SUSTAINED GROWTH ON STATE AND FEDERAL ASSESSMENT MEASURES:
A CASE STUDY OF THREE HIGH SCHOOLS THAT HAVE IMPLEMENTED A
PROFESSIONAL LEARNING COMMUNITY MODEL

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by

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This dissertation is dedicated to my parents, James and Shirley, who have always told me that I could do anything that I wanted to do -- to my dissertation chair, Dr. Jody Dunlap, who has been my mentor and friend, when I grow up I want to be just like you -- to my best friend, Zorko, thank you for your encouragement and ongoing support throughout this process -- to my dear Aunt Carolyn who donated her time to carefully edit my final draft and Uncle Clayton who blazed the trail and always challenged me to climb higher -- to my high school friends, Tim, Dave (Ralo), Rebekah, Chad, Joe, and Michael, thank you for the academic debates and an underlying belief in ourselves which outweighed the perception of *A Nation At Risk*’s view of our generation; today we are truly chasing our dreams.
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ABSTRACT

SUSTAINED GROWTH ON STATE AND FEDERAL ASSESSMENT MEASURES: A CASE STUDY OF THREE HIGH SCHOOLS THAT HAVE IMPLEMENTED A PROFESSIONAL LEARNING COMMUNITY MODEL

by

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Doctor of Education Degree in Educational Leadership

After the passage of NCLB, educators have desperately been looking for a perfect mix of best practices to increase student achievement and performance on state and federal accountabilities measurements. This case study explored three high schools, North High School, West High School, and South High School which have implemented the Professional Learning Community model and found that the conceptual framework of collaboration, assessment, and directed interventions caused a cyclic effect in defining best practices and facilitating improvement in overall student achievement.
Chapter I – Statement of Problem

Historical Context

On August 26, 1981, the Secretary of Education, T. H. Bell, created the National Commission on Excellence in Education to study the quality of education in the United States. This Commission was created as a result of “the widespread public perception that something is seriously remiss in our educational system” (Nation at Risk, 1983). Schlechty (1997) asserts “The publication of A Nation at Risk in 1983 placed the quality of America’s schools squarely in the center of the national debate and heated up debates in statehouses, in both corporate and school boardrooms, and in national publications and local newspapers” (p. 11). The findings of this commission alarmed American policy makers and set educational reform in the United States as a top priority.

The results of this study facilitated a multi-generational attempt to reform the educational system in the United States. Ravitch (2003) wrote in the article, The Test of Time, “Though unique for its relative fame and influence, Risk actually followed a long tradition of reform by commission among American educators” (p. 33). Ravitch asserts that when the government feels the need to gain public attention, a commission is formed which consists of high profile names to gain a national consensus. The Commission’s findings shocked the nation and laid the foundation for increased accountability and the privatization movement that was to follow with the George W. Bush administration (Ravitch, 2003).

No Child Left Behind

On January 8, 2002, the Bush Administration reauthorized the Elementary and Secondary Education Act (ESEA) of 1965. Facing increased concern about the
competitiveness of American schools in the global community, a group of bipartisan policy makers made substantial revisions to the original ESEA and renamed it the No Child Left Behind Act (NCLB). This act reauthorized the federal government’s regulation of schools which receive Title 1 funding for disadvantaged children. The revised parameters of NCLB included broad efforts at school reform including: annual testing, Academic Progress measurements, School Report Cards, more rigorous teacher qualifications, Reading First program, and funding changes (Education Week, 2011).

In the shadow of the No Child Left Behind Act, educators are faced with the daunting task of improving student achievement. Since the passage of NCLB, teachers are now under increased pressure for not only what they teach, but how much students learn. Under NCLB guidelines, all students (100%) must demonstrate proficiency on state and federal accountability exams by 2014. In addition, NCLB also gave parents the right to transfer their students from low-performing schools; this is especially problematic for schools with a large number of at-risk students. As this deadline approaches, all schools regardless of demographics are challenged to improve test scores and meet the national AYP requirements.

Fullan (2010a) argues that despite the reform effort from 1989 – 2009, “the United States has steadily lost ground to other countries tells you that the strategies are dramatically wanting” (p. 22). According to Fullan, the most obvious problems with NCLB are the following:

- Pie in the sky, unachievable goals.
- Too many goals and corresponding texts.
NCLB mandates that every state sets standards, assesses them, and reports adequate yearly progress (AYP). The result is a dog’s breakfast. A student in one state can score 70% on the state reading test, while a comparable student in another state can score 50%; but in an objective third-party test, their results are reversed.

There is virtually nothing in NCLB on capacity building – no means to get there.

The timelines are too short, and they are punitive (increasing bad things happen to you if you don’t meet AYP.)

As people jump through hoops, the whole thing has no meaning – and no credibility (p.23).

Regardless of the validity of the reform movement laws, school leaders are bound to follow them. Despite working in a broken system, educators must rise to a higher moral purpose of ensuring that “No Child is Left Behind.”

**Context**

Since the publication of *A Nation at Risk* in 1983, school leaders have been searching for the perfect program to increase student achievement. While there is a plethora of literature available advocating various strategies, one of the most popular formats has been the Professional Learning Community (PLC) model. The purpose of this multi-site case study is to explore the best practices within the instructional program that have occurred at three high schools where the Professional Learning Community model has been implemented. Through the lens of the PLC model (teacher collaboration,
assessment, and interventions) this study seeks to explore those best practices which have allowed each school to exhibit sustained growth on state and federal assessments.

Both federal and state benchmarks have been established in order to rank schools effectiveness based on students’ performance on standardized testing. The Professional Learning Communities guru, Rick Dufour, (2011) argues, “Those who regard creating a system of interventions and enrichment as a task to accomplish or as a mere addendum to their existing practices will not have significant impact on student achievement” (p. 6).

In the midst of this scramble to become compliant under new federal and state guidelines, there are examples of schools that are making strides in improving student achievement. This research focuses on three demographically dissimilar high schools that all have shown consistent growth: North High School, West High School, and South High School. By exploring the best practices of these three diverse schools, other secondary schools may gain a better understanding of how educators are effectively addressing the issue of increasing student achievement. Fullan (2010a) asserts the elements of successful reform include:

- A small number of ambitious goals; a guiding coalition at the top
- High standards and expectations; collective capacity building linked to instruction
- Mobilizing the data as a strategy for improvement
- Intervention in a non-punitive manner; being vigilant about distracters
- Being transparent, relentless and increasingly challenging (p.21).

Using the Professional Learning Community Model, these three demographically diverse high schools have implemented a model of school reform embedding these elements and demonstrating sustained growth on both state and federal accountability measurements.

**Problem Statement**

Under the provisions of NCLB, all students are expected to demonstrate proficiency in English language arts and mathematics by 2014. As this deadline approaches, all schools, regardless of demographics, are challenged to improve student achievement. Past and current researchers have identified a variety of reasons why schools have been unable to maintain sustained growth in meeting NCLB targets. Researchers have indicated that the implementation of a Professional Learning Community (PLC) model has had significant impact on student achievement. Although many schools have attempted to implement facets of the PLC model, the problem addressed in this study is why some schools have demonstrated sustained growth using the PLC model while others have not. By examining the best practices of three schools that have made significant strides in increasing student achievement, the goal of this study is to provide insights to other secondary schools as they implement facets of the Professional Learning Community Model. Currently, little research exists at the secondary level to address the impact of PLCs on a school’s ability to improve student achievement and meet NCLB targets.
**Purpose Statement**

The purpose of this case study is to explore the best instructional practices of three high schools in which the Professional Learning Community model has been implemented with fidelity. Through the lens of the PLC model (teacher collaboration, assessment, and interventions) this study seeks to explore those best practices which have allowed each school to exhibit sustained growth on state and federal assessments.

**Significance**

Some researchers suggest that the use of the Professional Learning Community model could be an effective method to address the need of raising student achievement. In the past few years many school leaders have advocated the implementation of small learning communities; however, there has been little published reflecting the actual success of this model as it applies to raising test scores for students at the secondary level. Although policy makers have speculated the rationale why schools have been unable to maintain NCLB growth targets, research has indicated that the implementation of a Professional Learning Community (PLC) model has had significant impact on student achievement. The problem that this study addresses is why some schools have demonstrated sustained growth using the PLC model while others have not. This study examines the best practices of the three sites selected in this research which have implemented the PLC model specifically in the areas of collaboration, assessment, and directed interventions.

In the early 1980’s before North High School [pseudonym] implemented the Professional Learning Community model, a staggering 25% of the student body was tracked into remedial classes, and 35% of the student population earned grades of D’s
and F’s (Dufour, Dufour, Eaker, & Karhanek, 2011). Today this high school is one of the few high schools to earn the United States Blue Ribbon Award for excellence on four separate occasions. Despite a challenging urban demographic group, West High School is systematically closing the achievement gap while increasing the rigor of its classes. West High School has also increased its scores in the state accountability measurement, Annual Performance Index (API), every year since its opening in 1999. Located in the heart of suburbia, South High School has demonstrated over 90% proficiency on all end-of-course exams and has earned the “Recognized” status by its state education association. Using the data from three demographically diverse sites, this research may be used to provide secondary school leaders insights as they implement the PLC model at their own sites.

Research Questions

The primary research question in this study is: What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements? Three sub research questions have been addressed using the conceptual framework of the PLC model (Collaboration, Assessment and Interventions):

1. How does the staff perceive that collaboration impacts student achievement?
2. How do teachers assess student progress toward mastery of desired learning outcomes?
3. How does the school address the needs of struggling students?

Conceptual Framework

According to Dufour (2011), the fundamental purpose of schools is to “ensure that all students learn rather than all students are taught” (p. 7). This research will be
conducted through the lens of a professional learning community (PLC) framework. The first lens involves staff collaboration. The Professional Learning Community model asserts that teachers should be divided into collaborative teams which focus on the common goals as they hold each other accountable for results. The foundation of this model is that it is no longer acceptable for teachers to work in isolation when research reveals that productivity increases when working in small groups or teams.

Another facet of the PLC framework involves accountability. This premise suggests that teachers should gather evidence of student performance during the lesson cycle so that it can be used to inform instructional practice. Using this exemplar, teachers become more diagnostic in their teaching strategies by getting immediate feedback from students so that they can address gaps in knowledge quickly. This data is openly shared in collaborative teams to discuss best practices. This accountability is often measured with the data generated by the use of common formative assessments. Frequently, these assessments are created by teachers working collaboratively together in professional learning communities.

The third facet of this framework involves directed intervention strategies to assist struggling students. This intervention is not simply a remedial process but rather a timely, specific and systematic effort. In this model, interventions are prescribed to the student as a product of teacher collaboration based upon the data generated from the results of common formative assessments. Students are assigned intervention strategies according to their specific learning needs.
Organization of Methodology

The case study method was chosen for this research because it enables the collection of thick, rich descriptions to address research questions. Using a grounded theory approach, the researcher conducted interviews with school and district administrators, facilitated teacher focus groups, and conducted a document analysis to complete a triangulation of data to support the validity of this study. In addition to demonstrating sustained growth in student achievement and performance on state and federal accountability measurements, schools in this study were also selected based on their ability to implement the PLC model at their sites with fidelity. School administrators were interviewed using questions about the PCL framework. As a result of these interviews; teachers were identified for participation in focus groups to gain a deeper understanding of their specific teaching practices which have sustained ongoing growth in student achievement. Using information gained from the interviews and focus groups, documents were identified which aided the understanding of the best practices of the three high schools in the study. Researcher notes as well as common themes and codes were used to link the best practices of the three schools to support the implementation of the PLC model. These best practices can then be used by educators as they employ the PLC model at their own sites.

Limitations and Delimitation

The primary limitation of the study is that all three sites selected have aligned their school reform efforts exclusively to the Professional Learning Community model. In an attempt to add diversity to this research, each site was selected based on the variation in geographical location and demographic groups to translate to a variety of
secondary schools. North High School is located in an upper to middle income community, West High School is located in a metropolitan area with the majority of students in the district enrolled in free and reduced lunch programs, and South High School is located in a rapidly growing suburban region with a diverse student population.

A delimitation of the study was the inability to locate the original people responsible for the reform movement at these sites. This study focuses on sustained growth and some of the staff involved in the original planning process have either moved or retired and they could have provided valuable data needed to narrow the study.

**Organization of Dissertation**

This dissertation will be organized in accordance with the California State Northridge Doctoral Handbook. Chapter II – Literature Review provides a detailed conceptual framework based on the Professional Learning Community model as well as relevant research in the area of closing the achievement gap. Chapter III – Methodology consists of a description of the research tradition and design, settings, specific sampling information, and procedures. In addition, the methodology section includes specific information regarding data collection, analysis, and the role of the researcher. Chapter IV- Findings describes the findings of the multi-site case study in thick, rich narrative data as well as any inconsistencies in the findings. Lastly, Chapter V - Discussion and Conclusions, a summary of the study, is provided as analysis connecting the findings to the conceptual framework, including a discussion of the limitation of the study and the implication for policy and recommendations for future research.
Definition of Terms

*Academic Performance Index (API)*: API is the performance school ranking system in California. State accountability results focus on how much schools are improving in year-to-year academic growth. The Academic Performance Index (API) is the cornerstone of the state’s academic accountability requirements. Its purpose is to measure the academic performance and growth of schools. The API is a numeric index (or scale) that ranges from a low of 200 to a high of 1,000. A school’s score or placement on the API is an indicator of the school’s performance level. The statewide API performance target for all schools is 800. A school’s growth is measured by how well the school is moving toward or past that goal (California Department of Education, [http://www.cde.ca.gov/ta/ac/pa/cefpsaa.asp](http://www.cde.ca.gov/ta/ac/pa/cefpsaa.asp)).

*Adequate Yearly Progress (AYP)*: Under the Elementary and Secondary Education Act (ESEA), reauthorized as No Child Left Behind in 2002, each state has developed and implemented measurements for determining whether its schools and local educational agencies (LEAs) are making adequate yearly progress (AYP). AYP is an individual state's measure of progress toward the goal of 100 percent of students achieving proficiency according to state academic standards in at least reading/language arts and math. It sets the minimum level of proficiency that the state, its school districts, and schools must achieve each year on annual tests and related academic indicators. Parents whose children are attending Title I (low-income) schools that do not make AYP over a period of years are given options to transfer their child to another school or obtain free tutoring (U. S. Department of Education, [https://answers.ed.gov/app/answers/detail/a_id/6](https://answers.ed.gov/app/answers/detail/a_id/6)).
**Collaboration**: Collaboration is a systematic process in which teachers work together interdependently in order to impact their classroom practice in ways that will lead to better results for their students, their team, and their school (Dufour, Dufour, Eaker, & Many, 2006, p. 3).

**Directed Interventions**: A team of experts (including classroom teachers, speech and language pathologists, psychologists, social workers, special education teachers and administrators) use a systemic approach to implement intervention programs [to improve student achievement] with fidelity. Academic resources are sought out, evaluated and implemented with individuals and groups of students more often and with greater diagnostic specificity than they have in the past (Buffum, Mattos, & Weber, 2009, p. 2).

**Elementary and Secondary Education Act (ESEA) of 1965**: The Elementary and Secondary Education Act (ESEA) is the main federal law affecting education from kindergarten through high school. In March 2010, the Obama Administration proposed that the law be revised to provide incentives for states to adopt academic standards that prepare students to succeed in college and the workplace, and create accountability systems that measure student growth toward meeting the goal that all children graduate from high school and succeed in college (U. S. Department of Education, https://answers.ed.gov/app/answers/detail/a_id/4/kw/What%20is%20No%20Child%20Left%20Behind.)

**Formative Assessment**: Formative assessment is used to provide information that is communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving his/her learning. And although the teacher may also receive
student-related information and use it as the basis for altering instruction, cycle and then alter instruction based on student needs (Shute, 2008, p.154).

**No Child Left Behind Act (NCLB):** On January 8, 2002, the No Child Left Behind (NCLB) Act of 2001 was passed by Congress. This federal law contains the most sweeping changes to the Elementary and Secondary Education Act (ESEA) since it was enacted in 1965. NCLB also has made the federal role in education more prominent than ever. It changed the federal government’s role in kindergarten through twelfth grade education by requiring schools to demonstrate their success in terms of the academic achievement of every student (California Department of Education, http://www.cde.ca.gov/nclb/sr/pc/cefnclb.asp).

**Professional Learning Community (PLC):** Educators in PLCs embrace the nation that the fundamental purpose of school is learning, not teaching – an enormous distinction. This emphasis on learning leads those within the school to concentrate their effort and energy on three critical questions: 1) What is it we want all students to learn – by grade level, by course, and by unit of instruction? 2) How will we know when each student has acquired the intended knowledge and skills? 3) How will we respond when students experience initial difficulty so that we can improve upon current levels of learning? (Dufour, Dufour, Eaker & Karhanek, 2004, p. 2).
Chapter II – Literature Review

The second half of the twentieth century was riddled with a multitude of reform efforts to improve public education in the United States. Since the successful launch of Sputnik in 1957, policy makers have pointed to the failure of public schools as the reason that the U.S. had fallen behind other nations academically. Fullan (1997) asserted that “none of the current strategies being employed in educational reform resulted in substantial widespread change” (p. 220). “If teachers and principals believe that the impetus for student learning remains outside of their influence and that there is nothing they can do to overcome these external variables, the idea of school improvement will undoubtedly seem futile if not downright ridiculous” (Dufour, 1998, p. 11). Dufour et al, (2004) also argued that if schools are to be more effective, they must break away from the traditional industrial model in which they were created and embrace a new learning model. This literature review outlines a historical perspective of school reform in the United States which includes the accountability movement leading to the development of the Professional Learning Community model. The passage of the No Child Left Behind Act of 2001 (NCLB) facilitated a barrage of school reform measures; one of the most researched has been the Professional Learning Community (PLC) model. This research examines literature focused on the PLC model components of collaboration, assessment, and interventions and concludes with the role of leadership in the implementation of the PLC model.

Historical Perspective

After the publication of A Nation At Risk in 1983, American educators began to scramble to fix an outdated education model based on the factory model prevalent since
the industrial age. This publication was highly critical of the public education system, by reviewing American students’ performance on standardized exams compared with those in other countries. Faced with the fears of a failing school system, both state and federal policymakers began to reshape public education by increasing days to the school calendar, requiring a more rigorous curriculum, and expanding assessment of student performance (Bunker, 1998). Since 1983, law makers have debated the best means to advance the performance of what was considered the struggling U.S. public school system.

The Koret Task Force on K-12 Education (2003) reviewed the goals of *A Nation at Risk* and supported the tenet schools should be rewarded for evidence of improvement and sanctioned if they failed to show added value. Most recently, ideas advanced by legislation have supported this movement, including the No Child Left Behind Act of 2001 (Bunker, 1998, p. 16).

This “reward” system embedded in the No Child Left Behind Act of 2001 has led to great concern within the school community with schools now being forced to compete for federal funding and accountability rankings. In this paradigm, classroom teachers are held accountable for student performance, which was a fundamental shift from previous generations, now rotating the responsibility for learning from students to teachers. The focus of education was no longer about how teachers taught, but how students learned.
Achievement Gap

In order to ensure that every child has access to the curriculum, educators must face the daunting reality of the achievement gap. In the book, *Affirming Diversity, the Sociopolitical Context of Multicultural Education*, Nieto and Bode (2012) define the achievement gap as the following:

The gap between an African-American, American Indian, Hispanic, and some Asian (particularly Laotian and Cambodian) students compared with white students remain very large. Specifically the gap is equivalent to two grade levels or more, almost what it was in 1992. For example, while 41% of Whites are reading at grade level, only 15% of Hispanics and 13% of African-Americans are at grade level. The gap worsens through the years, black and Hispanic 12th-graders perform at the same level in reading and math as white eighth-graders. The gap is not only deplorable, but isn't it also an indictment of our public education system (p. 13).

According to Nieto and Bode (2012), the term “achievement gap” itself is a misnomer because it puts the responsibility on students alone; a better description would be a resource gap, an opportunity gap, or an expectations gap. There seems to be a direct relationship between these conditions in context and the success in which students learn. Often schools with fewer resources and inexperienced teachers provide fewer opportunities for student learning. Kams (2010) endorses former California State
Superintendent Jack O'Connell’s belief that four discrete practices (ACES) will close the achievement gap: access to the curriculum, a safe and inclusive learning climate at school, expectations, and effective instructional strategies. Policy makers view these inadequacies as a systemic problem within American education.

Former founder and CEO of the Center for Leadership in School Reform, Philip Schlechty (1997) wrote,

Something is fundamentally wrong with America's system of education. Too few children develop the academic skills they need to develop, and too many children leave school without having developed the skills, attitudes, and habits of mind that will equip them for life in the 21st century” (p. 2).

Schlechty contends that frustration with American schools is so great that an increased number of people are considering solutions that would lead to the abandonment of public schools. The American education system must perform or become obsolete; the key to this reform appears to lie in a shared vision and values and mission. Advocates of the PLC model contend that the flaw in the system is an overall lack of collaborative purpose and shared ideals. Schmoker (1996) asserts that success depends on the interdependency between collaboration, goals, and purpose. Edison referred to this as what he labeled the multiplier effect when asked why he was such a prolific inventor. He replied he placed his team of inventors near each other and encouraged them to consult with one another so that they benefited from the collective intelligence of the entire group (Schmoker, 1996). It is implied that this “collective intelligence” among educators will create a stronger learning community that breeds student success.
The Business Model

In 1990, Senge wrote the book, *The Fifth Discipline*, which quickly became the authority on business organization systems. In this book, Senge advocates organizations should re-create themselves as learning organizations in order to increase capacity (Boyd, 1998). Facing the new era of accountability, public education looked to the business model, attempting to correct the ever-increasing achievement gaps between students of color and white and Asian students. Hord (1997) noted that after the business community adopted Senge’s principle of the learning organization, the model migrated to the education community which was already struggling with reform efforts of its own. Educators realized if schools were going to guarantee that “no child is left behind,” they needed to become more diagnostic in their reform efforts. Mounds of data were generated by school leaders who were left with the daunting task of identifying struggling students and determining how to best tailor instruction to meet their specific needs. Without addressing the underlying organizational paradigm that schools were designed based on an outdated factory model, teachers were then directed by administrators to evaluate the data and adapt their instruction to address the learning deficits of all students. Often teachers received this summative achievement data too late to make substantial changes for their current students and executed this process in isolation without the support of their colleagues or a systematic approach to draw meaning from the mounds of data.

This new data-driven approach of public education had not evolved systemically within the parameters of a society which was still operating within the paradigm of the old factory model. In the factory model, curriculum was presented in a “one size fits all”
approach and students were assessed grades based on their ability to comprehend and recall the information presented by the teacher. O’Neill (2004) asserts that teachers became the “worker bees” in the factory model and students were their products (p. 142). If students mastered the curriculum, they were then shuffled to a college track and enrolled in advanced classes to prepare them for higher education. Conversely, if students did not quickly master the curriculum, they were cycled toward a vocational track, which prepared them for the world of work. Achievement gaps were expected in the factory system and students were filtered according to their ability. In this model, teachers were the fountain of knowledge and it was the responsibility of the student to gain as much knowledge as possible with little or no responsibility of the teacher to ensure that all students actually mastered the curriculum. This mode was common educational practice until the passage of the No Child Left Behind Act of 2001, which challenged the factory model mandating that schools are accountable for the learning of all students. There were six primary reform efforts set forth with the passage of NCLB: Annual Testing, Academic Progress, Report Card, Teacher Qualifications, Reading First, and Funding Changes.

**Age of accountability.** These mandated school reform measures have been highly debated since their passage. Peterson and Deal (2002) dispute the validity of this notion that policymakers have now challenged educators to tighten up structures and increase accountability by providing rewards to schools that measure up and sanctions against those who miss the mark “…in the short term they may pressure schools to raise test scores but in the long term external demands will never rival the power of cultural expectations, motivation and values” (p. 7). Fullan (2010) argues,
Intelligent accountability involves that the policies and practices that actually increases the individual, and especially the collective capacity to the transparent point that share responsibility carries most of the freight of effective accountability; that makes internal and external accountability almost seamless; and leaves external accountability to do the remaining, more manageable task of necessary intervention (p.5).

In other words, accountability must be shared both collectively by the school and individually within the classroom, without individual student intervention the accountability movement is meaningless. Regardless of debates of extrinsic versus intrinsic motivation, school leaders are now faced with the reality of forced accountability measures imposed by the creation of the bi-partisan NCLB Act holding schools responsible for the education of all students.

The passage of NCLB has caused tremendous angst within the education community. Frequently educators respond to low test scores with the statement that unlike the business community, public education has no control to choose their customers. Corbett - Burris and Garrity (2009) state that “districts are learning that low-track, remedial classes with inferior curriculum will not prepare students for the test used to demonstrate progress under NCLB nor will they help students to become successful citizens; as long as the curriculum gap exists, so will the achievement gap” (p. 20). Regardless of personal opinion, teachers are now held accountable for the learning of all children regardless of the students’ personal background or mental ability.
Kams (2010) contends that equal outcomes in education are non-negotiable; it is a student civil right: (p. 8). According to Kams, there are several factors that contribute to a child's failure: a teacher's inability to reach a child, the student’s limited background knowledge, or simply a lack of literate role models. This concept has reshaped education as we know it and charted a course for a more diagnostic practice. Educators have found that in order to address the demands of NCLB there was a need for a fundamental shift in the way the school organization operates. Dufour (1998) asserts the best way to tackle the new education world of accountability is through the mode of Professional Learning Communities.

According to the PLC model, it is no longer acceptable for teachers to survive in professional isolation rather collaborative efforts are the most effective means to ensure that all children have access to the curriculum. There still seems to be some debate among educators as to how best this collaboration should be achieved. Ravitch (2010) states “the most durable way to improve schools is to improve curriculum and instruction and to improve the conditions in which teachers work and children learn, rather than endlessly squabbling over how school systems should be organized, managed, and controlled (p. 225). While Boyd et al (2008) argues “understanding institutional change inherently requires a systematic perspective; seeing not simply that school districts exist within an active environment, that government has become federated or multilevel, with legitimate power and influence spread widely among several governments” (p. 2). Reformers may argue over systems reform; however, the primary mission of the PLC model is not to evaluate systemic issues within the overall educational community but to improve schools by deprivatizing, or reducing the privacy
of teaching practices, through teacher collaboration to solve problems and share teaching strategies (Guskey, 1998). Fullan (2010) contends “collective capacity generates the emotional commitment and the technical expertise that no amount of individual capacity working alone can come close to matching” (p. xiii). In other words, when teachers work together for the benefit of student achievement, a synergy is created in which ideas are expanded in ways that would rarely occur in isolation. Teachers working together can explore individual and collective needs of students and expose deficits in learning to better address equity in the education of all students.

**Professional Learning Community Model**

The Professional Learning Community (PLC) model addresses the current “one size fits all” approach of the school organization. According to Dufour (2006), there are six characteristics of the Professional Learning Community model. The first characteristic of a professional learning community is a “shared mission vision and values” (Dufour, 2006, p. 25). The mission of the school is not merely in the minds of school administrators, but it is deeply embedded in the day-to-day work of all staff members. The second characteristic of the PLC model is collective inquiry; Dufour (2006) states “people in such a community are relentless in questioning the status quo, seeking new methods, and then reflecting on the results” (p. 26). Team members are in the cycle of constant modification in order to meet the needs of all students. The third precept of the PLC model is collaborative teams. Team members engage in collaborative learning and problem solving. These teams share the task of educating all students by working together and sharing professional expertise. The fourth characteristic contends that professional learning communities are action oriented and involve experimentation.
Members of PLCs “turn aspirations into action and visions into reality, not only do they act, they are unwilling to tolerate inaction” (Dufour, et.al, 2006, p.27). The characteristic of this model is continuous improvement.

According to Dufour (2006) the members of the PLC are engaged and asking four basic questions: 1) What is our fundamental purpose? 2) What do we hope to achieve? 3) What are our strategies for becoming better? 4) What criteria will we use to assess our improvement efforts”? (p. 28). The final characteristic of PLCs is that they are results oriented. Dufour (2006) states, that continuous improvement must be assessed on the basis of results rather than intentions (p. 29). For the purpose of this research, the PLC model will be examined through the lens of three facets: collaboration, assessment, and directed interventions. Although there has been substantial research published on each of the topics individually, there seems to be a gap in the literature in the area of the interplay of all three facets together and how effective secondary schools are implementing PLCs to impact student achievement on state and federal assessments.

Figure 2.1. Professional Learning Community Model
Collaboration

A major component of the Professional Learning Communities (PLC) model is teacher collaboration. The PLC model stresses that each teacher should belong to a team for the purpose of discussing student achievement. Typically time is set aside during the instructional school day to allow collaborative teams to meet. Collaboration time is a sacred time for teachers to “meet without fear of being judged in informal, small groups of colleagues using their own student data to talk and make meaning together” (Champion, 2005, p. 62). Within these collaborative meetings, protocols should be established outlining member roles and responsibilities. Scribner et al. (1999) characterize professional communities as a means to facilitate teacher development and improved professional practice. Teams share norms and values, a focus on student learning, reflective dialogue, deprivatization of practice, and shared expertise as markers of professional learning communities (Bunker, 2008). As professionals, teachers need opportunities to meet and discuss problems of practice (Dana & Yendol-Silva, 2003). Supovitz (2002) describes an ideal culture of instruction which continuously identifies, explores, and assesses instructional strategies. While many researchers advocate the PLC model, the term has been used too loosely in the education community to describe the myriad of meetings ranging from typical departmental meetings to collaborative efforts to analyze student data. Dufour (2004) wrote about the lack of clarity of the collaborative movement, observing:

The idea of improving schools by developing professional learning communities is currently in vogue. People use this term to describe every imaginable combination of
individuals with an interest in education—a grade level teaching team, a school committee, a high school department, and entire school district, a state department of education, a national professional organization, and so on (p. 6).

School leaders must be cognizant of the many definitions of professional learning communities and clarify the specific roles of these collaborative groups. The underlying purpose for teacher collaboration should be improved practice with the collection of data and analysis of student performance to improve practice. Bunker quotes Richardson (1998) describing schools who have reached this stage of collaboration where “members give quality feedback, share responsibility, spend time and critical dialogue, value collective knowledge, demonstrate consistent instructional practices and are all team voices” (Bunker, 2008, p. 30). The act of teachers merely gathering together does not have the capacity to change teacher practice in the classroom or impact student achievement (Supovitz, 2002). Teachers need to be equipped with the appropriate professional development and knowledge base to make a change in classroom practice. “Commitment to an idea is different from knowing how to take effective action to make it happen” (Joyce, 2004, p. 77). School leaders need to outline specific objectives for collaboration in order for it to become an effective catalyst for improvement of student achievement. Fullan (2010) quotes Hansen who insisted that collaboration is not an end in itself, there is a difference between good and bad collaboration (p. 5). Collaboration within itself does not affect student mastery of standard; but when teachers align their
practice based on a common vision supported by data analysis, it becomes a powerful tool to support learning objectives for all students.

**Consensus building.** A critical element in the collaboration process is building consensus; without a common vision teacher teams cannot function effectively. Dufour (2006) writes that leaders of PLCs recognize the importance of soliciting the support of a guiding coalition prior to the launch of an improvement initiative. A school leader can benefit greatly by working through issues with a small group of teacher leaders prior to engaging the entire faculty. Effective leaders build consensus one small group at a time. Sharing knowledge with teacher leaders results in faster implementation and a deeper commitment later in the process (Dufour, 2006). Often common mistakes made by small groups are an attempt to implement a mission statement without staff buy-in; implementation is futile unless people begin to do things differently.

**Clarifying what students need to learn.** Effective collaboration begins with the fundamental question, “What is it we want students to learn and how will we know when each student has learned it?” (Dufour, 2004, p. 46). Most educators would agree that the curriculum must be aligned with state and district curriculum frameworks. In the age of accountability, students must be prepared to demonstrate proficiency on district, state, and federal assessments. Teachers then must agree upon an acceptable method to provide additional support for struggling students while balancing the necessity of covering essential standards. "Ultimately the problem of too much content and too little time forces teachers to either rush through the content or exercise judgment regarding which standards are the most significant and essential" (Dufour, 2004, p. 47). Reeves (2002) poses the following questions to teachers when making vital decisions regarding
eliminating content from the curriculum: Does this standard have relevance? Does it have the leverage? Does it develop student readiness for the next level of learning? What current content can we eliminate because it is not essential? These questions are essential to narrow the focus of instruction to relevant topics. Bunker (2008) suggests that teams should be involved in ongoing evaluation, which includes creation of student-centered, measurable goals that are measured with common formative assessments.

Assessment

“Policymakers and legislators at the state and national levels see assessments as essential for change” (Guskey, 2007, p. 15). They [policy makers] view the data generated from large scale assessments as a method to focus educators’ attention on reform (Guskey, 2007). Unfortunately large scale assessments designed to rank schools are not an effective means to improve classroom instruction. Data generated from these exams are considered summative assessments which are given at the end of the school year. Reeves (2002) compares summative assessments to an autopsy, by the time you get the results, it is too late to do anything about it. Typically teachers do not receive results from state summative assessments until after the year has ended and it is too late to alter instruction to address the gaps in student knowledge. Guskey (2007) asserts “they [teachers] need to see assessments as an integral part of the instructional process and an essential element in their efforts to help students learn” (p.16).

As long as there have been schools, there have been exams to assess student learning. The key to effective assessment is how the results are used to impact student learning. Merely giving exams for the sake of assigning grades is not an effective use of assessment data. Stiggins (2007) claims in the book, Ahead of the Curve, that there are
four keys to assessment quality: clear purpose, clear targets, accurate assessment, and effective communication. These keys are essential to assist students in assuming a sense of control for their learning outcomes.

**Defining a clear purpose.** Before the development of exams, educators should have a clear sense of why they are assessing the knowledge. Stiggins (2007) states “the assessor needs to start the process with the answers to these questions: What are the instructional decisions we hope to make? Who is making them? What information will be helpful?” (p. 62). Assessment data should be followed by the question, “What comes next in learning?” (Stiggins, 2007, p. 62). Teachers should have a clear understanding of the purpose of the assessment and how they plan to use the data to support student mastery of standards. Guskey (2007) asserts for assessments to become a part of the instructional approach, “teachers must 1) use assessments as sources of information for both students and teachers, 2) follow assessments with high-quality corrective instruction, and 3) give students second chances to demonstrate success” (p. 16).

**Communicating clear targets.** According to Stiggins (2007) another critical component to effectively using assessment is that there is a “clear, complete, and appropriate articulation of the achievement target” (p. 63). In other words, before teachers can assess a concept, it must be clearly defined. In order to hit the target, there must be an understanding of what students need to know. Teachers must ensure that the “patterns of reasoning” are in place before they can be adequately assessed (Stiggins, 2007, p. 64). In addition, the question must be asked, what are the performance skills or products that students must demonstrate to reach the learning target? Another source of frustration for students is the confusion regarding assessment goals; a common practice
has been to keep assessments secretive. Guskey (2007) states that “classroom assessments that serve as meaningful sources of information do not surprise students, instead they are well aligned extensions of the teacher’s instructional activities” (p. 17). This is not to be confused with “teaching to the test” or merely aligning instructional outcomes with assessment objectives (Guskey, 2007, p. 18).

**Creating accurate assessments.** There has been much debate about the equity of assessments. Teachers should ensure that the assessment instruments that they are using are valid and measure the desired outcome. Tests should not only include quality ingredients but should also include enough items to sample student knowledge effectively so that teachers can learn enough to evaluate their mastery. This includes checking for invalid or biased questions. Students should understand the questions that they are asked in the assessment. Darling-Hammond (1994) argues that the current assessment system does not adequately evaluate student’s knowledge. “Much of the rationale for these initiatives is based on growing evidence that traditional norm-referenced, multiple-choice tests fail to measure the complex cognitive and performance abilities” (Darling-Hammond, 1994, p. 6). According to Darling-Hammond, the increased focus on this type of assessment has caused teachers to demand low expectations of students based solely upon “rote oriented tasks” rather than meaningful learning objectives (p. 6). She expands her debate to include the extent in which assessment can enhance learning depends on several variables including: “whether and how they avoid bias, how they resolve concerns about subjectivity versus objectivity in evaluation of student work, and how they influence curriculum and teaching” (Darling – Hammond, 1994, p. 7).
Ensuring effective communication. Stiggins (2007) states that “once the information needs of assessment users have been identified, achievement expectations are in place, and accurate assessments are being used, the foundation is laid for gathering good data” (p. 68). Assessment data is wasted unless it is shared with the students in a meaningful way. Effective communication rests in the fact that students understand the data and can do better next time. Ineffective communication can hinder instructional growth. Stiggins asserts that “miscommunication will occur if it is assumed that a report-card grade indicates a student’s level of achievement when, in fact, the teachers have woven achievement, effort, attitude, compliance with rules, attendance, and other non-achievement characteristics in their grade” (p. 69).

Formative assessments. “An observer of American education might well think that the most underrated achievement of the No Child Left Behind Act is the expansion of formative assessment” (Dorn, 2010, p. 325). Formative assessment is defined by Shute (2008) as “the information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning” (p. 154). In the summer of 2007, California Representative George Miller called for the reauthorization of NCLB to include formative assessments (U.S. House Committee on Education and Labor, 2007). For teachers to become more diagnostic in the classroom, they must use assessment data as a tool to discover gaps in student knowledge, and then reteach those missed concepts. Although there are many types of assessment, formative assessment allows teachers to check for understanding in the middle of the lesson cycle and then alter instruction based on student needs. Popham (2010) defines formative assessment as “a planned process in which assessment-elicted evidence of students’ status is used by
teachers to adjust their ongoing instructional procedures or by students to adjust their
current learning tactics” (p. 138). That is to say formative assessment informs
instruction. Despite the high stakes of assessment, teachers need to have a clear
understanding of their student’s comprehension of the subject matter and use formative
assessments to guide the acquisition of that knowledge. Darling-Hammond (1994)
argues that teachers should have as much knowledge of their student’s learning as they do
their subject matter. She states that, “authentic assessment strategies can provide
teachers with more useful classroom information as they engage teachers in evaluating
how and what students know and can do in real-life performance situations” (Darling-
Hammond, 1994, p. 6). However, Popham (2010) asserts that most teachers have come
to resent anything remotely related to testing due to the high-stakes standardized
accountability exams. Formative assessment should not be linked to this process; instead
it should be used as an instructional tool to assist teachers in their practice. British
researchers, Black and William (1998a), analyzed 700 published case studies dealing
with classroom assessment and summarized their findings as the following:

The consistent feature across the variety of these examples
is that all show that attention to formative assessment can
lead to significant learning gains. Although there is no
guarantee that it will do so irrespective of the context and
particular approach adopted, we have not come across any
report of negative effects following on an enhancement of
formative practice (pp. 11-12).
This comprehensive research supports the evidence of the effectiveness of the use of formative assessment in the classroom. The study included the student gains in learning triggered by formative assessment “are larger and most of those found for educational intervention” (Black & William, 1998b, p. 141). However, in order for formative assessments to be used as an effective instructional tool, they must be used correctly. Dorn (2010) warns that there are multiple definitions of formative assessments: “those advocating formative assessment have used it to mean anything from informal or haphazard in-class judgment to frequent quantitative measures of specific skills” (p. 326). Although the preliminary research looks promising, there are few documented studies of the practice.

Kluger and DeNisi (1996) conducted meta-analysis on the topic of the effectiveness of feedback interventions (FI). The basic premise of their research was that FIs change the locus of a learner’s attention among three levels of control: (a) task learning, (b) task motivation, and (c) metatask processes. Shute (2008) translates the research findings as “formative feedback that focuses the learner on aspects of the task promotes learning and achievement compared to FIs that draw attention to the self which can impede learning” (p. 168). [See Figure 2-2] It is critical that teachers use formative assessments effectively to maximize acquisition of knowledge and avoid frustration and cause negative student motivation.
Although most of the participants showed an increase in performance, it should be noted that in at least one-third of the 607 cases in the Kluger and DeNisi research, FI actually decreased performance. Teachers should consider the negative feedback of assessment results upon their students’ intrinsic motivation. In order for formative assessments to be used effectively, teachers must be careful to direct feedback to students in order to build success rather than generate feelings of hopelessness in learners.
**Implementation of formative assessments.** Popham (2010) claims although there are many ways to implement formative assessment, the ground-up approach is usually the most effective. He suggests “four levels of implementation: Level I -- teachers instructional adjustments; Level II -- students learning – tactic adjustments; Level III -- classroom climate shift; and Level IV-- school-wide or district-wide expansion” (p. 143).

According to Popham, the foundational level must begin with a grassroots shift of teachers’ usual assessment strategies. Once they have identified gaps in student knowledge they must alter their instructional cycle to teach missing concepts. Shute (2008) refers to this level as “elaboration” (p. 158). During elaboration, teachers “address the topic, address the response, discuss the particular error(s), provide worked examples, or (e) give gentle guidance (Shute, 2008, p. 158). At this level teachers share the correct answer and explain why the incorrect answer is wrong. It is important at this stage to consider student motivation and set realistic goals so that they are adequately challenged but not set so high that they are unattainable.

**Student learning.** Popham’s Level II suggests that students also have a responsibility to reflect and identify their own gaps in knowledge. Davies (2007) asserts that specific, descriptive feedback is necessary for students to make the appropriate improvements to their work. Without this specific feedback, assessment merely judges learning. Davies argues that letter grades and other symbols given at the conclusion of summative assessments can actually have a negative impact on student learning by impacting student motivation. “Students with poor marks are more likely to see themselves as failures” (Davies, 2007, p. 33). She cites the Harlen and Deakin-Crick
(2003) research which found when students are involved with the assessment process, they “develop a sense of ownership and commitment to their learning, make choices about what to focus on next in their learning, engage in learning and experience fewer discipline problems” (p. 34). In order for students to embrace their learning objectives, they must first have a clear understanding of instructional goals. Stiggins (2007) said “students can hit any target that they know about and that holds still for them” (p. 1). A critical component is teaching students the language of assessment. According to Davies, this means students learn to talk about and reflect on their own work and they gain the knowledge necessary to make decisions needed to close the gaps in their own knowledge.

**Classroom climate shift.** Popham asserts that Level III, classroom climate shift, cannot be effectively implemented until Levels One and Two are in place. According to Marzano (2007), teachers should implement four steps for designing a system of classroom assessments. Marzano’s Finding 1 indicates that teachers should provide students with a “clear picture of their progress and how they might improve” (p. 103). The meta-analysis by Kluger and DeNisi (1996) has shown that simply telling students that they are incorrect tends to have a negative effect, whereas explaining the correct answer actually enhances performance. Marzano’s Finding 2 supported this research asserting “feedback on classroom assessment should encourage students to improve” (p. 104). Feedback must give students a method to comprehend results without suggesting failure as well as assist them with more learning and higher scores. Finding 3 affirms that “classroom assessment should be formative” (p. 105). In this finding, Marzano cited the research of Black and William (1998a) which found that “formative assessment can
provide performance gains of approximately 26 percentile points” (p. 105). The term formative assessment is defined here as assessment which is used to modify teaching and learning activities. Marzano’s Finding 4 contends that formative classroom assessments should be frequent: “while there is no set number of assessments that should be administered during a unit of instruction or grading period, the message from the research is clear: systematic use of classroom assessments -- weekly or even more frequently -- can have a strong positive effect on student achievement” (p. 106).

**School and district implementation.** Level IV includes a school or district-wide plan of implementation. Mokhtari, et al. (2007) asserts that “educators spend significant amounts of time collecting assessment data; they do not take time or perhaps know how to organize and use data consistently and efficiently in instructional decision making” (p. 354). Professional learning communities provide a systematic method to disaggregate and effectively use student data in a collaborative environment. Shea, Murray, and Harlin (2005) found that school- wide committees have a wider view of student achievement because it comes from a variety of views and perspectives. School- wide teams also analyze assessment data focused on curriculum and instruction for entire classrooms, small groups, or individual learners. After examining students’ current level of achievement, these teams can make recommendations relating to school- wide, grade- level, or individualized instruction. Until teachers are convinced of the validity of this mode of assessment in their own classrooms, a top-down approach is ill advised.

The challenge for school and district-wide reform is how to best assist struggling students after teachers have identified them with assessments. In recent years there has been much debate surrounding the most effective method to teach students who are not
successful in the traditional classroom. Throughout the 1980s and 1990s, increasing numbers of students were designated as Learning Disabled (LD) which escalated special education costs and vexed local and state educational and political leaders (Fuchs, et al., 2003). Many argue that not all students who are not succeeding in the traditional classroom should be immediately placed in Special Education classrooms.

**Directed Interventions**

Although the concept of Response to Intervention (RtI) has been around for several years, the Professional Learning Community (PLC) model laid the foundation in school culture so that both models could work in tandem to promote student success. Buffum, Mattos & Weber (2009) assert that “the essential characteristics of a professional learning community are perfectly aligned with the fundamental elements of response to intervention” (p. 49).

Figure 2.4. Response to Intervention (RtI) Model
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Once collaborative teams design formative assessments, this information provides a vehicle to identify students who additional support identified for the pyramid of interventions. [See Figure 2.4]
Without timely assessment information, a school’s intervention program assumes a buckshot approach, with teachers randomly firing broad intervention efforts and hoping that they hit a few students. Frequent, formative common assessments also provide the foundation for progress monitoring needed to properly implement response to intervention (Buffum, Mattos & Weber 2009, p. 52).

In essence, the RtI model has become the framework to answer the third question of effective PLCs: What will we do when they [students] don’t learn? (Dufour et al, 1998).

“When comparing the essential characteristics of being a PLC and the fundamental elements of RtI, one can see that these two powerful processes are not merely similar, but perfectly aligned to support the same outcomes” (Buffum, Mattos & Weber 2009, p. 53).

Table 2.1. Alignment of PLC Model and RtI Elements (Buffum, Mattos & Weber 2009, p. 54).

<table>
<thead>
<tr>
<th><strong>PLC Essential Elements</strong></th>
<th><strong>RTI Fundamental Elements</strong></th>
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<tbody>
<tr>
<td>Focus on Learning &amp; Collaborative Culture</td>
<td>Collective Responsibility</td>
</tr>
<tr>
<td>Focus on Results Progress</td>
<td>Universal Screening &amp; Monitoring</td>
</tr>
<tr>
<td>Action Experimentation Decision</td>
<td>Systematic Interventions &amp; Protocols</td>
</tr>
<tr>
<td>Collective Inquiry Program &amp; Interventions</td>
<td>Research-Based Core</td>
</tr>
</tbody>
</table>

Between the years of 1977 and 1997 the number of students labeled with disabilities increased from 3.7 million to 5.3 million, although total enrollment remained relatively the same (Fuchs et al., 2003). Many politicians and educators became
concerned about the over labeling of students with the Learning Disabled (LD) classification and are questioning the effectiveness of the traditional IQ assessment as the primary mode of assigning special education designations. Fuchs et al (2003) quoted Wade F. Horn, the former Assistant Secretary for Children and Families during the George W. Bush Administration, who urged the Commission “to drive a stake through the heart of this over reliance on the discrepancy model for determining the kinds of children that need services” (p. 158).

Response to Intervention (RtI) quickly became a buzz word in the education community to address the intervention of struggling students. The RtI model is drawn like a pyramid with three progressive levels of interventions (Fuchs, et al, 2003). [See Figure 2-4] According to Fuchs, et al (2003) this model is a practical approach to interventions, “RtI is synonymous with the problem solving model” (p. 159). This problem solving model has challenged the traditional IQ achievement model for identifying students with learning disabilities. “The 2004 reauthorization of the Individuals With Disabilities Education Improvement Act (P.L. 108-446) permits states to discontinue use of IQ-achievement discrepancy in favor of Response to Intervention (RTI) for LD identification” (Fuchs, et al, 2003). Fuchs (2003, 2007a, 2007b) reports the advantages of the RtI model include, identification, focus on prevention, assessment, and clear implication for academic programming and can be described as follows:

1. Students are provided with “generally effective” instruction by their classroom teacher;

2. Their progress is monitored;
3. Those who do not respond get something else, or something more, form their teacher or someone else;

4. Again, their progress is monitored

5. Those who still do not respond either qualify for special education or for special education evaluation (p. 159).

Fuchs contends that the trial and error approaches rely on the collection of data following the treatment. This collection of data is carried out by consultants, teachers, and students in a collaborative environment. The RtI framework has two primary goals: to identify students with difficulty early, prior to the onset of severe deficits while teachers can make minor adjustments in the as the classroom, as well as to identify students with LD [learning disabilities] who have not been responsive to standard forms of instruction and require an individualized form of instruction (Fuchs & Fuchs, 2007a). If classroom teachers use scientifically validated curricula and instruction, all children, or at least most children, should get the education they need without having to "wait to fail" when RtI is implemented correctly (Fuchs, et al, 2007b). Lawmakers are in agreement:

There are many reasons why the use of the IQ –discrepancy criterion should be abandoned. The IQ discrepancy criteria is potentially harmful to students as it results in delaying intervention until the student’s achievement is sufficiently low so that the discrepancy is achieved (U.S. Department of Education, 2005, p. 35802).

Buffum, Mattos, and Weber (2009) argue that in the discrepancy model, students had to fail to obtain needed services. They contend that “this [Response to Intervention model]
is best implemented in a school-wide systematic process of interventions -- academic interventions for those can’t learn, behavioral interventions for those who won’t learn” (Buffum, Mattos, & Weber, 2009, p. 5). Searle (2010) describes the RtI model as a three legged stool. The three legs in her description are as follows: “an assessment process, a tiered intervention menu, and a problem-solving process. According to Searle all three legs should be in place for the model to work correctly.

**Collaborative teams.** Following the PLC model, the third leg of the Searle (2010) RtI model involves a Student Support Team (SST.) “This collaborative team is organized to use data from the assessment cycle to prescribe, monitor, and adjust intervention plans” (Searle, 2010, p. 4). The RtI model encourages the use of “collaborative consultation” by teachers for teachers (Fuchs, et al, 2007a, p. 161). These problem solving teams establish a baseline for students suspected of learning disabilities and consult the progress based on data generated by the team of teachers. According to Fuchs, group dynamics are based on the group’s collegiality, bottom - up decision making, equalitarianism, as well as spirit of the ongoing education reform movement.

**RtI structure.** The Response to Intervention structure has three primary tiers. Tier I or the base of the pyramid is focused on the interventions that are provided to all students in the classroom. Tier II, or the middle of the pyramid, are the interventions that are focused on small group instruction and are more intensified than those given to all students in Tier I. In Tier III interventions are the most rigorous and are mainly focused on one-on-one instruction. However, there seems to be some controversy among educators whether Tier III intervention constitutes special education services or directed one-on-one instruction in the classroom.
**RtI -- Tier I.** Tier I is primarily focused on whole group classroom instruction. This instruction is differentiated based on a variety of learning styles of all students. Assessment is done on a regular basis and is formative in nature meaning that instruction is modified based on the results of the assessment. Searle (2010) states that Tier I is comprised of “research -- based classroom instructional strategies powerful enough to enable 80-90 percent of students to be successful without further intervention” (p. 4). Data is collected over time to monitor how students are progressing at a regular pace. A collaborative team of teachers use a variety of problem solving techniques to determine what classroom interventions are needed within the classroom structure. “Tier I interventions are those strategies that instructors are likely to put into place at the first sign that a student is struggling” (Wright, 2007, p. 3). In the RtI Two model, behavior modification is also addressed. Within Tier I, prevention of off task behavior is taught by teaching school-wide positive behavior expectations for all students to prevent initial incidence of classroom disruptions. Classroom behavior expectations are clearly defined and posted in the classroom.

**RtI -- Tier II.** The second level of the RtI model or Tier II, includes additional inventions outside the classroom environment. The student’s progress is evaluated and assessed more frequently. Primary instruction will continue with the classroom teachers, but it supplemented by small groups which meet several times a week to reinforce concepts presented in the traditional setting. Searle (2010) contends that “Tier II provides interventions of moderate intensity that supplement Tier I strategies and provided for groups of three to six students” (p. 4).
4). These small groups can occur in the regular classroom or as a part of a pull out program with another teacher. These smaller groups are easier to identify students who may not need to continue small group instruction as well as identify students who may qualify for special education services. “They [Tier II strategies] are reserved for students with significant skill gaps who have failed to respond successfully to Tier I strategies” (Wright, 2007, p. 3).

The behavioral component in the RtI Two model includes pull out interventions for students who are not responding to whole class behavior modification. The smaller group setting allows for increased support for students struggling with behavioral issues. Some students may be given a Behavior Intervention Plan (BIP) to address off task behaviors which inhibit the learning process. Some of these interventions might include: behavior contracts, weekly progress reports, group therapy sessions, or targeted social groups.

**RtI --Tier III.** Students who do not respond to interventions at Tier II move into a more intensive intervention in Tier III of the RtI model. “Tier III interventions are the most intensive academic supports available in the school and are generally reserved for students with chronic and severe academic delays or behavioral problems” (Wright, 2007, p. 4). The interventions at Tier III are similar to Tier II, only with an increased focus, frequency and duration. Searle (2010) describes Tier III as “intense interventions for one to three students.” This top tier Searle asserts should only be about 5 percent of the student population. There is some debate if Tier III is considered special education services or interventions in which students are identified for special education services. In special education or most pull out programs, instruction does not take place in a
traditional classroom, rather in small groups or individualized for specific students. In special education, goals are written for the student in an Individualized Education Program (IEP) as specified by federal law. These goals are constantly monitored and assessed to determine the student’s mastery of instructional goals.

In the RtI Two model, Tier III addresses behavior for students who could not respond to interventions in Tier II. Results from formal behavioral assessments (FBA) are used to develop the Behavior Intervention Plan (BIP). BIP includes strategies for students to create goals in order to demonstrate positive learning behaviors. Interventions such as individual therapy sessions, daily behavior report cards, and check in, check out plans are used to assist students in developing positive behaviors.

“RtI is not a program you can buy. It is not a pathway to special education. It is a method of organizing and coordinating school resources to create a more efficient range of options that serve all students in danger of not reaching their potential” (Searle, 2010, p. 21). Searle warns that RtI isn’t an easy road to quality education. Educators must move outside their comfort zones to make it successful. Using data to identify struggling students and using targeted interventions is the key to success of the RtI model.

**Implementation and Leadership**

Arguably, school leaders have a moral purpose to ensure learning for all students, Fullan (2010) asserts that "moral purpose focuses on raising the bar and closing the gap for all children and youth and society relative to those dispositions and skills essential for surviving and thriving in a complex, interdependent global society (p. 62). School reform is not any easy task and must begin with leaders who are able to articulate a shared vision which is the critical component of the change. Searle (2010) quotes former First Lady,
Rosalyn Carter, “A leader takes people where they want to go. A great leader takes people where they don’t necessarily want to go, but ought to be” (p. 23). Dufour et al. (2010) states:

Instilling hope requires more than pleasant affirmations and a sunny disposition. Furthermore, while hope is an important personal attribute, it is not an effective organizational strategy. Organizations can however, foster hope, optimism, and collective self-efficacy when they create systems that put people in the position to achieve success (pp. 11-12).

For effective school reform to be successful, leaders must create not only functional systems but an environment where teachers feel safe to take risks and make mistakes. Searle (2010) asserts that good leaders know how to move in and work along group members when they get discouraged and they recognize when groups have the skills to solve problems on their own and only need encouragement from the sidelines. Teamwork is necessary to pull fragmented initiatives together to systematically analyze data and build capacity among staff members. Koozes and Posner (2007) present five practices that are necessary for exemplary leadership: model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart (p. 14). In addition to presenting a shared vision and enabling others to act in a safe environment, school leaders are wise to foster a sense of ownership and pride to encourage teachers’ heart to make instructionally sound practices.
In lieu of a shotgun approach to school reform, Dufour (2006) suggests seven specific actions to convey commitment to improving schools:

1) Initiating structures and systems to foster qualities and characteristics consistent with the school they are trying to create;
2) Creating processes to monitor critical conditions and important goals;
3) Reallocating resources to support the proclaimed priorities;
4) Posing the right questions;
5) Modeling what is valued;
6) Celebrate progress;
7) Confronting violations of commitments (pp. 20-22).

These seven principles are the cornerstones of effective leadership and must be considered as school leaders embark on the task of school reform.

Summary

After the passage of the No Child Left Behind Act, all student must demonstrate proficiency in English language arts and mathematics by 2014. Schools that are not making adequate progress by federal accountability measures are labeled as low performing and placed in Program Improvement (PI) status. All schools, regardless of demographics, are challenged to improve student achievement. While there are a plethora of reform models available to school leaders, researchers have indicated that the implementation of a Professional Learning Community (PLC) model has had significant
impact on student achievement and meeting NCLB targets. The problem that this study addresses is why some schools have demonstrated sustained growth using the PLC model while others have not. Currently, little research exists at the secondary level to address the impact of PLCs on a school’s ability to improve student achievement and meet NCLB targets.

Although there is much literature available to assist school leaders in the implementation of professional learning communities, there seems to be a gap in the literature which specifically explores the best practices of secondary schools which have implemented the PLC model with fidelity. Many schools have attempted to implement the professional learning communities’ model; unfortunately, not all of them have been successful in effective school reform. Based on state and federal accountability measures, there are, however, a number of schools that are effectively raising achievement for all their subgroups. Using a grounded theory approach, this research seeks to discover the best practices of effective secondary schools using the PLC model. In addition, research questions have been answered through the lens of the professional learning community theoretical framework examining the effective practices in the areas of collaboration, assessment, and interventions coupled with effective leadership to support school reform.
Chapter III: Methodology

The purpose of this grounded theory case study is to explore best practices of effective secondary schools based on significant growth in state and federal accountability measures. Both federal and state benchmarks have been set in order to rank schools based on students’ performance on standardized testing. Schools that do not show adequate progress are labeled as low performing and placed in Program Improvement (PI) status. This is especially problematic for schools with a large number of at-risk students. Under the provisions of the No Child Left Behind Act, all students must be proficient in English language arts and Mathematics by 2014. As this deadline approaches all schools, regardless of demographics, are challenged to increase student achievement.

Professional Learning Communities guru, Rick Dufour, (2011) argues, “Those who regard creating a system of interventions and enrichment as a task to accomplish or as a mere addendum to their existing practices will not have significant impact on student achievement” (p. 6). In the midst of this scramble to become compliant under new federal and state guidelines, there are examples of schools that are making significant strides in raising student performance. This study uses the conceptual framework of the Dufour (1998) Professional Learning Communities (PLC) model with a specific focus on collaboration, formative assessment, and directed interventions to answer the following research question: What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements? In addition, three sub research questions were addressed using the Professional Learning Community model:
1. How does the staff perceive that collaboration impacts student achievement?

2. How do teachers assess student progress toward mastery of desired learning outcomes?

3. How does the school address the needs of struggling students?

Overview of Methodology

This chapter provides an overview of the methodology used in this research. Following the tradition of the ground theory approach, three high schools were selected in this multi-site case study. The setting and context of this research have been discussed in detail, followed by information concerning research samples and data sources. Using a qualitative case study approach, I have conducted interviews with administrators, focus groups with teachers, as well as conducted a document analysis in order to complete a triangulation of data. In addition, state and federal statistics have been used to establish growth patterns for all three schools. This chapter also includes information regarding data collection and analysis. Creswell (2008) states the grounded theory model uses a systematic method of coding which has been used in this study along with researcher notes to explore the commonalities of the best practices of the three research sites. Finally, the role of the researcher has been explained as it relates to subjectivity within the study.

Research Design

The purpose of this case study is to explore the best instructional practices of three high schools in which the Professional Learning Community model has been implemented with fidelity. Pseudonyms have been used for the three schools used in this study: North High School, West High School, and South High School. Each school has
made substantial progress in achievement based on state and federal accountability measures.

Glesne (2011) defines a case study as an “intensive study of an individual, institution, organization, or some bounded group, place, or process over time” (p. 279). Following the tradition of qualitative research, the settings have been chosen to provide rich data from the participants from all three sites. The case study method was selected because it enabled the examination of the phenomena of sustained longitudinal growth while providing common codes connecting the best practices that are used at each site in cross-case analyses which has led to a better understanding of the phenomenon. By evaluating the best practices of these three sites, I have explored the commonalities which have led to their sustained growth. Using the qualitative approach, sampling was purposeful, by selecting individuals who were referred as knowledgeable of the PLC growth process.

**Research Tradition**

Using the grounded theory tradition in this research, I examined the common practices of collaboration, assessments, and directed interventions that have evolved and facilitated sustained academic growth of the three schools in the study. According to Creswell (2008), grounded theory explains “the process of events, activities, actions and interactions that occur over time” (p. 432). The settings and samples were purposefully selected using “theoretical sampling” to identify participants who could contribute to the evolving theory (Bloomberg & Volpe, 2008, p. 69). In the tradition of grounded theory, common codes and themes were explored as well as the use of research notes. Creswell (2008) suggests that close attention to the values, experiences, and priorities of the
sample should be given in order develop a system of codes in the grounded theory tradition. Codes were developed to describe the insights of the participants regarding the best practices of their individual school sites in the case study.

In the tradition of grounded theory, I have used a systematic design to explore the common practices of effective secondary schools. Creswell (2008) described systematic design as more prescriptive than other forms of grounded theory research (p. 434). The systematic design employs three forms of coding: open, axial, and selective. Using open coding, initial categories were created based on all the data collected from the researcher notes, interviews, focus groups, and document analysis. The second phase involved axial coding by picking one of the open categories as the central phenomenon and relating the other codes to this central theme. This was completed using a coding paradigm to illustrate the relationship between the codes. The third stage of coding involved selective coding which I connected the codes into a central theory from the interrelationship of the categories from the best practices of the secondary schools in this study.

Using a multi-case study approach, I conducted both interviews and focus groups with administrators and teachers as well as conducted a document analysis to complete a triangulation of data to support the credibility of the study. In addition to site documents, state and federal data was used to establish growth patterns of all three schools. The grounded theory approach facilitated a systematic method of coding and memos to explore the best practices of the three research sites (Creswell, 2008). This approach also allowed data to emerge organically by exploring the perceptions of the participants in each case study.
Research Settings

North High School [pseudonym] is located in the suburban community outside Chicago. In the 2011 census, the growing population increased to 7,303 with a median income of $134,259 in 2000. It boasts a highly educated community with one comprehensive high school with a total enrollment of 4,118 students in the 2011 school year (IL District Report Card, 2012). The racial/ethnic demographics include: 70.1% - White, 18.4% - Asian, 7% - Hispanic and 1.7% - Black (IL District Report Card, 2012). North High School employs 252 teachers with the average class size of 21.4 and four year graduation rate of 92% (IL District Report Card, 2012).

West High School [pseudonym] is located in an urban area south of Los Angeles in a city home to 85,331 residents according to the 2010 census. The median income in the city is $60,334 and has an unemployment rate of 7.3%. The city has 27.8% of citizens who have earned a high school diploma followed by 17% who earned a Bachelor’s degree in college. West High School is one of six high schools in a large high school district, and it is a growing campus with a student enrollment of 2,670 students with an ethnic/racial breakdown of 55% - Hispanic, 39% - White, 4% - Asian, and 1% - Black (SARC, 2012). Within the student population, 38% qualify for low income services and 8% are designated English Language Learners (SARC, 2012). West High School employs 95 teachers with an average class size of 33, and the school’s graduation rate is 98% (SARC, 2012).

South High School [pseudonym] is located in rapidly growing area north of Dallas. In 2010 census recorded a steadily growing population of 84,246. The average household income is $109,240 and 46% of the city’s residents hold a college degree.
South High School is the only high school (grades 10-12) in a school district with an enrollment of 3,981 students (Academic Excellence Indicator System, 2012). The city is also home to a freshmen school exclusively for 9th graders which was not included in this study. The ethnic/racial demographics of South High School are 59.9% - White, 14.5% - Hispanic, 11% Black and 9.7% Asian (Academic Excellence Indicator System, 2012). Within the student population, 15.3% of students are socio-economic disadvantaged, 2.1% are English Language Learners, and 10.4% receive Special Education services (Academic Excellence Indicator System, 2012). South High School employs 217 teachers with an average class size of 22 students, and the school’s graduation rate is 98.5% (Academic Excellence Indicator System, 2012).

**Site selection.** All three sites were selected based on a criterion-based sampling. The first criterion was that all three schools have received awards and public notoriety for sustained growth in student achievement. Secondly, all three sites attribute the success of their programs to the Professional Learning Community model described by school reformer, Rick Dufour. And the final criterion was that each site introduced demographic diversity of geographic location to the study. These sites have been carefully selected to support in the transferability of the data collected in this research to other secondary schools seeking to increase student performance.

**Research Sample and Data Sources**

Since the purpose of this study was to explore the best practices of effective secondary schools as shown in state and federal accountability measurements, the primary sources of data were teachers, administrators, and documents from the three schools. Researcher notes were also used to log observations of the sites in the study.
Typically, the gatekeeper was the primary contact person for each site; this person was identified contingent upon the individual research requirements for the school district. Site data was collected in focus groups and interviews. Focus groups consisting of five to eight teachers were organized from each of the three campuses visited. Teacher participants were chosen based on feedback from the gatekeeper and administrators from each school. Interviews were conducted with two to three administrators from each of the three sites to examine the best practices of the Professional Learning Community model at each site. All interviews and focus groups were recorded using a digital recorder and digital files were used for transcription purposes. Transcripts were then coded to identify the best practices shared by each school in the study. Site documents were also analyzed to discover the common codes present at all three research sites in the tradition of the grounded theory.

**Sampling strategies.** This study utilized a mixed sampling strategy using both the snowball and the opportunistic strategies. According to Creswell (2008), in snowball strategy to sampling, participants suggest others to become part of the sample group. Conversations with district gatekeepers revealed persons of interest; in addition, the interviewees provided critical connections to vital sampling opportunities for both interview and focus group participants. The organic nature of the grounded theory approach also supported the use of opportunistic approach of sampling. Creswell (2008) states that the sample group emerges during inquiry process with opportunistic sampling approach and “takes advantage of emerging events that will help answer the research questions” (p. 216). While I was exploring the best practices of the three high schools, I
also discovered additional participants and documentation that provided essential data for this research.

**Appropriateness of sampling strategies.** Following the tradition of grounded theory, the snowball sampling approach revealed the identity of hidden participants in this study. Once a single data source was identified, it led to other participants to complete the sample size needed at each school. Although the snowball approach to sampling did not guarantee representation of the entire population being studied, by using this strategy participants were revealed who added vital data to this research that might have otherwise been overlooked.

This study also employed the opportunistic sampling strategy. The fieldwork itself led to the opportunistic strategy exposing potential data sources as the case studies unfolded. During the interview portion of the data collection, administrators revealed additional participants who have been a vital part of the school’s success. These participants were asked to either join a focus group or be interviewed via telephone at each of the three sites to reveal specific insights into the effectiveness of the PLC model.

**Ethical issues.** The primary ethical issue of this research was to protect the identity of the research sample. Careful safeguards were put into place to ensure the anonymity of each participant. Each participant as well as the specific research setting was given a pseudonym in order to protect confidentiality. Participants were also provided Informed Consent Forms which included a confidentiality clause to protect identities. Interviews and focus groups were digitally recorded and transcribed. These files were downloaded on a computer that is password protected and was kept locked in the researcher’s primary residence. Transcribed files will be kept for one year after the
conclusion of the study. The proposal for this research was also approved by the California State Northridge Institutional Review Board as well as individual site and district review processes.

**Instruments and Procedures**

Procedures were developed to ensure the protection of human subjects in the study to explore the primary research question, “What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements?” Three instruments were used to preserve the integrity of participants: an invitation email, an Adult Informed Consent Form, and Protocols for both interviews and focus groups. These documents are located in the Appendices section of this document.

**Data procedures.** Instruments in this study were developed using the theoretical framework of the PLC model to explore the best practices of effective secondary schools. Interview and focus group questions were created to specifically illicit insights of the practice of collaboration, assessment and intervention at each school. In addition, participants were selected based on their ability to contribute data to the study. Using the Professional Learning Communities’ model as a conceptual framework, all the interviews, focus groups, and survey questions were linked to the three characteristics of this model. These characteristics include: staff collaboration, assessment, and directed interventions. Creswell (2008) describes grounded theory data collection, stating that “people were intentionally sampled because they could provide information about the generation of the theory” (p. 453). Once sites were identified, each potential interviewee was emailed an invitation to participate in the study. This email included the purpose of the study, time requirements, and potential risks of the study. Focus group participants
were chosen by the site gatekeepers and were invited to attend the meeting. Due to the geographic distance between the sites, follow up phone interviews were necessary if the participant was not available during the site visit.

Prior to data collection, participants were given Interview or Focus Group Protocols which included a welcome and purpose of the study, confidentiality statement, informed consent forms, as well as specific interview questions. [See Appendices A, B, and C] This Protocol also included debriefing information and how the questions will be used in the study. Questions for both interviews and focus groups were divided between three broad categories based on the conceptual framework of the PLC model: collaboration, assessments, and directed intervention. Interview participants were asked in-depth questions regarding the best practices of the PLC model at their school to provide a background for a better understanding of the school climate that they might have been reluctant to answer candidly in a focus group setting. Focus group participants were questioned using open ended questions which facilitated associated ideas from their colleagues’ previous responses.

All gatekeepers were emailed a confirmation of the dates of the visit and provided with specific questions and protocols used with both interviews and focus groups. Gatekeepers then arranged the location of the focus group and interviews at their respective sites. Participants of both interviews and focus groups were given an Adult Informed Consent Form [See Appendices B and C] advising them of their rights and responsibilities for the study. The Adult Informed Consent Form also provided specific information about the confidentiality of the study, data storage, and withdrawal from the study. This included a Protocol Form with information regarding the overall purpose of
this study, time requirements, and specific interview questions. Letters of site/district approval were obtained from each site gatekeeper and were included in the California State University IRB packet for approval prior to data collection.

Data Collection

Data instruments used in this study were designed for the dual purpose to protect the integrity of human subjects while exploring the best practices of secondary schools. Instruments were chosen in order to limit the risk and inconvenience upon those who provided data for this study. For example, participants were contacted through email as this is the least invasive method of communication. In addition, if participants were not available during the site visit, follow up phone interviews were arranged to collect data on a digital recorder. In order to effectively communicate the risks involved, the Adult Consent Form was designed so that participants knew upfront the requirements of the study. In addition, a Protocol Form was also presented so that participants understood the overall purpose of the study and interview questions that were asked in either the interview or focus group formats.

Rationale for data collection methods. Using the Professional Learning Communities’ model as a conceptual framework, all interview focus group and survey questions were linked to the three characteristics of this model; these characteristics included: staff collaboration, assessment, and directed interventions. The snowball and opportunistic approaches interview questioning uncovered pertinent data related to the best practices of three school sites in the study. Follow up questions identified specific practices which provided valuable insights for other secondary schools as they address the issue of raising student achievement.
Participants were given an overview of the research and protocols which clearly outlined the safeguards to protect the anonymity of those in the study. They were informed that all names have been changed to pseudonyms and data collected will be stored for one year on a password protected computer in the researcher’s primary residence; only the researcher and the transcription service were given direct access to data collected in this study. Using the grounded theory tradition of qualitative research data collection evolved organically. The procedures used for this dissertation were interviews, focus groups, and document analysis.

**Interviews.** During the initial conversations with the gatekeepers both site and district administrators were identified who would be appropriate for the interview process. These participants were contacted by email or meetings were arranged to invite them to participate in an interview. The rationale was that administrators were able to provide an overview of the schools’ systems that have supported best practices and have facilitated sustained growth using the PLC model. Ideally three administrators from each of the three school sites were chosen to participate. Due to time constraints at South High School, administrators were included in the Focus Group interview which was followed by two phone interviews with individual site and district administration which followed the site visit. At North and South high schools phone interviews were also conducted following the site visit due to time constraints. A total of seven individual interviews were conducted for the study with both site and district administrators. Interviews consisted of 15 questions and lasted from 35 to 60 minutes each. School gatekeepers arranged suitable settings for the interview or phone interviews were
arranged through email communication. All interviews were digitally recorded and sent to a transcription service to obtain a hard copy of the interview for coding.

**Focus groups.** In addition to data collection from individual interviews with administration, teachers were identified by the gatekeepers who would be appropriate participants for the focus group based on their interaction with the PLC model at their sites. The gatekeepers/administration arranged the focus group participants and the setting for the meeting. The focus group at North High School was embedded in a full day site visit and tour which generated additional data for the study. Each focus group contained eight to ten participants from each of the school sites. Focus group members were asked 15 questions and lasted approximately 60 minutes. The North High School focus group generated its own set of questions which mirrored the ones in this study. I was able to ask additional follow up questions to provide context and clarity to their pre-arranged questions. In addition to researcher notes, all but one of the focus group meetings were digitally recorded and sent to transcription service to generate a hard copy of the meetings.

**Document analysis.** During the interviews and focus groups, both state and federal school and assessment data were used to provide a backdrop for the data collected for this study; this also included data obtained from the city/community websites and United States census records. In addition, individual site documents such as bell schedules, promotional flyers, and handouts regarding special intervention programs were collected to aid with the data collection process. Permission was requested to make a photocopy of unsecured hard copy documents from the sites. Any identifiable data was removed that would compromise the anonymity of this research.
Exiting the field. At the conclusion of the data collection process, participants were thanked for their time and were advised that they have 48 hours to withdraw from the study. Schools were also advised that they would be given access to this dissertation and the findings of this study upon completion.

**Data Analysis**

Preliminary analysis began during the data collection process, as researcher notes were kept to log observations in the field. Data collection was recorded digitally and files were transcribed both by the researcher and a transcriptionist. Although there was an expectation that transcription data would be uploaded to Atlas ti qualitative analysis research software, instead individual researcher coding was found to be more beneficial in the initial identification of preliminary codes and was used throughout the research process. Glesne (2011) suggests that researchers should began a codebook shortly after data collection begins. As common codes emerged, they were organized into themes based on the conceptual framework following the tradition of the grounded theory approach. Individual coding was graphed and was organized for easy access. Transcriptions were reviewed several times for clarification and for the purpose of the elimination of errors.

**Thematic data analysis.** Interview and focus group data were transcribed using a detailed coding system based on the conceptual framework of the Professional Learning Community (PLC) model. The PLC model is based on three tenants: staff collaboration, assessment, and directed interventions. Staff collaboration involves the time teachers spend analyzing student data and effective classroom strategies. In the PLC model teachers use common assessments as diagnostic approach to teaching, analyzing student
mastery of standards midway through the lesson cycle so that they can teach missed concepts. Once struggling students are identified, schools using the PLC model place students in directed interventions to scaffold instruction to ensure the student does not fall behind. Using the PLC framework as a theme, codes evolved organically; the grounded theory approach permitted the best practices to emerge authentically among the three sites in this study. Organizing these common codes into detailed themes shed light on the effective strategies used in each of the schools in this multi-site case study.

**Timeline.** It was my goal to begin data collection in the summer of 2012 with completion in the fall semester of 2012. Unexpected delays in obtaining university and site approvals delayed anticipated data collection which was not completed until the spring semester of 2013. Due to the geographical distance between sites, several follow up phone interviews occurred following site visits at both North and South high schools.

**Role of the Researcher**

Merriam (1998) defines the role of the researcher as “the primary instrument for data collection and analysis” (p.7). As a researcher in this multi-site case study these dual roles were employed in attempt to answer the primary research question: What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements? While examining this research question it is understood that that researchers must be aware of their own subjectivity in order to effectively analyze their data.

**Researcher bias.** Researchers must safeguard from introducing their own bias study. As a high school administrator and former teacher, I come to this study with subjectivity in this area. I subscribe to the ideology that in order to initiate sustained
school reform, teachers must become more diagnostic in the classroom. It has been my experience that the use of formative assessments is an effective instructional tool to assist teachers in pinpointing specific learning deficits and save valuable instructional time reteaching only needed information. Understanding this subjectivity allowed me to objectively explore the methods used by the other high schools to increase student achievement.

I also have prior knowledge that the three schools selected in this study have been using the Professional Learning Community (PLC) strategies as explained in the book, *Raising the Bar, Closing the Gap* (Dufour, Dufour, & Eaker, 2001). In addition to allotted teacher collaboration time, I am aware that the PLC model also includes the use of common formative assessments and directed interventions for struggling students. I was careful not to project my own understanding of PLCs in this research, but to carefully examine the best practices of the three schools that have facilitated an increase in student achievement. In lieu of these concerns, I seek to preserve the credibility of this study by the triangulation of data which will include: interviews, surveys, and document analysis.

**Participant reactivity.** Due to the notoriety of the success of these three schools, I had to obtain a variety of data sources including state and federal accountability measures to preserve an unbiased approach to this study. There was a concern that participants would only present favorable data to support the already positive publicity for their schools. Mostly this was a correct assumption; however, most claims were backed by hard data to support their claims.
Effect of the case on the researcher. On a similar note, given the positive appraisal of these schools in the literature, I had to guard against projecting high expectations onto these schools in order to effectively analyze the data. At the risk of becoming too critical or too optimistic based on notoriety, acknowledging my own bias and carefully guarding this subjectivity prevented me from becoming too prescriptive with my analysis of the overall research.

Summary

In conclusion, I selected a multi-site case study for this research, using a grounded theory approach to explore the best practices of effective secondary schools as evidenced by state and federal accountability measurements. Three high schools were selected because they currently use the professional learning community model described in this study. Using the Dufour PLC theoretical framework of collaboration, assessment and directed interventions, both interview and focus group questions were designed to elicit insights to the best practices of the three schools.

Careful consideration was given to protecting the rights of human subjects of this study by establishing a structure for protecting their anonymity and the overall confidentiality of this study. Research protocols were established to obtain informed consent of participants and to communicate the overall objectives of the study to the California State – Northridge Institutional Review Board as well as school site administrations.
Chapter 4 – Findings

The purpose of this case study was to explore the best instructional practices of three high schools in which the Professional Learning Community model has been implemented. Through the lens of the PLC model (collaboration, assessment, and interventions) this study sought to explore those best practices which have allowed each school to exhibit sustained growth on state and federal assessments. In addition, this research utilized the conceptual framework of the Dufour (1998) Professional Learning Communities (PLC) model to answer the following research question: What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements? In addition, three sub-research questions were addressed using the Professional Learning Community model:

1. How does the staff perceive that collaboration impacts student achievement?
2. How do teachers assess student progress toward mastery of desired learning outcomes?
3. How does the school address the needs of struggling students?

This chapter describes the findings of this case study which examined the best practices of three geographically diverse high schools which have implemented the PLC model and have demonstrated documented success on both state and federal accountability measurements. This chapter also contains a detailed description of findings as they relate to the primary and secondary research questions within the conceptual PLC framework of collaboration, assessment, and directed interventions.
Overview of Methodology

Data was collected through a series of eight interviews and three focus groups, and a document analysis was conducted to triangulate the study using both state and federal assessment data, School Report Cards (SARC), and information gathered from school publications and websites. Interview and focus group data was sent to a transcription service. After transcription, the data collected was organized in a spreadsheet and was then categorized by themes using the PLC conceptual framework of collaboration, assessment, and directed interventions. In addition to the conceptual framework, themes of school culture and school leadership also emerged from the data. This process was followed by a system of axial coding which connected individual codes to the broader themes in the conceptual framework to determine the best practices of each of the schools in the study. Each school was then given a pseudonym to represent its geographic region without compromising the identity of the site. During the series of axial coding, it was determined that although the schools had taken different approaches in implementing the PLC model, the best practices were similar in nature. This chapter examines this phenomena categorized within the conceptual framework while answering the primary and secondary research questions proposed by the study.

Best Practices

According to the Connecticut Department of Education, “the term, Best Practice, has been used to describe ‘what works’ in a particular situation or environment. When data supports the success of a practice, it is referred to as a research-based practice or scientifically based practice” (SERC, 2013). Research-based instructional practice using the PLC model has been credited as the reason that the three schools in this
study have consistently shown growth in state and federal accountability measures. The examination of the best practices of the three sites in this case study reflected a cyclic effect of the Dufour (1998) Professional Learning Community conceptual framework of collaboration, assessment, and directed interventions. Each facet of the framework revealed a direct impact on the other two areas. Supovitz (2002) defines an ideal culture of instruction which continuously identifies, explores, and assesses instructional strategies. For example, teacher collaboration focused on data generated from formative assessments, which identified students needing specific interventions. These interventions and assessments then generated data used during faculty collaboration. Bunker (2008) states that teams should be involved in ongoing evaluation, which includes creation of student-centered, measurable goals that are measured with common formative assessments. In addition, it was also noted that two additional elements of district and site leadership as well as the overall climate of the school also supported the best practices. It was also noted that there was a similarity of best practices despite the geographic distance and the diversity of the student populations at each the three schools. Although there was a slight difference in the implementation of the best practices, each of the three schools used some variation of the conceptual framework discussed in this chapter.

**Collaboration**

According to Champion (2005), collaboration time is a sacred time for teachers to “meet without fear of being judged in informal, small groups of colleagues using their own student data to talk and make meaning together” (p. 62). In an attempt to answer the sub-question, “How does the staff perceive that collaboration impacts student
achievement?” participants stated that the collaborative nature of their school was deeply embedded in the culture of the school. Many participants referred to their school as a “family” and that collaboration was connected to the mission of their school. When asked what made their school special, a South High School teacher quickly responded, “Collaboration is what makes us special.” Another South High School teacher elaborated their thoughts of what made their school special:

The way we collaborate… we truly are a learning community. We draw from each other. We also draw from our students. So, I think that’s what makes us [South High School] tick.

Fullan (2010) contends “collective capacity generates the emotional commitment and the technical expertise that no amount of individual capacity working alone can come close to matching” (p. xiii). Each of the three schools demonstrated a deep commitment to data-driven decision making in their collaborative groups using student generated data from both formative and summative assessments to determine not only instructional practice, but to prescribe directed interventions for students. A teacher at North High School echoed the same vision at his school stating that the collaborative work allows teachers to focus on student data to define instructional practices at the school.

Well, I would say the most special thing about this school is its collaboration and its commitment to really being reflective about the type of curriculum and instruction that we work to implement, the way that we work with assessment to better understand student performance and I
think those set a pretty big and special thing. So the better collaborative work that we do really focuses in on the data driven decisions that help us to better understand where students are really at and where do we want to take them and how could we get them there.

This commitment to collaborative data-driven decision making was visible at each of the sites. Dufour (2006) states “people in such a community [PLC] are relentless in questioning the status quo, seeking new methods, and then reflecting on the results” (p. 26). It was noted that each of the three high schools have created a school culture based on collaboration. New teachers are hired based on an understanding that collaboration is a part of their job responsibilities. A teacher at West High School described the intentional collaborative design at the school:

We set it up that way, when we have people come on board, we front load it, this [collaboration] is how we work, this is how we are, this [collaboration] is what is expected. So we don’t have those mavericks that are sort of isolated in their own little world.

When asked about collaboration at his site, an administrator at South High School stated, “You can’t hide in your classroom.” The collaborative culture at the three schools has labeled isolationism in the classroom as taboo and not acceptable by their peers. This ideology was confirmed by teachers in the South High School focus group:

I think that PLCs are not only expected in learning communities, in the nicest possible way, they almost
demand it here. And, it sounds harsh, but it turns out. And, we work in, you learn to know, not just expectations, but this is the way we do it. And, regardless of what your feelings are at the beginning, you come on board and you get done, and then you just, you really see how much better it does make your teaching.

Collaboration is an ongoing process which fueled the development of common formative and summative assessments in order to produce data for specific student interventions in both the classroom and to identify students for a systematic pull out program to remedy identified gaps in their knowledge. The collaborative process was focused on student success in lieu of traditional department housekeeping duties such as ordering instructional materials or administrative duties.

**Student-centered collaboration.** Participants at each site articulated that collaboration at their site was student–centered and focused on student success. Although the term, Professional Learning Community, is used loosely in some educational communities to describe gatherings ranging from generic department meetings to a diagnostic use of data to inform instruction, it is apparent at the three schools that collaboration time was dedicated to the discussion of best practices to improve student achievement. Ravitch (2010) asserts “the most durable way to improve schools is to improve curriculum and instruction and to improve the conditions in which teachers work and children learn, rather than endlessly squabbling over how school systems should be organized, managed, and controlled (p. 225). When asked about the mission of North High School, the superintendent commented:
I’d have to say that it begins with our school’s mission statement of success for every student. And I fully appreciate that in a lot of places that mission statements become clichés that we just kind of toss out there and probably pay not a whole lot of attention to… I mean we really take that mission statement to heart, and try to focus in providing a great educational experience for every single kid, and knowing that it’s going to be different for all those students… without that overriding mission statement of success for every student and the desire to really dial in and help each and every kid, I don’t think any of the other stuff really matters.

An administrator at South High School stated, “Our mission, if you will, is to help each child reach his/her full potential. From that, it’s the graduate profile; it’s all the other things from the big picture right back down to our mission on that divergent learner.” This administrator also pinpointed their purpose of collaboration “… we are no longer focused on teaching; we are focused only on the learning.” A teacher at South High School confirmed this belief, stating:

This is my sixth school to be in, and what I noticed here is that we talk a lot about students… We’re in a meeting, and he [Principal] said we don’t want to talk about parking lot material, you know, papers and so. We want to talk about students. And, that’s the theme, when we are ever
discussing something as a bottom line, someone will say
well, what’s best for students? And, that is not the attitude
that all schools take.

In addition to site-level collaboration meetings, West High School meets monthly with
other teachers in the district to discuss best practices and to evaluate common
assessments. Affirming the same dedication of student success, when asked about the
frequency of district-wide collaboration meetings, a teacher at West High School replied:

It depends on the course and depending on the need of the
group. Some groups have a midway through the year
meeting and meet again in the summer. Some groups
choose to have meetings every quarter. And again that goes
out of the need to help students be more successful. How
did you do something at your school that proved to be
successful for your kids and is it something we can replicate
or tweak to be able to fit our student population?

In addition to being student-centered, participants also voiced that collaboration ensured
equity for all students despite the teacher or school site. Since teachers share their best
practices, all students obtain the same rigor from all instructors. Regardless of class
transfers or specific instructor, students were ensured a common curriculum in each
department as a result of collaboration. Kams (2010) contends that equal outcomes in
education are non-negotiable; it is a student civil right (p. 8). A teacher at South High
School stated:
I think in a school this size, the team concept really helps
… Instead of individual teachers doing what they want; it
helps to insure that the kids are getting an equal education.
It’s not just right, if you’re in her class, you don’t have to
do what everybody else is doing. And that, it helps our
kids, it’s just good. It’s just good management for our kids
too, in making sure that they get equal opportunity to level
the playing field.

By keeping students the primary focus of collaboration, it ensured another level of
accountability for the adults on campus to make decisions based on what is best for
learning. The same sentiment was reflected by a teacher at North High School:

Success for every student is the mission [at North High
School] and I think that everyone is really committed to
that… You hear people say it over and over again. And,
whenever we are making decisions, we will often just
remind ourselves of how this decision is going to be good
for students. In part, it is about the mission, in part it is
about actualizing that mission to do it every day.

Regardless of the system of collaboration, participants in the study assert that the primary
focus of their collaborative work is focused on student success. The everyday business
and operation functions of departments are handled outside the collaborative window.
Teachers have a clear purpose of improving student achievement, and they use their
designated collaboration time together to discuss best practices and the steps that need to be taken to ensure that the needs of their students are being met.

**Embedded collaboration time.** Another finding involved collaboration time being built into the instructional week. This practice allowed teachers to meet weekly using either a traditional bell schedule with a late school start or common teacher planning periods on a modified block schedule. Both North and West high schools preferred the traditional bell schedule with late start for students weekly, but South High School opted to use 90 minute common planning periods for teacher collaboration on a modified block schedule. The common thread in all three schools was that this dedicated time was designed to be used to discuss student data or instructional strategies, not typical housekeeping-type duties such as ordering supplies which is often done in traditional department meetings. This model also prevents absenteeism by staff members who have extracurricular responsibilities after school. The principal of South High School described the decision to embed collaboration time into the school day:

We decided as a building, and actually right before I even became a principal here, that we were going to build it into the schedule because I think it is difficult for teachers to meet outside of their day. So, we built it in so that we could try to make sure that the team members have a common planning period. And so, they’re able to use that, and not have to meet before school or after school. And, that’s huge and is really hard, initially, because we have a lot of tutorials that happen. It’s this important to us as your
administrators. So, we want it to be that important to you as teachers.

**Teacher voice.** Another finding involved the evolution of teacher leadership capacity. Participants indicated that teachers had a powerful leadership role in setting their own agendas for collaboration at each of the three sites. It was evident that teachers in the PLCs were regarded as the experts in planning their collaboration efforts. While administration provided the overall vision for the school, teacher voice was evident in the actual implementation of the shared vision through the items on their agendas in PLCs involving the actual implementation of the vision. For example, the principal of North High School stated that increasing ACT scores was a school-wide goal for the year. Social science teachers were observed meeting to discuss sharing a common academic vocabulary to support a better understanding of exam questions. Although many of South High School’s curricular decisions are mandated by their state, a teacher articulated the underlying role of teacher voice was apparent in the implementation of curricular standards:

> And, we know what our directives are from the state, and we know what our department expects. But then, it’s down to the nitty gritty what are we as a team going to decide in terms of what happens in the class.

Although general topics might have originated from site or district administration, the actual execution of the concept was carried out by teachers and varied from department to
department. For example, the topic of formative assessments was given to the teachers at North High School, but each PLC was given the autonomy to implement the vision within their own department. The Superintendent of North High School stated:

We really feel like the content, in terms of content and skills, the curriculum, instruction and assessment methodology should all be made at a team level, and that ultimately, those are approved by the divisional department chairs and the principal. But the team is the smallest unit of instructional change.

While administration at each of the three schools stated that the site administration or district will set overall goals for the year, teachers are allowed to set their own professional agendas for the weekly collaboration meetings.

**Additional curriculum position.** Erkens and Twadell (2012) assert that school leaders must not only have a “deep clarity” about the work that needs to be accomplished, but they also need to build leadership capacity in others to achieve the goals of PLCs. In addition to a traditional department chair, each of the three schools created a coordinator-type position to generate data and set the agendas for the PLCs. This additional position provided assistance to teachers by coordinating the work of the PLC including setting agendas, collecting data, and focusing the group’s work in a meaningful way. This position was not combined with traditional department chair duties which typically involve the ordering of supplies and administrative communication with teachers; but instead it was an additional staff member who “created clarity” of the work that the PLC needed to accomplish. By creating an additional position, administration was supporting
leadership capacity in teachers and giving them the tools that they needed to be successful in their work as well as avoiding overburdening one position with the additional duties of the PLC. For example, at West High School in addition to a traditional department chair, each core department also has a “Course Lead” position described by a teacher:

Each school site has X number of Course Lead positions available. From school to school we may not have all the same courses with a Course Lead attached to them, but for the most part the core courses and world language courses will have a Course Lead. That Course Lead is a designated person who really kind of oversees the management of common assessments or common pacing guides or common resources.

A similar position called a “Team Lead” was also available at South High School. A district official explained the difference between the Department Chair and the Team Lead:

They are different. Both, in the four cores, ELA, math, and science, the department chair that we now call an Academic Associate does not teach. Okay? So they really function more like an instructional coach at times. They do lessons. They do a lot of curriculum work. Social Studies, he teaches part time because he wants to. Then Team Leads, have an extra planning period off but they are still teaching.
The extra curriculum position is called “Division Directors” at North High School. The Division Leaders are responsible setting the agendas for collaboration, disaggregation of student data and coordinating teachers. A coordinator/teacher at North High School stated:

They meet generally once a week in collaborative teams that are designed by their Division Directors. For instance if I were the Director of science, I would pose a team around a biology class for freshmen editors levels, or say a team of biology and those teachers would meet once a week. Then they meet in impromptu ways throughout the week. I would say that the collaboration really works in a way that sort of sets a meeting into motion.

All three sites recognized the need for an additional leader to coordinate the events of their Professional Learning Communities in the core subject areas, which has different job responsibilities from a traditional department chair who coordinates the overall operations of the department. This added position takes the burden from teachers to make the time to set PLC agendas and disaggregate data on a regular basis from team collaboration meetings.

**Assessment**

Dufour (2006) states, that continuous improvement [in schools] must be assessed on the basis of results rather than intentions (p. 29). When asking the second research question, “How do teachers assess student progress toward mastery of desired learning outcomes?” it was discovered that another common practice the three schools are using is
assessment as a diagnostic tool to pinpoint student learning deficits. The research of Black and William (1998a) found that the use of formative assessments in the classroom can increase student performance of approximately 26 percentile points. Each of the three high schools has developed common assessments at both the site and district levels. The three schools in this study have also embedded assessment data into their collaboration process. In addition, the districts also administer periodic benchmark exams to provide feedback to teachers prior to state mandated exams in the core subject areas.

**Formative assessments.** Dufour (2004) posed a fundamental question of the PLC model, “What is it we want students to learn and how will we know when each student has learned it?” (p. 46). Each of the three high schools is committed to the development and implementation of common formative assessments to quickly identify and correct gaps in knowledge. It was observed that some of the schools are further along with the process; however, reteaching missed concepts was an integral part of ensuring student success at the schools. Bunker (2008) suggests that teams should be involved in ongoing evaluation, which includes creation of student-centered, measurable goals that are measured with common formative assessments. Although the three schools are at varied places with implementation, each of the three sites is becoming more diagnostic in the classroom. Both summative and formative assessment student data are brought back to the PLC to discuss best practices and to share ideas to increase mastery of missed concepts. The Director of Curriculum for the South High School district reported:
Many of the teams, I’m not going to say to you everyone but many of the teams are amazingly high functioning with using common formative assessments. That was a piece that we brought in a couple of years after we started PLC. So you’ll see people like Geometry, Algebra II, Chemistry, Physics reviewing a common formative assessment and saying things like “well the kids did pretty well on question one but question seven tests the same thing. What’s that about that?” or “the kids that don’t know this, I’m gonna have to pull them for a small group.” You’ll hear those kinds of conversations in collaborative work at South High School [pseudonym.]

An administrator at West High School shared that teachers also use summative test data to reteach missed standards in using the same diagnostic purpose of a formative assessments:

It’s hard to see really any assessment that our teachers are given as truly summative because there’s so much work done with the assessments and with the data that it is constantly cycled back, constantly looked at again until the semester final. And then even semester finals, a lot of our groups have even given finals prior to CST’s up to that point, so they could look at it and rework it before state assessments are given.
Regardless of when the exam is given teachers viewed assessment as a diagnostic tool to reteach missed standards and bridge gaps in student understanding. This diagnostic practice can be credited for the positive performance on state and federal assessments despite vast differences in student demographics in the three high schools. This common practice overshadowed the diversity of the schools: North High School is located in an affluent suburban area in the northern United States, West High School is located in an urban high poverty region of the western United States and South High School is located in a middle-class region of the southern United States. Each of the three schools in the case study demonstrated sustained growth on state and federal accountability measurements as a result of the diagnostic practice of evaluating student data collaboratively and then prescribing directed interventions to support academic success.

**Ongoing system of assessment.** Marzano’s (2007) Finding Four contends that formative classroom assessments should be frequent: “while there is no set number of assessments that should be administered during a unit of instruction or grading period, the message from the research is clear: systematic use of classroom assessments -- weekly or even more frequently -- can have a strong positive effect on student achievement” (p. 106). In addition to being diagnostic in nature, the schools also had an ongoing system of administering exams. For example, the purpose of giving assessments at West High School had a clear purpose to generate data in order to evaluate the best practices in the classroom rather than an instrument to merely assign student grades. An administrator at West High School stated:

Groups [PLCs] who have been doing the assessments for a long time have really worked out the knack for using the
data and how you use it and what you do with it and
incorporating students in that analysis versus some of our
subjects who are more new to giving the common
assessments aren’t quite there yet but after every
assessment is given [data is analyzed] -- so most are at least
quarterly.

This ongoing practice of assessments provided a steady stream of student data which was
evaluated in PLCs. Results were evaluated regularly, providing teachers a place to
discuss instructional strategies that work and those that did not provide strong student
data. Using student data allowed teachers to share best instructional strategies with each
other based on success of their students’ performance on the assessments. A teacher at
South High School echoed this practice of using formative assessment data to examine
best practices in their PLC meetings:

Teacher 1: And, when we’re in our planning meetings, we
get that [assessment data] feedback. Well, they’re all
missing this one [question.] Teacher 2: We’ll find out that
my student missed it, but your student did not. So, maybe
you’re doing something a little different. So, we get a
chance to talk. So, what are you doing that they can get
that concept?

The possibility of improving student achievement using formative assessments is so
promising that the superintendent of North High School shared that using formative
assessments is currently a primary goal in their district:
We’re really focusing on all of our formative assessment work. We think that it ultimately is going to be a better experience for kids and teachers, and give kids much better feedback. So that’s where our efforts have been the past couple of years.

Participants from each of the three schools indicated that assessment was used as a tool to inform teachers of student mastery of standards. Data from these assessments generated meaningful feedback for teachers to determine the level of student mastery of desired concepts not merely an instrument to assign student grades.

**Teacher generated assessments.** Administration and teachers from each site stated that assessment tools used at the schools are generated by teachers. Popham (2006) sharply criticized the use of publisher generated formative assessments, stating that test publishers have “hijacked” the concept in lieu of formal testing systems. The Director of Curriculum and Instruction at South High School’s district explained the district’s ideology of assessment:

So here’s what we believe, if you understand assessment and the true idea around formative assessment, then a common formative assessment has to be created by the people teaching the concept. And it has to be created with a team who understand each other’s teaching styles and who is going to help get instructional strategies together.

Administrators stated that this practice allowed teachers to gauge the data that was being generated and use the information to direct their instruction. This practice also allows
teachers to identify specific gaps in knowledge so that they can address them quickly and
assign specific interventions if necessary. The principal of West High School stated that
teachers in her district fought to maintain control of the assessment process:

And I think that it’s the one piece that our teachers have
really fought to hold onto because as we went down the
whole CST and NCLB path the last several years, it’s the
one thing on our campus that a lot of our teachers are trying
to hold onto that they didn’t want everything to be about a
summative assessment that was just an test. And so there’s
a lot of formative assessment that takes place. I think
checking for understanding is something that our teachers
do really well in class.

Since the passage of NCLB, teachers are keenly aware of their accountability of student
learning outcomes. Guskey (2007) asserts “they [teachers] need to see assessments as an
integral part of the instructional process and an essential element in their efforts to help
students learn” (p.16). Developing their own assessments allows them to directly
pinpoint gaps that need additional instruction. In addition, by allowing teachers to
generate their own assessments, they can design the depth of knowledge measured in the
assessment. A House Principal at South High School explained that in addition to
identifying gaps in knowledge teachers can also better evaluate the depth rigor in their
own assessments:

The House Principal is the instructional leader, so that
person will join the team and talk about – so show me the
depth of knowledge is assessment, the level one, two three, or four? [refers to rigor of assessment question] Most of our state assessment is depth of knowledge level two. There is some three and some one, but the majority of it is two. So, when we then look at the assessment, we may go back and say well, of these 20 problems that we’ve come up with as a team, less than half are level twos. The other half are level one or it’s all level one. This is not a good common point of assessment. They didn’t increase the rigor.

In addition, each of the three districts set aside time for teachers to design assessments. Some districts paid teachers for time during summer months during collaboration time; others used time during district collaboration meetings to design common assessments. It was apparent at all three high schools that district administration supported the development of teacher-generated assessments and opted to pay for teaches to design them rather than to purchase pre-fabricated exams.

Data – driven decision making. Stiggins (2007) states that “once the information needs of assessment have been identified, achievement expectations are in place and accurate assessments are being used, the foundation is laid for gathering good data” (p. 68). The frequency in which common assessments were administered varied from site to site and from department to department at each school. Although district benchmark exams were given at each school typically quarterly in each of the core subject areas, PLCs were allowed to determine the frequency of their common formative assessments based on specific student needs. In most cases the data generated from the
assessments were disaggregated by district-purchased software programs which allowed teachers to quickly identify missed questions and compare their results with colleagues in the PLC. Typically the duty of processing this data was assigned to the individual serving in the additional curriculum position in the school. North and West high schools’ districts worked with a software publisher to design a program specifically made for the schools in their district. South High School’s district used more traditional spreadsheet software and shared them via Google docs with other members in their PLC. Each of the three schools closely monitored student data to determine the appropriate level of student interventions.

Interventions

To answer the third research question, “How does the school address the needs of struggling students?” an examination of the three schools’ intervention programs was conducted. Buffum, Mattos & Weber (2009) assert that “the essential characteristics of a professional learning community are perfectly aligned with the fundamental elements of response to intervention” (p. 49). Each school demonstrated a clearly defined systemic use of the Response to Intervention (RtI) model, moving students up the pyramid of interventions based on individual student needs. Each of the three schools offered a wide array of intervention programs based on individual student needs. Student progress was evaluated on a regular basis and moved throughout the RtI levels as needed.
<table>
<thead>
<tr>
<th>Tier One</th>
<th>North High School</th>
<th>West High School</th>
<th>South High School</th>
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<tbody>
<tr>
<td></td>
<td>Freshman Mentor Program – upper classmen mentoring incoming students both academically/socially</td>
<td>Freshman Advisory - (Link Crew) upper classmen provide additional academic/social support to incoming freshmen, Academic Mentor Program (Peer Tutors) – upper classmen assist with differentiated instruction in the classroom.</td>
<td>Freshman Center – all 9th graders attend school at a separate school site to assist with transition to high school. Eagle Depot – facility open for students to drop in throughout the day to receive assistance from Peer Tutors or paraprofessionals. Tutorials – each teacher is assigned a tutorial period and students may come in for assistance during off periods.</td>
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<td>Learning Center – staffed by credentialed teachers through school day.</td>
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| Tier Two | Reading, Writing and Algebra Enrichment – additional class for incoming 9th graders who score low on district benchmarks. Guided Study Hall – 10th-12th grade. No set curriculum, work with teacher to improve performance, more in and out of class based on need. Mentor Math – 11th-12th grades, additional class to pre-teach concepts in Algebra and Geometry. | Study Hall – any student with less than 2.0 is assigned a study hall. Lunch Tutorials – assigned every 5 weeks based on GPA. Students who demonstrate proficiency have an extended lunch period. | Peer Tutors – struggling students may be assigned a Peer Tutor for additional support. Students meet in the Eagle Depot or after school hours. Mandated Tutorials – students are mandated tutorials during off periods if the Student Intervention Team feels that a student is struggling in a specific content area. English/Math Support – if student scores low on state exam, additional support courses are scheduled in English or Math. |

| Tier Three | Mentor Skills Class – academic & social/emotional support for At Risk students. E-School – online courses for students with health or anxiety issues. 9th Hour – after school program to give students additional homework support. | Guided Study – At risk 9th graders are placed in study skills class with Academic Mentors. Oasis – 10th-12th graders who struggle with academic or social/emotional issues are scheduled (2) periods in support class. | Eagle Academy – continuation-type program which allows students to recoup missed credits during off periods during the school day. |
Data driven interventions. Dufour et al (2010) state that schools must consider the system of interventions that is in place to effectively address student achievement, “… the structures must be in place as part of the process of creating powerful interventions and enrichment” (p. 8). Each of the three schools in this case study demonstrated a clearly planned efficient system of interventions based on individualized student needs. It should be noted that each of the three high schools used data from common assessments, district benchmarks, grades and standardized exams to determine specific interventions for struggling students. The evaluation of student data was ongoing and students moved in and out of intervention programs based on their needs. There were a plethora of graduated interventions available to students at North High School. The Director of Curriculum and Instruction at North High School stated:

Students are placed into interventions that are more specific based on declining performance, or if they need special need services in any way. So, that may range from a student who is having a difficult time getting his homework done to a guy that study hall, or a study class where someone is helping them manage how to study during that period versus general study hall where students get to be independent. That’s different from; let us say a mentor skills class where they may need a little more rigorous attention to their skill development to balance how they are coping with the stress at school, the workings within school and pieces like that.
Students are monitored regularly to determine which intervention is appropriate for both their academic and social/emotional needs. Ultimately student needs are gauged using grade and assessment data to diagnose the learning deficits early before the student drops far beyond their peers and they have to struggle to catch up. Reeves (2002) compares this process as the difference a physical exam is to an autopsy. By the time you get data from summative assessments, it is too late to correct the learning deficit. Each of the three schools in the study demonstrated use of formative data to quickly diagnose gaps in student mastery to quickly correct problems before they develop into larger academic malignancies by directing interventions based on student achievement data.

**Systemic RtI model.** While both North and West high schools articulated use of the RtI model, South High School’s model was more subtle; however, each of the three schools in the case study demonstrated a graduated system of remediation for students which was closely monitored and adapted based on individual student needs. The superintendent of North High School’s district articulated that they used a systematic plan to identify struggling students:

But I think the most important thing is that it is kind of systematic. It is a step-by-step process, and for example, it kind of begins with the idea that as soon as we find out that a kid is struggling, we want to provide that student with help. So interventions kick in pretty early on in the year.

Each of the schools demonstrated a tiered model that was used by counselors and intervention specialists to place students in the appropriate level of support to ensure academic success. Searle (2010) defines the process as “…a collaborative team is
organized to use data from the assessment cycle to prescribe, monitor, and adjust intervention plans” (p. 4). It should also be noted that this embedded systemic model of interventions was evaluated on a regular basis and students easily moved throughout the pyramid as needed.

**Directed interventions.** Whereas historically many school intervention programs have been offered after school and students are given an option to attend, the three schools in this research mandated attendance in intervention programs for struggling students during the school day. Dufour et al. (2010) assert:

> Creating effective interventions and enrichment systems must be part of a larger cultural transformation of school.

> Our experience with school improvement has demonstrated that educators often fail to fully appreciate the comprehensive change that needs to occur (p. 6).

Some after-hour programs were available; however, most of the inventions were during the school day and often students were scheduled into the intervention during an entire class period. The three schools in this study opted to make the intervention piece of the PLC model the transformational component that directly affected student success. The culture of the three schools supported the fact that failure was not an option. Student mastery was evaluated by collaborative groups of teachers based on not only summative state exam data but using ongoing formative data to place students effectively in a prescribed mode of intervention. The Director of Curriculum and Instruction at North High School explained the RtI model at his school:
We have a Tier One intervention… Resource Centers where students drop in, and in those Resource Centers a student can come by anytime in the morning before school, during school like in a lunch period, study hall, after school and they can get immediate help… Beyond that, students are placed into interventions [Tier Two] that are more specific based on declining performance, or if they need special need services in any way [in a Study Hall.] That’s different from; let us say a Mentor Skills class [Tier Three] where they may need a little more rigorous attention to their skill development to balance how they are coping with the stress at school, the workings within school and pieces like that.

Monitoring student progress was evident at each of the three schools. Student achievement was monitored by teachers, administrators, counselors, and support staff on a regular basis to determine the appropriate amount of intervention needed to support success. At South High School this was evidenced by the frequent use of Google documents between staff members to gauge student improvement; at West High School student classroom performance was evaluated by a technical to determine placement in lunch tutorials. Regular feedback of student progress allowed teachers, parents, and students a better understanding of academic and social expectations, and a graduated support system was in place to facilitate student success. It was evident that all students were held to high standards and the schools had the appropriate interventions in place
which ranged from minor corrections to substantial pull-out programs to assist students in getting back on track for graduation.

**Freshman support.** Searle (2010) stated that the Response to Intervention Tier I is comprised of “research-- based classroom instructional strategies powerful enough to enable 80-90 percent of students to be successful without further intervention” (p. 4). One such practice is establishing a meaningful connection with all incoming freshmen. In addition to a systemic method of moving students through interventions, each school has also identified that incoming freshmen students have a difficult transition into the high school campus. For example, both North and West high schools have incoming freshmen paired with upper classmen their first year in high school to provide both academic and social support. North High School’s Freshmen Mentor Program is recognized nationally and provides a template and resources for other schools. West High School’s Freshmen Advisory period allows upper classmen volunteer opportunities to ease the transition period into high school. Both groups have extensive training for upperclassmen mentors in the summer and North High School’s FMP begins as early as in the spring of student’s eight grade year in middle school. South High School’s district opted to open an all freshmen school where incoming 9th graders are provided with additional support in planning their high school career and students are eased into a high school atmosphere without the stress of being submerged immediately into a huge high school campus.

**Tutorials.** “Tier I interventions are those strategies that instructors are likely to put into place at the first sign that a student is struggling” (Wright, 2007, p. 3). Each of the three schools offered some form of student tutorial, which allowed a small group of
students to work with a teacher to catch up missed work or to get additional assistance with specific course work. Students were scheduled into individualized tutorials based on their grades. The superintendent in North High School district commented, “The first sign that a kid is struggling we begin to assign that student to mandatory tutoring; so they have to actually go and get help.” If the student performed well, they were exited from tutorials; if the student needs additional support, they were scheduled into a pull out type program for more intensive support for additional behavioral as well as academic support.

**Peer tutors.** The schools offer additional support with peer tutors assigned in classrooms. Unlike many similar programs where the peer tutors run errands and file papers for the teacher, these students are specifically trained to assist struggling students and the teacher with differentiated instruction. North and West high schools provide summer camp-like training for upper classmen who assist in classrooms. Peer tutors were also assigned during tutorial classes to assist students who feel more comfortable asking for assistance from a classmate than a teacher.

**Grade level tutorials.** South High School built its master schedule so that all grade level teachers have a common tutorial period for students during their off period. This common period allowed teachers to have free time to assist struggling students throughout the school day. Since students have the same “off period,” they are scheduled into tutorials as needed for additional support. For example, a South High School House Principal explained:

> The reason they only have seven classes, now that makes first period available for mandatory tutorials for all the
sophomores, from 8:15 to 9:15, and guess what? All the
sophomore teachers have first period open; because they
have an eighth period class. So, when you get to juniors
and seniors, their off periods are fourth, seventh and eight
for seniors, and usually for juniors it’s either fourth and
eighth or seventh and eighth. And junior teachers have
eighth period off. Some of them have fourth and seventh
off, so when they’re not meeting with their team, they’ll
have fourth or seventh as a planning period.

The South High School tutorial model utilizes their modified block schedule to not only
give teachers a common collaboration time, but it was also flexible to use common open
periods for grade-level tutorials. Attendance is taken in mandatory tutorial periods and
students who do not attend are coded as truant.

**Lunch tutorials.** West High School offered directed lunch tutorials for students
who need additional support at the RtI Tier Two level. Students who demonstrated
proficiency were given an extended one hour lunch period. Students who need
additional support were assigned a lunch tutorial class for thirty minutes; then they were
released to join other students for a normal thirty minute lunch period. Student grades
were monitored each five week grading period and students were enrolled or dropped
from lunch tutorial at that time. Students who had lower than a 2.0 GPA were scheduled
into lunch tutorials as well as students with an unsatisfactory citizenship grade, and below
proficient scores on CST unless they have increased CST score by 5% from the previous
year. The lunch tutorials were scheduled as classes so attendance was taken to ensure
participation. Teachers also had the capabilities to view students’ grades and provide additional assistance to students by communicating with other teachers.

**Learning centers.** Both North High School and South High School had a designated area where students could go throughout the day to obtain additional academic support. At North High School teachers were scheduled into the Learning Center throughout the day in addition to paraprofessionals and peer tutors to assist students with their specific learning needs. Students were able to drop by the Learning Center before or after school, at lunch, or with permission of its academic teachers during a scheduled class period. South High School named their Learning Center after their mascot and students were encouraged to visit the center to obtain assistance from paraprofessionals or to meet with their assigned peer tutors.

**Double periods.** Wright (2007) asserts that if students continue to struggle after the use of Tier I strategies, then they should be moved up the pyramid of interventions to Tier II, “they [Tier II strategies] are reserved for students with significant skill gaps who have failed to respond successfully to Tier I strategies” (Wright, 2007, p. 3). Another intervention strategy used by each of the three schools was double-blocking courses in which students were struggling. For example, if a student struggled in Algebra, they were assigned not only their appropriate grade-level course, but an additional support period in the same subject. State assessment data as well as ongoing grades were used to place students in double periods of Algebra I, which is now a graduation requirement of NCLB, reading and/or writing classes at North High School. These double-period courses allowed students to remain current in their subjects while providing additional support in the secondary course. At North High School ninth grade students are
identified for needing remediation based on performance on benchmark exams administered during eighth grade. If students are still struggling at the conclusion of the freshman year at North High School, they may also be scheduled into a Mentor Math program which pre-teaches concepts taught in their primary math course in Algebra or Geometry. The rationale was students are better prepared for their math courses as they have already seen similar problems and have gained additional confidence.

At South High School students are placed in remedial English language arts and/or mathematics courses if they do not perform well on state assessments. This practice was a state mandate and it allowed students to obtain additional skills needed to demonstrate proficiency on the exams the following year.

**Pull out programs.** “Tier III interventions are the most intensive academic supports available in the school and are generally reserved for students with chronic and severe academic delays or behavioral problems” (Wright, 2007, p. 4). An example of a Tier Three interventions at the schools was the pull out programs. Students who struggle both academically and behaviorally may be placed in specialized programs to allow them to make up credits or provide one on one interaction for habitual truant students or at risk students. This practice should not to be confused with typical special education pull out programs as they are not connected to IEP designations. West High School offered a pull out program, Oasis, for students who continue to struggle despite Tier 2 interventions. The principal of West High School commented:

Then, the next level is Oasis, which is even more intense.

So these are kids who have made it through freshman year, but most of them have just under or just over a 1.0 GPA.
And they are actually with our Oasis teacher for two periods a day. So one mimics guided study in which they have a one to one mentor. And the other one is just with [the Oasis teacher] where he works on social, emotional – he’s also implemented a lot of – he does a lot of pre and post testing with study skills, aptitude, a lot of different things we’ve put in place just so he can gauge. Some of these kids have had something that’s happened to them in their life at some point where things just switched. And again, these aren’t kids who are Special Ed or kids who are – some of them might be long term EL’s. But these are mainly kids who come from homes where their parents are in jail, or there’s a homeless situation, or just a lot of chaos going on in the life. So those two programs are the most intensive. I would say about 50 to 60 percent of the kids in those programs are success stories, which doesn’t sound great when schools are talking about percentages. It sounds like we’re failing there. But these are kids who wouldn’t have made it otherwise. So we have had some – in the last few years, we’ve had kids who have started out in guided study or started out in Oasis who have now transitioned in their senior years and are actually academic mentors now. So they’re providing that support back to our folks at risk.
North High School operates a similar program, Mentor Skills, which was described by the Director of Curriculum and Instruction as a pull out program for students who are struggling to improve skill development while balancing coping skills of stress at school or home. Although South High School did not offer a traditional Tier III pull out program for at risk students, it did offer a continuation–type program within the school to allow students to recoup missed credits. However, these students are not necessarily at risk students; a House Principal gave the example of an out of state student who needed to catch up credits to be on track to graduate:

For example, the one lady in my house, Susan, [pseudonym] moved from Nebraska to Texas. She was on a full modified block schedule. But she came to us in mid-October. She wasn’t enrolled in a Physics class. She wasn’t enrolled in an English three class. She wasn’t in an Algebra two class. So, bless her heart, it was tough because she already missed a quarter of the year, so we were able to put her in Eagle Academy, credit recovery, as a junior, fourth seventh and eight period, we stuck her in immediately English Three, Physics, and Algebra Two at the beginning of the second nine weeks, and we credit recovered the first nine weeks of all three of those courses. And she got through all three of those within eight weeks. She recouped that credit … so now she’s back on track [for the] second nine weeks.
Traditionally the Eagle Academy at South High School was designated for seniors who need to recoup failed courses to graduate, but it worked nicely for students moving from out of state. If seniors are failing a class at the ninth week grading period, they may transfer to the program to recover the credit in nine weeks at 89% level.

**Monitoring.** A necessary component to the effectiveness of the intervention programs is the constant and systematic monitoring of student progress. Students were closely monitored and interventions could be changed as rapidly as every five week grading period. Typically, an additional clerical staff member would monitor student grades, however in some cases school counselors or even Student Study Teams within a PLC would recommend additional intervention programs. At both North and West high schools a staff member was hired for the sole responsibility of monitoring student growth. The Direction of Curriculum and Instruction at North High School stated in his opinion this is the most effective practice at the school:

I would say [our best practice] is our capacity to evaluate - and what’s happening is really strong. We really know how our students are doing and how they are performing. But I can also say that one of the highlights in working at [North High School] is that we take on new initiatives all the time so we look for change and bring about change. You know we are committed to doing that and I think that that is one of the highlights is that exploration of change to what change could bring and making things work, like figuring out how to make it work. So, a lot of the work I
do revolves around that process and that’s exciting and I think it’s special.

South High School monitored students via Student Intervention Teams consisting of administration, counseling, and teaching staff members. The Director of Curriculum and Instruction at South High School explained their success:

We also have excellent systems because we’re so data oriented, we automatically, when we get end of the year state achievement data, we’re already automatically going in and looking at schedules and saying “does this kid need a math strategies class? Should we double block him so there’s not a failure in Algebra and Geometry?"

Student interventions at the three high schools were not a “life sentence” meaning the students moved out of interventions when they improved their performance, the objective is to get students on track as quickly as possible and back to a traditional structure of courses.

Additional duty period for teachers. Another practice used by each of the three high schools was assigning teachers a duty period to cover additional period tutorials, staff learning centers, schedule lunch tutorials, or simply provide additional supervision positions. These tutorial periods were specifically addressed in the collective bargaining agreements at North and West high school. This duty period is not connected to their prep period, but it allows teachers designated time to provide additional academic and social/emotional support for their students. As mentioned, South High School used this time for student tutorials. At North High School this additional period was used for
either campus security, such as monitoring halls or in the Resource Center throughout the day. At West High School teachers were assigned tutorial periods at the beginning of lunch or security positions during the extended lunch period. Utilizing the skills of their staff members in an additional duty period allowed each of the three schools to provide interventions for students within the school day; therefore, they could mandate needed interventions, removing the chance that a student might not show up for an afterschool program.

**Summary of Findings**

In conclusion, each of the three schools in the study provided a strong solid foundation of best practices at their sites. These practices were embedded not only into the culture of the school but also the system of operations. The adults at the three sites facilitated a culture that focused on student success, and a system of interventions was in place to address learning deficits as they occurred rather than waiting until they began a greater problem. Participants responded to the primary research question by describing the best practices of their schools using the PLC framework of collaboration, assessment, and directed interventions. When asked, “How does the staff perceive that collaboration impacts student achievement?” both administrators and teachers agreed that teacher collaboration equipped teachers to better address the needs of all students. The second research question, “How do teachers assess student progress toward mastery of desired learning outcomes?” participants discussed the use of common formative assessments which permitted teachers to quickly identify and reteach missed instructional objectives. This practice tied to the collaboration process allowed teachers to regularly discuss their best practices to diagnose gaps in learning before they became debilitating to the
student’s success. The third research question, “How does the school address the needs of struggling students?” probed the systematic approach of interventions utilized by each of the three schools in the study. Each of the three schools demonstrated a directed approach of interventions within the school day which provided the necessary amount of support to ensure student success. This system of interventions was not left to chance or the choice of the student to attend a typical after school program, but students were assigned based on their individual need. It should also be noted that two underlying findings of administrative support and school culture provided the thread to hold the framework together which will be discussed in Chapter 5 of this case study.
Chapter 5 – Discussion and Conclusions

According to Marzano (2003) criticisms and reform efforts of the first five decades of the 20th century flourished, but it was the reform efforts of the second half of the century that most profoundly impacts us today (p. 1). One of these reform efforts, the Professional Learning Community, has shown great promise in increasing student achievement. The primary purpose of Professional Learning Communities (PLC) is to “ensure that all students learn essential knowledge, skills, and dispositions” (Dufour, et. al, 2006, p. 3). This focus was a fundamental shift from teacher centered instruction to a focus on the success of individualized student learning in schools. The final chapter of this case study contains a summary of the research and an expanded discussion of the findings of three high schools that have implemented the PLC model and have demonstrated sustained growth on state and federal accountability measures. In addition, this chapter includes discussions of implications for policy and practice as well as recommendations for future. The chapter concludes with a statement of impact of the research.

Summary of the Problem

When the No Child Left Behind Act (NCLB) was passed in 2002, educators were notified that all students are expected to demonstrate proficiency in English language arts and mathematics by 2014. For a variety of reasons schools have been struggling with meeting state and federal benchmarks to fulfill this requirement. Current research has indicated that the implementation of the Professional Learning Community model has assisted educators in supporting student achievement. While some schools have implemented portions of the model without showing significant success on state and
federal accountability measures, other schools have demonstrated sustained growth in student achievement. This research explored the best practices of three high schools in a qualitative case study to determine the factors which have led to their sustained growth in student achievement. By examining the best practices of these schools, educators may gain insights in reaching their own school-wide goals of improving student achievement.

**Purpose statement.** The purpose of this research was to explore the best instructional practices of three high schools in which the Professional Learning Community model has been implemented with fidelity. Through the lens of the PLC model (teacher collaboration, assessment, and interventions) this study sought to explore those best practices which have facilitated sustained growth on state and federal assessments in the three schools in this case study.

The primary research question in this study is: What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements? Three sub research questions have also been addressed using the conceptual framework of the PLC model (Collaboration, Assessment and Interventions):

1. How does the staff perceive that collaboration impacts student achievement?
2. How do teachers assess student progress toward mastery of desired learning outcomes?
3. How does the school address the needs of struggling students?

This chapter will include discussion and the application of the findings of this case study as applied to the research questions.
Methodology

Data was collected for this research from a series of interviews, focus groups, as well as a document analysis. Participants were chosen based on their knowledge of the operations of Professional Learning Communities on their campus. A total of seven interviews were conducted with administrators at both the site and district levels. Three focus groups were interviewed with a total of 21 participants who consisted of mainly teachers. Appointments were made to conduct interviews and focus groups during an initial site visit. Each interview and focus group session lasted approximately 60 minutes. If participants were not available during the site visit, phone interviews were scheduled and also tape recorded. Individual interview and focus group participants were asked questions to explore their experience with the best practices of their Professional Learning Community in relationship to the research questions.

Once data was collected, it was sent to a transcription service and later reviewed to ensure a valid translation of each participant’s answers. In addition, a document analysis was also conducted to confirm performance on state and federal accountability measures using the School Report Card (SARC), various state assessment documentation, as well as individual school and district websites.

Discussion

The following conclusions were made after the exploration of the findings of the best practices of the three schools’ PLC model described in Chapter 4:

1. In order for a healthy Professional Learning Community to thrive, the school must maintain a strong climate of trust.
2. Strong Professional Learning Communities need a strong administrative support system at both the site and district level.

3. The three facets of the PLC conceptual framework of collaboration, assessment, and direction interventions intertwine to create a cyclic effect whereas one element is driven by the other two facets.

4. The PLC framework is effectively implemented by a system of clearly defined structures of collaboration, assessment and interventions based on a continual loop of feedback and data analysis.

**Conclusion 1 — climate of trust.** The first research question of this study asks, “How does the staff perceive that collaboration impacts student achievement”? A close examination of the best practices of the three schools revealed that the basis of their successful Professional Learning Community was a strong climate of trust. In this collaborative process, teachers felt safe enough to share student data and to discuss best practices with others in their PLC. Kouzes and Posner (2010) asserted, “…to build and sustain social connections, you have to be able to trust others and others have to trust you. Trust is not just what’s in your mind; it’s also what’s in your heart (p. 225). At West High School, a “Round Table” meets regularly to resolve any disputes or conflicts that might interfere with collaboration at the school. This “round table” consists of teachers, administrators, counselors, and support personnel to assist with issues that impede the climate of trust at the school. This process enables educators at West High School to strengthen relationships and support successful collaboration. Their dedication to sustaining position relationships is evidenced in the school Round Table.
[Male Teacher] Peer to Peer, we do have our round table once a month where there are issues that need to be discussed, the teacher puts that up on the board and we come and meet. Through those discussions we are able to work on those things. [Female Teacher] We work through them just like a family.

This element of trust expands beyond professional conflicts into the realm of sharing best practices during the embedded collaboration time. Teams share norms and values such as: a focus on student learning, reflective dialogue, deprivatization of practice, and shared expertise as markers of professional learning communities (Bunker, 2008). In addition to student-centered data discussions, PLCs at the three high schools have a systematic set of group norms which facilitate productive working habits. These norms are based on trust and mutual respect of other team members. Erkens and Twadell (2012), indicate that it is necessary for PLCs to define team norms, using protocols to use when discussing student work, analyzing student data reports, defining team success, and supporting struggling teams. It was apparent that a culture of trust existed so that teachers felt they could share their student assessment data in a safe environment that strengthened their best professional practices. It appeared that the culture of trust had evolved at each of the three sites so that collaboration that is based on student needs could be established and maintained.

**Conclusion 2 — administrative support.** In evaluating the primary research question, “What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements?” it was apparent that each of the
three schools in the case study enjoyed administrative support of the PLC model. At two of the schools in the study, time for teacher collaboration was actually written into the bargaining contracts. This practice was so prominent that it is woven throughout all four of the research questions: When asked, “How does the staff perceive that collaboration impacts student achievement?” teachers revealed that administrative support for both release time for teachers and the willingness to fund additional teacher leader positions was tied to effective teacher collaboration and the success of their students.

When asked, “How do teachers assess student progress toward mastery of desired learning outcomes?” each of the three schools also relied on district fiscal support for the funding for release time if common assessments or curriculum needed to be updated. Both North and West high school’s districts paid for teacher collaboration during the summer or release time during the school year if needed. The superintendent of North High School’s district stated:

In addition to that, [weekly collaboration teams] every six weeks, there is a late arrival of 2 ½ hours, and teams can meet then as well. And in addition to that, there are four days during the year, full days, beginning, middle and end, where teachers can work in collaborative teams. And then, on a different level, we have – we have offered our teams a blank check, if you will, that if they want to meet during the day for a day or more than a day with their team on issues that relate to curriculum, instruction, assessment, all they need to do is talk to their divisional director, and we’ll
actually get subs for the day or half day or multiple days, so that team can meet and do curriculum work. And a lot of our teams take us up on that as well because they realize they need more time. So we literally get them subs for the day and send them off to do their work. And we get a lot of bang for our buck with that.

In addition, it was also apparent that all three sites had the support of the district offices to support the collaborative innovation at the schools. For example, at North High School if teachers needed release time to re-write a course outline based on student needs, administration granted the funds to make it happen.

The third research question, “How does the school address the needs of struggling students?” administration was willing to not only build a system of student interventions, but to pay for additional teacher units to support the interventions. Risk taking in PLCs was encouraged by administration. This risk taking is demonstrated in new classroom instructional strategies or programs. Teachers stated that they felt safe to make mistakes and start over when needed. Innovation was encouraged to provide venues to teachers to have a safe place to cultivate new ideas. A female teacher at West High School stated:

What allows this to happen is the relationship that we have with our district, they encourage – sometimes when you hear the word, maverick, it has a real negative connotation. Part of that is being an innovator and they [district] have given us the permission to innovate and carry that to the district and share with other schools as well as they share
with us. We have two venues for that. We have the CIT which is department chairs from all the schools getting together and bringing up issues that are pertinent to our particular department. We also have what we call best practices. We have that a few times a year, twice a year now.

The CIT meeting described by teachers was defined by a West High School administrator as district-wide “Curriculum Improvement Teams” which met in alternative months with “Best Practices Teams” to facilitate not only site collaboration but district-wide collaboration for teachers. Although South High School has one comprehensive high school [grades 10-12], there is substantial teacher voice at district-wide collaborative curricular planning meetings. A teacher described the collaborative process with the district office and their sister freshman school:

There’s a lot of collaboration that starts at central office with our coordinators, and it flows through us, my department chair, and my team leads. So, there’s collaboration there as well… we all have an input. We’re all on the same page. We do vertical, planning, alignment. We meet monthly for that.

It is apparent at all three schools that the district office is clearly vested in the PLC model and sought to remove barriers of funding, time, and limited personnel to support the collaborative work of teachers.
Conclusion 3 – cyclic effect. The primary research question, “What are the best practices of secondary schools that are demonstrating sustained growth in state and federal measurements?” is also addressed by examining the framework of the PLC model as a whole. That is, the tenants of the PLC model, collaboration, assessment, and directed interventions, create a cyclic effect with each facet of the model contingent upon the other two elements for success. The term “cyclic effect” typically describes a phenomenon that occurs in repeating cycles, such as a cyclone. The third conclusion of this research found that it was necessary for each of the three tenants of the PLC model (collaboration, assessment, directed intervention) to work in tandem for the model to operate effectively. For example, in collaboration meetings teachers discuss data which is generated by both formative and summative assessments which support the system of interventions needed to support student success. These interventions are then involved
in ongoing discussions in collaborative groups and then assessed for their fidelity. This process enables teachers to become more diagnostic of the specific needs of their students and to provide the necessary steps to make certain that each student gets the appropriate support to attain their learning goals. This system of checks and balances is demonstrated in both student academic needs as well as social/emotional support.

Students are moved in and out of varying degrees of interventions based upon the evaluation of success of each level of the RtI model. Although South High School’s state has not adopted a formal implementation of the RtI model, it was apparent that the school was in a constant loop of evaluation of student interventions and moved students to prescribed programs to support their individual needs.

Answering the third research question, “How does the school address the needs of struggling students?” if students were not successful with Tier One or Tier Two strategies, collaborative teams recommend a “pull out” style program to address behavioral factors which prevent a student’s academic success. A defined system for checking the effectiveness of intervention programs is present at the three sites. For example, at West High School every five weeks a clerk monitors student progress and moves students in and out of tutorial programs as needed. If the tutorial programs are not effective, students are then moved to a Tier Two pull out program to ensure student success. This embedded system supports accountability of the interventions and the notion that failure is not an option for students.

**Conclusion 4 – functional systems.** The last conclusion involves a clearly defined system of PLC functions within the schools; each of the three schools in the study exhibits a defined structure to ensure student success. This system linked each of
the three research questions to fully explain the success of the best practices in each of the three schools. Teacher collaboration days are embedded into the school day each week, there is also a clearly defined objective that topics of discussion are to be always centered on student success. In addition, both summative and formative assessments are given in regular intervals and the data is analyzed on a regular basis. Although each PLC has control of the frequency of formative assessments, the district provides periodic benchmark exams to chart student progress throughout the year. This data, along with student performance and teacher recommendations, are then used to place students in appropriate interventions. Interventions are not a life sentence for students, meaning students can readily move out of interventions as their performance improves. Instead, students are consistently monitored and move in and out of support classes as needed. This clearly defined system of the PLC framework allows all stakeholders to obtain a better understanding of learning expectations and to set a climate of student progress routinely measured for success.

**Implications for Policy and Practice**

An implication for policy and practice for secondary schools is that educators should take a closer look at the implementation of the PLC model. Whereas it is not recommended to haphazardly take bits and pieces of the model for implementation, this study reveals that all three components of collaboration, assessment, and directed interventions are necessary to generate the cyclic or spiral effect to improve student success. The fidelity of the program is demonstrated by the inter-dependency of all three components of the model.
A second implication is that school leaders should be careful to build an adequate system to support the implementation of the PLC model. Clearly, if students are identified by assessments as needing additional support, the school should provide a program of embedded interventions to address these issues. Merely offering after school tutoring for students who choose to attend may not be an effective practice because traditionally students who need the additional help may not show up for the tutoring. Participants in the three schools felt strongly that interventions should be directed and built into the school day. In addition, if teachers do not have a designated time built into their instructional day to collaborate best practices, they may continue to work in isolation. In addition, schools need to implement a system of monitoring so that interventions are designed to move a student to the next level of mastery and does not turn into a “life sentence,” whereas the student cannot move comfortably out of assigned interventions or the school continues to provide services that are not effective.

And lastly, the findings revealed both site and district administration must support a climate of trust by encouraging teachers to become risk takers and to feel safe to share both their successes and failures with colleagues. This level of trust is vital for a PLC to thrive and be successful in schools. It is also essential that districts offer not only financial support for collaboration but to facilitate a clear vision supporting a strong teacher voice in professional development and what they need to fully implement best practices in their classrooms.

**Recommendations for Future Research**

Although sites were chosen for this research based on a variety of demographic and regional data, it is recommended that this study be replicated in a variety of other
settings to support its findings. North High School is located in the northern portion of the United States with an upper/middle income demographic in a suburban area. West High School is located on the West Coast of the United States with an urban student population, and South High School is located in the southern portion of the United States in a historically rural but now suburban student demographic. Perhaps replicating the study to broaden the scope to other regions would be beneficial for future research.

A second recommendation for future research would be a multi-case study comparing schools that use the PLC model to those that have implemented another instructional model to contrast the PLC model to the best practices of other models. Although the PLC conceptual framework was chosen for this research to examine the specific facets of collaboration, assessment, and direction interventions, a broader comparison of best practices from other models would generate valuable insights to the education community.

A third recommendation for future research is a study to examine the PLC model implemented in various modes of cluster sites in a similar demographic region such as urban, suburban, or rural communities to examine the similarity and differences of the implementation of the PLC model and the effect on school culture on the model. As no two school cultures are alike, a study of the cultural impact of PLCs would provide insights to the success of the model.

A fourth recommendation would be to examine the process of the implementation of the PLC model through the lens of collective bargaining agreements and the impact on the success of the model. Such elements might include additional duty periods, job descriptions, and extended day meeting requirements. This case study would prove
valuable insights to school districts as they navigate into the implementation process of
the PLC model working with their teacher associations.

Conclusion

In conclusion, Chapter 5 of this research provides an overview of the entire study
and reveals conclusions based upon data collection. It was concluded that each of the
three schools in the study supported their best practices with a climate of trust. Teachers
felt safe to take risks and share their best practices with colleagues in what was described
as a family-type atmosphere. Secondly, it was concluded that in order for the PLC
framework to be successful schools must be given district support both financially and
structurally. Next, the elements of the PLC framework caused a spiraling loop of best
practices in schools. In essence, each of the components, collaboration, assessment, and
directed interventions supported the other two elements which facilitated student success.
For example, teachers met collaboratively to discuss student data generated by
assessments which determined the best individualized directed intervention for the
students. In turn, a combination of all three components created a cyclic effect to support
student achievement. It found that each of the three components was necessary to ensure
the success of the implementation of the PLC model. And lastly, it is also essential that
the PLC framework have a solid system for identification and monitoring students who
were directed to interventions based on an ongoing process of data analysis. Students
did not simply decide to attend interventions, close monitoring of student process was
evident and appropriate interventions were then prescribed during the instructional day to
ensure student success.
Concluding Statement

After the passage of NCLB, educators have desperately been looking for a perfect blend of best practices to increase student achievement and performance on state and federal accountabilities measurements. This research explored three high schools, North High School, West High School, and South High School which have implemented the Professional Learning Community model and found that the conceptual framework of collaboration, assessment, and directed interventions caused a cyclic effect in defining best practices and facilitating improved student achievement. Dedicated time set aside for teachers to collaborate and share their best practices and to analyze student data is evident at each of the three schools in the study. Data from both summative and formative assessments is used to evaluate student progress and to identify gaps in learning so teachers can quickly diagnose problems before they become larger issues. And lastly, student interventions are directed and not optional, which supports a culture that student failure is not an option. The findings of this study reveal that no one practice is adequate to stand alone but is contingent upon the other elements of the conceptual framework to maximize student success. For example, collaboration without the use of student data generated from assessment is not as potent as the two facets linked together. In addition, using assessment data to identify gaps in learning to appropriately place and monitor students in interventions is of greater benefit than if the practice stood alone. In essence, the three components of the PLC framework work in tandem to support the best practices of the three schools in the study.
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Dear ______________,

I am writing you to invite your participation in a dissertation study that is being conducted at XXXXXXX regarding the practices of effective secondary schools that are closing the achievement gap. I am conducting this research as a doctoral candidate as a student at California State University Northridge as part of the requirements to earn an Ed.D. degree.

In this study, I will be exploring common practices of three high schools that are closing the achievement gap. I will be conducting confidential, focus group discussions with teachers and administrators to obtain their opinions about how their school is effectively closing the achievement gap through the lens of collaboration, assessment, and interventions. Responses used in my dissertation will be anonymous, thus your name or school will not appear in the study. Focus groups will be conducted for approximately 60 minutes in length.

If you would like to participate, please contact me via email at Pamela0765@aol.com or call (805) 587-3322. Your decision to participate or not participate is an individual decision and will not affect your standing at XXXXXXX High School.

Thank you,
Appendices B – Informed Consent Form

California State University, Northridge
CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

“Sustained Growth on State and Federal Assessment Measures:
A Case Study of Three High Schools That Have Implemented a Professional
Learning Community Model”

You are being asked to participate in a research study. Participation in this study is completely voluntary. Please read the information below and ask questions about anything that you do not understand before deciding if you want to participate. A researcher listed below will be available to answer your questions.

Researcher:
Pam Castleman
California State University, Northridge - Doctoral Student
805-587-3322

Faculty Advisor:
Dr. Jody Dunlap
Educational Leadership and Policy Studies
18111 Nordhoff St.
Northridge, CA 91330
(818) 677-3078

PURPOSE OF STUDY
The purpose of this research study is to explore the best practices of effective secondary schools based upon growth in state and federal accountability measures.

SUBJECTS
Inclusion Requirements
You are eligible to participate in this study if you are a teacher or an administrator who is employed in one of the three schools used in the multi-site case study.

Time Commitment
This study will involve approximately 60 minutes of your time.

PROCEDURES
The following procedures will occur:
   Interviews –
       You will be asked 10-15 questions
   Focus Groups –
       You will be asked 10-15 questions

RISKS AND DISCOMFORTS This study involves no more than minimal risk. There are no known harms or discomforts associated with this study beyond those encountered in normal daily life.
BENEFITS

Subject Benefits
You will not directly benefit from participation in this study.

Benefits to Others or Society
The possible benefits to other or society include: Sharing best practices with secondary educators and. Engaging in reflexive practice with colleagues

ALTERNATIVES TO PARTICIPATION
The only alternative to participation in this study is not to participate.

COMPENSATION, COSTS AND REIMBURSEMENT

Compensation for Participation
You will not be paid for your participation in this research study.

Costs
There is no cost to you for participation in this study.

WITHDRAWAL OR TERMINATION FROM THE STUDY AND CONSEQUENCES
You are free to withdraw from this study at any time. If you decide to withdraw from this study you should notify the researcher immediately. The researcher may also end your participation in this study if you do not follow instructions, miss scheduled visits, or if your safety and welfare are at risk.

CONFIDENTIALITY

Subject Identifiable Data
- All identifiable information that will be collected about you will be removed at the end of data collection.
- All identifiable information that will be collected about you will be removed and replaced with a code. A list linking the code and your identifiable information will be kept separate from the research data.

Data Storage
- All research data will be stored on a laptop computer that is password protected on a computer in the researcher’s primary residence in a locked file cabinet.
- Interviews and Focus Groups will be digitally recorded. Audio files will also be stored in a locked file cabinet in the researcher’s primary residence; then transcribed and erased after one year.

Data Access
The researcher and faculty advisor named on the first page of this form will have access to your study records. Any information derived from this research project that personally identifies you will not be voluntarily released or disclosed without your separate consent, except as specifically required by law. Publications and/or presentations that result from this study will not include identifiable information about you.

Data Retention
The researcher intends to keep the research data until analysis of the information is completed and then it will be destroyed after one year.
IF YOU HAVE QUESTIONS
If you have any comments, concerns, or questions regarding the conduct of this research please contact the researcher listed on the first page of this form.

If you are unable to reach the researcher listed on the first page of the form and have general questions, or you have concerns or complaints about the research study, research team, or questions about your rights as a research subject, please contact Research and Sponsored Projects, 18111 Nordhoff Street, California State University, Northridge, Northridge, CA 91330-8232, or phone 818-677-2901.

VOLUNTARY PARTICIPATION STATEMENT
You should not sign this form unless you have read it and been given a copy of it to keep.
Participation in this study is voluntary. You may refuse to answer any question or discontinue your involvement at any time without penalty or loss of benefits to which you might otherwise be entitled. Your decision will not affect your future relationship with California State University, Northridge. Your signature below indicates that you have read the information in this consent form and have had a chance to ask any questions that you have about the study.

I agree to participate in the study.

Subject Signature ___________________________ Date __________________
Printed Name of Subject ___________________________

Researcher Signature ___________________________ Date __________________
Pam Castleman
Printed Name of Researcher ___________________________
Appendices C – Interview Protocol

“Case Study – Sustained Growth on State and Federal Assessment Measures”
Dissertation Research - California State University - Northridge
Interview Protocol

Program: ____________________________________________________________
Facilitator: __________________________________________________________
Date: ___________________ Time: ______________ Site: ___________________
Participants: __________________________________________________________

I. Introduction/Background

Welcome and introduction:
Thank you for taking the time for an interview with me today. I will be asking questions about the best practices used at your school to raise student achievement on state and federal assessments.

Purpose of the focus group:
I’ve invited you to this interview so that I can learn from you about your experiences in respect your school’s practices which are effectively impacting student achievement. I would like to examine these practices through the lens of the Professional Learning Community (PLC) model as it pertains to collaboration, assessment and directed interventions for students. This interview is part of a comprehensive evaluation of the best practices of high schools in an effort to assess the PLC model’s effect on student achievement in three secondary schools.

Confidentiality:
Any information you share with me today will be used for research/evaluation purpose only. I (Pam Castleman) will be aggregating results from all interviews and will not be attributing comments to any particular person. You will not be identified by name, department or office, position, or any other personally identifying information in any report or document. Your name or personally identifying information will not be used in any published or public reports.
Today’s interview will be audio-recorded. I (Pam Castleman) will also be taking notes of the conversation. The audio recordings will be transcribed for analysis. The audio recorded file, transcribed file, and notes will be stored securely in a password-protected laptop of the evaluator until completion of the analysis of interviews. Upon completion of analysis, files and notes will be destroyed after one year. Only the transcriptionist, and I (Pam Castleman) will have access to the files and notes. The files and notes will be accessed and analyzed in strict confidentiality. However, the protection of confidentiality does not constitute legal protection. You have the right to know that your information and responses cannot be legally kept confidential, if subpoenaed by a court of law.
Informed consent:
This consent notice communicates the procedures, potential risks and discomforts for subjects, potential benefits to subjects, payment to subjects for participation, participation and withdrawal, and rights of research subjects. The procedure of this interview will be limited to a semi-structured session. Because the sample program deals with issues that are sensitive, some questions may involve issues of a professional and/or personal nature, including experiences with and/or perceptions of colleagues, programs, and/or the students that are served by the sample program. You may feel uneasy about answering some of the interview questions. You may elect not to answer any of the questions with which you feel uneasy and still remain as a participant in the study. You may not benefit personally from your participation in this study. However, this interview is part of the evaluation that will assess the effects of the sample program. Thus, findings of this study may lead to improvements in support programs for students and may contribute to our knowledge on the subject. Participants and/or research subjects will not be paid for their participation in interviews. Your participation in this interview is voluntary. You are not obligated whatsoever to answer or respond to any question or to discuss anything that you are not inclined to answer or discuss. You can skip any question, or any part of any question, and will not face any penalty for answering, or not answering, any question in any way. You may ask that the audio recording be stopped at any time and/or may ask to conclude the interview at any time for any reason without consequences of any kind. You may withdraw consent at any time and discontinue participation without penalty of any kind. You can halt your participation in the study at any time, including up to 30 days after the interview has been conducted. You are not waiving legal claims, rights, or remedies because of your participation in this interview. Data of this interview are not protected from subpoena and may be surrendered with valid court order.

In addition to this informed consent notice, please find an informed consent form as part of your interview session packet. At this time, I ask you to read, review, and sign the informed consent form. If you have questions, please ask them now.

Identification and contact information of evaluator:
If you have questions regarding your rights as a research subject, the details of this study, or any other concerns please contact Pam Castleman at email address, Pamela0765@aol.com, or by telephone, 805-577-3322.

Timing:
Today’s interview will last approximately 60 minutes. Are there any questions before I get started?

II. Interview

Overview of School

1. In your own words, how would you describe your school? What is special or unique about your school?
2. What would you say is the mission or vision of your school?

3. How are academic decisions made at your school?
   a. Leadership – school and/or district?
   b. Teacher Voice?
   c. Parent/Community?

_Collaboration_

4. What does collaborative time look like at your school?
   a. When?
   b. How frequently?
   c. How are groups arranged? Who decides this configuration?

5. Describe specifically topics that are covered during collaboration time at your school?
   a. Do teachers choose topics?
   b. Do administrations prescribe topics for discussion?

6. Has the sharing of teaching strategies been effective? Has collaboration time your expectations? Is there anything you would like to change to be more effective?

7. Similarly, please discuss how collaborative learning strategies have supported instruction in the classroom:

_Assessment_

8. How do teachers know for sure when the student’s “got it” or understands the standard presented?

9. What types of assessments are used in your school?

10. Do teachers create assessments collaboratively? If so, please explain the process.

11. Describe how teachers use formative assessments at your school?
    a. How often?
    b. How are they created?

12. In your opinion, have formative assessment impacted student success? If so, how?
Directed Interventions

13. Is there a systemic plan at your school for assisting struggling students?

14. How are students identified for interventions?

15. Are academic interventions voluntary or mandatory for struggling students? Please describe how these interventions are communicated to students.

Closing Questions
I would like give you a final opportunity to help us evaluate the sample program. Before I end today, is there anything that I missed? Do you have any other issues related to the evaluation of the sample program? Have you said everything that you anticipated wanting to say but didn’t get a chance to say?

III. Debriefing
Thank you for participating in today’s interview. I appreciate your taking the time and sharing your ideas with me. I also want to restate that what you have shared with me is confidential. No part of our discussion that includes names or other identifying information will be used in any published reports or documents. Only de-identified data will be used for published reports of sample program performance. I (Pam Castleman) will be combining information gathered in the interview with information gathered from the other data sources (e.g., interviews and document analysis). The data from this interview will be stored and maintained in a password-protected laptop of the researcher and transcriptionist (only during transcription). Further, de-identified data will be maintained in a password-protected laptop of the researcher for a period of one year after the date of the interview, after which the data will be destroyed. Finally, I want to provide you with a chance to ask any questions that you might have about this interview. Do you have any questions at this time?
Appendices D – Focus Group Protocol

California State University, Northridge
CONSENT TO ACT AS A HUMAN RESEARCH SUBJECT

“Case Study – Sustained Growth on State and Federal Assessment Measures”
Dissertation Research - California State University - Northridge
Focus Group Protocol

Program: ______________________________________________________________________
Facilitator: ___________________________________________________________________
Date:____________________ Time:______________ Site:____________________
Participants: ___________________________________________________________________

I. Introduction/Background

Welcome and introduction:
Thank you for taking the time to come together for this focus group discussion with us
today. I will be leading today’s discussion about the best practices used at your school to
raise student achievement on state and federal assessments.

Purpose of the focus group:
I’ve invited you to this focus group so that I can learn from you about your experiences in
respect your school’s practices which are effectively impacting student achievement. I
would like to examine these practices through the lens of the Professional Learning
Community (PLC) model as it pertains to collaboration, assessment and directed
interventions for students. This focus group is part of a comprehensive evaluation of the
best practices of high schools in an effort to assess the PLC model’s effect on student
achievement in three secondary schools.

Confidentiality:
Any information you share with us today will be used for research/evaluation purpose
only. I (Pam Castleman) will be aggregating results from all focus groups and will not be
attributing comments to any particular person. You will not be identified by name,
department or office, position, or any other personally identifying information in any
report or document. Your name or personally identifying information will not be used in
any published or public reports.
Today’s focus group session will be audio-recorded. I (Pam Castleman) will also be
taking notes of the conversation. The audio recordings will be transcribed for analysis.

The audio recorded file, transcribed file, and notes will be stored securely in a password-
protected laptop of the evaluator until completion of focus group analysis. Upon
completion of analysis, files and notes will be destroyed after one year. Only the
transcriptionist and I (Pam Castleman) will have access to the files and notes. The files
and notes will be accessed and analyzed in strict confidentiality. However, the protection
of confidentiality does not constitute legal protection. You have the right to know that
your information and responses cannot be legally kept confidential, if subpoenaed by a court of law.

**Informed consent:**
This consent notice communicates the procedures, potential risks and discomforts for subjects, potential benefits to subjects, payment to subjects for participation, participation and withdrawal, and rights of research subjects. Procedures in this focus group are limited to semi-structured focus group sessions. Because the sample program deals with issues that are sensitive, some questions may involve issues of a professional and/or personal nature, including experiences with and/or perceptions of colleagues, programs, and/or the students that are served by the sample program. You may feel uneasy about answering some of the focus group questions. You may elect not to answer any of the questions with which you feel uneasy and still remain as a participant in the study. You may not benefit personally from your participation in this study. However, this focus group is part of the evaluation that will assess the effects of the sample program. Thus, findings of this study may lead to improvements in support programs for students and may contribute to our knowledge on the subject. Participants and/or research subjects will not be paid for their participation in this focus group. Your participation in this focus group is voluntary. You are not obligated whatsoever to answer or respond to any question or to discuss anything that you are not inclined to answer or discuss. You can skip any question, or any part of any question, and will not face any penalty for answering, or not answering, any question in any way. You may ask that the audio recording be stopped at any time and/or may leave the focus group at any time for any reason without consequences of any kind. You may withdraw consent at any time and discontinue participation without penalty of any kind. You can halt your participation in the focus group at any time, including up to 30 days after the focus group session has been conducted. You are not waiving legal claims, rights, or remedies because of your participation in this focus group. Data of this focus group are not protected from subpoena and may be surrendered with valid court order.

In addition to this informed consent notice, please find an informed consent form as part of your focus group session packet. At this time, I ask you to read, review, and sign the informed consent form. If you have questions, please ask them now. If you would like to ask a question in private, please let me know.

**Identification and contact information of evaluator:**
If you have questions regarding your rights as a research subject, the details of this study, or any other concerns please contact Pam Castleman at email address, Pamela0765@aol.com, or by telephone, 805-577-3322.

**Timing:**
Today’s focus group will last approximately 60 minutes. Are there any questions before I get started?
II. Focus group

Overview of School

16. In your own words, how would you describe your school? What is special or unique about your school?

17. What would you say is the mission or vision of your school?

18. How are academic decisions made at your school?
   a. Leadership – school and/or district?
   b. Teacher Voice?
   c. Parent/Community?

Collaboration

19. What does collaborative time look like at your school?
   a. When?
   b. How frequently?
   c. How are groups arranged? Who decides this configuration?

20. Describe specifically topics that are covered during collaboration time at your school?
   a. Do teachers choose topics?
   b. Do administrations prescribe topics for discussion?

21. Has the sharing of teaching strategies been effective? Has collaboration time your expectations? Is there anything you would like to change to be more effective?

22. Similarly, please discuss how collaborative learning strategies have supported instruction in your classroom:

Assessment

23. How do you know for sure when the student’s “got it” or understands the standard presented?

24. What types of assessments are used in your classroom?

25. Do you create assessments collaboratively? If so, please explain the process.

26. Describe how teachers use formative assessments at your school/department?
   a. How often?
   b. How are they created?
27. In your opinion, have formative assessment impacted student success? If so, how?

Directed Interventions

28. How do you know if a student is struggling with the curriculum?

29. What interventions are given to students who are struggling?
   a. In your classroom?
   b. In the school?
   c. In the district?

30. Are academic interventions voluntary or mandatory for struggling students? Please describe how these interventions are communicated to students.

Closing Questions
I would like give you a final opportunity to help us evaluate the sample program. Before I end today, is there anything that I missed? Do you have any other issues related to the evaluation of the sample program? Have you said everything that you anticipated wanting to say but didn’t get a chance to say?

III. Debriefing
Thank you for participating in today’s focus group session. I appreciate your taking the time and sharing your ideas with me. I also want to restate that what you have shared with me is confidential. No part of our discussion that includes names or other identifying information will be used in any published reports or documents. Only de-identified data will be used for published reports of sample program performance. I (Pam Castleman) will be combining information gathered in the focus group with information gathered from the other data sources (e.g., interviews and document analysis). The data from this focus group will be stored and maintained in a password-protected laptop of the researcher and transcriptionist (only during transcription). Further, de-identified data will be maintained in a password-protected laptop of the researcher for a period of one year after the date of this focus group session, after which the data will be destroyed. Finally, I want to provide you with a chance to ask any questions that you might have about this focus group. Do you have any questions at this time?