was structured to interview staff members from the following roles: superintendent, superintendent of instruction, director of curriculum, district technology coordinator, district mathematics coach, and district ELA coach. At the high school level, the survey was structured to interview at least one person from the following roles at each high school: English teacher, mathematics teacher, science teacher, guidance counselor, and school administrator. We focused on interviewing teachers that taught 11th and 12th grade, but some teachers taught multiple grade levels. Each person interviewed volunteered to participate in the study and took time out of her school day to do so. A local liaison helped to distribute our interview protocol to each participant ahead of the actual interview so they had a chance to familiarize themselves with the questions and felt comfortable addressing the topics.

All of the in-person interviews took place between September 2014 and October 2014. Each interview lasted between 30 minutes to an hour and a half, depending on the length of the interviewee responses and the time allowed in the schedule. Due to the time constraints of some interviews, we created a list of high-priority questions within the interview protocol that were tailored to the interviewees in case we didn’t have enough time to go through the entire protocol. Each interview protocol began with a description of the research project and a reminder of the anonymity in the process.

Potential Bias

The non-random sample of volunteer subjects contains potential self-selection bias that is common with qualitative research. When interviewees are allowed to decide whether or not they want to participate, the subjects become a self-selected target
population and are not representative of the entire target population. It is likely that self-selected participants will lead to some degree of biased data, most likely towards a sample that is higher performing and more motivated towards Common Core implementation.

Additionally, school administrators were given the choice of which individuals to ask to participate. School administrators can also carry some bias in their motives to pick individuals for different personal or political reasons. For example, an administrator could pick potential interviewees who are more likely to exhibit desirable characteristics and are more inclined to respond in a certain manner that is not characteristic of the entire target population, which could skew the data toward a more favorable view of Common Core implementation. It is likely however, that administrators chose participants for their understanding and expertise of Common Core implementation and is indicative of the direction that the school is pursuing as a whole.

Research Instrument

The interview protocol was developed by EdInsights and consists of nine different sections. Each section had questions that were supposed to be asked and potential questions that could prompt follow-up answers if more information was needed. The questions were open-ended to allow interviewees to respond in full and provide additional information on each topic when applicable. The in-person interviews were structured, but some flexibility was employed to tailor follow-up questions to an interviewee’s response or if time was running low discretion was allowed to prioritize
which of the remaining questions to ask. The face-to-face interview allows both interviewers and interviewees to ask clarifying questions during the process.

Additionally, the in-person process helps to build a stronger sense of trust and comfort to openly discuss their attitudes and experiences in the implementation process. The transcripts were also anonymized to increase interviewees’ willingness to share sensitive information by deleting the interviewees’ personal information and any identifying information about the local high school and its school district. Next, the EdInsights team used a coding process to categorize the information from the transcripts into different themes.

*Coding Process*

The coding process of open-ended questions has received considerable attention from researchers, as it is hard to process them in a reliable way. The coding task involved in this study requires a coder to locate relevant information from within a larger body of text. The literature has found low levels of intercoder reliability for this type of coding process (Montgomery & Crittenden, 1977). To address this challenge, the EdInsights team used a calibration process in December 2014 in which each person coded the same transcript individually and then met together to examine the similarities and differences of how each person coded the data. We used the meeting to review our coding outcomes and calibrate how the material should be coded to ensure alignment between each researcher. The EdInsights team then coded a second transcript and met again to finalize our calibration process. The calibration process has been shown to substantially improve intercoder reliability (Montgomery & Crittenden, 1977).
Additionally, we engaged in “a priori” coding procedure, which means that the coding process began after data was collected but before the final coding categories were established. This is preferable as it reduces the potential for coding error as the coding categories can be modified as necessary. After the EdInsights team finished the calibration process, we divided the remaining transcripts to code and organize into key themes. Table 3.2 contains the list of the different themes contained in the coding key.

Table 3.2 Coding Key Themes

<table>
<thead>
<tr>
<th>Coding Key Themes</th>
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</thead>
<tbody>
<tr>
<td>1. Contextual Information</td>
</tr>
<tr>
<td>2. CA Political/Education Policy Context</td>
</tr>
<tr>
<td>3. Roles and Responsibilities</td>
</tr>
<tr>
<td>4. Information, Guidance, and Curriculum</td>
</tr>
<tr>
<td>5. Tracking Implementation</td>
</tr>
<tr>
<td>6. Communication</td>
</tr>
<tr>
<td>7. High School-Postsecondary Relationships</td>
</tr>
<tr>
<td>8. Workforce Relationships</td>
</tr>
<tr>
<td>9. Use of Funding for Common Core</td>
</tr>
<tr>
<td>10. Positivity Towards Common Core</td>
</tr>
<tr>
<td>11. Concerns Towards Common Core</td>
</tr>
<tr>
<td>12. Common Core and Other Initiatives</td>
</tr>
<tr>
<td>13. College and Career Readiness</td>
</tr>
<tr>
<td>14. Career and Technical Education</td>
</tr>
<tr>
<td>15. Technology</td>
</tr>
<tr>
<td>16. Teacher Learning</td>
</tr>
<tr>
<td>17. Instruction</td>
</tr>
<tr>
<td>18. Common Core and Deeper Learning</td>
</tr>
<tr>
<td>19. Assessments</td>
</tr>
<tr>
<td>20. Common Core and Equity</td>
</tr>
<tr>
<td>21. Early Assessment Program</td>
</tr>
<tr>
<td>22. Accountability</td>
</tr>
<tr>
<td>23. Education Code</td>
</tr>
<tr>
<td>24. Common Core Vocabulary</td>
</tr>
<tr>
<td>25. Process and Staging</td>
</tr>
</tbody>
</table>
I was given 6 of the 24 transcripts to code and the other EdInsights team members did the rest. I used EdInsights’s coding key (see Appendix B for coding key) that included 25 different themes for the data to be categorized into. After all of the transcripts were coded, we created an information matrix with the 25 themes from the coding key so that each respondent’s data could be combined together in separate matrices for each school and school district (see Appendix C for coding matrix). By coding and combining the transcripts into the coding matrix, the EdInsights team was able to view all of the relevant data in an organized manner to support the analytical work that followed.

Variable Selection

As the literature review explains, the number of potential variables to study is quite extensive and there is little consensus about which models should be used for implementation studies. Education policy implementation literature and the sense-making framework both put educators at their core and incorporate a bottom-up and street-level perspective. To align my research with the bottom-up perspective, I focus my thesis on examining the non-statutory variables. In the following subsections, I explain how I theorized these variables influenced common core implementation at the two local high schools.

Collaboration:

In this thesis collaboration is defined as the degree of coordinated sense-making, skill-building, and coalition building across groups of implementers and experts. I measured this variable by the examining the degree to which coordination and resource sharing was reported as occurring between teachers, administrators, support staff, and external
agencies. I also measured if the channels of collaboration were reported as occurring in formal or informal processes.

Table 3.3 Collaboration Questions in Protocol

<table>
<thead>
<tr>
<th>Collaboration Questions in Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 What kind of support is there within your school for the Common Core?</td>
</tr>
<tr>
<td>2 Is there time for teachers to learn from each other?</td>
</tr>
<tr>
<td>3 Please characterize how you view the relationship between college and career readiness in the Common Core.</td>
</tr>
<tr>
<td>4 Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?</td>
</tr>
<tr>
<td>5 What do you think are the optimal roles for business leaders (state, regional, and local) to play with regard to the adoption of the Common Core?</td>
</tr>
</tbody>
</table>

Communication:

Table 3.4 Communication Questions in Protocol

<table>
<thead>
<tr>
<th>Communication Questions in Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Where are you finding the most useful information to help you implement the Common Core?</td>
</tr>
<tr>
<td>2 Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core? Do you get a sense that parents know what’s changing?</td>
</tr>
<tr>
<td>3 Please characterize/describe the lines of communication between you and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?</td>
</tr>
<tr>
<td>■ Your school administrators</td>
</tr>
<tr>
<td>■ Teachers at your own school</td>
</tr>
<tr>
<td>■ Teachers at other high schools</td>
</tr>
<tr>
<td>■ District office personnel</td>
</tr>
<tr>
<td>■ County office</td>
</tr>
<tr>
<td>■ Postsecondary institutions</td>
</tr>
</tbody>
</table>
Communication is a critical component of implementation at the street-level and affects the ability of administrators and teachers to interpret and share views and beliefs with peers. The administration team also plays a role in communication by unpacking and informing implementers about reform efforts to support implementers’ understanding and adoption. To measure this variable, I assessed the characteristics and the degree to which communication was reported as occurring between 1) school administrators 2) other teachers at their own school 3) teachers at other high schools 4) school district personnel 5) County Office of Education personnel 6) postsecondary institutions.

Teacher Buy-In:

This variable is defined in this thesis as the measurement of teachers’ willingness, attitudes, and beliefs towards a particular policy implementation process. I measure teacher buy-in by primarily assessing their views about how they think Common Core implementation is going and the success and challenges at play. I also examine other materials that contain direct and indirect references to implementers’ attitudes and beliefs that are referencing other topics but overlap with teacher buy-in.

Table 3.5 Teacher Buy-In Questions in Protocol

<table>
<thead>
<tr>
<th>Question</th>
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<tbody>
<tr>
<td>1</td>
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<td>3</td>
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<tr>
<td>4</td>
</tr>
</tbody>
</table>
**Professional Development:**

Professional development is necessary to provide the training and skills for implementers to carry out fundamental changes required by comprehensive reforms to existing protocols. This variable measures the perception of both the quantity and quality of professional development opportunities offered to implementers to prepare and train them to carry out the new reforms. I also examined the source of the professional development opportunities and whether they were provided by internal or external entities.

**Table 3.6 Professional Development Questions in Protocol**

<table>
<thead>
<tr>
<th></th>
<th>Professional Development Questions in Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Please characterize the professional development available for teachers in your school to implement the Common Core. Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?</td>
</tr>
<tr>
<td>2</td>
<td>What characteristics indicate quality in professional development?</td>
</tr>
<tr>
<td>3</td>
<td>Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?</td>
</tr>
<tr>
<td>4</td>
<td>What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core? What are the challenges or barriers to the kinds of optimal professional development that you just described?</td>
</tr>
<tr>
<td>5</td>
<td>Do you think new teachers need to have different skills than they did prior to Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.</td>
</tr>
</tbody>
</table>

**Applying Technology:**

Technology is defined as the adoption of digital technology embedded in routines of educational teaching and learning. This variable is measured in both the perceptions of
capacity and quality of the technology as well as in the perceptions of adoption and integration of the new technology into implementers’ pedagogy.

Table 3.7 Applying Technology Questions in Protocol

<table>
<thead>
<tr>
<th></th>
<th>Applying Technology Questions in Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What kinds of technology has your school purchased because of the Common Core and Smarter Balanced assessments?</td>
</tr>
<tr>
<td>2</td>
<td>What kinds of tech training/professional development is your school experiencing as it implements Common Core?</td>
</tr>
<tr>
<td>3</td>
<td>What kinds of technology applications are you preparing for and/or using now?</td>
</tr>
<tr>
<td>4</td>
<td>How is the work going for you and other teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?</td>
</tr>
<tr>
<td>5</td>
<td>Please describe your experiences with the recent field-testing of the Smarter Balanced Assessment Consortium assessments. Was the process smooth? Were there challenges? If so, please describe.</td>
</tr>
</tbody>
</table>

Data Analysis

The analysis of the Common Core implementation process focused on the qualitative data that resulted from the in-person structured interviews conducted by EdInsights. I share the results of my findings in narrative form in Chapter four. The data are analyzed to evaluate all 24 teachers, administrators, and district staff who participated in the study. Next, I use each high school as the unit of analysis and combine the responses from each participant within that school to give a broader and more complete picture of implementation at that school. This allows me to make comparisons between the two schools as individual units and draw similarities and differences. However, I approach my findings with caution because of the potential self-selection bias as well as the small sample size, which can contain an increased standard error and a decreased
level of reliability. Additionally, the school district’s unique characterizations of a small, high performing, well resourced school district in a suburban area of California reduce some of the generalizations that can be made when relating to rural, urban, and large school districts’ process of Common Core implementation. In the following chapter, I present the findings for each variable and my analysis of its affect on the implementation process.

Summary

This chapter described the methodology incorporated in this thesis with the aim to better understand the process of Common Core implementation in a Northern California high school district. I outlined my partnership with EdInsights, shared my strategy of inquiry and reasoning for a structured interview process, provided information on my interview protocol, and defined the conceptual approach to all five variables. In Chapter four, I present the results of my study, and in Chapter five I discuss the implications of my findings.
Chapter 4

FINDINGS

“For years, we’ve been asking to let the kids think independently. Years we’ve been asking that. And now we finally have that. Yes, it’s gonna be a lot of work, but we can’t complain about getting something that we want finally, so we have to work at it.” – 12th grade science teacher

In this chapter, I present the findings of my research in the Northern California high school district and two of its high schools. I begin by presenting an overview of my findings of the implementation experience from a broader perspective of the district as a whole, which includes my interviews at both the district and school level. My findings should be approached with caution due to the potential self-selection bias and small sample size discussed in Chapter three. Then, I examine the relationship of the different variables affecting implementation at the school level as discovered in the interviews conducted: collaboration, communication, teacher buy-in, applying technology, and professional development. Lastly, I make some comparisons between the two schools and what similarities and differences exist. To create a consistent frame of reference without breaking the promise of anonymity, I will refer to the two schools as High School A and High School B when making comparisons later in this chapter.

General Findings

This section contains an overview of the findings from my interviews and provides an analysis of Common Core implementation at the school district as a whole.
The overview utilizes information from the six interviews conducted at the district office (roughly half of district employees) and nine staff members at each school site (a small fraction of the total employees at each school), and incorporates three subsections; contextual information (such as student demographics), funding (state dollars for Common Core), and subject level differences (between English, math, and science).

In this section I provide important contextual information around student demographic information which helps to frame the analyses and presents some environmental factors that might positively or negatively affect interviewee’s responses. Then I provide information around the funding mechanism in place for Common Core to provide a context of how the funding affected the implementation process, such as the capacity of professional development and technology. Lastly, I share my findings on the differences between each subject area. The differences in Common Core implementation by subject area are important and deserve attention before the variables are analyzed, which informs how different teachers based on subject area experience the common core from my interviews.

Contextual Information:

The high school district studied has roughly 10,000 students, 500 teachers and 1,000 total staff members. The first high school I studied has roughly 1,500 students, 80 teachers, and 20% of students are on Free and Reduced Priced Meals and 5% are ELL. The second high school studied has roughly 1,000 students, 65 teachers, and 30% of students are on Free and Reduced Priced Meals and 18% are ELL. The Superintendent of the district has been in place for over six years and has treated Common Core as part of a longer journey
of changing organizational culture and improving consistency and educational excellence across the district. The district views its role in implementation to provide direction and build capacity while empowering teachers to play a leading role at the school level. The district has vastly increased the number of teachers on special assignments (TOSAs) in the district to increase the capacity of schools to develop materials, trainings, and assessments for the Common Core and to create a flatter hierarchy during implementation that teachers will trust.

_Funding:_

As outlined in Chapter 1, the state of California distributed $1.25 billion to school districts across the state for Common Core implementation over a two-year period. The studied high school district spent the $1.2 million it received from the state for Common Core entirely on professional development. The district negotiated with the teachers union to create two more paid professional development days (doubling their total to four paid professional development days in the academic year), paying for teachers and administrators to attend additional trainings by outside organizations beyond the district’s professional development days, and by hiring additional professional development coordinators. In addition to the state money for Common Core, the district also received money from a local bond appropriating $5 million dollars for technology over a ten-year period of time. These funding streams make the school district better situated to pay for the costs associated with Common Core implementation, such as additional laptops and devices, increased internet bandwidth, and additional professional development for teachers.
Subject Level Differences:

As outlined in the methodology, this study focused on teachers within science, mathematics, and English subject areas and chose teachers that primarily taught 11th and 12th grade; however, some teachers taught multiple grade levels. The EdInsights team interviewed six teachers at each school, for a total of 12 teachers. This section will cover the differences that we found were unique to each subject area and affected the teacher’s overall experience with Common Core.

We found that science teachers have some of the strongest concerns with Common Core implementation. Their concerns were mostly around the current process and not around the long-term opportunities of Common Core. More specifically, science teachers were mostly concerned about the tension between preparing for Common Core and ELA standards and needing to tackle the Next Generation Science Standards (NGSS) at the same time. The NGSS are new internationally benchmarked science standards that are aligned with the Common Core and were adopted by the SBE in 2013 for California’s K-12 public schools.

The tension for science teachers is that Science teachers reported being pushed to prioritize preparing for Common Core (which is more aligned to English and writing) rather than NGSS, which are the new science standards that their students must master. Additionally, some science teachers have AP and IB curriculum to cover, which increases the pressure on teachers. School district staff, administrators, and science teachers agree that science teachers generally need more time and resources to integrate Common Core and assemble new Common Core aligned materials together, especially because there are
no textbooks or materials already aligned with Common Core ready for teachers to use. One teacher stated, “it would be great to have some better textbooks… I think it would have a greater implementation factor if there was a workbook that went along with it… and a textbook as well as labs.”

Most ELA educators interviewed do not believe that they have to deviate too far from the curriculum and materials they used previously. Some ELA teachers interviewed feel validated that Common Core moves closer to the kinds of pedagogical choices they have previously used and championed. From their perspective, Common Core is asking them to adapt a little bit and go deeper into the material, which they are open to doing. One teacher framed the changes as “skills that we’ve always believed in as a community. So for us, it was just adding another layer to what we did already.” The ELA teachers interviewed were also not concerned with having to abandon novels that they like to use, which was a reported concern from other districts “who interpreted the standards very literally.” The ELA teachers interviewed seemed positive about the process and appreciated that they have more control over the curriculum development rather than a more prescriptive reform process.

Mathematics teachers noted a new energy and discourse that returned to the classroom with Common Core, which they appreciated. The mathematics teachers interviewed reported that Common Core allows them to approach mathematics problems in a deeper manner and allow students to discover how things work rather than strict memorization of mathematical procedures that they do not fully understand. Though mathematics teachers acknowledge the instructional challenge of managing an increase in
group- and project-based learning, there is an appreciation for the rich dialogue and application of the material. When responding to the changes in mathematics, one teacher shared her insight that, “the questions are better, and it opens up the dialogue and it opens up the you know why are you doing it this way and what happens if this happens and they have to think … rather then just repeat.”

The mathematics departments have also been supported by using existing material from the College Preparatory Math (CPM), Silicon Valley Math Initiative, and Shell Center Nottingham as a transitional curriculum source as they start to move away from traditional mathematics. However, some mathematics teachers are concerned that Common Core assumes that students are on grade level and several teachers are unsure of how to transition students who need remediation into the new way of learning with Common Core. Students are going to struggle a little bit in mathematics, as they are required to take a more active role in their learning, rather than the old format of long direct instruction by the teacher.

Performing arts, physical education, and elective classes are also expected to align with Common Core. Some teachers and administrators think it is beneficial for students to learn similar standards across all disciplines but a few teachers worry that the creative outlets that are supposed to feel like a safe environment for students who struggle in other academic outlets might be affected by incorporating new and rigorous Common Core standards in previously safe environments. In general though, the majority of the teachers, administrators, and school district officials interviewed seem to appreciate and recognize the value of utilizing Common Core across the disciplines to reinforce
important skill sets, go deeper into concepts, and demonstrate the interconnected and real-world application of the standards. The understanding of the value of the Common Core helps educators cope with some of the challenges that come along with a large overhaul and transformation of the school’s operations and pedagogy.

Analyzing the Variables

I present the findings of my data analysis of each of the five variables I chose to examine: collaboration, communication, teacher buy-in, technology, and professional development. First, I identify the influence of each of these variables in the Common Core implementation process at each school. Then, I analyze the differences that exist between the two schools and their experiences in carrying out Common Core reforms, acknowledging that there are limitations to my findings due to the small sample size. This section explores my two research questions, which are focused on the street-level perspective and will therefore focus primarily on the school-level interviews; I include information from the district level interviews sparingly to corroborate and fill in missing information.

**Collaboration:**

The schools and district coordinate a large number of meetings every month that bring together different teams of educators to collaborate with one another. There are weekly and monthly meetings that engage department heads, TOSAs, principals, and district personnel around areas such as curriculum, assessments, instruction, and subject area. The district’s biggest commitments to teacher learning at the school level are through the professional learning communities (PLCs) and time dedicated towards professional
development. For the PLCs, the district helped to standardize the PLC framework while providing administrators flexibility in how it operationalizes at each school. Teachers report that the PLCs provide them with on-going, structured engagements to learn from one another, trouble shoot issues with Common Core, develop and share curriculum together, and create consistent opportunities for TOSAs to share information and facilitate professional developments. One of the schools did have a more mixed result with PLCs and it seems that the ability to meet more consistently plays a role. Some teachers commented that at their school they were only able to meet once or twice a month in their PLC group. One educator shared that, “if (the district) wants to have better outcomes they need to decrease our student load, decrease (teacher) time in the classroom, and give us time to actually collaborate on a daily basis.” By having PLCs that meet more often, teachers have more time for both the structured professional development opportunities as well as the informal learning opportunities to reflect, process, collaborate, and work together to apply the current learning objective of the group. Additionally, more time allows for teachers with multiple subject teams to split their time better between the different PLC groups. One teacher commented, “PLCs are always kind of a little awkward for people who don’t entirely teach in one department, or who teach more than one level.”

The district has used the national professional development organization Learning Forward to purchase a set of professional standards that establish the framework to align the language, approach, and benchmarks of success across the different schools. Professional development can be a broad term that means different things to different
people, so the Learning Forward standards provides a clearer set of expectations and support to create consistent, high quality professional developments across the district. Counselors are also interested in receiving more training and collaboration similar to what the teachers are getting. A counselor shared that, “… a lot of times when this stuff is going on, counselors – it doesn’t apply to counselors, and I’m like: I want a PLC group!… there’s a ton of data we can look at.” Counselors do get some professional development opportunities during the school year, but not nearly as many as teachers do and are interested in receiving more training and creating their own PLC environments.

District-wide professional development days, in which all teachers from each subject area get together, gets high marks from teachers at both sites. The professional development opportunities are often led by teachers, district staff, or external organizations and there is mixed opinions about what is the right balance for the source of those trainings. Some teachers acknowledge the importance of outside industry experts who study Common Core more closely and others appreciate having teachers as peer leaders share their expertise because of their ability to tailor the training with a unique local perspective. The district partners with other external organizations to help supply new information and expertise around Common Core that expounds upon current knowledge levels. The district has engaged many external partners including Solution Tree, Learning Forward, Digital Bridge, ELA Achieve, AP trainings, IB trainings, and digital bridge.

The superintendent commented that he is trying to move the district away from a top-down heavy institution. His primary vehicle to achieve this was to flatten the
management structure and hire and empower teachers through the role of Teachers on Special Assignment (TOSA) to be the go-betweens between the district, school administrators and teachers. The TOSAs are former teachers who have either been hired to work at the school district office and work on supporting systems like data evaluation, assessments, and professional development, or they are hired to work out of the schools to support principals and teachers with the Common Core implementation process.

The TOSAs who work out of the schools have a hybrid role in which they spend part of their day teaching and part of their day in the school-wide leadership position. This model allows for TOSAs to help to bridge the divide between curriculum, pedagogy, and administrative work at the various levels within a school district. The creation of the TOSA position also helps to flatten the hierarchy of the implementation process and helps teachers feel comfortable approaching their peers who have been put in a position of leadership and authority to wrestle with the challenging components of implementation. Some teachers and department heads described the TOSA position as being the “liaison” to Common Core implementation because of the TOSA’s capacity of time (since they do not spend all day in the classroom) to spearhead the new curriculum, materials, and activities and having the power to coordinate with teachers, administrators, and district officials.

On top of empowering TOSAs at each school, the district also provided tools and guidance for schools and teachers to develop their own materials, try new instructional strategies, and participate in on-going professional development. Some teachers appreciate that the district has been empowering teachers and taking a relatively hands-
off approach, which frees up teachers to be leaders in instructional change at their school and to support their peers. However, some teachers think they are lost and believe there should be more vision and direction from the district. It is understandable that teachers who feel pressured to quickly develop new materials and make significant instructional changes might view the level of support and collaboration as thinner. And those teachers who are more comfortable in their workload and skill level see the challenges of Common Core as an exciting opportunity to actualize. However, the teachers who might be concerned about the lack of direction from the district also praise the support of the TOSAs, who are in essence an extension of the district. The TOSAs were viewed as very helpful for acting as liaisons to all things common core and teachers believe that they can reach out to TOSAs for materials and guidance. For example, one teacher asked for support from her TOSA about how to create a plan to better utilize student work as an iterative evaluation process since her traditional assessments were no longer being used. The use of TOSAs allows schools to find local solutions tailored to their needs without the district needing to be overly prescriptive.

**Communication:**

Internally, the district has increased the amount of reoccurring meetings that occur between leadership teams (e.g. district staff, principals, TOSAs, department heads), which creates a streamlined protocol for developing and finalizing implementation strategies and for the dissemination of information across schools in the district. Additionally, the district has invested heavily in PLCs at the local level, which creates a
formalized and consistent collaboration mechanism where information flows easily and materials are shared.

At the school level, interviewees’ reported mixed results on the effectiveness of communication about Common Core. Teachers described communication at the school level to be strong, especially with teachers from their own department, but thought that communication with other organizations involved in Common Core was weak. At the school level, the PLCs and the release time for department heads to meet were cited as strong contributors to local communication within teacher teams. Teachers also reported that district-wide professional development days supported the sharing of best practices and a chance to learn about what was occurring at other schools. Some teachers reported that there was strong communication with parents about Common Core and other school initiatives through events and newsletters. Other teachers did not indicate a strong level of communication with parents as a whole but did not feel they needed to connect with parents.

Most teachers believe that the communication between the school and education entities beyond the district (i.e. state and county offices) was minimal. The administration and department heads seem more aware than teachers of the county office of education and engage in different trainings. Teachers who do not occupy a leadership position indicate that they do not feel there is communication with the county. Similarly, teachers who did not engage in any meetings or trainings led by the state reported being confused or unaware of what the state’s role was in Common Core implementation. Some educators at the school level believed that the state was communicating with and
empowering local entities to lead on implementation strategies and other educators did not know if the state did have a vision and broader implementation strategy. One teacher summed up the confusion well reporting, “I don’t even know that I understand the model for dissemination of information from the state. You know, I don’t know whether their model is that they inform county offices, and county offices then inform districts ... and then there’s this sort of trickle-down?”

Teacher Buy-In:

The willingness, attitude, and belief of teachers towards Common Core was divided about short-term issues, but seemed more united and positive about Common Core when taking a long-term view of the process and its potential. Most teachers shared that they appreciate the shift towards developing critical thinking skills and one teacher went as far to say she felt “reinvigorated” by the changes of Common Core. Some teachers and district officials have also gone as far to share that they believe each school should be adopting these more rigorous standards regardless if Common Core happens or not. One administrator positively remarked that “I often have said to my faculty: we’re no longer preparing the ‘Jeopardy’ students.” The belief and value of these standards helps some of the educators cope with the obstacles and challenges that come along with the large overhaul and transformation of the school’s operations and pedagogy.

Teachers shared a variety of factors that they are excited about with regard to Common Core implementation. Most teachers shared that they appreciate Common Core’s ability to teach across the disciplines and strengthening the real-world application by connecting the learning from each subject together. One teacher positively remarked...
“the connections of standards across disciplines helps to work for the whole child.” Some veteran teachers have experience with using skills-based curriculum and appreciate that the strategies of Common Core align with the practices AP and IB teachers have been utilizing for a long time. Teachers appreciate the critical thinking skills and the inclusion of different vantage points and perspectives on solving problems. Teachers also value the shift away from curriculum and standards that create the “inch deep and a mile wide” classroom experience, to a more focused approach where teachers can go deeper into materials with a real-world application. One teacher shared her hope for the changes with Common Core to mathematics and stated “I couldn’t go year after year slogging through sets of standards, and basically just generating kid after kid who continues to hate math….So now I feel like the framework has been changed and I can actually teach in a way that I find meaningful and useful.”

Part of the key to the strong teacher buy-in was the district’s decision to empower teacher leaders in the various TOSA roles. The creation of the TOSA positions helps to flatten the hierarchy of the implementation process and helps teachers to feel more comfortable approaching their former peers who have been put in a position of leadership and authority to wrestle through the challenging components of implementation. Mandating broad changes to a teacher’s pedagogy and curriculum is stressful and sometimes sensitive, and having a TOSA for support and accountability provides a knowledgeable and trustworthy partner that might be much harder for an administrator perceived as an “outsider” to navigate.
Though all the teachers interviewed had either a neutral or positive view of the long-term merits of Common Core, they expressed concerns about the current implementation process. The biggest concern about Common Core among school district and high school staff members is the amount of time that is needed to carry out implementation. Teachers experience the biggest challenge with regards to time because the activities of developing new materials and exploring new pedagogical strategies is such a time intensive task which that be performed on top of the already demanding task of a full-time teacher. Teachers seem open to the idea of Common Core and changing the way in which they deliver content but constrained with not having enough time to process and develop. It is hard to imagine how teachers might react if California’s implementation process was quicker and teachers had even less time to prepare.

Teachers reported that they would be more receptive to a condensed implementation process if they were given sufficient time to develop curriculum and materials when school was not in session or if there were adequate Common Core materials already in existence. Leaders at the school district and both high schools decided not to purchase any new textbooks because they did not feel there were any textbooks available that truly represented the Common Core. Teachers either created their own materials or found curriculum that was more closely aligned to the Common Core and that they adapted and improved upon. New teachers are struggling a little bit more because they are used to plug-and-play textbooks and are not used to creating so much curriculum and focusing on a skills-based lesson rather than a traditional content-based one.
Professional Development:
The district has taken several steps over the last several years to strengthen its professional development. District officials and administrators recognized the importance of professional development time for teachers to develop materials and strengthen their skill sets and understanding of Common Core. The district eventually increased the amount of release time for teachers, created common prep time by subject area, and provided more district-wide professional developments for teachers. Teachers have been offered additional professional development sessions over the summer, Saturdays and evenings, and different third-party trainings during the school day where principals will pay for substitutes to cover for the teachers to attend. Some teachers are less likely than others to attend trainings during the school day because they do not want to leave their students to attend. But as one teacher noted “there is absolutely no shortage of PD available to teachers at the school” as each school has a site PD coordinator to take district and external trainings and bring them back to the school site, so teachers that do not attend outside trainings will have the materials brought to them. Another teacher discussing professional development shared that “the district has been pretty clear that Common Core implementation happens at the school site.”

The district is able to make such a strong investment in professional development sessions because the local bond measure for technology covered the bulk of costs associated with Common Core and freed up the district to spend all of the money it received from the CDE for Common Core towards professional development. The local County Office of Education (COE) has also been perceived by administrators and district
officials as a helpful partner in providing professional development for teachers, administrators, and district staff. Sometimes teachers and administrators leave school to attend COE trainings and sometimes the COE sends its staff members to lead the trainings at the district and school sites.

At the school level, the district began aligning professional development by purchasing the Learning Forward professional development standards to give a common framework for each school of what constitutes a quality professional development session. Learning Forward also gives educators across the district a common language and approach so district-wide collaborations are more seamless. Most of the professional developments are conducted at the school sites in PLC teams under the direction of TOSAs. The district does host district-wide professional development days where every teacher attends and is grouped by subject area. Teachers commented that the best professional development sessions led by the district, or other third party trainers, were the ones that built in time for teachers to get into their PLC groups during the second half of the workshop and allowed them to work on a deliverable about the content they just learned. A respondent expressed that she believes that “if you go to an hour workshop, then you need to be given the next hour to try and implement the thing that you learned. And that’s generally not the way these workshops go... we all understand in theory what they’re being asked to do... we need more time to practice.” The time to practice the key concepts from the training and actually “do the work” that was covered was repeated by most teachers as a best practice. It allowed teachers to find the practical application of the material and made the new knowledge more likely to stick and be adopted.
Applying Technology:

In my interviews, I found that respondents believed the school district was well situated to embed technology into the classroom because its financial capacity was significantly bolstered by a local bond measure that infused several million dollars over a ten-year period. The bond measure provided the district with the critical funding it needed to ensure adequate bandwidth and wireless connectivity on every campus and provided the necessary capacity for teachers to innovate. The funding also allows the district to provide on-going trainings for teachers and school officials to feel equipped to integrate the new technological tools into the classroom experience. The on-going training is important because teachers have a large number of demands placed on them at any given time, so new initiatives have a higher likelihood of adoption if there is a supportive and iterative process to make the new tool habit. The superintendent did express though that if the bond money had not come through the increased demand on technology from Common Core without additional funding to pay for it would have resembled an unfunded mandate to him, which is what other districts might be experiencing.

With the bond money, the district has also been able to increase the number of Chromebook carts, netbook carts, computer labs, and mobile labs at each school with the bond money. Though the district was able to increase the number of technological devices at each school, it is important to note that there is still only one Internet Technology (IT) staff member at each school who is responsible for the upkeep and safety of the 750 devices. Most teachers are quite excited about the increase in devices, but some teachers are skeptical about the benefits of incorporating technology into the
classroom until there are enough devices for every classroom to have its own set. Some teachers made remarks about how hard it is to keep students focused if a piece of technology is not working properly or if a teacher cannot get access to a computer lab at the scheduled time because a previous class is still using it. The district’s IT coordinator described how teachers devalue technology in the classroom if it is not seen as reliable when they need it. The IT coordinator sees all of the challenges teachers face and believes that for teachers “the more roadblocks you have, the less likely somebody’s gonna use a tool. And I know that it only takes one or two bad experiences for a teacher, and then they’re gonna be like: this is a waste of my time.”

In general, the interviewed teachers appreciate the ability to incorporate components of technology into their lessons to support the skills-based and real world applications of Common Core. Teachers can have students engage with material from their devices, incorporate more interactive lesson plans, and retrieve more accurate information on student progress with quick online quizzes that produce real-time data. The interviewed teachers believe that students respond well to connecting videos, online articles, and Google searches from their personal life into a more rigorous educational application. The incorporation of technology allows some teachers to shift away from lecture style direct instruction into more hands-on student led group work with technology aiding the students.

However, some teachers worry that students may not have access to technology at home and are hesitant to assign homework that incorporates technology unless students are able to take devices home. Additionally, some teachers make note that just because a
student is able to use a smartphone well, does not necessarily mean they have the digital literacy skills to navigate a computer and Microsoft office programs. Many teachers shared cautionary tales about making assumptions of the technological literacy of students, including one teacher who summarized the challenge stating, “Kids are at such different levels in (technology). You think they all know so much about computers and how to use this or that, and you know some of them do and some of them don’t.” This has implications for student performance on the SBAC as students must quickly adapt to write as fluently and effortlessly on a computer as they did before with paper and pen. To address this challenge, both schools are recognizing the need to start building in more deliberate components of digital literacy into every day classroom lessons and to build computer-based formative and summative assessments that will mirror their experience on the SBAC. The district also had each school participate in a practice SBAC exam so teachers could understand and coach students on the new testing experience before the field-test in the 2013-2014 school year.

**Comparisons Between Schools**

Though the two schools shared many of the same perspectives of Common Core implementation, one of the schools is having a harder time than the other in the implementation process. In order to provide a consistent label while protecting the confidentiality of the two schools, I will refer to the school that is having an easier time with implementation as School A. School A has 1,500 students, 80 teachers, 20% of students on Free and Reduced Priced Meals and 5% of students are ELL. I will refer to the school that is having a harder time with implementation as School B. School B has
roughly 1,000 students, 65 teachers, 30% of students on Free and Reduced Priced Meals and 18% of students are ELL as School B.

School B is having a more difficult time with Common Core, but it seems that some of its challenges with Common Core are in fact connected to other longstanding issues that predate Common Core or to its student population, which has a higher percentage of at-risk students. It appears that one of School B’s biggest hurdles might stem from high turnover rates among teachers compounded by a more demanding student population. Both teachers and administrators from School B commented on their challenge of staff turnover and the discontinuity that it creates at the school level. But that discontinuity seems to carry over into the challenges of implementing Common Core and coordinating a sophisticated system of reforms. For example, one teacher reports that there is little articulation between the courses at the school. With a high teacher turnover, it becomes harder to keep each teacher aware of what is being taught in classes that are a grade above and a grade below because so much institutional knowledge is lost. This challenge becomes exacerbated with Common Core when it is important to both know what is being taught above and below you as well as what components of curriculum and instruction are changing and what components are staying the same.

School B also had a higher percentage of teachers self-report a tendency to be independent rather than open up to collaborations with other teachers. Similarly, teachers at School B were less responsive to the involvement of administrators monitoring and supporting the changes of Common Core. The teachers at School B were still open to the support of TOSAs but a little less so than at School A. Administrators at School B are
hopeful that the TOSAs will continue to earn the trust of teachers and understand that they are a stable and trustworthy source of support without punitive ties.

School A appears to have taken a more proactive approach to address the gaps it has encountered in its process of implementing Common Core. When School A was concerned by the lack of accountability rubrics that accompanied the Common Core standards, which give teachers a more detailed account of what is expected for students to learn, School A ended up creating its own to streamline the process for teachers. The rubric School A created was then either adopted by other schools or inspired other schools to create their own. Similarly, School A was quick to create expectations and support structures for non-core subject teachers, such as physical education and performing arts, to create their own PLC groups and adopt Common Core standards into their curriculum. Teachers at School A have commented on the power the school now possesses when teaching across the disciplines that is supporting students in a more holistic way.

If the findings from this exploratory study hold true across other schools a stable and trusting work environment appears to play a large role in the efficiency of teachers to adapt to the changes of the Common Core. Particularly because the Common Core is so demanding on teachers and the leadership at the school level, that any longstanding localized challenges can be catalytic in a negative way.

Conclusion

This chapter outlined the findings related to the implementation of Common Core at a high school district and the perspective of the teachers, administrators, and school
district staff that participated in the study. First, I described the general findings and contextual information of the school district’s process of Common Core implementation. Next, I explained the findings of my exploratory research for each variable that was studied and the abilities of teachers to enact Common Core through that lens.

The teachers at the two schools studied within the high school district self-report that they are optimistic about the long-term benefits of Common Core but are worried about the immediate challenges of implementation. Teachers, administrators, and district staff perceive time (and the lack thereof) to be one of the biggest constraints to successful implementation because of the vast amounts of training and curriculum development that needs to occur. Teachers are particularly concerned that if adequate Common Core aligned materials do not exist yet then the pressure is on teachers to develop the new curriculum while struggling to manage their already demanding workload of full-time teaching.

The best tool that teachers feel they have to help them address Common Core implementation is their TOSA counterparts, who provide expertise, guidance, and support teachers to meet the day-to-day demands of implementation. The TOSAs are also described as helpful partners between the needs of the district, administration and teachers, and help to process directives and trainings into useful deliverables for teachers. Teachers and TOSAs are also helped by the organizational structure of consistent PLC meetings each week. PLCs provide teachers with a reliable opportunity to review student data and curriculum, and collaborate with other teachers and TOSAs to work on the upcoming tasks for Common Core implementation.
The subsequent chapter contains a detailed account on my key findings around common challenges and shared opportunities.
Chapter 5

CONCLUSION

In the previous chapter, I presented the findings from my research for the variables of interest with the aim to provide a preliminary understanding of Common Core implementation at two high schools and one high school district in California. In this chapter, I summarize key findings and propose preliminary ideas about issues educators and policymakers might consider when implementing Common Core reforms. I also address the limitations of this thesis and suggest opportunities for future research to deepen our understanding of Common Core.

Considerations for Stakeholders

School districts across the state of California and the country are trying to implement the Common Core standards with an increased focus on critical thinking skills and preparing students to be college and career ready. The purpose of this thesis is to conduct exploratory research to better understand the implementation process of Common Core at the local level and provide preliminary recommendations to stakeholders in California. In my interviews and analyses, I found that both schools within the high school district had common challenges and opportunities with Common Core implementation that can offer valuable insights to other school districts. First, I present my key findings on three common challenges that educators and school leaders are facing with Common Core. Then, I share my key findings on three common opportunities that educators and school leaders have highlighted as effective tools to
approach Common Core implementation. However, my findings should be considered with limitations due to the small sample size and potential self-selection bias.

**Addressing Common Challenges**

*Capacity:*

The biggest concern voiced by individuals from all levels at both schools and the school district was having enough time and capacity to make all of the necessary changes while juggling the demands of the current academic year. California’s decision to take a slower and more incremental approach to Common Core gives school districts in the state extra time to address these hurdles and focus on capacity building. But, it is still important to note that even at the slower pace, the lack of time was still reported by interviewees to be their number one challenge.

The local Common Core implementation plan at the high school district gave teachers a leadership role in the process, but it also increased the amount of responsibilities for a teacher and a larger workload. Teachers were generally appreciative of the leadership role they were given with Common Core, but there were also concerns that teachers did not have enough time to complete everything that was required of them and needed extra capacity to accomplish their tasks. In light of this, teachers highlighted three important steps that the high school district took to meet this challenge and are valuable insights that other stakeholders can make to improve the process.

First, teachers mentioned that they thought school district officials and administrators were doing a good job of working hard to create common prep periods for teachers so that they can meet consistently through their PLC group and can collaborate
around new materials and instructional strategies on an on-going informal basis as well. Second, the school district created different paid professional development opportunities for teachers over the summer. Utilizing opportunities during the summer helps the district to expand the amount of time it has access to during the critical early stages of implementation and allows teachers to focus on capacity building and essential trainings without the pressure of the current academic school year. Lastly, the district was able to negotiate additional release time during the school year with the teachers’ union to create more coordinated professional development and supports for teachers. The additional release time allows for holistic school-wide trainings and alignments at critical junctures during the academic year.

**NGSS:**

Most science teachers have concerns around the balance of implementing both Common Core and NGSS. Science teachers voiced concerns about not having enough support and guidance from the state as well as not having enough time locally to unpack and understand both Common Core and NGSS standards at the same time. Science teachers remained optimistic that Common Core and NGSS will compliment each other and serve similar goals, but nearly all science teachers reported not having enough guidance and time to know if that is the case. Although, one science teacher commented that NGSS incorporated Common Core into its framework and references Common Core throughout. But since the science departments at both schools have been so focused on Common Core, it has not had time to go through the NGSS to find out.
A concern among some science teachers about adopting Common Core is that there is an increased focus on writing standards in each science course. Some science teachers seem to identify as content area specialists and are less likely to feel comfortable with incorporating ELA and writing practices into their lessons. It was suggested by some school administrators that these science teachers come from industry backgrounds and were trained as chemists or biologists and not multiple subject elementary or secondary teachers and therefore will struggle more with incorporating ELA and writing standards. These science teachers who do not have a multiple subject credential will likely struggle more than other teachers without additional training and support on incorporating Common Core standards into their curriculum.

Science teachers also voiced concerns that they are struggling to cover all of the necessary content with NGSS that is needed while at the same time increasing the amount of skills-based learning that comes with Common Core. Science teachers are not sure if NGSS will help or hurt their ability to cover the required content in a given school year on top of the Common Core standards. Science teachers indicated that it might take several years to grapple with the current changes and find a balance between the different interests.

*Materials:*

Teachers are struggling to keep pace with producing enough new Common Core aligned curriculum as the school year unfolds. As previously outlined, one reason teachers struggle is because developing new materials takes a large amount of time, and teachers struggle to find enough time to do it. An additional hurdle, however, is that there are few
materials and curriculums produced by third-party vendors available for teachers and administrators to use. Moreover, district officials and school staff found the published materials for Common Core by textbook companies to be thin and lacking in any major changes that are aligned with the new skills-based curriculum of Common Core.

This has important ramifications for school districts with fewer resources and are not able to secure as much time for their teachers to develop their own materials. School districts with fewer resources might struggle when Common Core accountability begins unless the state’s timeline was shifted to create alignment for when school districts with fewer resources are able to create or purchase their own quality materials and curriculum. The state could also play a potential role in supporting or incentivizing curriculum development more aggressively either internally with their partnership with County COEs or with external agencies. Additionally, the state could help to create a better catalog and online warehouse of existing materials that make them more accessible, organized, and holistic.

*Common Tools That Interviewees Believe Are Effective*

*PLCs:*

The PLCs were regarded as a best practice across the board by interviewed teachers, administrators, and district officials. Each school within the district has a slightly different variation of how the PLC operationalizes but the district provided a clear framework and benchmark goals for the PLCs to meet, which provided continuity and alignment between the schools. Teachers and administrators reported that the PLC model provides a strong and consistent opportunity for a lot of the collaborative work of
Common Core implementation to occur. It also provides an opportunity for teachers to explore an iterative process where they can share feedback with one another, compare student data, and explore how they can approach standards that need to be retaught and instructional strategies that need amending. The consistent time slot is also important because it is set up so that PLC meetings and Common Core trainings do not have to interrupt the regular school day and is easily replicable by other schools and districts.

The PLCs anchor the professional development work at the school level and each school has a TOSA that acts as the PD Coordinator to coordinate with the district on professional development trainings. The PD Coordinator is able to participate on trainings at the district level on an ongoing basis and then takes the information and creates their own trainings that are tailored to their school site for teachers. The PD Coordinator can often use the PLC time as a time to deliver the trainings and provide ongoing supports. When teachers attended the district-wide professional development trainings at the school district, they are able to work in their PLC groups to provide the continuity and work on deliverables that have a practical application for their school site. The ability for teachers to “do work” on the topic of the professional development within their PLC groups was highlighted by many teachers as an important part of the professional development process.

However, each individual did mention specific ways in which the PLC was facilitated and organized that contributed to its value. Therefore this insight should be used with caution that PLCs could also be run in an ineffective manner and should be
implemented with careful consideration of its holistic affect on school collaboration and professional development.

_TOSAs:_

The district helped to create the TOSA infrastructure as part of its plan to address Common Core implementation. The district designated four to five teachers at each school to take on additional responsibilities as TOSAs and lead on Common Core in the core subjects, professional development, and data and assessments. The TOSAs are empowered to lead on a lot of the local implementation processes for teachers. The TOSAs support teachers with trainings, information, observations, and according to several teachers provide the “best ideas.” The TOSAs’ proximity to teachers is also important because they are able to provide on-going intensive supports without having to pull teachers out of their classrooms and environments.

The TOSA position is critical in its ability to instill trust with partner teachers. Common Core reforms require a lot of changes to curriculum and instruction and teachers are often skeptical of outsiders coming into their classrooms to provide feedback and critiques. Additionally, teachers can be skeptical of the credentials of a staff member tasked with providing advice around pedagogy who is not a teacher. Since the TOSA position elevates the power of a local teacher leader, the teachers are more likely to trust the qualifications of the person providing feedback and support as well as having an existing relationship. Additionally, the Data and Assessment TOSA has provided crucial help in the modeling and instructing of teachers to create formative assessments, which play a critical role in tracking the progress of a teacher’s new curriculum, pedagogy, and
student outcomes. The formative assessments played an even greater role when teachers could not collect student data from the SBAC pilot and had to rely on their own assessments for the year.

*Building Digital Literacy:*

The school district’s offering of optional summer technology workshop allows teachers to receive intensive training on how to deepen the integration of technology into the classroom. Not only does technology help to create a multimodal lesson to engage students, it also builds students digital literacy skills, which are critical to be successful on the SBAC and in their careers (Gerard et al., 2011). There was agreement among the educators interviewed that students’ scores across the state will likely decrease with the SBAC test because of the increased rigor and level of difficulty of the test. But educators also agree that the SBAC adds another layer of complexity with its use of technology and students’ digital fluency will play a role in their test scores. Some students, particularly those from low-income backgrounds and ELL families, have less experience using computers and have a lower level of digital fluency.

The district is beginning to increase its focus and intention around digital literacy to help address this challenge. A focus on digital literacy will help students do better on the SBAC and be college and career ready. Teachers are incorporating digital skills into their lessons, shifting to computer based formative assessments, using Google drive for student collaboration, and using exit surveys to do quick check for understandings exercises which provide real time information to the teacher. Different districts will have
different levels of access to capacity, but wherever possible, it is valuable for teachers to imbed layers of technology into lessons and assignments.

Possible Research Limitations

The results of this thesis have some limitations. First, the scope of the interview protocol could potentially have left out important questions of the Common Core implementation process. Interviewees did have a chance to share their own thoughts and insights at the end of the interview if something was not covered by the interview protocol. However, some interviews ran long and the interviewee did not have time to share at the end.

The sample size of this thesis was small and included less than 25% of the teachers at each school. With a small sample size, different perspectives about Common Core may have been left out. Moreover, there are limitations to interviewing individuals at only two high schools within a single district and using the findings as a generalization as the district as a whole and the broader region. However, the findings of my research did have consistent responses from the different interviewees, which indicates that my interview results may be indicative of the teacher population as a whole. My findings and recommendations are best applied to school districts with similar characteristics and at similar points in their process of Common Core implementation. Additionally, my findings are limited to the subject areas studied and it is unknown how Common Core implementation is occurring with teachers outside these subjects.

I also outlined in my methodology chapter that this thesis employs a non-random sample of volunteer subjects because of the sensitive nature of the research and because
we wanted to include teachers from specific grades and subjects. The non-random sample of volunteers creates potential self-selection bias and limits the generalizability of the findings. Additionally, in-person interviews have inherent biases as the interviewee responds to the interview protocol from their perspective. This thesis relies on self-reported information that is not independently verified, which increases the likelihood for instances of bias to go unchecked. Researchers can follow up on interviewee responses with a validation process that confirms the quantifiable findings. However, I was not able to follow up on interviewee responses due to a lack of time and resources and because schools did not seem open to the idea of researchers coming in again for data collection as it was hard to get approval and it was quite considerate for the schools to open up their doors in the first place.

Opportunities for Future Research

Educators and policymakers should continue to study Common Core implementation in California and its outcomes at the local level and further the understanding that this thesis initiated. Supplementary research would benefit from an increase in the number of schools and school districts being studied and a wider variety of district demographics. The increased research sample will enhance the breadth of knowledge to the fuller reality of implementation across California. Additionally, it would be valuable for the Education Insights team to return to the educators who were interviewed in this thesis, during the 2014-2015 academic year, and interview them again during the 2015-2016 school year to deepen the current findings and study the progression of the educators’ implementation process.
As discussed in previous chapters, California has benefited from an implementation process of Common Core that was more incremental in nature and did not rush the accountability process. The slower process allowed California to gain support from its teachers and avoid the public backlash that ensued in other states that quickly adopted high-stakes testing and accountability measures with Common Core. Policymakers in California could benefit from additional research that examines the availability and efficacy of Common Core aligned published materials, technological capacity of schools, and digital literacy of students to make informed decisions around the accountability process and timing. This information is useful for policymakers to take into consideration when developing the next stage of their implementation plans for Common Core.
APPENDIX A

Interview Protocol – Districts and High Schools
Common Core Implementation Research – CEPF
2014-2015

Common Core State Standards Implementation Research
High School and District Protocol
Principals

Opening Script

Introduce self and IHELP

*Background:* We have a two-year grant from the Hewlett Foundation to do this work. We did research at the state and county office levels in order to understand their roles with regard to the implementation of the Common Core State Standards, and now we’re doing research in districts and schools to learn how the implementation is playing out so far, focusing on grades 9-14 (so we’re very interested in issues relating to college and career readiness and transitions into community colleges and public four-year universities). The goals are two-fold: to inform state agencies such as the State Board of Education and California Department of Education about ways in which the state could better support the implementation of the Common Core at the local level, and to share promising practices with districts and high schools from across the state. All district and school names will be kept confidential. That’s the very brief summary of our work. Do you have any questions before I jump into our list of questions?

I would like to record our conversation so that I can listen to you completely and not take a lot of notes. The transcript will be anonymized (your name will not be included on the transcript, nor will the name of your district or school). We will use the transcripts to create “codes” or themes across interviews. We will use that information to write our final reports from this project.

Is it ok if I turn on the recorder now? Thank you.

*General questions*

Could you please give us a general overview of the work you’re doing to implement the Common Core? We’ll have specific questions about it later, but it would help me to get a general understanding of the big issues at play – challenges, things you’re feeling really good about, etc. How do you think it’s going? What kind of support is there within your school for the Common Core (probe: teachers? Parents?)?
What other initiatives do you have going on in your school right now (probe: Linked Learning, Career Pathways Trust…)?

Where are you finding the most useful information to help you implement the Common Core? (probe: County Office of Education? State Board of Education website? California Department of Education website? Publishing companies and, if so, which ones? District office? Other schools/districts and, if so, which ones? Other?)

How do you select materials to use?

How do you know if the materials are well-aligned with the Common Core?

Are there materials that you can’t find that would be useful to have? If so, what kinds of materials?

Have you developed your own materials? If so, what did you develop? Who developed them?

What are you thinking about tracking the implementation of the Common Core? How will you know if we have it right?

Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core? Do you get a sense that parents know what’s changing?

Please characterize/describe the lines of communication between your school and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?

- District
- Other high schools
- County office of education
- Postsecondary institutions (community college, California State University and University of California) (Probe: are there cross-system efforts to support implementation?)
- Workforce/employers

What kind of funding has your school received to help support the implementation of the Common Core? How your school has spent those funds? Were the funds sufficient to support the needs? If not, what needs do you have that would benefit from additional funding?
Are there state mandated costs related to the Common Core that are being picked up by your school?

Do you have any concerns about the implementation of the Common Core?

**Professional Development**

Please characterize the professional development available for teachers in your school to implement the Common Core (probe: English? math? science? Are they all getting the same?). Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?

Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?

Is there time for teachers to learn from each other?

What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core (probe: English teachers? Mathematics teachers? Science teachers)? What are the challenges or barriers to the kinds of optimal professional development that you just described?

Do you look for anything different in new teachers than you did prior to the Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.

**Curriculum and Practice**

Can you describe curriculum adoption/curricular changes that are going on as a result of the adoption of the Common Core? (Probe: are the materials aligned to Common Core? How do you know? Do you have access to Common Core-aligned digital resources?)

How do you deal with students who haven’t “grown up with” Common Core in terms of coming into high school without much exposure to the Common Core?

What do you think some current concerns might be that teachers could have re: the implementation of the Common Core?

Do you think teachers feel that the training, materials and professional development have adequately prepared them to implement Common Core in their classrooms?
Do you have any specific concerns about the implementation of the Common Core and math for high schools? What choices have you and your math colleagues made about how to align math with the Common Core? Do you have integrated math?

Do you have any specific concerns about the implementation of the Common Core and English Language Arts for high schools?

Do you have any specific concerns about the implementation of the Common Core and Next Gen Science Standards?

Linked Learning, Career Pathways Trust, Career Technical Education standards

Please characterize how you view the relationship between college and career readiness in the Common Core.

Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?

Technology

What kinds of technology has your school purchased because of the Common Core and Smarter Balanced Assessment Consortium tests? Is there a special pot of money for this, or is your school using pre-existing tech funds?

What kinds of tech training/professional development is your school experiencing as it implements Common Core?

What kinds of technology applications are you preparing for and/or using now (probe: keyboarding for Smarter Balanced assessments, using technology in the classroom (as opposed to just for assessment), iZone project)?

How well do you think the work is going for teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?

Smarter Balanced assessments

Please describe your experiences with the recent field testing of the Smarter Balanced assessments. Was the process smooth? Were there challenges? If so, please describe.

Are you using or planning to use formative assessments? (probe: are you planning to use the Smarter Balanced Digital Library formative assessments?) If not, why not? If so, in which subject areas? Will you be developing/did you develop those assessments already? Do you think that information will be useful for postsecondary education in any way?
**Closing the achievement gap**

Do you have any specific concerns about the implementation of the Common Core for English Language Learners (in high school)?

Do you have concerns about achievement gaps at your school? If so, do you think the Common Core will help you close achievement gaps?

**Developing seamless pathways between high school and postsecondary**

What is your understanding about what is happening to the Early Assessment Program, given the implementation of the Common Core?

Please characterize any conversations underway about the use of the Smarter Balanced 11th grade assessment for placement in college-level work in your local community college, CSU, and/or UC?

If all 11th graders will be in the Early Assessment Program this year, do you have the capacity to offer them the Expository Reading and Writing Course if, for example, the vast majority need it? Do you have the capacity to offer other options in math? Do you have other thoughts about how you could provide transition courses in 12th grade?

**Closing**

Are there any materials, tools (such as templates), or other written or online materials that you would be willing to share with educators in California regarding the implementation of the Common Core? The materials would be “anonymized” so that any identifying information would be removed before the materials were circulated.

[If respondent indicated that they communicate with postsecondary institutions, ask for names and institutions (assure respondent that their identity will remain concealed)]

Is there anything you would like to mention that we did not already discuss?

Thank you for your time!

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Common Core State Standards Implementation Research
High School Teacher Protocol
Counselor
Opening Script

Introduce self and IHELP

Background: We have a two-year grant from the Hewlett Foundation to do this work. We did research at the state and county office levels in order to understand their roles with regard to the implementation of the Common Core State Standards, and now we’re doing research in districts and schools to learn how the implementation is playing out so far, focusing on grades 9-14 (so we’re very interested in issues relating to college and career readiness and transitions into community colleges and public four-year universities). The goals are two-fold: to inform state agencies such as the State Board of Education and California Department of Education about ways in which the state could better support the implementation of the Common Core at the local level, and to share promising practices with districts and high schools from across the state. All district and school names will be kept confidential. That’s the very brief summary of our work. Do you have any questions before I jump into our list of questions?

I would like to record our conversation so that I can listen to you completely and not take a lot of notes. The transcript will be anonymized (your name will not be included on the transcript, nor will the name of your district or school). We will use the transcripts to create “codes” or themes across interviews. We will use that information to write our final reports from this project.

Is it ok if I turn on the recorder now? Thank you.

General questions

Could you please give us a general overview of the work you’re doing to implement the Common Core? We’ll have specific questions about it later, but it would help me to get a general understanding of the big issues at play – challenges, things you’re feeling really good about, etc. How do you think it’s going? What kind of support is there within your school for the Common Core (probe: teachers? Parents?)?

What other initiatives do you have going on in your school right now (probe: Linked Learning, Career Pathways Trust…)?

Where are you finding the most useful information to help you implement the Common Core? (probe: County Office of Education? State Board of Education website? California Department of Education website? Publishing companies and, if so, which ones? District office? Other schools/districts and, if so, which ones? Other?)

How do you select materials to use?

How do you know if the materials are well-aligned with the Common Core?
Are there materials that you can’t find that would be useful to have? If so, what kinds of materials?

Have you developed your own materials? If so, what did you develop? Who developed them?

Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core? Do you get a sense that parents know what’s changing?

Please characterize/describe the lines of communication between you and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?

- Your school administrators
- Teachers at your own school
- Teachers at other high schools
- District office personnel
- County office
- Postsecondary institutions (community college, California State University and University of California) (Probe: are there cross-system efforts to support implementation?)

Do you have any concerns regarding implementation of the Common Core?

Professional Development

Please characterize the professional development available for administrators in your school to implement the Common Core. Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?

What characteristics indicate quality in professional development?

Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?

Is there time for teachers to learn from each other?

What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core (probe: English teachers?)
Mathematics teachers? Science teachers)? What are the challenges or barriers to the kinds of optimal professional development that you just described?

How prepared do you feel to teach the Common Core to the following groups of students:
- Students as a whole
- English Language Learners
- Students with disabilities
- Low-income students
- Academically at-risk students

Do you think new teachers need to have different skills than they did prior to Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.

Curriculum and Practice

Can you describe curriculum adoption/curricular changes that are going on as a result of the adoption of the Common Core? (Probe: are the materials aligned to Common Core? How do you know? Do you have access to Common Core-aligned digital resources?)

How do you deal with students who haven’t “grown up with” Common Core in terms of coming into high school without much exposure to the Common Core?

Can you describe how or whether you think your classroom instruction will change as a result of the Common Core? What do you think are likely some high impact practices with regard to implementing the Common Core in classrooms?

Do you feel that the training, materials and professional development have adequately prepared you to implement Common Core in your classrooms? Do you think other teachers feel the same?

Do you have any specific concerns about the implementation of the Common Core and math for high schools? What choices have you and your math colleagues made about how to align math with the Common Core? Do you have integrated math?

Do you have any specific concerns about the implementation of the Common Core and English Language Arts for high schools?

Do you have any specific concerns about the implementation of the Common Core and Next Gen Science Standards?

Linked Learning, Career Pathways Trust, Career Technical Education standards
Please characterize how you view the relationship between college and career readiness in the Common Core.

Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?

What is the role of the Common Core in Career Pathways Trust? Of the Career Technical Education standards in the Career Pathways Trust?

What is the relationship(s) between the Common Core and Linked Learning? Between the Career Technical Education standards and Linked Learning?

What do you think are the optimal roles for business leaders (state, regional, and local) to play with regard to the adoption of the Common Core?

Technology

What kinds of technology has your school purchased because of the Common Core and Smarter Balanced assessments?

What kinds of tech training/professional development is your school experiencing as it implements Common Core?

What kinds of technology applications are you preparing for and/or using now (probe: keyboarding for Smarter Balanced assessments, using technology in the classroom (as opposed to just for assessment)?)

How is the work going for you and other teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?

Smarter Balanced assessments

Please describe your experiences with the recent field testing of the Smarter Balanced Assessment Consortium assessments. Was the process smooth? Were there challenges? If so, please describe.

Are you using or planning to use formative assessments? (probe: Are you planning to use the assessments in the Smarter Balanced Digital Library?) If not, why not? If so, in which subject areas? Will you be developing/did you develop those assessments already? Do you think that information will be useful for postsecondary education in any way?

Closing the achievement gap
Do you have any specific concerns about the implementation of the Common Core for English Language Learners (in high school)?

Do you have concerns about achievement gaps at your school? If so, do you think the Common Core will help you close achievement gaps? (probe: how will Common Core change the way you serve traditionally underserved students?)

Do you have any plans to prepare students for new Common Core-aligned SAT tests?

**Developing seamless pathways between high school and postsecondary**

What is your understanding about what is happening to the Early Assessment Program, given the implementation of the Common Core?

Please characterize any conversations underway about the use of the Smarter Balanced 11th grade assessment for placement in college-level work in your local community college, California State University, and/or University of California.

If all 11th graders will be in the Early Assessment Program this year, do you have the capacity to offer them the Expository Reading and Writing Course if, for example, the vast majority need it? Do you have the capacity to offer other options in math? Do you have other thoughts about how you could provide transition courses in 12th grade?

**Closing**

Are there any materials, tools (such as templates), or other written or online materials that you would be willing to share with educators in California regarding the implementation of the Common Core? The materials would be “anonymized” so that any identifying information would be removed before the materials were circulated.

[If the respondent indicated that they communicate with postsecondary institutions, ask for names at institutions (assure respondent that you will not reveal their identity to the postsecondary contact).]

Is there anything you would like to mention that we did not already discuss?

Thank you for your time!
Introduce self and IHELP

**Background:** We have a two-year grant from the Hewlett Foundation to do this work. We did research at the state and county office levels in order to understand their roles with regard to the implementation of the Common Core State Standards, and now we’re doing research in districts and schools to learn how the implementation is playing out so far, focusing on grades 9-14 (so we’re very interested in issues relating to college and career readiness and transitions into community colleges and public four-year universities). The goals are two-fold: to inform state agencies such as the State Board of Education and California Department of Education about ways in which the state could better support the implementation of the Common Core at the local level, and to share promising practices with districts and high schools from across the state. All district and school names will be kept confidential. That’s the very brief summary of our work. Do you have any questions before I jump into our list of questions?

I would like to record our conversation so that I can listen to you completely and not take a lot of notes. The transcript will be anonymized (your name will not be included on the transcript, nor will the name of your district or school). We will use the transcripts to create “codes” or themes across interviews. We will use that information to write our final reports from this project.

Is it ok if I turn on the recorder now? Thank you.

**General questions**

Could you please give us a general overview of the work you’re doing to implement the Common Core? We’ll have specific questions about it later, but it would help me to get a general understanding of the big issues at play – challenges, things you’re feeling really good about, etc. How do you think it’s going? What kind of support is there within your school for the Common Core (probe: teachers? Parents?)?

What other initiatives do you have going on in your school right now (probe: Linked Learning, Career Pathways Trust…)?

Where are you finding the most useful information to help you implement the Common Core? (probe: County Office of Education? State Board of Education website? California Department of Education website? Publishing companies and, if so, which ones? District office? Other schools/districts and, if so, which ones? Other?)

How do you select materials to use?

How do you know if the materials are well-aligned with the Common Core?
Are there materials that you can’t find that would be useful to have? If so, what kinds of materials?

Have you developed your own materials? If so, what did you develop? Who developed them?

Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core?? Do you get a sense that parents know what’s changing?

What are you thinking about tracking the implementation of the Common Core? How will you know if we have it right?

Please characterize/describe the lines of communication between you and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?

- Your school administrators
- Teachers at your own school
- Teachers at other high schools
- District office personnel
- County office
- Postsecondary institutions (community college, California State University and University of California) (Probe: are there cross-system efforts to support implementation?)

Do you have any concerns regarding implementation of the Common Core?

Professional Development

Please characterize the professional development available for teachers in your school to implement the Common Core (probe: English? math? science? Are they all getting the same?). Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?

(If these questions weren’t addressed in the response to the previous question, then continue with these):

What characteristics indicate quality in professional development?

Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?
Is there time for teachers to learn from each other?

What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core (probe: English teachers? Mathematics teachers? Science teachers)? What are the challenges or barriers to the kinds of optimal professional development that you just described?

How prepared do you feel to teach the Common Core to the following groups of students:

- Students as a whole
- English Language Learners
- Students with disabilities
- Low-income students
- Academically at-risk students

Do you think new teachers need to have different skills than they did prior to Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.

**Curriculum and Practice**

Can you describe curriculum adoption/curricular changes that are going on as a result of the adoption of the Common Core? (Probe: are the materials aligned to Common Core? How do you know? Do you have access to Common Core-aligned digital resources?)

How do you deal with students who haven’t “grown up with” Common Core in terms of coming into high school without much exposure to the Common Core?

Can you describe how or whether you think your classroom instruction will change as a result of the Common Core? What do you think are likely some high impact practices with regard to implementing the Common Core in classrooms?

Do you feel that the training, materials and professional development have adequately prepared you to implement Common Core in your classrooms? Do you think other teachers feel the same?

Do you have any specific concerns about the implementation of the Common Core and math for high schools? What choices have you and your math colleagues made about how to align math with the Common Core? Do you have integrated math?

Do you have any specific concerns about the implementation of the Common Core and English Language Arts for high schools?

Do you have any specific concerns about the implementation of the Common Core and Next Gen Science Standards?
Please characterize how you view the relationship between college and career readiness in the Common Core.

Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?

What is the role of the Common Core in Career Pathways Trust? Of the Career Technical Education standards in the Career Pathways Trust?

What is the relationship(s) between the Common Core and Linked Learning? Between the Career Technical Education standards and Linked Learning?

What do you think are the optimal roles for business leaders (state, regional, and local) to play with regard to the adoption of the Common Core?

Technology

What kinds of technology has your school purchased because of the Common Core and Smarter Balanced assessments?

What kinds of tech training/professional development is your school experiencing as it implements Common Core?

What kinds of technology applications are you preparing for and/or using now (probe: keyboarding for Smarter Balanced assessments, using technology in the classroom (as opposed to just for assessment), iZone project)?

How is the work going for you and other teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?

Smarter Balanced assessments

Please describe your experiences with the recent field testing of the Smarter Balanced Assessment Consortium assessments. Was the process smooth? Were there challenges? If so, please describe.

Are you using or planning to use formative assessments? (probe: Are you planning to use the assessments in the Smarter Balanced Digital Library?) If not, why not? If so, in which subject areas? Will you be developing/did you develop those assessments already? Do you think that information will be useful for postsecondary education in any way?
Closing the achievement gap

Do you have any specific concerns about the implementation of the Common Core for English Language Learners (in high school)?

Do you have concerns about achievement gaps at your school? If so, do you think the Common Core will help you close achievement gaps? (probe: how will Common Core change the way you serve traditionally underserved students?)

Do you have any plans to prepare students for new Common Core-aligned SAT tests?

Developing seamless pathways between high school and postsecondary

What is your understanding about what is happening to the Early Assessment Program, given the implementation of the Common Core?

Please characterize any conversations underway about the use of the Smarter Balanced 11th grade assessment for placement in college-level work in your local community college, California State University, and/or University of California.

If all 11th graders will be in the Early Assessment Program this year, do you have the capacity to offer them the Expository Reading and Writing Course if, for example, the vast majority need it? Do you have the capacity to offer other options in math? Do you have other thoughts about how you could provide transition courses in 12th grade?

Closing

Are there any materials, tools (such as templates), or other written or online materials that you would be willing to share with educators in California regarding the implementation of the Common Core? The materials would be “anonymized” so that any identifying information would be removed before the materials were circulated.

[If the respondent indicated that they communicate with postsecondary institutions, ask for names at institutions (assure respondent that you will not reveal their identity to the postsecondary contact)].

Is there anything you would like to mention that we did not already discuss?

Thank you for your time!
Common Core State Standards Implementation Research
High School Teacher Protocol
Math Teacher

Opening Script

Introduce self and IHELP

*Background:* We have a two-year grant from the Hewlett Foundation to do this work. We did research at the state and county office levels in order to understand their roles with regard to the implementation of the Common Core State Standards, and now we’re doing research in districts and schools to learn how the implementation is playing out so far, focusing on grades 9-14 (so we’re very interested in issues relating to college and career readiness and transitions into community colleges and public four-year universities). The goals are two-fold: to inform state agencies such as the State Board of Education and California Department of Education about ways in which the state could better support the implementation of the Common Core at the local level, and to share promising practices with districts and high schools from across the state. All district and school names will be kept confidential. That’s the very brief summary of our work. Do you have any questions before I jump into our list of questions?

I would like to record our conversation so that I can listen to you completely and not take a lot of notes. The transcript will be anonymized (your name will not be included on the transcript, nor will the name of your district or school). We will use the transcripts to create “codes” or themes across interviews. We will use that information to write our final reports from this project.

Is it ok if I turn on the recorder now? Thank you.

High School Teacher and Counselor Protocol

*General questions*

Could you please give us a general overview of the work you’re doing to implement the Common Core? We’ll have specific questions about it later, but it would help me to get a general understanding of the big issues at play – challenges, things you’re feeling really good about, etc. How do you think it’s going? What kind of support is there within your school for the Common Core (probe: teachers? Parents?)?

What other initiatives do you have going on in your school right now (probe: Linked Learning, Career Pathways Trust…)?
Where are you finding the most useful information to help you implement the Common Core? (probe: County Office of Education? State Board of Education website? California Department of Education website? Publishing companies and, if so, which ones? District office? Other schools/districts and, if so, which ones? Other?)

How do you select materials to use?

How do you know if the materials are well-aligned with the Common Core?

Are there materials that you can’t find that would be useful to have? If so, what kinds of materials?

Have you developed your own materials? If so, what did you develop? Who developed them?

Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core? Do you get a sense that parents know what’s changing?

What are you thinking about tracking the implementation of the Common Core? How will you know if we have it right?

Please characterize/describe the lines of communication between you and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?

- Your school administrators
- Teachers at your own school
- Teachers at other high schools
- District office personnel
- County office
- Postsecondary institutions (community college, California State University and University of California) (Probe: are there cross-system efforts to support implementation?)

Do you have any concerns regarding implementation of the Common Core?

Professional Development

Please characterize the professional development available for teachers in your school to implement the Common Core (probe: English? math? science? Are they all getting the same?). Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?
(If these questions weren’t addressed in the response to the previous question, then continue with these):

What characteristics indicate quality in professional development?

Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?

Is there time for teachers to learn from each other?

What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core (probe: English teachers? Mathematics teachers? Science teachers)? What are the challenges or barriers to the kinds of optimal professional development that you just described?

How prepared do you feel to teach the Common Core to the following groups of students:
- Students as a whole
- English Language Learners
- Students with disabilities
- Low-income students
- Academically at-risk students

Do you think new teachers need to have different skills than they did prior to Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.

Curriculum and Practice

Can you describe curriculum adoption/curricular changes that are going on as a result of the adoption of the Common Core? (Probe: are the materials aligned to Common Core? How do you know? Do you have access to Common Core-aligned digital resources?)

How do you deal with students who haven’t “grown up with” Common Core in terms of coming into high school without much exposure to the Common Core?

Can you describe how or whether you think your classroom instruction will change as a result of the Common Core? What do you think are likely some high impact practices with regard to implementing the Common Core in classrooms?

Do you feel that the training, materials and professional development have adequately prepared you to implement Common Core in your classrooms? Do you think other teachers feel the same?
Do you have any specific concerns about the implementation of the Common Core and math for high schools? What choices have you and your math colleagues made about how to align math with the Common Core? Do you have integrated math?

Do you have any specific concerns about the implementation of the Common Core and English Language Arts for high schools?

Do you have any specific concerns about the implementation of the Common Core and Next Gen Science Standards?

*Linked Learning, Career Pathways Trust, Career Technical Education standards*

Please characterize how you view the relationship between college and career readiness in the Common Core.

Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?

What is the role of the Common Core in Career Pathways Trust? Of the Career Technical Education standards in the Career Pathways Trust?

What is the relationship(s) between the Common Core and Linked Learning? Between the Career Technical Education standards and Linked Learning?

What do you think are the optimal roles for business leaders (state, regional, and local) to play with regard to the adoption of the Common Core?

*Technology*

What kinds of technology has your school purchased because of the Common Core and Smarter Balanced assessments?

What kinds of tech training/professional development is your school experiencing as it implements Common Core?

What kinds of technology applications are you preparing for and/or using now (probe: keyboarding for Smarter Balanced assessments, using technology in the classroom (as opposed to just for assessment), iZone project)?

How is the work going for you and other teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?

*Smarter Balanced assessments*
Please describe your experiences with the recent field testing of the Smarter Balanced Assessment Consortium assessments. Was the process smooth? Were there challenges? If so, please describe.

Are you using or planning to use formative assessments? (probe: Are you planning to use the assessments in the Smarter Balanced Digital Library?) If not, why not? If so, in which subject areas? Will you be developing/did you develop those assessments already? Do you think that information will be useful for postsecondary education in any way?

Closing the achievement gap

Do you have any specific concerns about the implementation of the Common Core for English Language Learners (in high school)?

Do you have concerns about achievement gaps at your school? If so, do you think the Common Core will help you close achievement gaps? (probe: how will Common Core change the way you serve traditionally underserved students?)

Do you have any plans to prepare students for new Common Core-aligned SAT tests?

Developing seamless pathways between high school and postsecondary

What is your understanding about what is happening to the Early Assessment Program, given the implementation of the Common Core?

Please characterize any conversations underway about the use of the Smarter Balanced 11th grade assessment for placement in college-level work in your local community college, California State University, and/or University of California.

If all 11th graders will be in the Early Assessment Program this year, do you have the capacity to offer them the Expository Reading and Writing Course if, for example, the vast majority need it? Do you have the capacity to offer other options in math? Do you have other thoughts about how you could provide transition courses in 12th grade?

Closing

Are there any materials, tools (such as templates), or other written or online materials that you would be willing to share with educators in California regarding the implementation of the Common Core? The materials would be “anonymized” so that any identifying information would be removed before the materials were circulated.

[If the respondent indicated that they communicate with postsecondary institutions, ask for names at institutions (assure respondent that you will not reveal their identity to the postsecondary contact).]
Is there anything you would like to mention that we did not already discuss?

Thank you for your time!

Common Core State Standards Implementation Research
High School Teacher Protocol
Science teachers

Opening Script

Introduce self and IHELP

*Background:* We have a two-year grant from the Hewlett Foundation to do this work. We did research at the state and county office levels in order to understand their roles with regard to the implementation of the Common Core State Standards, and now we’re doing research in districts and schools to learn how the implementation is playing out so far, focusing on grades 9-14 (so we’re very interested in issues relating to college and career readiness and transitions into community colleges and public four-year universities). The goals are two-fold: to inform state agencies such as the State Board of Education and California Department of Education about ways in which the state could better support the implementation of the Common Core at the local level, and to share promising practices with districts and high schools from across the state. All district and school names will be kept confidential. That’s the very brief summary of our work. Do you have any questions before I jump into our list of questions?

I would like to record our conversation so that I can listen to you completely and not take a lot of notes. The transcript will be anonymized (your name will not be included on the transcript, nor will the name of your district or school). We will use the transcripts to create “codes” or themes across interviews. We will use that information to write our final reports from this project.

Is it ok if I turn on the recorder now? Thank you.

*General questions*

Could you please give us a general overview of the work you’re doing to implement the Common Core? We’ll have specific questions about it later, but it would help me to get a general understanding of the big issues at play – challenges, things you’re feeling really good about, etc. How do you think it’s going? What kind of support is there within your school for the Common Core (probe: teachers? Parents?)?
What other initiatives do you have going on in your school right now (probe: Linked Learning, Career Pathways Trust…)?

Where are you finding the most useful information to help you implement the Common Core? (probe: County Office of Education? State Board of Education website? California Department of Education website? Publishing companies and, if so, which ones? District office? Other schools/districts and, if so, which ones? Other?)

How do you select materials to use?

How do you know if the materials are well-aligned with the Common Core?

Are there materials that you can’t find that would be useful to have? If so, what kinds of materials?

Have you developed your own materials? If so, what did you develop? Who developed them?

Please describe your communication with parents regarding Common Core. Do you communicate about Common Core-related changes in your classroom? Do you answer parent questions regarding Common Core? Do you get a sense that parents know what’s changing?

What are you thinking about tracking the implementation of the Common Core? How will you know if we have it right?

Please characterize/describe the lines of communication between you and the following entities with regard to the implementation of the Common Core. Is there anything you would change about those lines of communication?

- Your school administrators
- Teachers at your own school
- Teachers at other high schools
- District office personnel
- County office
- Postsecondary institutions (community college, California State University and University of California) (Probe: are there cross-system efforts to support implementation?)

Do you have any concerns regarding implementation of the Common Core?

Professional Development
Please characterize the professional development available for teachers in your school to implement the Common Core (probe: English? math? science? Are they all getting the same?). Do you think teachers in all disciplines need the same amount and kind of professional development? If not, what are the differences between disciplines?

*(If these questions weren’t addressed in the response to the previous question, then continue with these):*

What characteristics indicate quality in professional development?

Who provides the professional development? Can you characterize how much time is spent on professional development? Do you think the professional development offered is sufficient? If not, are there barriers to offering more professional development?

Is there time for teachers to learn from each other?

What do you think is the most optimal professional development for teachers at your school in terms of implementing the Common Core (probe: English teachers? Mathematics teachers? Science teachers)? What are the challenges or barriers to the kinds of optimal professional development that you just described?

How prepared do you feel to teach the Common Core to the following groups of students:
- Students as a whole
- English Language Learners
- Students with disabilities
- Low-income students
- Academically at-risk students

Do you think new teachers need to have different skills than they did prior to Common Core? Are you aware of efforts to prepare future teachers to teach in ways that are aligned with the Common Core? If so, please describe.

*Curriculum and Practice*

Can you describe curriculum adoption/curricular changes that are going on as a result of the adoption of the Common Core? (Probe: are the materials aligned to Common Core? How do you know? Do you have access to Common Core-aligned digital resources?)

How do you deal with students who haven’t “grown up with” Common Core in terms of coming into high school without much exposure to the Common Core?

Can you describe how or whether you think your classroom instruction will change as a result of the Common Core? What do you think are likely some high impact practices with regard to implementing the Common Core in classrooms?
Do you feel that the training, materials and professional development have adequately prepared you to implement Common Core in your classrooms? Do you think other teachers feel the same?

Do you have any specific concerns about the implementation of the Common Core and math for high schools? What choices have you and your math colleagues made about how to align math with the Common Core? Do you have integrated math?

Do you have any specific concerns about the implementation of the Common Core and English Language Arts for high schools?

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Linked Learning, Career Pathways Trust, Career Technical Education standards

Please characterize how you view the relationship between college and career readiness in the Common Core.

Do you think the Common Core has the potential to integrate Career Technical Education and core academics? If so, what is your vision about how that will happen at your school?

What is the role of the Common Core in Career Pathways Trust? Of the Career Technical Education standards in the Career Pathways Trust?

What is the relationship(s) between the Common Core and Linked Learning? Between the Career Technical Education standards and Linked Learning?

What do you think are the optimal roles for business leaders (state, regional, and local) to play with regard to the adoption of the Common Core?

Technology

What kinds of technology has your school purchased because of the Common Core and Smarter Balanced assessments?

What kinds of tech training/professional development is your school experiencing as it implements Common Core?

What kinds of technology applications are you preparing for and/or using now (probe: keyboarding for Smarter Balanced assessments, using technology in the classroom (as opposed to just for assessment), iZone project)?
How is the work going for you and other teachers to use new forms of technology? For students to use new forms of technology? Any glitches or challenges?

**Smarter Balanced assessments**

Please describe your experiences with the recent field testing of the Smarter Balanced Assessment Consortium assessments. Was the process smooth? Were there challenges? If so, please describe.

Are you using or planning to use formative assessments? (probe: Are you planning to use the assessments in the Smarter Balanced Digital Library?) If not, why not? If so, in which subject areas? Will you be developing/did you develop those assessments already? Do you think that information will be useful for postsecondary education in any way?

**Closing the achievement gap**

Do you have any specific concerns about the implementation of the Common Core for English Language Learners (in high school)?

Do you have concerns about achievement gaps at your school? If so, do you think the Common Core will help you close achievement gaps? (probe: how will Common Core change the way you serve traditionally underserved students?)

Do you have any plans to prepare students for new Common Core-aligned SAT tests?

**Developing seamless pathways between high school and postsecondary**

What is your understanding about what is happening to the Early Assessment Program, given the implementation of the Common Core?

Please characterize any conversations underway about the use of the Smarter Balanced 11th grade assessment for placement in college-level work in your local community college, California State University, and/or University of California.

If all 11th graders will be in the Early Assessment Program this year, do you have the capacity to offer them the Expository Reading and Writing Course if, for example, the vast majority need it? Do you have the capacity to offer other options in math? Do you have other thoughts about how you could provide transition courses in 12th grade?

**Closing**

Are there any materials, tools (such as templates), or other written or online materials that you would be willing to share with educators in California regarding the implementation
of the Common Core? The materials would be “anonymized” so that any identifying information would be removed before the materials were circulated.

[If the respondent indicated that they communicate with postsecondary institutions, ask for names at institutions (assure respondent that you will not reveal their identity to the postsecondary contact).]

Is there anything you would like to mention that we did not already discuss?

Thank you for your time!
APPENDIX B

Coding Key – Educators (County Offices, Districts and High Schools)
Common Core Implementation Research – CEPF
2014-2015

1. Contextual information
   a. COE
   b. District
   c. School Site
   d. National

2. California political/education policy context of CCSS implementation

3. Roles and responsibilities in implementation of CCSS
   a. State (CDE, SBE, Leg, Gov, Commission on Teacher Credentialing)
   b. COEs
   c. Local (District, School, Teachers)
   d. Postsecondary (California Community Colleges, CSU, UC)
   e. Workforce/employers or business leaders

4. Information/guidance, curriculum, frameworks and/or tools (including actual documents/information educators are using)
   a. from state agencies (SBE, CDE, Teacher Quality Commission, etc.)
   b. from district
   c. from County Offices of Education
   d. Locally developed
   e. Online
   f. Other

5. Tracking implementation

6. Communication (expectations, messaging and/or support) between entities
   a. Locals (i.e. school: school, district/school:parent, etc.)
   b. County Offices of Education (school/district:COE, COE:COE)
   c. State
7. High school-postsecondary relationships (partnerships, communication, alignment of curricula, including “lack thereof” statements, etc.)

8. High school/District/COE-workforce relationships (partnerships, communication, alignment with CTE and workforce expectations, including “lack thereof” statements, etc.)

9. Use of funding to support CCSS
   a. State money (including $1.25B for CCSS implementation)
   b. other

10. Positivity about CCSS
    a. General positivity
    b. Buy-in

11. Concerns re: CCSS implementation
    a. Politics/initiative fatigue/lack of buy-in
    b. Teachers not ready and/or not enough time/resources/capacity
    c. Accountability (concern about testing, teacher evaluation, or student performance)
    d. Curricular concerns (i.e. math, English, NGSS)
    e. Concerns by role type (parents, students, etc.)
    f. Not enough guidance (from state, district, admin, etc)
    g. Other

12. Relationship between CCSS (grades 9-14) and other initiatives or standards at schools (i.e. Linked Learning, Career Pathways Trust, International Baccalaureate (IB), Career Academies, Advanced Placement (AP), CTE standards, Other)

13. College and career readiness (in the context of the CCSS, how CCR is being thought about/implemented)

14. Career and technical education
    a. General CTE
    b. CTE connected with CCSS (integrating CTE and core academics)

15. Technology
16. Teacher Learning
   a. Pre-service (aligned with CCSS? Do new teachers need new training?)
   b. In-service/professional development
   c. Collaboration/Professional Learning Communities (is that happening? Within/across disciplines, within across schools, is there time, are there incentives?)
   d. Views about what is working best/optimism about PD
   e. Barriers to optimal PD
   f. Source of training

17. Instruction (including teaching across disciplines, new instructional strategies)

18. Relationship between CCSS and Deeper Learning
   a. The need to ensure that students master core academic content
   b. Critical thinking and problem solving (for students)
   c. Students communicate effectively
   d. Students work collaboratively
   e. Students learn how to learn
   f. Students develop academic mindsets
   g. Use of performance assessments
   h. Use of multiple measures to gauge student success/for accountability purposes
   i. Use of technology to get at the above Deeper Learning strategies

19. Assessments
   a. Smarter Balanced summative (includes field test, optimism, challenges)
   b. Formative/interim assessments
   c. Digital library
   d. Use of technology in service of assessments

20. CCSS and equity (English Language Learners, achievement gaps)
21. Early Assessment Program (includes 12\textsuperscript{th} grade transition courses, replacement of with SBAC 11\textsuperscript{th} grade test)

22. Accountability (includes LCFF, role of LCAP – ways in which they support CCSS, measures/criteria for new accountability system, optimism, challenges)

23. Education Code/regulations (challenges, supportive conditions)

24. CCSS vocabulary (challenges related to having a common vocabulary for concepts like “depth of knowledge,” “rigor,” “complex,” “close reading,” etc.)

25. Process/Staging (including references to implementation plans i.e. Year 1-2-3 etc)
## APPENDIX C

Coding Matrix – Educators
IHELP Common Core Implementation Study for CEPF
2014-2015

<table>
<thead>
<tr>
<th>Themes</th>
<th>Evidence</th>
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<tbody>
<tr>
<td>1. Contextual Information</td>
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<td>3d. Postsecondary (CCCs, CSU, UC)</td>
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<td>3e. Workforce/employers or business leaders</td>
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REFERENCES

ASCD (2012) *Fulfilling the Promise of Common Core State Standards: Moving From Adoption to Implementation Sustainability*. Alexandria, VA.


(comes from Weatherley & Lipsky)


