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UNIVERSITY OF CALIFORNIA SAN DIEGO

CALIFORNIA STATE UNIVERSITY, SAN MARCOS

Professional Learning Community (PLC) Autonomy & Trust – A Cross Case Study

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Education

in

Educational Leadership

by

Martín Casas

Committee in charge:

University of California San Diego

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2019

The Dissertation of Martín Casas is approved, and it is acceptable in quality and form for

publication on microfilm and electronically:

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<div align="right">Chair</div>

University of California San Diego

California State University, San Marcos

2019

DEDICATION

To my kids, Sofia and Diego, this dissertation is dedicated to you. I missed a lot of swim lessons. I missed a lot gymnastics. I missed a lot of art lessons. I missed a lot of tennis. I missed a lot of play dates. I missed a lot of smiles, a lot of frowns, a lot of tears, and a lot of joy. Memories I will never get back. Often, this dissertation seemed impossible to finish, all I needed to continue was to look at the radiant picture of both you on my phone. You have all of me now, I promise. Los Amo!

To my day one, my wife, Perla. Fifteen years ago, we met at San Ysidro High School. Fifteen years ago, I told you on our first date that I would marry you. Fifteen years ago, I told you that one day I would be a doctor. You always believed in me. You always believed in us. You always believed in the vision. You always supported me. Thank you for being an amazing wife. Thank you for being an amazing Mother. You have all of me now, I promise. Te amo!

To my Mother, Lourdes Casas, a perpetual thank you. One of our first projects for this doctoral program was to design our Myography. The Myography presentation was supposed to outline: my background, my past, my culture, my family, what is important to me, my biggest influences in my leadership style. The first slide of the presentation was a picture of you and I when I was just a baby. The only words I got out were "This is my Mom and I, she is my biggest influence" before I started crying. Mom, you have taught me to lead from the heart, not by the numbers. You have taught me that kindness, caring and empathy are the most important leadership traits. Tu He – Man ya es doctor. Te quiero mucho Madre!

To my Father, Francisco Casas, a perpetual thank you. During the second year of this doctoral program, we had to read *Leaders Eat Last* by Simon Sinek (2013). The book got

into the intricacies of leadership and leadership behaviors that inspire, motivate, and change teams/organizations. Many of the lessons cited, you taught me from a young age, including the most basic and simple one: eating last. Take care of your family first. Take care of your kids first. Take care of your team first. Take care of others first. In the middle of my office I have a large decorative elephant. Many people think that it is because of what an elephant symbolizes: longevity, stamina, mental faculties, cooperative spirit, and loyalty. Which I never dispute, but the real reason is because the elephant reminds me of your elephant collection. The real reason is because it reminds me of you. I didn't need a doctorate to learn what a great leader was, because I've always had one in front of me. Te quiero mucho Padre!

To my siblings, Carlos and Flavia. Love you guys! Thank you for always supporting me. So proud of what both you have become, and of what you will be!

Para mis Abuelos, Samuel Casas y Armando García. Los dos siempre llenos de alegría y de amor. Los quiero mucho! Que en paz descansen. Para mis Abuelas, Olivia García y Flavia Casas, las quiero mucho. Dos de las personas más fuertes que he tenido en mi vida. Los admiro a las dos.

Para Tijuana y Chula Vista.

EPIGRAPH

We've always defined ourselves by the ability to overcome the impossible. And we count these moments. These moments when we dare to aim higher, to break barriers, to reach for the stars, to make the unknown known. We count these moments as our proudest achievements. But we have lost all that. Or perhaps we've just forgotten that we are still pioneers. And we've barely begun. And that our greatest accomplishments cannot be behind us, because our destiny lies above us.

Joseph A. Cooper, from Interstellar

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION

CHAPTER 2: LITERATURE REVIEW

CHAPTER 3: METHODS

CHAPTER 4: ANALYSIS

CHAPTER 5: DISCUSSION

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

I vividly remember the words of advice we received from previous JDP Cohorts during our JDP orientation: Don't buy home. Don't have a baby. And don't start a new job. I have never been much of a rule follower, so by the end of the first year of the program I had committed all three deadly doctoral sins. I only survived this journey because of the incredible support I received from my family, work colleagues, JDP family, dissertation committee (Dr. Halter, Dr. Vargas, and Dr. Simon), and my dissertation chair: Christopher Halter.

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Lastly, I would like to express my deepest gratitude and appreciation to my dissertation chair, Dr. Christopher Halter. Your calm demeanor, authentic feedback, and consistent encouragement have been instrumental to my success.

VITA

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ABSTRACT OF THE DISSERTATION

Professional Learning Community (PLC) Autonomy & Trust – A Cross Case Study

by

Martín Casas

University of California San Diego, 2019

California State University San Marcos, 2019

Christopher Halter, Chair

Since the No Child Left Behind (NCLB) era many program improvement schools were prescribed Professional Learning Communities (PLC) professional development as a corrective action by their respective Local Education Agency (LEA). Despite the adoption and implementation of many corrective action measures (including PLC's) recommended by LEA's, the achievement gap persists in the majority high school campuses nationwide. Millions of dollars have been invested in the PLC method of collaboration with little systematic success in closing the achievement gap in standardized test scores, A – G requirements and college admission. There may be plenty of other factors contributing to the lack of improvement (i.e. instruction, grading practices, assessment of learning, interventions, attendance, student discipline, etc.) – but to what degree is the investment in Professional Learning Communities contributing (or not contributing) to this? Dufour & Eaker (1998, 2003, 2008) argue that schools with PLCs that are not improving student achievement is attributed to them not implementing the prescribed methodology with fidelity. However,

could there be other reasons? A review of the literature identified gaps in the research that could provide other reasons: objective assessment of PLCs, as well as PLC autonomy and PLC trust. This cross - case study used a sequential explanatory mixed-methods design (Creswell, 2013) to analyze teacher perceptions of PLC fidelity, PLC autonomy and trust from two school sites in San Diego with similar student demographics, from the same school district, but with different trending student achievement results. Survey, interview, and field observation findings from this study suggested that Bayside High School and Parkview High School have similar PLC procedures, logistics and generally follow the Dufour & Eaker (1998; 2004) PLC model with fidelity. However, the findings also suggested that PLCs at Bayside High School have more autonomy and trust than PLCs at Parkview High School. The difference in PLC autonomy and trust could be one explanation for the difference in student performance. Additional findings also suggested that internal relationships, motivation, and vulnerability factors could be impacting PLC performance and student achievement at both sites.

CHAPTER 1: INTRODUCTION

Introduction

My interest in researching professional learning communities (PLC) began when I transitioned from being a classroom high school teacher to a high school administrator. I started my teaching career at a high school that was part of a Title I school district in Southern California that was in program improvement. I was part of the U.S. History PLC which consisted of a team of four teachers (three veterans, and one novice teacher – myself). We met once a week for one hour to proceed through the cycle of continuous improvement that addressed the four fundamental questions for PLCs: What do we want students to learn? How are we going to teach the content and skills? How do we know if they are learning the content and skills? What are going to do if they did not get it the first time? We were expected to turn in agendas, minutes, and copies of formative assessments – this was our norm.

After seven years of teaching high school, I became an assistant principal at a high school that was part of a school district that was not Title I, or in program improvement. My experience working with PLCs in my new role as assistant principal was very different than my experience working with PLCs as a teacher at my previous site. While some of this difference may be attributed to my different role, most of it was attributed to a difference in PLC culture and the legacy of collaboration at both schools. PLC teams in my new site were not expected to turn – in agendas, minutes, or to create common formative assessments. Most teams met to discuss students, course sequencing and "parking lot" issues – or topics not focused on student learning. Two very different experiences in PLC culture/practice at two different sites.

After four years as an assistant principal, I became the principal at San Pasqual High School – a Title I school. SP High School's PLC culture/practice was very similar to my first

school, however, with added layers of accountability for PLC teams. PLC teams are expected to follow the cycle of continuous improvement, but they are also expected to turn –in their meeting agendas, notes, and minutes – not only to their department administrator, but also to the district learning support office. I began to wonder why the PLC culture/practice at my first school and San Pasqual High School were similar. Moreover, why was the PLC culture/practice at my second school so different from my experience at the other two sites? Could it possibly have something to do with the demographics of each respective site? Title I status versus non – Title I status? Program improvement status versus non – program improvement status? Differences in school leadership? The inspiration for this research comes from my personal work experience, but also from a curiosity to see in what way the phenomenon of difference in PLC culture/practice exists in a micro sense. And why?

This research explored the phenomenon that I experienced at my first school site and at San Pasqual High School by studying the PLC structure, organization and school leadership at two Title I schools. The two sites for this study were both from the Belding Union High School District and have similar demographics, but a difference in student achievement (CAASPP Math, CAASPP English, A-G rate, and graduation rate).

PLC's and Program Improvement

PLC's popularity increased dramatically in the early 2000's coinciding with the adoption of No Child Left Behind (NCLB). NCLB was signed into law by President George W. Bush in 2002 with the intent to reauthorize the Elementary and Secondary Education Act (ESEA) of 1965 and then 1994 with greater emphasis on assessment and accountability. Under NCLB, schools that did not meet Adequate Yearly Progress (AYP) in statistically significant demographic groups for two consecutive years were designated as "program improvement" (PI)

schools. Schools labeled "program improvement" were forced into corrective action measures as prescribed by their corresponding local education agency (LEA) – which usually meant their corresponding school district or county office of education.

Corrective action measures often included training around English Language Learner instruction (i.e. SDAIE), student-centered instruction, critical reading strategies, writing strategies, academic/social-emotional interventions, parent engagement, teacher collaboration and many others. While many of the corrective action approaches mentioned contribute to school improvement, few have the organizational liquidity for sustained and substantive school improvement as teacher collaboration (Dufour & Eaker, 1998; Dufour, 2004, Dufour, Dufour & Eaker, 2006; Dufour & Dufour, 2015). Collaboration in public schools follows Dufour & Eaker's (1998) Professional Learning Communities (PLC) model.

Statement of the problem

The legacy that NCLB has left on program improvement schools has been one of little progress to close the achievement gap – with the exception of improvement in the high school graduation rate. Despite the adoption and implementation of corrective action measures (including PLC's) recommended by LEA's, the achievement gap persists in the majority campuses nationwide. Millions of dollars have been invested in the PLC method of collaboration with little success system – wide in closing the achievement gap. Why? Dufour & Eaker (1998, 2003, 2008) argue that it is because schools are not implementing the prescribed methodology with fidelity. However, could there be other reasons? Are PLC's being implemented and practiced differently at different sites? For what reason? Does it have to do with schools' demographics and the socioeconomic status of the student population? Program improvement status? A review of the literature reveals a gap in objective assessment

of PLC's, as well as a gap in studying PLC autonomy and trust. This cross - case study will look at two schools with similar demographics - within the same district. Bayside High School has experienced an increase in student achievement for three consecutive years. Parkview High School has experienced a decrease in student achievement for three consecutive years.

Research Questions

A mixed – methods approach will be used to answer the following over –arching questions:

1. To what degree is each school (Bayside High School & Parkview High School) following the Dufour & Eaker (1998) PLC model?

   - To what extent are the PLC practices similar and different at the two sites?

2. To what extent is PLC autonomy/trust similar and different at the two sites?

   - How does administrative autonomy and trust impact the functioning of the PLC?

3. What other factors could be influencing the PLC's functioning and impact on student achievement?

Collaboration as a Theoretical Framework for Improvement

While PLC's did not become popular until the early 2000's, using collaboration to increase performance/productivity is not a new concept. In fact, research in the field of business and human relations argues that office and organizational environments that cultivate and promote self-governance and collaboration perform better (Follet, 1924). It took a while for the principles of collaboration to be investigated in a school setting but Chin and Benne's (1978) work suggests that when teachers are involved in decision-making and are provided

4

time to collaborate they become empowered with problem – solving techniques. Later research suggests that collaboration can improve school performance if teachers have decision making autonomy and consistent time in their schedule to collaborate and receive on-going/formative professional development (Knowles, 1979; Little, 1982; Sparks, 1983; Williams, 2013).   Dufour and Eaker's (1998) seminal work commercialized, trademarked and branded "Professional Learning Communities" or PLCs. This study's conceptual framework will analyze teacher collaboration using Dufour and Eaker's (1998) Professional Learning Communities model.

Dufour and Eaker's (1998) work synthesized previous research on educational collaboration to create a model that advocates for teacher course-a-like teams to have: decision-making autonomy, weekly time on the schedule to collaborate, and opportunities for on-going/formative professional development. Professional Learning Communities are course-a-like teams that usually meet once a week to discuss common curriculum, instruction, assessments and interventions. A review of the literature suggests that, if implemented with fidelity, Professional Learning Communities could help close the achievement gap and improve student achievement (Berry et al., 2005; Bolam et al., 2005; Hollins et al., 2004; Louis & Marks, 1998; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). The Dufour & Eaker (1998) PLC model defines fidelity, as collaboration focused on student learning and a continuous cycle of improvement.

Rationale

Belding Union High School District has grown to more than 40,000 students in grades 7 – 12 and more than 22,000 adult learners (Belding Union High School District, 2018). The district is ethnically and socioeconomically diverse as its student body consists of: 77%

Hispanic, 8.24% Filipino 5.72%, White, 2.6% African - American, 1.3% Asian, .15%

American Indian, 4.5% two or more races, 60% of the students qualify for free and reduced

lunch, 22% are English Learners, and 2% are foster youth (2018). The district has spent a

significant amount of dollars, time and resources to train teachers in Solution Trees'

Professional Learning Communities (PLC) curriculum and practices. DuFour, DuFour,

Eaker, & Many (2016) define a Professional Learning Communities (PLC) as "educators

committed to working collaboratively in on going processes of collective inquiry and action

research to achieve better results for the students they serve" (p.11). The average cost for

training a teacher is approximately $1,200 ($689 for registration plus $511 for travel, room

and board). Since 2005, the school district has spent close to two million dollars on

Professional Learning Community training alone – and to what end? The latest CAASPP

(California Assessment of Student Performance and Progress) results show a decrease in the

percentage of students who met or exceed standards in both English and Math. In addition,

the difference in achievement between student groups has widened. Why has the district not

seen improvement in student learner outcomes from the investment in Professional Learning

Communities training? There may be plenty of other factors contributing to the lack of

improvement (i.e. instruction, grading practices, assessment of learning, interventions,

attendance, student discipline, etc.) – but to what degree is the investment in Professional

Learning Communities contributing (or not contributing) to this?

In the last decade, nationwide student learner outcomes have reflected the results of

Belding Union High School District. College admission, Advanced Placement (AP)

participation rate, Scholastic Aptitude Test (SAT) and American College Test (ACT) scores,

California Assessment of Student Performance and Progress (CAASPP) scores, and A-G

completion rate (minimum course requirements for admission to University of California and or to the California State University system schools) have continued to be disproportionally lower for students of color, poverty, and ELL when compared to Caucasian and Asian students (Bradbury, Corak, Waldfogel, & Washbrook, 2015; Duncan & Murnane, 2016; Li, 2016). More recently, the California Department of Education (CDE, 2016) reported the discrepancy in CAASPP scores: 37 percent of Latinos and 31 percent of African-American students met or exceeded English standards, compared to 64 percent of whites and 76 percent of Asians. In addition, the CDE also reported that 34.6% of Latinos and 32.7% of African – Americans graduated High School completing the CSU/UC A – G requirements, compared to 49.7% of whites and 71.4% of Asians. The achievement gap persists nationwide – despite nationwide adoption of corrective action measures – including PLC's.

The literature review will look deeper into PLC's and explore the following the questions: How and why did district(s) adopt the PLC method of collaboration? What is the history behind it? What impact did No Child Left Behind have on the adoption of Solution Trees' PLC model? The literature review will analyze and critique the most current peer reviewed PLC studies and identify gaps in the research. The gaps in the research will be used to inform this cross-case study that will analyze two schools (from the same district) with similar demographics, and PLC training but with different student achievement outcomes.

This study will explore the following questions: To what extent are the PLCs similar and different at the two sites? To what extent are PLC autonomy and trust similar and different at the two sites? How does administrative autonomy and trust impact the functioning of the PLC? And, what other factors could be influencing the PLCs functioning and impact on student achievement?

Ultimately, this study is needed to understand the potential impact of PLC practice, perceived PLC autonomy/trust, and other leadership behaviors have on school sites that have similar demographics, but have different achievement trajectories.

Overview of Study

This study will use a mixed-method approach to explore the similarities and differences in PLC autonomy and trust between Title 1 Bayside High School (increased performance) versus Title 1 Parkview High School (decreased performance). The study will use a cross – case study analysis (Kahhn, 2008) approach with a sequential explanatory mixed methods design (Creswell, 2003). The methods of data collection will include: quantitative Likert scale surveys, qualitative individual semi - structured interviews and observation of PLC meetings. Interview and observation data will include audio recording, transcribed notes. The study will take place in two Southern California comprehensive – public high schools that are part of the same district, subscribe to the Dufour model of PLC collaboration, have similar demographics, but have a difference in achievement. A total of 60 teachers (30 from each site) will take the trust/autonomy scale surveys – for the quantitative portion. In addition, six teachers (3 per site) will be interviewed – for the qualitative portion. Data will be collected pre/post survey, and from interviews. Additionally, three PLC meetings from each site will be observed to validate survey/interview data. Data analysis will be organized (bundled) in four categories that could provide answers to the research questions: (1) Similarities and differences in PLC structure, procedures, and features; (2) Similarities and differences in trust; (3) Similarities and differences in autonomy; and (4) Similarities and differences in perceived leadership behaviors.

Significance of study

The results of this study could potentially help site level administrators differentiate the management of PLC's. If the hypothesis that Title I Bayside High School (with increased achievement) has more perceived PLC administrative trust and autonomy than Title I school C holds true, then identifying leadership behaviors that yield a higher level of PLC trust and autonomy could inform administrators how manage a particular PLC, and potentially, help close the achievement gap.

Limitations of the study

Limitations of the study include: (a) inherent limitations of the trust and autonomy scale(s), (b) demographics of teacher subjects, (c) sample size of 180 (total number of teacher for both school sites), (d) timing and context, and (e) demographics of the two sample schools engaging in the study. In addition, my own role as an administrator/researcher may be a limitation as it could bias my interpretation of data.

The trust scale includes a variety of limitations. For example, the survey has been modified from an individual teacher perception of trust, to a PLC perception of trust. Similarly, the autonomy scale has been modified from an individual teacher perception of autonomy, to PLC autonomy. Both surveys are limited in terms of the constraints that quantitative survey data can provide. To address this limitation, three qualitative interviews (from each site) will be conducted – in addition to the survey.

The demographics and backgrounds of the survey and interview subjects could bias their responses to the survey questions. For example, teachers that grew up in a single family household may respond differently to questions about trust than teachers that grew up in a two – parent household. In addition, previous experiences under different administrators and at

different school sites could potentially lead to some unaccounted for variance. To address the potential bias limitation of the semi structured interviews, the researcher will conduct observations of PLC meetings will be conducted. The observation notes will be cross – referenced against survey and semi – structured interview results.

Surveying only two comprehensive sites with approximately 80-90 teachers each may be an additional limitation. The minimum participation from each site should be at least 25-30 teachers, preferably, from core subject PLC teams. In addition, since the survey is about the perceived PLC administrative trust and autonomy, it is vital that the majority of a particular PLC team take the survey. For example, if there are ten teachers on the Biology team, the goal should be that at least half of them participate.

The timing and context under which teachers take the survey is also an important factor to taken into account. For example, one might get different responses from the same group of teachers depending on whether the survey is administered in the beginning versus the end of the year. Events and interactions with administrators throughout the year could affect the results even if they have nothing to do with collaboration. The triangulation and cross – referencing of survey, interview and observation data should minimize most of the mentioned limitations (with the exception of the "time of the year" limitation).

Overview of dissertation

In this chapter, I have introduced the problem, rationale, outlined the proposed study, and have presented the possible limitations of the study. In chapter two, I will review the prominent literature on teacher collaboration and PLC's: Legacy of NCLB & Corrective Action, PLC Overview and Participation Benefits, PLC Participation & Student Achievement, School Leadership, Autonomy, & Trust, and PLC structure. I will conclude chapter two by

identifying the gaps in the literature that suggests that PLC perceived autonomy and trust

should be explored. In chapter three, I explain the mixed methods approach to identify

whether or not there is a difference between how Title 1 school (Bayside High School) PLC's

perceive their administrative autonomy and trust versus how Title I school (Parkview High

School) PLC's perceive their administrative autonomy and trust.

CHAPTER 2: LITERATURE REVIEW

Dufour and Eaker's (1998) work synthesized previous research on educational collaboration to create a model that advocates for teacher course-a-like teams to have: decision-making autonomy, weekly time on the schedule to collaborate, and opportunities for on-going/formative professional development. PLC's are course-a-like teams that usually meet once a week to discuss common curriculum, instruction, assessments and interventions.

My career has given me the opportunity to work in schools that have a socioeconomically affluent student population, schools that have a high population of students that live in poverty, and schools that have students across the socioeconomic spectrum. Historically, the general public and media have categorized affluent schools as "high-performing" and schools with a high Title I population as "low-performing" or "failing." These labels are typically attributed to a school's corresponding state assessment results, A-G completion rate, and AP participation rate. My experience is that there are high quality teachers at both, and there are poor – low quality teachers at both, but only low-performing schools garner a negative reputation. In addition, low –performing schools are less likely to retain and attract high – quality teachers because of the added pressure that normally comes with working at a Title I school, such as program improvement status, more administrative oversight, and less autonomy (Ingersoll, 2003; Cochran –Smith, 2004). On the other hand, affluent schools are less likely to be in program improvement, have less administrative oversight and are given more autonomy (Ingersoll, 2009). PLC administrative oversight and autonomy in affluent schools and Title I schools are also vastly different. PLC teams in Title I schools are tightly controlled, regulated, monitored, goal oriented, scripted,

and without, or little autonomy. The question is, What led to this high degree of accountability and structure?

Evidence exists that tightly controlled PLC's can help close the achievement gap and increase educational productivity (Dufour, Dufour & Eaker, 2006; Dufour & Dufour, 2015). PLC's are usually either tightly- controlled (hierarchical) or not controlled at all (self-organized). Dufour & Eaker's (1998) recommendation is very prescriptive, hierarchical, and includes department chair/administrative oversight.

The literature review will examined research that analyzed to what degree Professional Learning Communities (PLC's) have decision-making autonomy & trust to develop their curricular, instructional, assessment decisions – and, what relationship (if any) this has on student achievement. The literature on teacher autonomy and trust will be examined to see how it may relate to PLC autonomy and trust. The literature review will also examine the most current research in the five areas mentioned previously. This is followed by an assessment of the broader implications this research has on issues of social justice and leadership in education.

Legacy of NCLB & Corrective Action

The achievement gap persists nationwide (Bradbury, Corak, Waldfogel, & Washbrook, 2015; Duncan & Murnane, 2016; Li, 2016). There has been several measures, program, policies, strategies that have had moderate success in closing the achievement gap: growth mind-set, Positive Behavior Intervention and Supports (PBIS), Advancement Via Individual Determination (AVID), Specially Designed Academic Instruction (SDAIE) strategies, Understanding by Design (UbD) lesson and a variety of mentor/intervention

programs. None of the measures/strategies has had the educational liquidity to be

implemented as a prescriptive measure to help all schools close the achievement gap. In other

words, there is no "one size fits all" measure, program, or policy that is generalizable.

No Child Left Behind (NCLB) mandated a semi-prescriptive approach for school

improvement. NCLB was signed into law by President George W. Bush in 2002 with the

intent to reauthorize the Elementary and Secondary Education Act (ESEA) of 1965, 1994

with more of an emphasis on assessment and accountability. NCLB measured a schools'

Adequate Yearly Progress (AYP) by evaluating the following four categories: student

participation in testing, percentage of students proficient in English Language Arts and

Mathematics, academic performance index (API), and high school graduation rate. Schools

that did not meet their annual AYP growth goals for all demographic groups had to create and

submit improvement plans for their areas of growth.   Table 1 explains the difference between

API and AYP:

Table 1: API vs AYP (California Department of Education, 2012)

	API	AYP
What is measured?	Language Arts, Math	Language Arts, Math
	Science, and Social Studies	
Which tests are used?		
	California Achievement Test	California Standards Test
	California Standards Test	California High School Exit Exam
	California High School Exit Exam	
What is the goal?		
	A score of at least 800	All students proficient by 2014,
		The required minimum %
		proficient increase each year
Who is counted?		
	Total School	Total School
	Total District	Total District
	Each racial/ethnic group	Each racial/ethnic group
	Economically disadvantaged students	Economically disadvantaged students
		English Learners
		Special Education students
What happens if goals are not met?		
	Program Improvement schools	School receiving Title funds must offer choice, supplemental
	that do not show improvement	services and may be restructured or taken over
	may be sanctioned, restructured or taken over by state	by the state.
Who must be tested?	90% of students (9-12)	95% of students
	95% of students (k-8)	

Schools that did not meet statistically significant demographic groups for two consecutive years would eventually be labeled as "program improvement" (PI) schools, or districts, as was the case with many of our local schools. Once a school was labeled as a "PI" school, students and parents had to be legally notified that they had the choice to transfer out of the "PI" school at no cost or additional regulation to the parent/student. Schools that did not improve for four or more years (did not meet AYP) were either closed, converted into a charter, taken over by the state, being managed by a private company, identified as a vague

"other major restructuring" category, such as reconstitution (Posnick-Goodwin, 2008). Reconstitution is the broad-scale replacement of staff and teachers.

Corrective Action & PLC's. Schools that were labeled "program improvement" were forced into corrective action measures as prescribed by their corresponding local education agency (LEA) – which usually meant their corresponding school district or county office of education (CDE, 2016). One of the frequently prescribed corrective action measures was PLC training. The work of Bryk (2010) and Noguera (2016) studied the improvement efforts of several low-SES schools across the nation. They identified coherence and collaboration as key areas to achieve school improvement (Bryk, 2010; Blankstein, Kelly, & Noguera, 2016).

Dufour and Eaker's (1998) seminal work commercialized, trademarked and branded "Professional Learning Communities" or PLC's. Dufour and Eaker's (1998) work synthesized previous research on educational collaboration to create a model that advocates for teacher course-a-like teams to have: decision-making autonomy, weekly time on the schedule to collaborate, and creates opportunities for on-going/formative professional development. PLC's are course-a-like teams that usually meet once a week to discuss common curriculum, instruction, assessments and interventions. School District A's continued designation as a program improvement school district from 2002 -2015 led the district to adopting and subscribing Dufour & Eaker's (1998) Professional Learning Communities (PLC) model as a form of corrective action that has resulted in little to no "district – wide" increase in student learner outcomes (with the exception of the graduation rate). So why hasn't the PLC model produced results if evidence exists that tightly controlled PLC's can help close the achievement gap and increase educational productivity (Dufour,

Dufour & Eaker, 2006; Dufour & Dufour, 2015)? Dufour and Eaker would argue that their

model has not been followed with fidelity at all the schools in school district A.

PLC Overview and Participation Benefits

This section of the literature review will provide an overview of teacher collaboration

under the Professional Learning Community (PLC) model. In particular, the following sub-

themes will be addressed: What is a PLC? What are the benefits of PLC participation?

What is a PLC? There is an extensive library of research available on what a

Professional Learning Community (PLC) is, and what it is not. Dufour & Eaker's (1998)

describe PLC's as course-a-like teams that meet once a week to discuss common curriculum,

instruction, assessments and interventions.   For example, at the high school level, a typical

ninth grade PLC team may include 11 ninth grade Biology High School teachers, a

department chair, a guidance counselor, and an administrator. The literature discusses the

difference between department team meetings and PLC meetings (Dufour 2004).

Department teams that get together to talk about the logistical aspects of schooling and do not

address instruction and student learning are not PLC teams. DuFour (2004) cautions, ''the

term has been used so ubiquitously that it is in danger of losing all meaning'' (p.6). So what

are the characteristics of a true PLC? Newmann et al. (1996) describe the five universally

accepted characteristics of PLC's: shared norms and values, collective focus on student

learning, engage in reflective dialogue, de-privatize practice, and collaboration (p. 985).

Shared norms and values include the PLC team discussing the following: meeting

dates/times, establishing communication protocols, a commitment to respecting each others'

opinion/views, acceptable/unacceptable language, and collective responsibility for the

learning of all students. As mentioned previously and by Dufour (2004) a collective focus on

teaching and student learning is a key characteristic of a PLC team, discussing things like who is paying for the gallon refill of water or concerns over staff parking are not appropriate for PLC team meetings. Reflective dialogue includes the PLC team having a discussion about a commonly planned lesson and asking the following questions: Did our students meet the instructional objective? How do we know whether or not they met the instructional objective? Which of our students did not meet the instructional objectives? Why or why not? De-privatizing practice is also a key component of a PLC. A commitment by PLC members to de-privatize practice involves teachers feeling comfortable not only sharing their ideas/practices, but also empowering other team members to share ideas. Finally, a genuine commitment to collaborating with the PLC involves actively participating in discussions of curriculum, instruction, assessment and interventions (Newmann et al. 1996). Bolam et al. (2005) synthesize these characteristics to define a PLC as a community ''with the capacity to promote and sustain the learning of all professionals in the school community with the collective purpose of enhancing student learning'' (p. 145).

Benefits of PLC participation. The consensus in the literature that, at minimum, formal teacher collaboration (under the PLC model) has an association with an increase in student achievement and can potentially help close the achievement gap (Dufour & Eaker, 1998; Batten, 2013) will be addressed in depth in the latter portion this literature review. This section will review other residual benefits of teacher collaboration that were revealed by an analysis of arguments for implementation of PLCs, which include increase in teacher inquiry (research), development of teacher leaders, and increase in teacher morale.

Teacher inquiry, as defined by Cochran-Smith & Lytle (1993) is systematic, intentional research by teachers. PLCs facilitate teacher inquiry by allowing teachers to feel

18

safe to take risks and by engaging in a reflective dialogue (Dufuor, 2004). Following a typical reflective dialogue such as: "Did students learn the objective of the lesson? Why or why not?" These questions may lead to teachers to engage in creative ways to deliver instruction and assess learning – also known as teacher inquiry.

Historically, teacher leaders have been identified as teachers who take on an extra "leadership" roles typically associated with teaching and learning: athletic coach, club advisor, department chair, union representative, and others. In addition, even when teachers take on leadership roles that are "academic" they usually require the teacher to leave the classroom, such as promotion to administration, instructional coach, teacher on special assignment (TOSA), and others. Dufour & Eaker (1998) argue that the PLC model of collaboration has allowed teacher leaders, who are committed to staying in the classroom to be identified, and most importantly, it has leveraged their expertise to become contagious, or what Dufour (2004) refers as the de-privatization of practice. The PLC model facilitates the emergence of teacher leaders and empowers them to make curricular and professional development decisions. Vescio (2008) refers to this phenomenon as teacher authority: "By teacher authority we mean the ability of teachers to make decisions regarding both the processes of their learning communities and aspects of school governance" (p. 85). Supovitz's (2002) work concluded that giving teachers input and the authority to make their own curricular/professional development decisions is crucial to increasing student achievement.

Several studies indicate that having the time to meet with colleagues during PLC time increases morale and trust. Morale and trust increase if teachers are given some autonomy and input into curricular, professional development and school policy decisions (Hord, 1997).

Conversely, if teachers (through their PLC's) are not heard and do not have a degree of autonomy on school curricular, instructional, and assessment then trust and morale decrease. Fowler's (2017) work suggests employee morale, motivation and autonomy are related. Her work indicates individuals cannot be motivated without having a sense of agency and autonomy in the work that they do. She argues that in order to motivate employees, managers should work on increasing the autonomy, relatedness, and competence (ARC) that they grant to their employees. The more ARC an organization gives its employees, the higher the morale of the organization. In addition, student achievement decreases when morale and trust among teachers decrease (Louis, 2007). Dufour and Eaker (1998) argue that the recommended prescription of PLC norms combined with collaborative administrators would increase morale and trust. The concepts of teacher authority and input are discussed more in the next section.

PLC Participation and Student Achievement

Several studies argue that there is a positive relationship between student achievement and PLC participation (Berry et al., 2005; Bolam et al., 2005; Hollins et al., 2004; Louis & Marks, 1998; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). More importantly, there is also extensive research that argues that PLC participation helps close the achievement gap. The work of Berry et al. (2005) and Bolam et al. (2005) suggests that underserved populations are more likely to learn in schools that have professional learning communities. The question is how and why does this occur? Research in PLC participation and improving student achievement focuses on three areas: 1. Collective responsibility, 2. Data-driven instruction & intervention, and 3. A focus on instruction.

Collective Responsibility. Schools that include teacher voice in policy, curriculum, and professional development are more likely to establish a culture of collective responsibility (Halvorsen, Lee and Andrade, 2008). Lee and Smith (1996) define responsibility as teachers holding themselves accountable for student learning. Lee's definition counters the age-old paradigm that students are solely responsible for their own learning. In professional learning communities, collective responsibility is a foundational concept that permeates in the culture of a learning community. Evidence of collective responsibility can be found in the language that is used during PLC meetings: when referring to students, all teachers say "our kids" instead saying "my kids." When members of a PLC buy-in to the culture of collective responsibility, they are more likely to de-privatize and share best-instructional practices, assessments, teach each other, and give constructive feedback (Newmann et al., 1996). Most importantly, when there is collective responsibility there is a high probability of student achievement increasing (Dufour, Dufour & Eaker, 2006; Dufour & Dufour, 2015).

Data – driven instruction & intervention. The use of data to drive instruction and intervention is a crucial reason why PLC participation can increase student achievement and help close the achievement gap. Dufour and Dufour (2015) provide a prescriptive approach to disaggregating common formative assessment data. A common formative assessment is a mutually created, designed, and agreed upon assessment given by members in a PLC. For example, a biology PLC team (consisting of three teachers) creates, designs, and administers an identical assessment on recessive alleles to all fifteen sections of biology during an agreed upon testing window. During the next PLC meeting, all three teachers disaggregate the data by demographic groups collectively. The performance of all fifteen sections is analyzed collectively and individually. All teachers take collective responsibility for the performance

21

of all fifteen sections (not just their five). Areas of strength and growth are discussed and examined. A targeted intervention, remediation, re-teaching and re-assessment plan is created by the PLC for all students.

Interventions are typically tailored to a particular sub-standard that a group of students did not master. For example, if a group of thirty students (among all three teachers- across all fifteen sections) did not master the sub-topic of Punnet squares (sticking with the recessive allele topic), then any of the three Biology teachers can host a review session on Punnet squares before students are re-assessed. The latter can be replicated for underserved populations like English Learners. Any of the three teachers can offer review session that focuses on vocabulary development and reading/writing strategies - pre or post assessment (Dufour, Dufour & Eaker, 2006; Dufour & Dufour, 2015).

The combination of collective responsibility and using data to drive instruction in PLC's can help increase student achievement and close the achievement gap. However, nothing has a more significant impact on student achievement than effective instruction (Hattie, 2015).

A focus on instruction. PLC participation can organically leverage the instructional expertise of local instructional experts. Vescio (2008) argues: "At its core, the concept of a PLC rests on the premise of improving student learning by improving practice" (p. 84). Research on how PLC participation improves instruction or changes instructional practice is extensive (Dunne, Nave, & Lewis, 2000; Englert & Tarrant, 1995; Hollins, McIntyre, DeBose, Hollins, & Towner, 2004; Louis & Marks, 1998; Strahan, 2003). Most of the work in this area used a mixed-methods approach to examine changes in instructional practice. Instructional practice was analyzed via peer observations, administrative observations and

surveys. The findings suggest that PLC lesson studies, PLC peer observations, PLC

professional development and a culture of collective responsibility can yield an increase in

universally accepted best instructional practices (Marzano & Pickering, 2013) such as:

differentiated instruction, student engagement strategies, student-centered learning, and

culturally proficient pedagogy.

School Leadership, Autonomy & Trust

This section will review shared leadership models of transformative and distributive

leadership, as well as, the relationship that general teacher autonomy and trust have on PLC

autonomy.

When it comes to decision-making associated with school logistics (bell schedule,

restrooms, parking, and others) most schools still distribute leadership via the traditional

"department chair" model. Similarly, instructional leadership decisions are usually made via

PLC leadership teams or instructional leadership teams. Department chairs and PLC leaders

are typically democratically elected by members of the PLC or department. PLC leadership

team meetings differ from department chair meetings in that the topics of conversation

revolve around curriculum, instruction, assessment, intervention and professional

development. The degree to which the PLC leadership team influences school-wide

instructional/curricular initiatives varies from school to school and from administration to

administration. Vescio (2008) argues that one of the foundations of PLC work is that PLC's

feel as if they have a voice in designing and planning their own professional development.

The more teachers have input, the more likely they are to take individual and collective

responsibility for student learning (Halverson et al, 2008).

There is extensive research that examines the positive relationship between school leadership and student achievement (Dumay, Boonen, & Van Damme, 2013; Kelley & Shaw, 2009; Marzano, Water, & McNulty, 2005). According to Leithwood, Louis, Anderson and Wahlstrom (2004) school leadership has the second strongest impact in increasing student achievement behind effective instruction. John Hattie's (2015) meta – analysis research identified the following instructional leadership traits that have an impact on student achievement: (1) Believing in evaluating one's impact as a leader: Effect size .91; (2) Getting colleagues focused on evaluating their impact: .91; (3) Focusing on high-impact teaching and learning: .84; (4) Being explicit with teachers and students about what success looks like: .77; and (5) Setting appropriate levels of challenge and never retreating to "just do your best": .57. All of the traits identified by Hattie closely parallel the components of PLC cycle. More importantly, Hattie's seminal work recognizes the potential impact of strong instructional leadership with collective responsibility of learning: "The high-impact leader creates a school climate in which everybody learns, learning is shared, and critique isn't just tolerated, but welcomed" (p.40). If this is the case, how much decision-making autonomy does school leadership afford PLC's in affluent area schools versus urban/high-poverty schools?

Transformative Leadership. Extensive research has been done in the areas of distributive and transformative leadership that indicates the leaders of schools in urban/poverty-stricken areas can improve student achievement by adopting a transformative leadership practice (Hallinger, 2003; Sillins, 1994). Transformative leadership, first coined by Burns (1978) for use in political leadership, was adopted and applied to the field of education by Leithwood, Baegley, and Cousins (1994). Leithwood et al. define transformative leadership as "leadership that implies major changes in form, nature, function,

24

and/or potential of some phenomenon." Leithwood (1994) also established the seven characteristics of transformational leaders:

1. Building school vision and establishing goals,

 2. Creating a productive school culture,

3. Providing intellectual stimulation,

4. Offering individualized support,

5. Modeling best practices and important values,

6. Demonstrating high-performance expectations, and

7. Developing structures to foster participation.

Leithwood's seven characteristics of a transformative leader compare quite nicely with Newman et al. (1996) and Dufour & Eaker's (1998) characteristics of an effective PLC. In particular, characteristics six and seven line up with a focus on student learning, and with collaborative protocols and expectations.

Distributive Leadership. Another leadership model that can be adopted to govern PLC decision-making autonomy is the distributive leadership model. Research suggests there is a positive relationship between distributive leadership and student achievement (Hallinger & Heck, 2009; Leithwood & Mascall, 2008). The distributive leadership model involves delegating decision-making to all stakeholders, working through teams, and promoting collective responsibility (Ritchie &Woods, 2007). Most importantly, the work of Leithwood et al. (2009) suggests one of the differences between high-performing and low-performing schools is that high-performing schools distribute leadership. The latter implies an anticipated finding: high-performing schools afford their teachers more decision-making autonomy. However, Leithwood's (2009) does address demographic contextual differences. The

25

democratic nature of distributive leadership aligns nicely with the foundational practices of PLC's (Newmann, 1996; Dufour &Eaker, 1998).

Autonomy and Trust. A variety of key words and combination of phrases were used to examine and review literature related or connected to PLC autonomy: Under – performing schools + PLC's, Affluent school PLC's + autonomy, Low –SES school PLC's + autonomy, PLC independence, PLC autonomy, collaborative autonomy, collaboration + autonomy, collaboration + independence, teacher team independence, teacher independence, teacher autonomy + trust, teacher freedom, teacher autonomy, trust + collaboration, teacher trust in poverty schools, teacher autonomy in poverty schools, and trust + PLC's. Limited or no research was found that compares the PLC autonomy of Low – SES schools versus the PLC autonomy of affluent schools. In addition, little or no research examines PLC autonomy in any school setting directly. However, after reviewing several related works it became apparent that teacher trust and general teacher autonomy could be associated with the amount of autonomy a PLC team is afforded.

The vast amount of research on teacher autonomy has produced a variety of definitions. Pearson and Hall (1993) define teacher autonomy as the perception that teachers have on controlling themselves and their environment. Frase and Sorenson (1992) argue that teacher autonomy is a way for administrators to avoid their duties. Wilner (1990) differentiates between an older definition of autonomy and a newer one: the old definition of teacher autonomy is based on teacher independence, isolation and alienation, while the new definition of teacher autonomy is based on collaborative decision-making and the freedom to make prescriptive professional choices. Franklin (1988), Fay (1990) and Hanson (1991) all have comparable definitions to Wilners' (1990) new definition; however, all of them add that

teacher autonomy must also include decision-making authority over the "substance" of a school. "Substance" of the school includes authority over the instructional process, the right to implement a set of their own classroom rules, and the right to make flexible decisions in their teams. Farris-Berg & Dirkswager (2012) definition of teacher autonomy includes Wilners' (1990) collaborative decision-making aspect of the new definition and builds upon Franklin (1988), Fay (1990) and Hanson's (1991) authority over the "substance" of the school. Farris-Berg & Dirkswager (2012) argue that teachers have autonomy when they are afforded final decision-making authority, not just input, to areas related to a schools' success. For example, this would include teachers having final decision-making authority in the following: selecting colleagues, transferring and/or terminating colleagues, evaluating colleagues, selecting and deselecting leaders, determining budget, determining salaries and benefits, determining learning program and learning materials (curriculum, textbooks, instructional practices, etc.), setting the schedule (length of school-day), bells, and setting of school level policies (Farris-Berg, & Dirkswager, 2012). Finally, Ingersoll (2003; 2009) suggests that teachers in low –SES schools have less teacher autonomy than teachers in affluent area schools. It is important to note that the latest research in teacher autonomy makes an important deviation from teacher independence and instead now associates teacher autonomy to teacher collaborative decision-making. In other words, teacher autonomy is teacher collaborative decision-making authority over policies related to curriculum, instruction, assessment and the school in general.

There are many other residual benefits to teacher autonomy. Pearson & Moomaw (2005) argue that there is an association between teacher autonomy and increased teacher

empowerment, job satisfaction and professionalism. In addition, there is a relationship

between teacher autonomy and increased trust in the teacher–administrator relationship.

Trust in an educational setting can happen in various relationships: teacher to teacher,

teacher to student, teacher to parent, teacher to administrator, administrator to administrator,

administrator to parent, staff to teacher, staff to staff, and parent to parent. For the purposes

of this review, the relationship(s) between teacher to teacher and teachers to administration

will be examined. Zucker (1986) defines trust as the basis for social interaction and as a

necessary ingredient for cooperative action. Bryk and Schneider (2003) define relational trust

in an educational setting as the product of social interactions that contain respect, personal

regard, competence in core responsibilities, and personal integrity. When the four

discernments are met then schools have relational trust, and when there is relational trust,

there is an environment that fosters cooperative endeavors (Bryk & Schneider, 2003). Other

authors have added facets or subconstructs to relational trust that include: risk,

communication, benevolence, reliability, competence, integrity, openness, and respect (Daly

& Chrispeels 2008; Tschannen-Moran & Hoy, 1998). These facets are crucial for the

foundation of collaboration, coherence, shared vision and responsibility (Louis, 2004).

Literature in teacher autonomy suggests there is a positive relationship between

schools that give their teachers autonomy and an in increase student achievement. Similarly,

literature in relational trust notes that there is a positive relationship between institutions with

high relational trust and increase in student achievement. Trust and teacher autonomy are

foundations for professional learning communities to exist in a school. Yet there is limited

evidence that low – SES schools are granted teacher autonomy in their PLC's or that they are

trusted to make collaborative decisions about curriculum, instruction, assessment and interventions.

PLC Structure, Organizational Systems

This section of the literature review will focus on the self-assessment tools to evaluate PLC structure fidelity and will look at how organizations outside of education facilitate and structure collaboration.

PLC Structure. Typical PLC structure follows the sequence recommended by Dufour & Eaker (1998): week 1 -Planning, week 2 -Instruction, week 3 -Curriculum, and week 4 - Intervention. During a planning meeting, it is typical for teams to discuss learning objectives, essential questions, calendar sequencing, content and common core standards to be covered. Instructional meetings usually revolve around modeling and implementing student engagement strategies, checking for understanding, and reading and writing instructional strategies. Assessment meetings usually discuss the creation and implementation of common assessments. Intervention meetings discuss assessment data results, common interventions, remediation, re-teaching, and lesson redesign for the next time a unit is taught. The examples mentioned bring to life the prescriptive approach recommended by Dufour, however, many self-controlled PLC's have little to no protocol or oversight.

To address PLC fidelity, Dufour (2006), Schmoker (2006), and Darnell (2015) have designed rubrics and self-assessments to gauge PLC fidelity and implementation. Dufour's (2006) rubric asks PLC members to self-assess the following areas: overall PLC development, mission, shared vision, shared values, goals, collaborative culture, parent partnerships, action research, continuous improvement, and focus on results. Team members can give themselves the following ratings 1- Pre-initiation, 2- Initiation stage, 3- Developing stage, and 4-

Sustaining stage. Schmoker's (2006) rubric asks PLC members to self-asses in the following areas: reflective dialogue, de-privatization of practice, focus on learning, collaboration, shared norms/values, assessment for learning, openness to improvement, collegial support, supportive leadership, socialization, regular meeting times, physical proximity, interdependent teaching roles, communication structures, and teacher empowerment. Team members can give themselves the following ratings: 1- Not at all, 2- In some cases, 3- In many cases, 4- almost always. Darnell's (2015) rubric asks PLC members to self-asses in the following areas: Expect (purpose, success, support, and high functioning collaborative work); Inspect (study work, and analyze and interpret achievement data); Select (goals, strategies, and plan of action); Act (prepare and implement improvement plan); and Reflect (regarding functioning and progress toward goal). Team members can give themselves the following ratings: 1- yes, 2- not yet.

Schmoker's (2006) rubric addresses administrative support and teacher autonomy directly: Supportive Leadership: School leadership keeps the school focused on shared purpose, continuous improvement and collaboration. Teacher Empowerment: Teachers have autonomy to make decisions about their work and are encouraged to see themselves as inventive professionals upon whom improvement primarily depends.

Dufour's rubric (2006) addresses administrative support under the "stage 4- Sustaining stage" column across the collaborative culture row. The rubric describes an effective administrative relationship with PLCs as one in which: (1) Staff is fully involved in the decision- making processes of the school; (2) Administrators pose questions, delegate authority; (3) Create collaborative decision- making processes; and (4) provide staff with the information, training, and parameters they need to make good decisions.

30

Schmoker's (2006) rubric is the only one that attempts to directly address decision-making autonomy directly. However, the rubric assesses PLC decision-making autonomy in terms of frequency, not in terms of autonomy. Assessing how frequently PLC's have the autonomy to make "decisions about their own work" does not gauge how autonomous those decisions are. Furthermore, none of the rubrics takes into account the context of school demographics, student achievement and administrative school leadership. PLC structure fidelity is taken as an absolute value and all of the rubrics (Dufour, 2006; Schmoker, 2006; Darnell, 2015) are used to gauge to what degree PLC's are following the recommended PLC best practices. The rubrics are not designed to gauge PLC decision-making autonomy, nor are they evaluated in comparison organizational systems (Ticoll, 2004; Scott, 2003).

Graham & Ferriter (2008) developed the most widely utilized PLC self – assessment tool "the 7 seven stages of a PLC." The tool asks members of a PLC to reflect and self - evaluate to what degree they are following the recommended protocols as prescribed by Solution Tree (Dufour & Eaker, 1998; Dufour, Dufour, Eaker, Many, & Mattos, 2016).

- Stage 1 is described as "Filling in the Time." In this stage, PLC teams are unclear what they are supposed to do and why they are meeting.   Teams stuck in this stage typically lack norms, an agenda and any structure to their meetings (p. 39).

- Stage 2 is described as "Sharing Personal Practices." In this stage, PLC teams begin sharing practices and sequencing. Questions like "What is everyone doing in their class right now?" and "What part of the book is everyone on?" are common for PLC teams in this stage. Teams have difficulty moving beyond this stage because they fail to relate their

31

conversations around student learning, identifying essential standards, sequencing, and coherence (p. 39).

- Stage 3 is described as "The Planning stage." In this stage, PLC teams begin to establish common curriculum, lessons, and sequencing. Delegation of responsibilities and a team approach to creating common lessons also happens in this stage. Teams fail to move beyond this stage because they become too comfortable/complacent with the common planning and delegation of responsibilities. The missing piece in this stage is a focus on results, or student learning. While the common planning, sequencing and calibration of lessons should be celebrated – the focus of teams in this stage should be directed to emphasize impact on student learning and creating common assessments (p. 40).

- Stage 4 is described as "Developing Common Assessments." In this stage, PLC teams begin to co – create & co – design shared assessments that all agree to administer within a certain time window. Questions like "What should students produce as evidence that they have mastered the content & academic skills associated with this course?" and "What does mastery look – like?" are common for PLC's in this stage. Teams get stuck in this stage because they skip the foundational/philosophical dialogue that aligns their beliefs about student assessment, or because they cannot come to consensus and actually write a common assessment.

- Stage 5 is described as "Analyzing Student Learning." In this stage, PLC teams begin to share and disaggregate their common assessment results with

their students, parents, and with each other. The mindset of the PLC is to
study the collective efficacy of the team in improving student learning.
Comments like "how did our kids perform" replace statements of "this how my
kids performed" are common for PLC's in this stage.

- Stage 6 is described as "Differentiating Follow - up." In this stage, PLC teams
  respond to student performance on common assessment results, in other words,
  PLC teams implement data – driven instruction and interventions. Questions
  like "What are we going to do if students do not get it?" and "Which strands in
  the unit did students not have success with? How will we provide targeted
  help?" Are common for PLC's in this advanced stage (p. 41).

- Stage 7 is described as "Reflection on Instruction." In this stage, highly
  functional PLC teams are reflective about their practice, follow the cycle of
  continuous improvement, pioneer new approaches to assessment/instruction,
  conduct peer observations, and lesson studies. Reflective questions like
  "Which practices are most effective with our students?" and "What are some
  different ways we can teach and asses this unit to ensure that all of our students
  reach mastery?" are common for PLC's in this advanced stage (p.42).

While Graham & Ferriter's (2008) work provides a comprehensive evaluation of PLC's, it
continues to be an instrument of self – assessment. While the tool gives school administrators
recommendations on how to move teams from stage – to – stage, it is not designed for
administrators to evaluate PLC's. In addition, the instrument does not directly address PLC
perceived administrative autonomy and trust.

Critique of Self – Assessment Rubrics

The most commonly used PLC rubrics seek to measure to what degree a PLC team is following the recommendations of Solution Tree and Dufour & Eaker (1998). However, all of the rubrics reviewed for this study are "self-assessments" and lack objectivity. In addition, most of them fail to address explicitly perceived PLC autonomy and trust. The latter is important to this study because the default reason given for a school that has implemented PLC's, but that has not improved student achievement is because "they are not following the Dufour model with fidelity," among other things.

The rubrics fail to address the scenario in which two school sites have received the same amount of PLC training, implement with fidelity, similar demographics, and have a difference in student achievement. The latter will be setting for this cros-case study.

Organizational systems and networks. Literature outside of education was examined to explore how other organizations facilitate and structure alternative ways to collaborate that offer teams more autonomy.

There has been extensive research on formal and informal collaboration – outside the world of education. For example, Waber's (2014) research in the business and organizational management field suggests informal collaboration can improve performance just as much, sometimes even more, than formal collaboration. The same author also argues that organizations that require customized response networks (organizations that require collaboration of specialists – like pharmaceutical companies) could benefit from a more laissez-faire/self-organized system that fosters creativity/innovation. Yet, if you think of a PLC as customized response network, how often are PLC's allowed to leverage the power of their informal networks? Are PLC's in title I schools allowed to leverage the power of

informal networks? Following the prescriptive nature of Dufours' (2006) PLC best practices does not leave much room for any informal collaboration.

Ticoll (2004) and Scott's (2003) work in organizational systems addresses decision-making autonomy and organizational structure that could be applied to PLC's. Scott (2003) describes three popular approaches to organizational structures: rational, open and natural. A rational system is defined as an organization that formalized processes and a common organizational goal. Rational organizations have a tendency to be hierarchical, bureaucratic, efficient and have task-oriented/formal networks. Examples of rational systems include the military, large corporations, and public federal/state agencies. A natural system is defined as "collectives whose participants are pursuing multiple interests both disparate and common, but who recognize the value of perpetuating the organization as an important resource" (p.28). Decisions in natural organizations are made by consensus, and networks are usually formal and informal (with an emphasis on the strength of natural systems coming from informal networks/relationships). An example of a natural organization is a new office space tech co-ops, in which vendors with different, yet similar businesses rent office space together. All vendors have collective and individual goals, and decisions affecting the collective office space are made via consensus. An open system is defined as "congeries of interdependent flows and activities linking coalitions of participants embedded in wide material-resource and institutional environments," (p.29). Individual goals are not necessarily created or executed for the common good of the organization – rather they are created and executed with the good of the individual component in mind. Networks are formal and informal – internal and external. Decisions in an open system are usually bargained and compromised. An example of an open organization is the University of California San Diego (UCSD). UCSD has many

35

interdependent components that operate almost as independent components- but are associated with the university: UCSD Medical Center, PREUSS secondary school, Thurgood Marshall, Sixth College, and the Skaggs School of Pharmacy to name a few.

Ticoll (2004) describes organizational systems as hierarchical, hybrid and self-organized. Ticoll describes a continuum in which decision-making autonomy is described in the context of production, delivery, and exchange. In a hierarchical organization, the CEO and the executive board tightly-control the production, delivery and exchange of goods. Similar to Scott's (2003) rational organizations, examples of hierarchical organizations include large corporations like Wal-Mart, General Motors and the military. A hybrid organization has a collaborative decision-making process in which production, delivery and exchange of goods are collectively decided with the input of management, low-level/high-level employees, and the consumers. For example, British Petroleum devised an intracompany marketplace to buy and sell the right pollute. In other words, companies could purchase the right emit more carbon dioxide, depending on their willingness to pay for the permits – with British Petroleum establishing the maximum amount permits. While the process and the overall emission target was conceived by middle and executive management, how much to pollute and whom gets to pollute was decided by the marketplace. The results yielded abatement in emissions greater than expected (Ticoll, 2004). Self- organized systems are chaotic. What is produced, delivered and exchanged is almost exclusively determined by the consumer via a free-market or a system of revealed preference. Examples of self-organized organizations include Ebay, Linux, iTunes, and Netflix (Ticoll, 2004). A self-organized system can foster, facilitate and develop non-formal collaboration organically. Conventional management practices/decisions have a tendency to be hierarchical in nature

and consequently limit the opportunity for informal collaboration to happen. Ticoll's (2004) work in organizational systems counters hierarchical conventional management practice and suggests that self-organized systems (no structure – chaos) can also be productive and innovative. More importantly, Ticoll (2004) argues that hybrid systems can marry the benefits of hierarchical and self-organizations to leverage the benefits of both formal and informal networks/collaboration.

Scott's (2003) rational system and Ticoll's hierarchical (2004) system are similar and can be used to describe Dufour & Eaeker's (1998) prescriptive nature on how PLC's should operate and function. Conversely, the application of Scott's natural system and Ticoll's self-organized system are also similar in nature could be used to describe laissez-faire PLC's that presumably exists in the majority of affluent area schools. The question remains under what condition(s) is it appropriate to implement a hybrid organizational structure, rational/hierarchical structure, and or natural/self-organized?

Summary

Prescriptive PLC work and protocol by Dufour & Eaker (1998) and Newmann et al. (1996) fails to address direct connections to distributive and transformational leadership. While there are obvious parallels to distributive and transformative leadership and PLC's, the majority of literature reviewed in this section focuses the nature of a PLC. However, the literature that reviews the connection between PLC participation and an increase in teacher inquiry (Cochran-Smith & Lytle, 1993; Dufour, 2004), teacher leadership (Supovitz, 2002; Vescio, 2008) and teacher morale (Hord, 1997; Dufour & Eaker, 1998) does have decision-making autonomy as a foundation for the latter to increase. The literature could benefit from more in-depth research that analyzes how much decision-making autonomy is required for

37

teacher inquiry, teacher leadership and teacher morale to increase and the demographic, socio-economic context of the school.

There is clear evidence that PLC participation increases student achievement and helps close the achievement gap (Berry et al., 2005; Bolam et al., 2005; Hollins et al., 2004; Louis & Marks, 1998; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). Conversely, if schools do not follow the prescriptive Dufour & Eaker (1998) PLC hierarchical collaborative structure there will be no positive impact on student achievement or the achievement gap (holding other things equal). However, the research did not differentiate school improvement in terms of decision-making autonomy. Nor did the research differentiate or categorize schools by socio-economic/demographic status in comparison to how much decision-making autonomy was granted to their respective PLCs.

While transactional, distributive (Ritchie &Woods, 2007), and transformative (Hallinger, 2003; Sillins, 1994) leadership have parallels to the foundational principles and practices (Newmann et al., 1996, Dufour & Eaker, 1998) of PLCs none of them directly address PLCs, or informal networks. The encouragement and endorsement of collaboration is present in all three models along with decision-making autonomy. However, the specifics of collaboration logistics, structure and contextual decision-autonomy are not discussed.

The Scott (2003) and Ticoll (2004) decision-making autonomy frameworks have not been adopted or applied to how PLC's operate. It can be argued that as an organizational system some school systems (mostly charters) have implemented variations of distributive and transformational leadership models that parallel Scott (2003) and Ticoll's (2004) hybrid and open systems. However, while these leadership philosophies have been implemented to guide the system, they have not been translated to the way PLC's are managed. Furthermore,

the literature lacks tools that measure PLC decision-making autonomy. Self-assessment rubrics (Dufour, 2006; Schmoker, 2006; Darnell, 2015) merely measure to what degree PLC's are functioning with fidelity according to the Solution Tree model (Dufour & Eaker, 1998; Dufour, 2006).

The general suggestions of the literature are that if schools follow the prescriptive Dufour & Eaker (1998) PLC hierarchical collaborative structure that student achievement will increase and the achievement gap will close. Conversely, if schools do not follow the prescriptive Dufour & Eaker (1998) PLC hierarchical collaborative structure there will be no positive impact on student achievement or the achievement gap (holding other things equal). PLC's potential to close the achievement gap is contingent upon shared leadership that cultivates autonomy and trust. However, the implementation of a strict interpretation of PLC structure can potentially constrain collaborative creativity.

Gaps in the Research Literature

All of the rubrics used to evaluate the status/performance of a PLC are self –assessment rubrics, thus they lack objectivity. Limited or no research was found that compares the PLC autonomy/trust of Low – SES schools versus the PLC autonomy of affluent schools. In addition, little or no research examines PLC autonomy and trust in any school setting directly. Future areas of research should address the discrepancy in PLC autonomy/trust in low-SES schools and PLC autonomy/trust in affluent area schools. More specifically, future research should address the following questions: Could high-poverty school PLCs perform more effectively if they are given more autonomy and trust? In addition, the following gaps in the literature should be explored:

- There is a lack of research that analyzes PLC collaboration in terms of autonomy and trust.

- Current instruments only assess to what degree the team is operating as a PLC according to the Dufuor & Eaker (1998) prescription.

- No research was found that explores the relationship between: urban school and PLC autonomy & trust.

- There is a gap in the research that fails to explore the relationship between PLC autonomy and the race of the PLC leader/team.

- Most of the research conducted in the area of PLC structure and fidelity used instruments of self-assessment and lacked objectivity.

While there are many gaps in the literature to explore, this study is needed to explore if differences in PLC models, along with possible differences in autonomy & trust that could explain some of the achievement differences found in Title 1 schools.

Leadership Implications of the Literature

It is important that school leaders consider differentiating how they manage PLC's. Urban, high – poverty school PLC's could perform more effectively if they are given more autonomy by their site leadership. Urban, high – poverty school PLC's could operate in a model of shared of decision-making or in a hybrid PLC. Could affluent school PLC's perform more effectively if given less autonomy by their administration? Could affluent school PLC's operate in a model of shared decision-making or as a hybrid PLC?

The potential outcome of this study could influence school leaders to reflect and revise how their respective PLC teams collaborate. Depending on where a particular PLC is on the autonomy spectrum, school leaders may want to: (a) grant their PLC's more independence/autonomy, (b) give more guidance, templates, and or facilitation to how they

collaborate. A change in collaborative structure and PLC autonomy could yield a change in

curriculum and instructional practice that could help close the achievement gap.

Social Justice Implications of the Literature

Teachers that work in urban, low performing, high-poverty schools are not afforded

much autonomy in curricular, instructional, and assessment decisions (Ingersoll, 2003;

Ingersoll, 2009). While no research has been found that directly examines autonomy and trust

as it applies to PLC's in urban, low-performing, high-poverty schools- one can make the

inference that PLC's in urban, low performing, high-poverty schools are not afforded much

autonomy by school leadership. Schools in these areas have historically been in program

improvement under NCLB, and have to face the constant pressure of being shutdown or of

being taken over by the state. In reaction to the constant threat of being shut-down school

leadership in low-performing, high-poverty area schools have historically cut-back

expenditure on the visual and performing arts to focus more on English and Math (Parsad &

Spiegelman, 2012). In that same spirit, it can be implied that school leadership constrains

PLC teams' autonomy to go beyond the agreed upon collaboration cycle. PLC teams in high-

poverty schools are asked to neglect passion projects, experimentation and discovery and to

instead focus on a narrow PLC goal of teaching to the test. When a PLC team loses the

ability to be creative then student creativity suffers. In summary, not only are students that

attend high – poverty, low –performing schools less likely to have access to visual and

performing arts classes, but they could also be less likely to receive access to creative and

innovative curriculum, projects, and assessments because of the lack of teacher autonomy

(Quinn & Kahn, 2001). All stakeholders need make a concerted effort to offer creative and

innovative curriculum to our most underserved populations. Teaching to the test and punitive

federal policies should not constrain collaborative creativity.

CHAPTER 3: Methods

Introduction – research design – Cross Case Study

This comparative case study used sequential explanatory mixed-methods design (Creswell, 2003) to study PLC autonomy and trust at two Title I schools with similar demographics, and that are part of the same district. This study will examine similarities and differences in perceived PLC administrative trust & autonomy between two Title 1 schools: one that is improving student achievement, and one that is not. The study will attempt to answer the following over – arching questions:

1. To what degree is each school following the Dufour PLC model?

    - To what extent are the PLC practices similar and different at the two sites?

2. To what extent is PLC autonomy/trust similar and different at the two sites?

    - How does administrative autonomy and trust impact the functioning of the PLC?

3. What other factors could be influencing the PLC's functioning and impact on student achievement?

The cross-case study approach was used to deeply understand these specific cases(s) and not to generalize (Stake, 2005). Kahn & VanWynsberghe (2008) suggest, "cross-case analysis is a research method that can mobilize knowledge from individual case studies. The authors propose that mobilization of case knowledge occurs when researchers accumulate case knowledge, compare and contrast cases, and in doing so, produce new knowledge*"* (p.71). Yin (2009) recommends that a high – quality case should include multiple sources of evidence, or data collection. This study followed Yin's recommendations. Multiple sources of data were collected for this study, including: (i) Likert scale survey data on PLC meeting

structures/procedures, perceived PLC autonomy, and perceived PLC trust (**Appendix A - D**), (ii) Semi – structured interviews (**Appendix E**) were also be administered to dig deeper into each specific case, and (iii) in addition, observations of actual PLC meetings were conducted to validate data from surveys and interviews. Figure 1 serves as a representation of the research design*:*
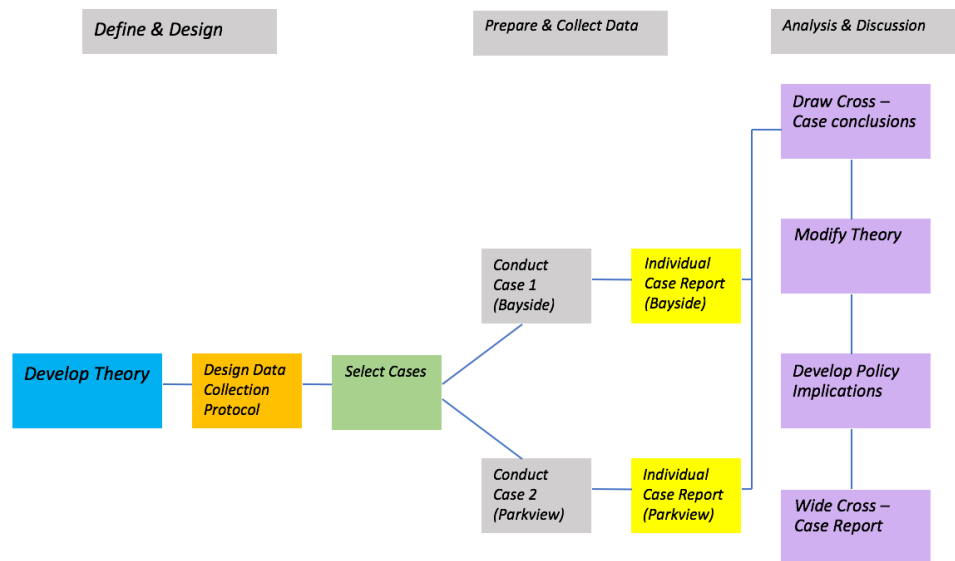
Figure 1: Research Design plan adapted from Yin (2003)

Development of Theory. Since the two school sites selected for the study come from a program improvement district (and have similar demographics), it is hypothesized that the general PLC structure and processes will be similar. In addition, the school with increasing achievement data should have higher levels of perceived PLC autonomy and trust.

Select Cases. Bayside High School and Parkview High School. The two schools represent a dichotomy of high and low student achievement. Both sites are part the Belding Union High School District, which has implemented Solution Trees' PLC model (See Appendix F & G) in all high schools – for over ten years now.

Design Data Collection Protocol. The sequential explanatory mixed methods approach is a three - phase approach where the quantitative data is collected first followed by qualitative data collection. The sequential explanatory mixed method approach analyzes qualitative results to explain the quantitative findings (Creswell, 2003). Phase 1 of the data collection portion of this study consisted of administering a Likert scale survey that measured PLC procedures and the perceived PLC autonomy and trust (Appendix A – D) at both sites. The survey is an amended version of pre – existing trust/autonomy scales, as well as general questions about PLC procedures. Phase 2 of the data collection portion of this study consisted of conducting semi – structured interviews. Three teachers from each site were asked to participate in individual thirty - minute semi structured interviews. The purpose of the interviews was to uncover information not revealed by the surveys and to understand the PLC procedures as well as the perceived PLC autonomy and trust at each site at a deeper level (Appendix E). Phase 3 of the data collection portion of this study consisted of observation of PLC meetings. Three PLC meetings from each site were observed. The purpose of the observations was to validate the data gathered from the surveys and interviews. Figure 2 is a representation of the sequential explanatory mixed methods approach that was utilized for the data collection portion of this study:
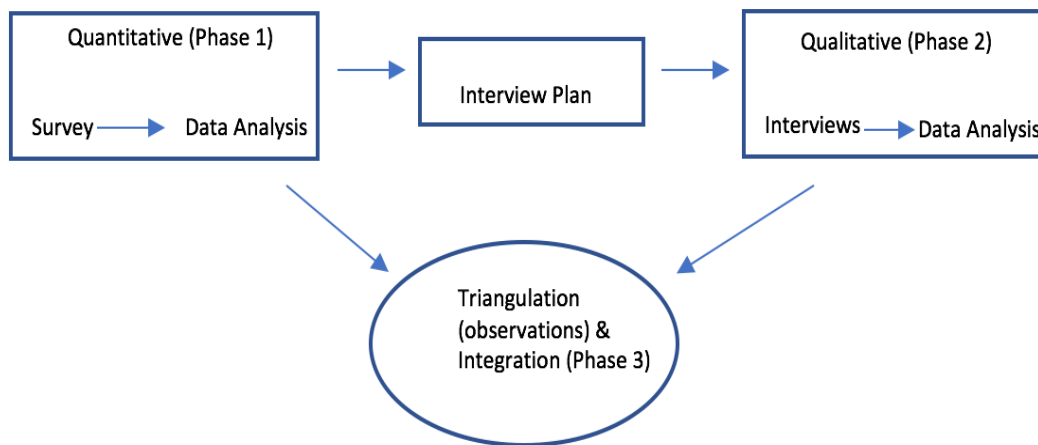
Figure 2: Sequential Explanatory Phases

In this chapter, the context of the research will be explained. Second, details about the participants will be shared: teacher and student demographics of Bayside High School versus Parkview High School, achievement data of both schools, and current school climate. The scope, sequence and procedures of administering the modified trust and autonomy surveys (Appendix A - D) will also be reviewed. Additionally, there will be a description of semi – structured interviews (Appendix E) and of the PLC observations. This chapter will conclude with an explanation of how the data was analyzed and the tests that were administered.

Context of the study (institutional structures – district, Bayside High School vs Parkview High School – Site Selection)

To avoid positionality and minimize the limitations of the study, two school sites outside my current school district: Bayside High School and Parkview High School. The two schools have a dichotomy of increasing versus declining student achievement as measured by CAASPP Math and English scores, graduation rate, and A- G completion rate. Both sites are part the Belding Union High School District, which has implemented Solution Trees' PLC

model (Dufour & Eaker, 1998) in all high schools – for over ten years now. The fidelity of PLC implementation will be studied, however, given both sites are part of the same district; it is hypothesized that the degree of fidelity will be similar. If fidelity to the PLC model is constant at both schools, then the achievement differences could be attributed to a difference in perceived PLC administrative trust or autonomy.

Bayside High School is a Title 1 school in District SU.   Bayside High School is a school that is approximately 93.5% Latino, 1.8% Filipino, 1.7% African – American, and 1.6% White. It has an enrollment of 1,910 students, 37.8% of its students are English Learners. In addition, 72% of its student population is on Free and Reduced lunch. Bayside High School is one of fourteen high schools in the Belding Union High School District, the largest secondary district in the state. The school is located in the southern portion of the county. The school serves a community of predominantly low to middle-income families, many of who live in apartments within walking distance of the campus. Bayside High School is now its sixth consecutive year under program improvement, as is the school district (Belding Union High School District, 2017). All schools in Belding Union High School District are open schools of choice, which means, that students living within the district boundaries may attend any of the four comprehensive high schools.

Table 2: Bayside HS Achievement Trends (CDE Dataquest, 2017)

Bayside High School	<u>14 – 15</u>	<u>15-16</u>	<u>16-17</u>	<u>3 year Diff</u>
% Met + Exceeded Standards (English)	33	43	36.27	+3.27
% Met + Exceeded Standards (Math)	10	14	16.12	+6.12
A-G	36.6%	53%	56%	+19.4
GRADUATION	82.09	73.99	83%	+.91

Parkview High School is also part of the Belding Union High School District, 72% of its student population is Title 1. Parkview High School is approximately 89.6% Latino, 3.2% White, 2.5% Two or More races, 1.8% African – American, and 1.7% Filipino. 29.7% of the students at Parkview High School are English Learners and the school has an enrollment of 2,586 students.

Table 3: Bayside HS Achievement Trends (CDE Dataquest, 2017)

Parkview High School	<u>14 – 15</u>	<u>15-16</u>	<u>16-17</u>	<u>3 year Diff</u>
% Met + Exceeded Standards (English)	54	48	46.31	-7.69
% Met + Exceeded Standards (Math)	23	21	16.64	-6.36
A-G	41.8%	48.3%	46%	+4.2
Graduation	89.4%	89%	87.7%	-1.7

Participants

At both school sites, core subject area PLC team members (teachers) were invited to participate in the survey. An email invitation with a participation link was sent out, as well a physical copy, to core subject area teachers. Core subject area teachers include English, Mathematics, Science and Social Science. Non – core subject area (typically electives) PLC teams and teachers will be excluded because: elective teachers are typically singletons (nobody else to collaborate with), and because electives vary from site to site. Twenty–two teachers from Bayside High School, and nineteen teachers from Parkview High School participated.

Additionally, all teachers that participated in the survey were also invited to participate in a semi –structured interview via formal letter and email. Three teachers from each site were interviewed that added context to some of the themes that may arose from the survey data. The only requirement for interview participation was that teachers had to be employed full-time. Teachers with part – time contracts were excluded for the study, because often, their part – time contract excludes attendance of PLC meetings. Race, gender, years of experience did not play a role in the selection criteria.

Procedures

District and site administrators from Belding Union High School District were contacted via email and phone call to explain the study. Once they expressed interest in participating, consent forms were sent electronically in early December 2018. The PLC procedure, trust & autonomy scale (Appendix A -D) was sent out to core content area PLC teams at both sites (electronically) in late December 2018. Teachers that volunteered to take the survey were able to complete the survey in 10 – 15 minutes. Six teachers (three from each

site) were interviewed (that expressed interest in being interviewed in the survey). The six

teachers filled out a separate consent form for the 30 - minute semi structured interview.

Interviews were completed by the end of January 2019. Interviews were recorded (audio)

with the written consent of the participants. In addition, the PLC meetings of the participants

that were interviewed were observed & transcribed. Data disaggregation and analysis

followed each phase of data collection.

Measures

Bryk & Schneider's (2002) & Tschannen – Moran & Hoy (2003) trust scales were

modified from individual teacher perception of administrative trust and adapted to reflect PLC

perception of administrative trust. Pearson and Hall's (1993) & Tschannen – Moran & Hoy's

(2003) Teaching Autonomy Scale (originally designed to gauge individual teacher perception

of administrative autonomy) were modified to measure PLC perception of administrative

autonomy. Additionally, questions from Graham & Ferriter's (2008) Seven Stages of a PLC

work were modified to capture the general structure and procedures of the PLC (see Appendix

A – D).

Data collection

The PLC procedure, trust & autonomy scale (Appendix A - D) was sent out to core

content area PLC teams to both sites (electronically) in late December 2018. Qualtrics

software was utilized administer the survey and to collect the survey data. Three teachers

(from each site) that participated in the survey were interviewed. The semi – structured

interviews were audio recorded & transcribed. Observation of PLC meetings were recorded

(audio) and transcribed.

Data Analysis

Since the survey primarily collected categorical data (teacher/PLC demographics) and ordinal data (Likert survey) the data analysis will consist of nonparametric procedures. SPSS, a quantitative analysis software, was used to disaggregate, analyze and run the following tests with the survey results: distribution free methods such as tabulations, frequencies, contingency tables and chi-squared statistics (Allen & Seaman, 2007).   Boone and Boone (2012) suggest nonparametric procedures to analyze and examine Likert – type data because "Numbers assigned to Likert-type items express a 'greater than' relationship; however, how much greater is not implied. Because of these conditions, Likert-type items fall into the ordinal measurement scale." Table 4 outlines the Nonparametric procedures that were followed:

Table 4: Suggested Data Analysis Procedures for Likert-Type Data (Boone & Boone, 2012)

	Likert-Type Data
Central Tendency	Median or mode
Variability	Frequencies
Other Statistics	Chi-square

Data collected from interviews and PLC observations was coded by utilizing Dedoose, a cross – platform application for analyzing qualitative and mixed – methods research. Thematic coding method was used to identify trends and themes in the responses from the six semi –structured interviews and observation of PLC meetings.

Thematic coding, or thematic analysis, includes a process of multiple reads/analysis of qualitative data that includes description, categorization, and analytic codes (Gibbs, 2007; 2010). It is described as a descriptive method that reduces the data in a flexible way that dovetails with other data analysis methods (Vaismoradi, Turunen, & Bondas, 2013). The

initial description phase of analysis will examine the survey and observation data and ask the following questions:

1. What is going on?

2. What are people doing? What is the person saying?

3. What do these actions and statements take for granted?

4. How do structure and context serve to support, maintain, impede or change these actions and statements?" (Gibbs, 2007)

While the initial coding of the data provided an objective perspective, the categorization phase of the coding was a more analytic and theoretic perspective of coding. The final phase of thematic coding connected and interpreted patterns/trends permeating throughout the qualitative data (Gibbs, 2007; 2010).

The analysis concluded with a synthesis of the survey, interview, and observation data. Trends and patterns from all three phases of data collection were compared to examine the relationship between the quantitative and qualitative findings (Creswell & Plano Clark, 2011; Wilde, 2018). Triangulation and synthesis of the data helped provide a richer description and understanding of the PLC procedures, autonomy, trust, and leadership behaviors at each site.

CHAPTER 4: ANALYSIS

In this comparative case study, both quantitative and qualitative data were collected and analyzed in a three-step process as a means to better understand the similarities and differences in perceived PLC administrative trust & autonomy between two Title 1 schools with different trending achievement. The initial step of the research design utilized a Likert – scale survey to collect quantitative data about PLC procedures, PLC perceived autonomy, and PLC perceived trust. The second step of the research design utilized semi- structured interviews focused on PLC procedures, PLC perceived autonomy, PLC perceived trust, and their general perceptions of relationships with school administration. The third step of the research design utilized field observation notes to collect data on PLC procedures, PLC autonomy, PLC trust, and other leadership behaviors.

Demographic Profile of the Participants

The online survey was sent electronically to eight high school campuses within the Belding Union High School District (pseudonym) located in Southern California. Four of the campuses chosen to participate had three consecutive years of increasing achievement data, and the other four campuses had three consecutive years of decreasing achievement data. The survey was sent out to core subject area teachers at the eight campuses. Out of the 480 requests for participation, surveys were obtained from 68 respondents, but only 41 were fully completed and used for the study. Twenty-two out of 41 of the completed surveys were from Bayside High School. Nineteen out of the 41 completed surveys were from Parkview High School. The amount of participants from Bayside High School and Parkview High aligned with parameters of the study, which required survey participants from a school that had

increasing student achievement, and one that was decreasing. The teaching experience of the participants included six teachers that have been teaching 1 – 5 years, nine teachers that have been teaching 6 – 10 years, ten teachers have been teaching 11 – 15 years, and fitfteen teachers that have been teaching for more than 15 years. The two school sites from Belding Union High School District were Bayside High School (pseudonym) and Parkview High School (pseudonym). Twenty – two teachers participated from Bayside High School and nineteen participated from Parkview High School. Bayside High School has a three – year trend of increasing achievement, and Parkview High School has a three – year trend of decreasing achievement. Both schools have similar student demographics (see table above). Twenty-six percent of the survey respondents teach English, 16% teach Mathematics, 13% teach science, and 25% teach Social Science. The remaining 20% of participants teach non-core subject areas. Ninth grade PLCs were the most represented teams that participated in the survey. Six Biology PLC team members took the survey; three from Bayside High School and three from Parkview High School. Nine English 9 PLC team members responded to the survey; six from Bayside High School and three from Parkview High School. Eight Integrated Math 1 PLC team members responded to the survey, five from Bayside High School and three from Parkview High School.

Out of the 41 participants that completed survey, six of those individuals also agreed to participate in the interview portion of the study (Table 5). Three interview participants were from Bayside High School, and three were from Parkview High School. The six interview participants were all from core content area PLC teams.

Table 5: Demographical Data of Interview Participants

Teacher Name	Gender	Site	Teaching Experience (years)	PLC
Joaquin	Male	Parkview HS	23	Integrated Math 1
Leonel	Male	Bayside HS	20	World History
Samantha	Female	Parkview HS	8	Biology
Robert	Male	Parkview HS	14	English 9
Scott	Male	Bayside HS	18	US History
Gabriela	Female	Bayside	11	English 9

Four out of the six interview participants agreed to participate in the PLC meeting observation portion of this study. The four participants also received informed consent forms from PLC members from their corresponding PLC (Table 6). Two PLCs from each site participated.

Table 6: PLC Meeting Observation Participants

PLC	Site	Team Size
Integrated Math 1	Parkview HS	4
Biology	Parkview HS	3
English 9	Bayside HS	4
US History	Bayside HS	3

Data Analysis

Quantitative and qualitative analysis of the data was categorized and aligned with the research questions. Quantitative data from the survey were disaggregated and analyzed first to identify key trends. The qualitative data (interviews and observations) were analyzed by identifying emergent themes within the participants' responses. Selected quotes relevant to the research from the six teacher interviews & from the four meeting observations were also provided.

Items on the survey were organized into five categories. The categories included: (1) background information (demographics); (2) PLC logistics; (3) PLC model fidelity; (4) PLC autonomy; and (5) PLC trust. Items from the interview were categorized into six sections: (1) background information (demographics); (2) PLC logistics; (3) PLC model fidelity; (4) PLC autonomy; (5) PLC trust; (6) Other factors contributing to PLC performance

Research question one. To what degree is each school following the Dufour PLC model? To what extent are the PLC practices similar and different at the two sites? Dufour & Eaker (1998; 2003) argue that sites that implement PLC's and do not experience an increase in an achievement, could be because a lack of PLC fidelity. Given that Bayside High School and Parkview High School have a difference in trending achievement, it is important to first study each sites PLC fidelity to the Dufour & Eaker (1998; 2003) model. To understand PLC fidelity at each site better, it is important to examine the components of PLC fidelity: PLC procedures, PLC logistics, and the PLC Cycle. The findings indicated similarities and differences in the components of PLC fidelity at each site.

PLC procedures and PLC logistical data were examined from survey, interview and observation data collected. Two primary findings were aligned with the first the research question.

Finding one. Bayside High School and Parkview High School have similarities in PLC procedures, logistics, and parts of the PLC cycle.

A foundation of PLC fidelity is for teams to have access to things like a consistent time meet during the contractual day (Dufour & Eaker, 1998; 2003) and other fundamental PLC procedures. PLC procedures are defined as consistent time to meet as a PLC, having an agenda, taking attendance, having norms, and turning in PLC meeting minutes to administration (Dufour & Eaker, 1998; 2003; Graham & Ferriter, 2008). To measure PLC procedures, Likert scale survey items were used to ask PLC teams "rate to what extent they agree" with categorical statements about PLC procedures (adapted from Graham & Ferriter, 2008). The PLC cycle is essential for a functioning PLC (Dufour & Eaker, 1998; 2003, Graham & Ferriter, 2008). The PLC cycle asks teams to engage in action–oriented inquiry that answers the following: What do we want students to learn (goals, outcomes, essential standards/skills)? How do we know students are learning (common formative assessments)? What do we if students do not learn it (intervention)? How might we extend learning (enrichment)? Repeat the cycle for every new unit/standard of learning (Dufour, Dufour, Eaker, & Many, 2010). To measure PLC logistics related to the PLC cycle, Likert scale survey items were used to ask PLC teams "rate to what extent they agree" with categorical statements about PLC logistics related to the PLC cycle (adapted from Graham & Ferriter, 2008).

Finding one indicated similarities in PLC logistics, procedures, and cycles: consistent

time to meet, PLC meeting documentation (agenda, attendance, minutes), common formative assessments, and common interventions.

Consistent time to Meet

Survey item responses indicated that PLC teams at both sites had consistent time to meet. In particular, as shown in Figure 3, most teams had 2-3 meetings per month. At Bayside High School, respondents shared that 86% of them met 2-3 per month. At Parkview High School, respondents shared that 89% of them met 2 -3 times per month.
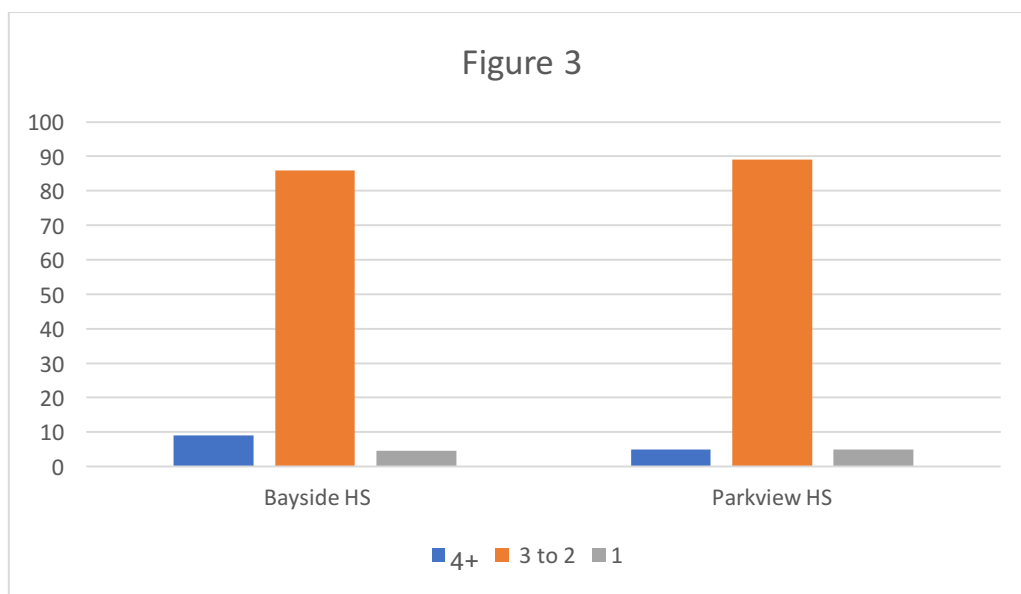
Figure 3: PLC procedures: How many times per month does your PLC team meet? (percentage)

Statistical analysis also indicated that differences were not statistically significant in survey element "Meeting times per month" between the two sites.

When interviewed, respondents were asked how many times they met per month? Most respondents shared: "2-3 times per month," "once a week," and "often." Additionally, when asked "what prevents your PLC from meeting weekly or four times per month?" The six

respondents shared; "monthly department meeting," "being split between two PLCs," and

"other commitments." For example, Scott shared his thoughts on consistent PLC meeting

times:

> We meet once a week. Every Wednesday we have a late start in which we
> have an hour of uninterrupted PLC time. We should be meeting four times of
> a month, but there are two of us that belong to the World History PLC as well.
> So we make it a point to show up that PLC at least once a month. We are
> asked to actively participate in one PLC, and be a passive participant in the
> other – for those of us that are in two PLCs.

Joaquin (Parkview HS) also echoed similar sentiments when he described consistent time to

meet:

> Weekly or once every other week. We have a rotating block schedule so it
> varies from twice a month, to three times a month on Fridays. However, we
> get ninety minutes to collaborate, when most other schools only get sixty. It is
> also gets a bit complicated depending on your department. Our department
> meets every third PLC; other departments do not meet at all.

The observation of four PLC meetings, two from each site, confirmed that PLC teams from

both sites are given a consistent time. During all four meetings, PLC team members were

provided an agenda which included future meeting dates. All meeting dates, from both sites,

showed a pattern of meeting at least once a week (Bayside HS) or once every other week

(Parkview HS). Having a consistent time to meet during the contractual work day is a

foundation of the Dufour & Eaker (1998, 2004) PLC model.

Agenda, attendance, and minutes

The presence of an agenda, taking attendance and documenting meeting minutes is

also a foundational principle of a functioning PLC (Dufour & Eaker, 1998; 2003). Survey

item responses indicated that PLC teams at both sites had consistently documented meetings

with agendas, by taking attendance and by writing meeting minutes/notes. In particular, as shown in Figure 4, 68% of the respondents agreed (somewhat agreed + strongly agreed) that their teams consistently have an agenda, take attendance, and document meeting minutes/notes. At Bayside High School, respondents shared that 77% of their PLCs consistently have an agenda, take attendance, and document meeting minutes/notes. At Parkview High School, respondents shared that 58% of their PLCs consistently have an agenda, take attendance, and document meeting minutes/notes.
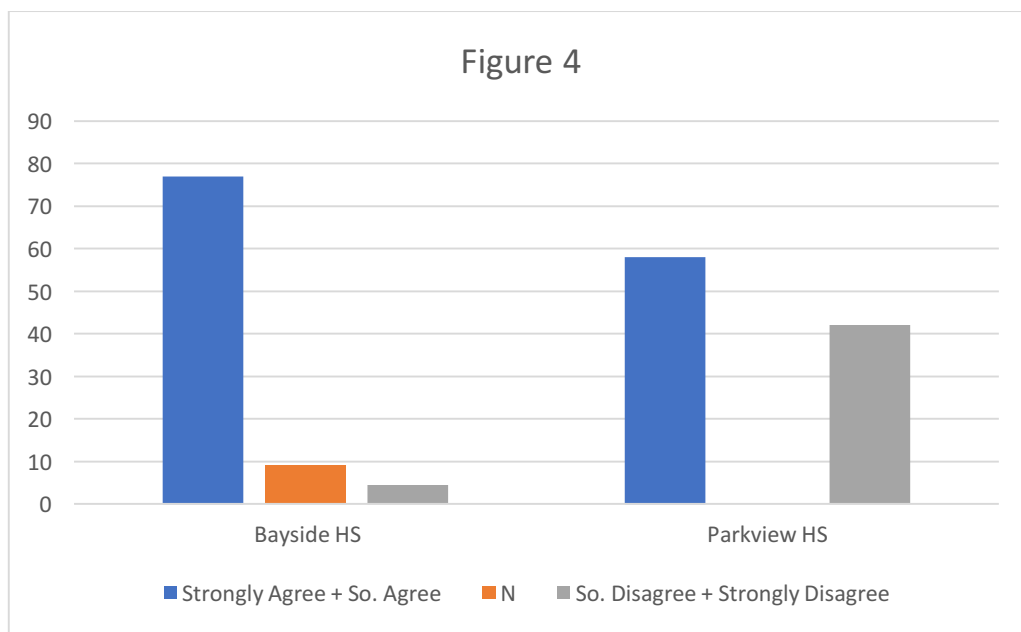
Figure 4: PLC procedures: Our team consistently has an agenda, takes attendance, and writes meeting minutes/notes? (percentage)

Statistical analysis also indicated that differences were not statistically significant in survey element "agenda, takes attendance, and writes meeting minutes/notes" between the two sites.

When interviewed, respondents were asked if their PLC's consistently have an agenda? Take attendance? Take meeting notes? Common responses by interview respondents included: "Yes," "Unfortunately, yes," "Nobody really reads our minutes," "No real

60

accountability for attendance." All of the respondents mentioned the word "compliance" at

least once in their responses. Participants from both sites shared comments around what

many described as "administrative oversight" and something they had to do to "check the

box." For example, Gabriela shared her thoughts on what she describes as compliance items:

> Yes, before our Wednesday meetings we share our agenda (via Google docs)
> with our department administrator and all of the PLC members. We are not
> sure whether he (the department administrator) reads it or not, but it helps us
> prepare for our meetings. We submit our attendance, along with our minutes
> via google docs as well. All these things we really view as compliance items,
> or a general waste of time. With the exception of creating an agenda – that is
> valuable.

Robert (Parkview HS) also described agenda, attendance, and minutes as compliance items:

> Yes, to all three. In fact, we get reprimanded (verbally or in writing) if we
> don't. I get it, collaboration is in our contract, and documenting these things is
> a way to ensure that we (as teachers) are in compliance. But it is silly,
> especially if you teach a core subject area, you are much more under a
> microscope. However, if you teach an elective your PLC is hardly ever
> visited. I know for a fact that many teachers in VAPA (Visual and Performing
> Arts) do not show up to their PLC meetings, and nobody from admin notices.
> But, God forbid someone from English 9 misses meeting, they (admin) is all
> over that.

Field observation notes of all four PLC visits (two at Bayside, and two at Parkview)

documented that all four PLC teams: had an agenda, took attendance, and took meeting

notes/minutes. It is interesting to point out that statistical analysis also indicated that Bayside

High School PLC respondents had more opportunities to meet as a PLC than PLC

respondents from Parkview High School. In addition, quantitative and qualitative data also

indicated that Bayside High School and Parkview are complaint with PLC accountability

measures (agendas, attendance, minutes/notes) in accordance to the Graham & Ferriter (2008)

PLC fidelity scale.

How do we know students are learning (common formative assessments)?

Questions 3 & 5 from the survey asked participants about their PLC's focus on the second part of PLC Cycle: How do we know students are learning? In other words, to what degree are common formative assessments a part of a teams' PLC culture/practice?

Responses to survey items 3 and 5 indicated that PLC teams at both sites focus on creating common formative assessments. As shown in Figure 5, the majority (28/41) of survey participants felt their PLCs had a common approach to assessing student learning (item 3). Eighty-one percent of Bayside High School participants somewhat agreed or strongly agreed, compared to 52% of Parkview High School participants. Similarly, Figure 6 shows that 27 out of 41 participants from both sites agreed (somewhat agreed + strongly agreed) that their PLC's create common formative assessments (item 5). Seventy-seven percent of Bayside High School participants somewhat agreed or strongly agreed, compared to 52% of Parkview High School participants.
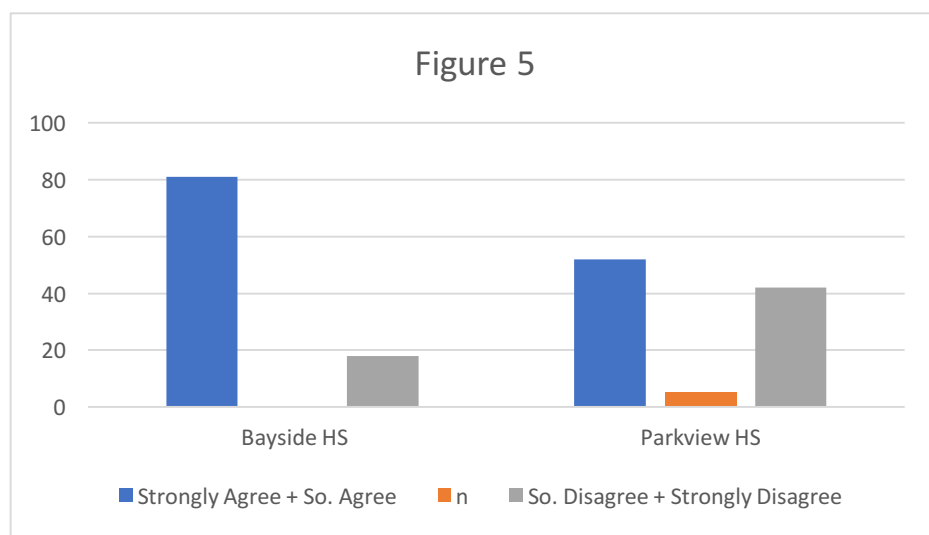
Figure 5: PLC logistics/PLC model fidelity: My PLC works to clarify the criteria by which we will judge student work and practice applying those criteria consistently. (percentage)

Statistical analysis also indicated that differences were not statistically significant in survey element "My PLC works to clarify the criteria by which we will judge student work and practice applying those criteria consistently" between the two sites.
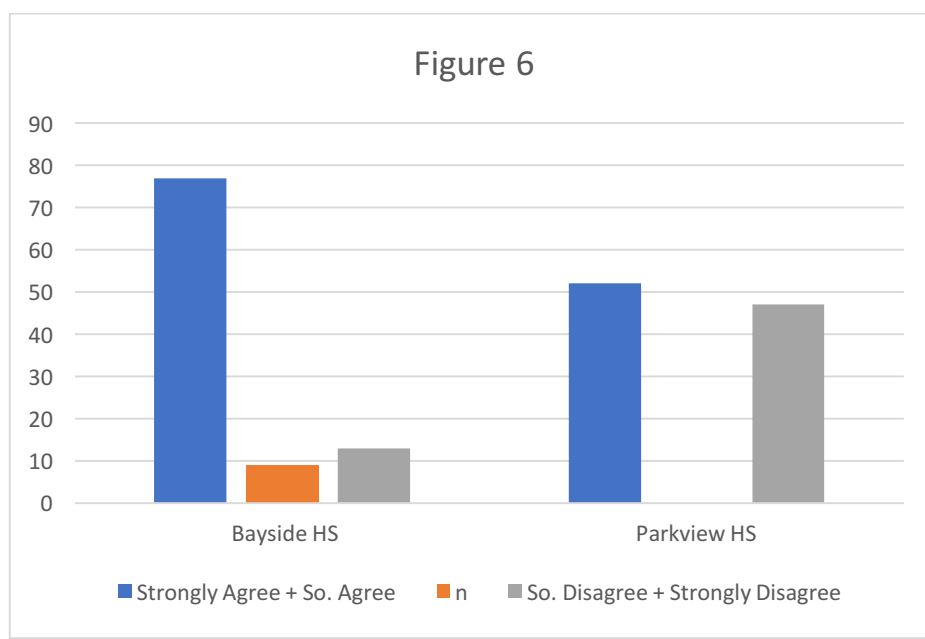
Figure 6: PLC logistics/PLC model fidelity: We monitor student learning on essential outcomes through team developed formative assessments that are aligned with district and state assessments. (percentage)

Statistical analysis also indicated that differences were not statistically significant in survey element "We monitor student learning on essential outcomes through team developed formative assessments that are aligned with district and state assessments" between the two sites.

During the interview process, participants from both sites shared about their respective PLC experience with common formative assessments. All six participants confirmed that their respective PLC's collaborate to create common formative assessments. However, some PLC members expressed frustrations with district created common assessments and the lack of

autonomy/creativity associated with having to adopt such assessments. Joaquin (Parkview HS) and Gabriela (Bayside HS) share their PLC common formative assessment experience. Gabriela shared:

> The implementation & adoption of new English curricular materials has really forced us to create common formative assessments because (four years) ago all of us did not know what we were doing with the new curriculum. We are all learning the new textbook, exercises, activities, and materials together. It was sort of natural for us to plan the assessments together. But, I would also add that most other departments, from what they share with me, also create their assessments together. It is kind of the culture here at Bayside.

Joaquin (Parkview HS) echoed the existence of common formative assessments, but voiced concerns over teacher creativity & originality:

> Our assessments are a hybrid of what the textbook test bank provides, original questions that we created together as a PLC, and what district coaches want us to assess. For the most it works out okay, but even with four versions of the test, cheating happens. But, that is not my biggest concern. My biggest concern is that when I suggest to my team to try something new like a unit project. Or, have kids create or make something to demonstrate their learning – my team says no because they are worried about following the district pacing guide, and not giving the district common formative assessment.

Of the four PLC team meetings observed, three out of the four mentioned common formative assessments. Two PLC's (One from Bayside HS, and one from Parkview HS) mentioned common assessments in terms of "when the assessment was going to be administered." These conversations revolved around a "common test window" in which test administration would be synchronized. One PLC (from Bayside) dedicated the majority of their PLC to creating their common assessment – which was selecting a timed write "Document Based Question" (DBQ)and its supporting evidence documents.

What do we if students are not learning (Intervention)?

Question 6 from the survey asked participants about their PLC's focus on the third part of PLC Cycle: What do we if students are not learning (intervention)?

Responses to question 6 indicated that PLC teams at both sites focus on providing interventions for students as a PLC. As shown in Figure 7, the majority (27/41) of survey participants felt their PLCs provide and plan interventions for students that need additional support. 73% of Bayside High School participants somewhat agreed or strongly agreed, compared to 58% of Parkview High School participants.
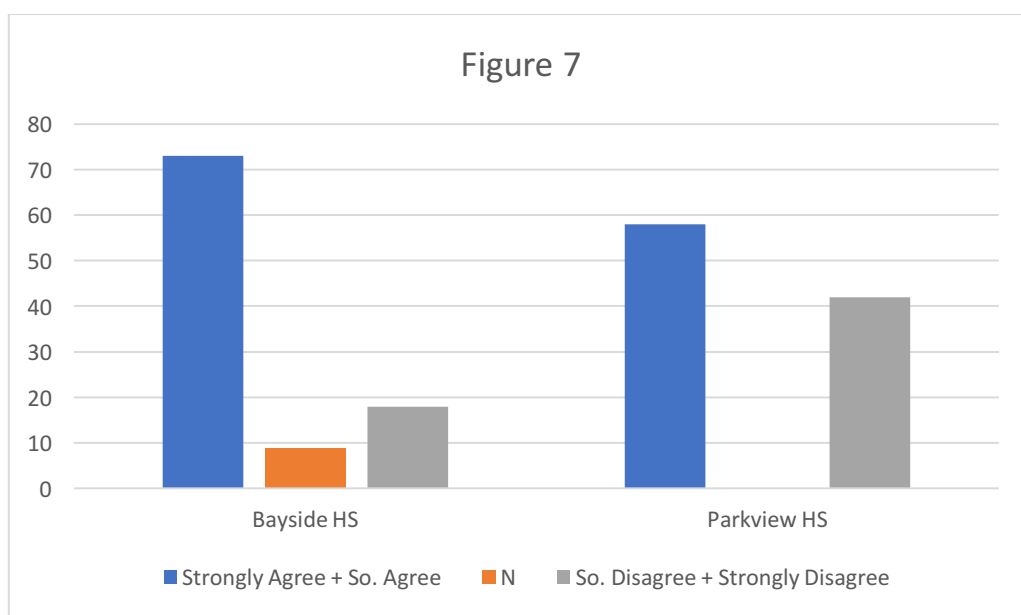
Figure 7: PLC logistics/PLC model fidelity: We provide a system of intervention that guarantees each student receives additional time and support for learning, if needed. (percentage)

Statistical analysis also indicated that differences were not statistically significant in survey element "We monitor student learning on essential outcomes through team developed formative assessments that are aligned with district and state assessments" between the two sites.

All six interview participants from both sites shared a variety of intervention supports

that were created collaboratively in their PLCs. Frequent responses from both sites included:

"Extended Support," "Extended Learning," "Embedded Support," "Tutoring," and "targeted

intervention" and "varying degree of success." Scott (Bayside HS) and Samantha (Parkview

HS) shared similar intervention practices by their respective PLC's. Scott listed the different

interventions his team has attempted:

> Let me tell you, we have tried it all. We have attempted to switch students in
> between U.S. History teachers by deficient standard and provided targeted
> interventions – during the same period. We have tried before school, lunch,
> and after school tutoring sessions. We have tried hiring AVID tutors to come
> in as TA's to assist during DBQ writing lab days. Different years, different
> things work, but our PLC is committed to exhausting any and all ways to help
> students.

Similarly, Samantha (Parkview HS) shared the different interventions her PLC has attempted

at Parkview HS:

> We have an embedded time during our block days dedicated to intervention,
> remediation and re- teaching. Every other week our PLC identifies the sub –
> standard that students struggled the most with and design ways to reteach it
> and reassess it. Depending on the unit, or the project, the interventions are
> always different. Most of them are what we call "academic" tier 1
> interventions, but sometimes we try mindset or "social – emotional"
> interventions. Sometimes those (social – emotional interventions) work better
> than the academic ones.

Out of the four PLC meetings observed, only two of them had discussions about interventions

(both from Bayside High School). One PLC was discussing the design of the four - hour

Saturday School intervention that every student that earned a D or lower on the previous

common assessment had to attend. And the other PLC discussed the remediation packet that

every student had to complete in order to do the re – take exam from the previous unit.

Finding two. Bayside High School and Parkview High School have differences in some PLC

procedures, logistics, and parts of the cycle: norms, establishing PLC goals, and enrichment.

Norms

Survey participants were also asked to degree they agree with the statement "My PLC has developed and follows our norms" (adapted from adapted from Graham & Ferriter, 2008). As seen in Figure 8, 73% of respondents agreed (somewhat agreed + strongly agreed) that their PLC's developed and followed norms. At Bayside High School, respondents shared that 91% of their PLCs have developed and follow norms. At Parkview High School, respondents shared that 53% of their PLCs have developed and follow norms.
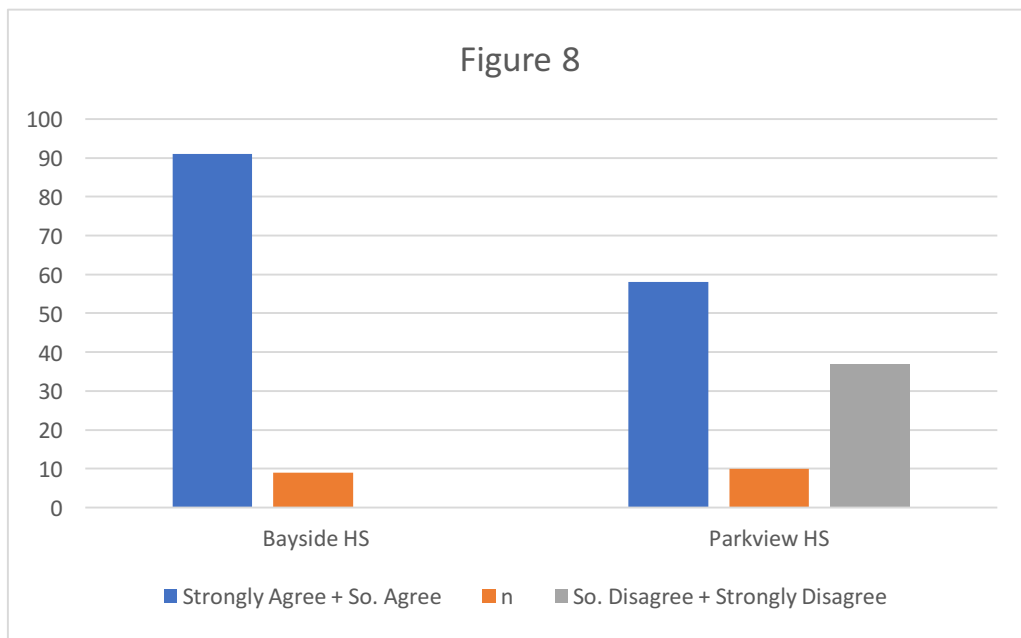
Figure 8: PLC procedures: My PLC has developed & follows our norms? (percentage)

Statistical analysis also indicated there was a difference in survey element "My PLC has developed and follows our norms" between the two sites. $X^2(4, 41)$, $p < .05$, with a large effect size (Phi = .570). The survey results suggested that PLCs at Bayside "developed and

follow" norms, but to what extent? Interview respondents offered some insight.

When interviewed, respondents were asked if their PLC's have developed and follow their own norms? Common responses by interview respondents included: "Yes, we have norms," "Norms exist, but we don't remember who created them" "We all have norms, but they are not followed", "The same people are always late." In general, the interview respondents collectively acknowledged the existence of norms, but most said that they are not mentioned or followed, with the exception of one interview respondent from Bayside High School, Leonel:

> Our PLC dedicates the first PLC meeting of every year to the collective creation of our team norms. Some people find in our team find it silly, but it helps us be on time, stay on task, and facilitate difficult conversations. We hold each other accountable to the norms, without admin. I think norms are a crucial part to us being a high functioning PLC.

Samantha, like her other two Parkview colleagues, had the antithesis reaction to the norms question:

> Our team norms were created God knows how long ago, by two teachers that are now retired. The norms are documented on our agendas/minutes that we submit to admin, but they are not referenced, let alone followed. For example, one of our norms is "be on time," which is pretty standard, right? But nothing happens if you are late, absolutely nothing.

Field observation notes of all four PLC visits (two at Bayside, and two at Parkview) reflected the sentiments of the interview participants at both sites. Three out of four PLC meetings made zero reference to the norms; however, all four PLC meeting agendas had norms documented on their forms. Only one PLC team (from Bayside HS) referenced the norms in the meeting: (1) they took time in the beginning of the meeting to read the agenda and norms (explicitly), and (2) the discussion moderator asked a member of the PLC not "to dominate

the conversation and to use the Two before Me rule when participating in the discussion."

The "Two before me" rule is a discussion norm in which you have wait until two other

discussion participants share a thought before you can share another thought.

Survey analysis and qualitative analysis indicated that norms exist in PLCs at both

sites, but are more prevalent at Bayside High School (and the Chi square indicated that the

differences are statistically significant). Additionally, the results suggested norms are seldom

used or enforced by PLCs at both sites. Norms are documented, but not referenced during

meetings. Dufour & Eaker (1998; 2003) and Graham & Ferriter (2008) identify the presence

and enforcement of norms as a foundational principal of PLCs. While Bayside High School

survey participants overwhelmingly responded that norms were "created and used" by PLC

teams, the interview and observation data suggested that norms were not really enforced.

Neither site was able to meet the "enforcement" threshold identified by the Graham & Ferriter

(2008) scale. However, Bayside High School PLC teams did meet the "created and used"

norms threshold of the Graham & Ferriter (2008) scale. The difference could be attributed to

the notion that Bayside teams actually take the time develop and design their own norms, and

Parkview team study participants did not.

What do we want students to learn (goals, outcomes, essential standards/skills)?

Question 4 from the survey asked participants about their PLC's emphasis on the first

part of PLC Cycle: What do we want students to learn? The latter is manifested in practice

by PLC's discussing essential learning outcomes, goals and standards for every unit of study.

Responses to survey item 4 indicated that PLC teams at both sites take time to identify

69

the goals, specific standard or target students must achieve on each of the essential skills, but PLCs at Bayside focus more on the latter than Parkview PLCs. As shown in Figure 9, the majority (24/41) of survey participants felt their PLCs identify the learning outcomes, goals and essential skills. However, participants at Bayside High School (68%) agreed more than participants at Parkview High School (47%).
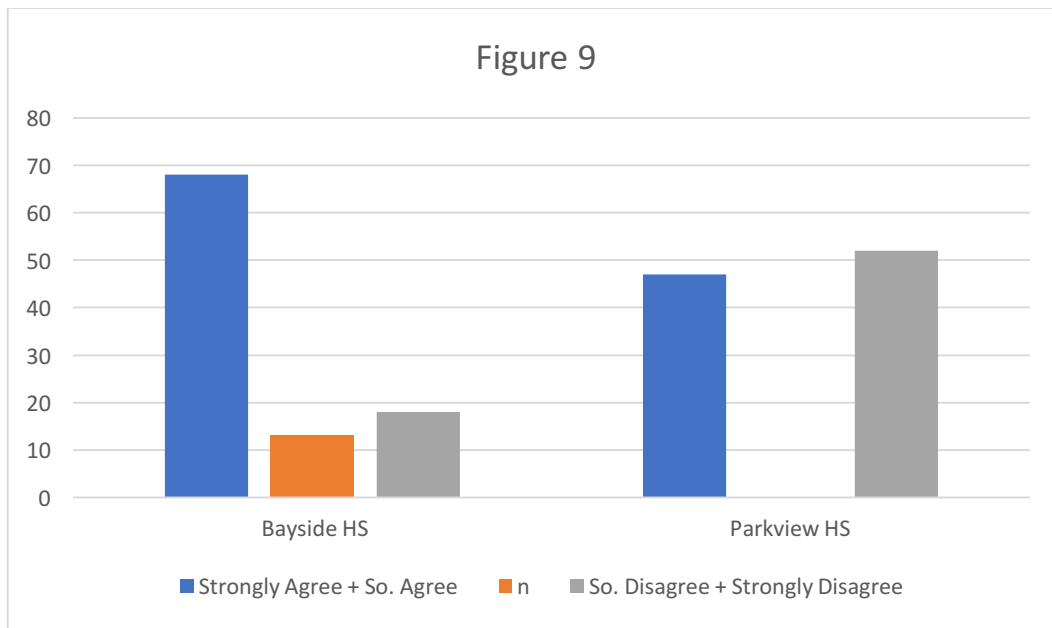
Figure 9: PLC logistics/cycle: We identify the specific standard or target students must achieve on each of the essential skills addressed by the formative assessment. (percentage)

Statistical analysis also indicated there was difference in survey element "We identify the specific standard or target students must achieve on each of the essential skills addressed by the formative assessment" between the two sites. $X^2(4, 41)$, $p < .05$ (p= .008), with a large effect size (Phi = .578).

Also, during the interview process when participants were describing their PLC's focus on goals, essential standards/skills, and outcomes there was variance in responses depending on the school site. For example, Leonel and Samantha had different descriptions

of their teams' emphasis on goals, essential standards/skills, and outcomes. Leonel (Bayside HS) commented:

> We all agree this is our focus. Say we are talking about Imperialism. We talk about what content we want students to know at the end of unit, but we also talk about what academic skills we want our students to obtain by the end of the unit.

Samantha (Parkview HS) shared a different experience:

> Our team mostly uses the provided learning target, essential questions, and standards mentioned in curriculum pacing guide – provided by the district. We don't spend much time discussing this or re – writing the wheel.

Analysis of the field notes indicated that only one of the four PLC team meetings observed discussed goals, essential standards/skills, and outcomes – and this was by a team from Bayside High School. The difference in focus could be attributed to Samantha's assertion that their PLC uses prescribed goals provided by the district, whereas Bayside participants co – create their own goals. Additionally, it is important to note that the other three teams observed were engaged in other aspects of the PLC cycle.

How might we extend learning (enrichment)?

None of the survey questions adopted from the Graham & Ferriter (2008) scale asked participants how their PLCs offer enrichment opportunities - directly. However, question 9 from the survey did ask participants (indirectly) about their PLC's focus on the fourth part of PLC Cycle: How might we extend learning (enrichment)?

Responses to question 9 indicated that PLC teams from each site had differences in providing enrichment opportunities. As shown in Figure 10, the majority (26/41) of survey participants felt their PLCs provide additional time and support for learning. 81% of Bayside

High School participants somewhat agreed or strongly agreed, compared to 42% of Parkview

High School participants.
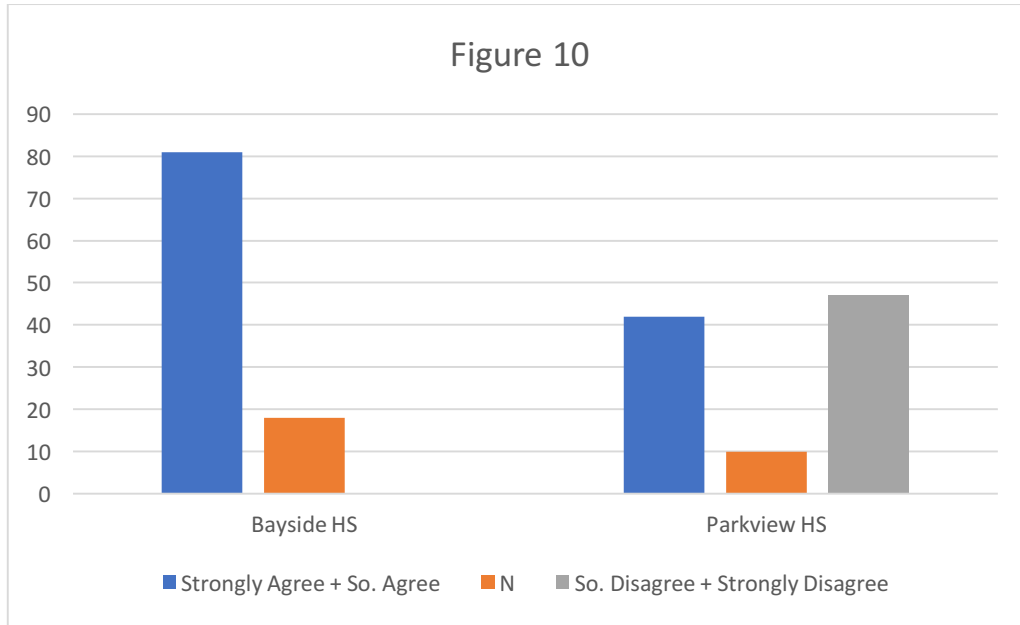
Figure 10: PLC logistics/PLC model fidelity: We use common assessments to identify students who need additional times and support for learning. (percentage)

Statistical analysis indicated there was a difference in survey element "We use common

assessments to identify students who need additional times and support for learning" between

the two sites. $X^2(4, 41)$, $p < .05$ ($p = .002$), with a large effect size (Phi = .638).

While the survey instrument did not directly ask participants their perception about to

what degree their PLC plans and designs enrichment activities together; the interview did.

Four out of the six interview participants mentioned that they offer variety of: "enrichment,"

"extended," and/or a variation of "genius/golden hour" via their PLC's. For example, Joaquin

(Parkview) and Scott (Bayside) both offer similar renditions on how their respective PLC

addresses enrichment. Joaquin (Parkview HS) stated:

Since we did away with separate math honors classes when we switched to integrated math, our math department thought deeply and strategically about how we might offer the rigor to students – that may have been in honors classes otherwise. We switched to the embedded honors options in which students have to complete a series of four enrichment activities, per semester, if they want the additional G.P.A. point on their transcript. So, we still have heterogeneous grouping, it's just that if students want the honors option, they have to do the four enrichment activities – which are usually projects. These projects are designed by our PLC teams.

Scott (Bayside HS) shared his PLC genius hour activity/project:

Our history team (PLC) lets our students create a 3-minute ted talk on any historical once a unit on any historical figure of the particular era we are covering. The ted talk guidelines are designed in our PLC.

Observation of four PLC meetings at both sites yielded no evidence or conversations about common enrichment activities. It does not mean that it does not happen, it just was not observed during the four meetings.

Summary of Findings 1 & 2 – Research Question 1

Quantitative and qualitative analysis indicated that Bayside High School and Parkview High school are similar in most PLC procedures, logistics, and both generally follow the PLC model with fidelity. This finding is consistent with the foundational principles suggested by Dufour & Eaker (1998; 2003) and with the Graham & Ferriter (2008) scale. Bayside and Parkview High School had similar results in four out of the seven fidelity factors measured for research question one. Including similarities in the two most significant components of the PLC cycle: common formative assessments and common interventions (Dufour & Eaker 1998; 2003). Common assessments could lead to coherence and insist that PLCs teachers "agree to 1) ensure students have access to the same knowledge, skills, and dispositions regardless of the teacher to whom they are assigned and 2) to specify certain benchmark dates

when the team will administer assessments to identify students who may be experiencing difficulty or areas of the curriculum needing attention," (Dufour, 2012, p. 88). The fidelity factors that had similar results were mostly related to compliance factors (i.e. agendas, minutes, attendance).

On the other hand, Bayside and Parkview High School had different results in three out of the seven fidelity factors measured for research question one. The fidelity factors that indicated a difference by site were loosely related to autonomy and trust: norms, what do we want students to learn, and enrichment. Research question two explored these factors in depth.

Research question two. To what extent is PLC autonomy/trust similar and different at the two sites? How does administrative autonomy and trust impact the functioning of the PLC?

The objective of research question two was to investigate whether or not there was difference in PLC autonomy and trust between school sites. Given that Bayside High School and Parkview High School have a difference in trending achievement, it is important to study each sites PLC autonomy and trust. Pearson and Hall's (1993) & Tschannen – Moran & Hoy's (2003) Teaching Autonomy Scale (originally designed to gauge individual teacher perception of administrative autonomy) were modified to measure PLC perception of administrative autonomy. Bryk & Schneider's (2002) & Tschannen – Moran & Hoy (2003) trust scales were modified from individual teacher perception of administrative trust and adapted to reflect PLC perception of administrative trust. Survey, interview and PLC observation meeting data was analyzed to better understand PLC autonomy and PLC trust at each site. Two primary findings were aligned with the second research question.

Finding three. Bayside High School and Parkview High School have a difference in PLC autonomy.

Quantitative analysis of the survey data yielded a difference in the majority of PLC autonomy factors. Additionally, analysis of the interview and PLC observation data highlighted an even greater difference in PLC autonomy factors. Ingersoll's (2003; 2008) work argues that teachers that work in urban, low performing, high-poverty schools are not afforded much autonomy in curricular, instructional, and assessment decisions. While Ingersoll's research was designed to gauge individual teacher autonomy, this portion of this study modified the approach to gauge PLC autonomy using a modified version of the teacher autonomy scale (Pearson & Hall, 1993; Tschannen – Moran & Hoy, 2003). To measure PLC autonomy, Likert scale survey items were used to ask PLC teams "rate to what extent they agree or disagree" with categorical statements about PLC autonomy.

Responses to survey items 12 - 21 indicated that PLC teams had a difference in perceived autonomy levels. Analysis of survey responses indicated that Bayside High School participants had a higher perceived level of autonomy than Parkview High participants. For example, Table 7 shows that for every autonomy item (questions 12 -21 in survey) Bayside HS had a higher mean than Parkview HS. Bayside HS also had a higher median for every autonomy survey question, with the exception of questions 15 & 16. Questions 15 and 16 had equal median, a phenomenon that was explored more in the interview questions.

An analysis of Chi Square test results (see table 7) for survey items 12 – 21 also indicated that there was a difference between the two sites in all items, except for two questions that had a p – value greater then .05 (questions 15 & 18).

75

Table 7: Autonomy scale item results. 1- strongly disagree, 2- somewhat disagree, 3- Neither agree nor disagree, 4- Somewhat Agree, 5- Strongly Agree

Q	Autonomy Topic	School	Mean	Median	Mode	Chi/P-val.	DF	Phi/Cr
12	Creative	B	4.3	4	5	.02	4	.669
		P	3.11	2	5			
13	Learning activities	B	4.22	4	5	.02	4	.554
		P	3.76	3	5			
14	Guidelines/Procedures	B	4.13	4	4	.003	4	.643
		P	2.76	2	1			
15	*Freedom*	B	2.5	2	2	*.530*	4	.285
		P	2.17	2	2			
16	Agendas/Meetings	B	4.1	4	5	.08	4	.459
		P	3.1	4	5			
17	Goals/Objectives	B	3.86	4	4	.042	4	.504
		P	2.94	3	1			
18	*Teach in Class*	B	3.68	4	4	*.199*	4	.392
		P	2.94	3	4			
19	Resolve own issues	B	3.72	3.5	3	.008	4	.596
		P	2.82	3	2			
20	Form. Assessments	B	4.6	5	5	.007	3	.559
		P	3.3	4	5			
21	Rubric – grading	B	4.4	5	5	.02	3	.501
		P	3.4	4	5			

Analysis of interview data confirmed the difference in perceived PLC autonomy and also offered some potential reasons for the difference. All six interviewed participants mentioned statements consistent with or related to: "defined autonomy," "administrators sometimes

present," and "school initiatives are sometimes forced into our meetings." However, there was a difference by school site when participants talked about autonomy in terms of: goals/guidelines, common formative assessments, and grading.

<u>Goals/Guidelines autonomy</u>

Interview participants from Bayside shared some commonalities and differences in their perceptions of PLC autonomy in terms of goals/guidelines, which include (list): "SMART goals," "Agendas," "Minutes," and "procedures." Scott and Gabriela, both from Bayside, shared their generally positive comments around their perceived autonomy in developing goals and guidelines in their respective PLC's. Scott shared:

> The last time an administrator told me what to put on my agenda was six years ago, or two principals ago. Our administration gives us the autonomy to establish our own agenda, as long as we are following the PLC cycle (continuous improvement). I guess you can call it defined autonomy.

Gabriella added:

> We are asked to develop SMART goals every semester. As long as the goals that we create are related to student achievement, admin really does not get involved. Really, they just ask us to follow the lead – lag format and they are good with that.

However, participants from Parkview shared a different perception of their PLC autonomy in terms of creating PLC goals/guidelines. Robert shared:

> They (admin) always tell us what our PLC goals should be for the year, which kind of defeats the purpose of collaboration. It is probably one of many reasons why the majority of our PLCs are dysfunctional at Parkview High School. They did not start listening until this school – year, half – way through it they finally adopted the idea of switching our PLCs from content/course specific to idea specific. For example, instead of collaborating with the English 9 team, I am now on the PBIS (Positive Behavior Intervention and Supports) team.

77

Robert and other members of the Parkview shared more about this new approach to organizing PLC teams, but that will be addressed in research question number three. Samantha (Parkview HS) added more about perceived PLC autonomy as it relates to goals/guidelines:

> Our agendas and minutes are sometimes scrutinized, depending on PLC. For our PLC (Biology), they are heavily scrutinized because admin wants to ensure that we are in sequence to deliver the district common assessment on – time. However, with this new "concept" team approach to PLC, I wonder what this will look like?

Observation field notes from the two PLC meetings at Bayside High School confirmed that their PLCs had autonomy in terms of their goals, guidelines and planning. Both PLC's deviated from their agendas during their respective meetings, and never mentioned about advising administrators or asking for permission. On the other hand, the two PLC's that were observed at Parkview were both organized by administrators and facilitated by administrators – both meetings were Parkview's attempt at their new system of PLC teams. The PBIS PLC and Technology PLC were organized, had norms, and did not deviate from the agenda.

Common Formative Assessment (CFA) autonomy

Interview participants from Bayside High School and Parkview High School shared divergent perceptions of their respective PLC autonomy in creating and designing Common Formative Assessments (CFAs). Common topics of discussion around for participants from Bayside High School regarding PLC CFA autonomy included: freedom, never had to ask for permission, and coherence. For example, Leonel (Bayside HS) shared:

> Our World History team likes to assess student learning using a variety of projects. Obviously, we still assign "on – demand" DBQs (Document Based

78

Questions), but we also challenge students to demonstrate their learning by creating podcasts, simulations and other models. Never has an administrator told our PLC team not to try something creative, nor have we ever asked for permission to try something new.

Scott (Bayside HS) added:

As long as we are offering the same menu of projects to all students taking U.S. History, our administrative team leaves us alone. They want to ensure that there is coherence within PLCs. In other words, the student should have the same general learning experience whether the student has teacher A or teacher B.

Common topics of discussion around for participants from Parkview High School regarding

PLC CFA autonomy included: top – down, worried, robotic. For example, Joaquin (Parkview

HS) shared:

My biggest concern is that when I suggest to my team to try something new like a unit project. Or, have kids create or make something to demonstrate their learning – my team says no because they are worried about following the district pacing guide, and not giving the district common formative assessment (same quote from finding one). But, now that we are going to this new system of PLCing, who knows what is going to happen to CFAs?

Samantha (Parkview HS) shared similar concerns:

Members of our Bio team have been scolded by admin in the past for not giving the CFA within the agreed upon window. So our team is really reluctant to take any risks. I am so glad we are going to these new type of PLCs, we probably will not have to worry about CFAs anymore.

Of the four PLC team meetings observed, three out of the four mentioned common formative

assessments. None of them mentioned topics regarding PLC CFA autonomy. However, the

two PLCs observed at Parkview HS both asked how CFAs were going to be addressed if they

all taught in different subject areas? Both groups landed on pre – agreed upon and

collaborative designed performance tasks that would implement elements of PBIS, or use a

technology method within the SAMR (Substitution, Augmentation, Modification, and

Redefinition) model.

<u>Grading/Rubric Autonomy</u>

Both Bayside High School and Parkview High School interview participants shared

that they felt their PLCs had grading autonomy. However, Bayside High School participants

felt they had more freedom to grade how they see fit than participants at Parkview high

School. Common topics of discussion around for participants from Bayside High School

regarding PLC grading autonomy included: own definitions of student success, freedom and

coherence. For example, Scott (Bayside HS) shared:

> One of the most important things we do as a PLC is define what "student
> success" looks – like for a particular assessment, project or performance task.
> This usually involves the creation of rubrics; as long as we are calibrated as a
> PLC – it works beautifully.

Gabriela (Bayside) added:

> Many, many, many animated discussions happen internally when we are
> creating common rubrics. We usually come up with a consensus on what
> "mastery of learning" looks like, and admin gives us the autonomy to do so.
> As long as there is coherence amongst our entire PLC.

Samantha and Robert (both from Parkview HS) shared that their PLC's also have common

grading practices. However, they are not given the autonomy to create their own rubrics.

Samantha shared:

> The implementation of NGSS lead to the creation of content area specialist(s)
> at the district level, these specialists took the lead on writing all the rubrics.
> Since they are already written we just use those. I think that if we attempted to
> create our own rubrics, it would be problematic. Our teams are just not there
> yet, and now with the new model of PLCs – I am not sure it makes sense to
> create common rubrics.

Robert (Parkview HS) added:

We use to have complete autonomy to create our own rubrics, that has changed since the implementation of common core, and also varies depending which administrator is overseeing our department or PLC.

Analysis of PLC meeting observation field notes did not include the observation of any discussions regarding PLC grading/rubric autonomy.

Finding four. Bayside High School and Parkview High School have a difference in PLC trust.

Literature in relational teacher trust suggests that there is a positive relationship between institutions with high-relational trust and increase in student achievement (Daly & Chrispeels 2008; Tschannen-Moran & Hoy, 1998). These facets are crucial for the foundation of collaboration, coherence, shared vision and responsibility (Louis, 2004). Previous research in teacher relational trust was designed to gauge individual teacher trust, however, this portion of this study modified the approach to gauge PLC trust using a modified version of the teacher trust scale (Bryk & Schneider's (2002; Tschannen – Moran & Hoy, 2003). To measure PLC trust, Likert scale survey items were used to ask PLC teams "rate to what extent they agree or disagree" with categorical statements about PLC trust.

Responses to survey items 24 – 27, 29 and 31 indicated that PLC teams had a difference in perceived trust levels. Analysis of survey responses indicated that Bayside High School participants had a higher perceived level of trust than Parkview High participants. For example, Table 8 shows that for every trust item (questions 24 -27, 29, and 31 in survey) Bayside HS had a higher mean than Parkview HS. Bayside HS also had a higher median for every trust survey question.

An analysis of Chi Square test results (see table 8) for survey items 24 – 27, 29 and 31 also indicated that there was a difference in perceived administrative trust between the two

sites for all items, all items had a p – value less than .05 (results are statistically significant).

Table 8: Trust scale item results. 1- strongly disagree, 2- somewhat disagree, 3- Neither agree nor disagree, 4- Somewhat Agree, 5- Strongly Agree. B- Bayside HS, P – Parkview HS

Q	Trust Topic	School	Mean	Median	Mode	Chi/P-val.	DF	Phi/Cr
24	Admin Reliability	B	4.0	4	4	.002	4	.665
		P	2.82	2	1			
25	PLCs trust admin	B	4.0	4	4	.016	4	.565
		P	2.76	2	1			
26	Transparency	B	4.48	4	4	.006	4	.619
		P	2.76	2	1			
27	Communication	B	4.3	4	5	.005	4	.625
		P	2.70	2	1			
29	Confidence	B	4.2	4	4	.013	4	.579
		P	2.82	2	1			
31	Admin trusts PLCs	B	4.24	4	4	.00	4	.776
		P	3	2	5			

Analysis of interview data confirmed the difference in perceived PLC trust. All six interviewed participants mentioned statements consistent related to the following trust factors: "transparency," and "messaging/communication." However, there was a considerable degree of variance by site when discussing the trust factors mentioned in the latter.

Trust & Leadership Transparency

Interview participants from Bayside High School shared some commonalities and differences in their perceptions of PLC trust factor - transparency, which include: "decision – making," "teacher leadership," "leadership vision."

Leonel and Scott, both from Bayside, shared t positive comments around their perceived trust

in leadership's transparency. Leonel (Bayside HS) shared:

> The leadership structure on our campus has shifted away from the standard
> department chair – admin structure, to a structure that has empowered PLC
> leads over department chairs. And, since we have more PLC leads than
> department chairs, it can be argued that we have more teacher leadership now.
> Our admin has established a flat leadership model in our PLC lead meetings, in
> which everyone has an equal voice. The PLC leadership team collaborates to
> make decisions that directly impact student learning. Department chairs still
> exist, but they only handle what we refer to "parking lot" issues, or everything
> else not directly tied to student learning.

Scott (Bayside HS) added:

> As PLC leads (Scott is one), we are consistently involved with any decision
> that is going to impact our ability to function as a PLC, or anything that
> impacts student learning or the classroom. There are never any surprises, there
> is complete transparency.

Samantha and Joaquin (both from Parkview HS) shared that their PLC's perception of site

leadership's transparency. Samantha shared:

> It feels like our PLC leadership team is more of a compliance thing. In other
> words, we meet as a PLC leadership team because every other site in the
> district does, but the team has no real power. Admin listens to the PLC
> leadership concerns, and in their minds, that counts as input. But the reality is
> that they (admin) has not really implemented any of the changes suggested by
> PLC leadership – the decisions for change happen in admin silos. Until
> recently, the new approach to organizing PLC's not by content area, but by
> "cross- curricular innovation" topics came from the PLC leadership group. We
> will see how it goes, we are pretty excited to try it. Finally! They are listening.

Joaquin (Parkview HS) echoed Samantha's take on site leadership transparency:

> Admin often gives us tasks to accomplish during our PLC meetings without
> telling us why? This often disrupts our internal PLC plans and has tendency
> kill momentum. They (admin) claim that they notify PLC leads of the tasks,
> but when we ask PLC leads about it they have no idea. Something does not
> give?

Of the four PLC meetings that were observed none of them directly discussed leadership

transparency. However, in the two Bayside PLC meetings that were observed, both PLC leads that facilitated the meetings disseminated information that was discussed during the PLC lead meetings. The two Parkview PLC meetings observed were facilitated by site administrators, so there were no direct observations of statements or behaviors that would highlight leadership transparency (or lack of).

Trust & Communication/Messaging

Both Bayside High School and Parkview High School interview participants shared that they felt their PLC's had trust in site leadership's ability to communicate. However, Bayside High School participants felt their site leadership communicated more clearly, consistently and collaborative than participants at Parkview high School. For example, Gabriela (Bayside HS) shared:

> The admin over our PLC communicates with our PLC lead once a week. This happens via email, text and face – to – face. This is in addition to the weekly PLC lead meeting that is attended by PLC leads. Not much is left to translation.

Leonel (Bayside) added:

> When we communicate with our AP, or Principal they always use inclusive language. You hear a lot of "us" and "we" in their messaging and not a lot of "you" or "your team." This definitely helps a culture of collaborative trust.

Parkview High School also shared that they are in constant communication with the administrator that oversees their PLC. However, the communications are perceived to be more compliance and accountability based, not collaborative. For example, Samantha (Parkview HS) shared:

> Yes, our admin team communicates with our PLC lead once week, but it is usually to check or give critical feedback on our agendas/minutes. Even under the new model of collaboration, they ask us to establish the agenda, yet they (admin) are facilitating the meetings. I guess part of it is because it is so new for everyone (the new organization of PLCs), I mean we have only been doing

it for two weeks/meetings. But, it feels like they (admin) just don't trust teachers.

Robert (Parkview HS):

The admin that oversees our PLC just communicates with us to ensure that we are taking attendance every PLC meeting, and he only attends PLC meetings (under the previous model) to ensure that we are all present. He does not do much to add the richness or learning of the PLC.

Observation field notes from the two PLC meetings at Bayside High School confirmed that their admin consistently communicates with PLCs in a collaborative manner. PLC leads in both meetings shared collaborative discussions that they had with site leadership. Additionally, during both meetings, administrators showed up to the meetings and participated as a learner/contributor during the PLC. Both administrators that showed up followed PLC norms, monitored their air time, and used inclusive language.   On the other hand, the two PLC's that were observed at Parkview were both organized by administrators and facilitated by administrators – both meetings were Parkview's attempt at their new system of PLC teams. Administrators used language such as "you guys" and "your PLC" – a considerable contrast to the inclusionary language used at Bayside High School.

Does your PLC trust site administration?

Interview participants from Bayside High School and Parkview High School shared divergent perceptions of their respective PLC's trust in site leadership. Common responses to the question from Bayside High School participants included affirmation statements related to trust: "they are invested in the school," "we know what they are about," and the idea of "reciprocal trust." For example, Leonel (Bayside HS) shared:

They (admin) respect our passions, they respect us as professionals, they respect our PLC team, and they respect us as teacher leaders. We truly feel

like we have a voice. So, to answer you directly: Yes, we trust our admin, because they trust us.

Gabriela (Bayside HS) added:

We feel like we know them well. We know what they are about, and vice – versa. We all want is best for kids, and they trust teachers enough to let us explore our passions. Yes, we absolutely trust our admin team, and that has not always been the case.

Common topics of discussion for participants from Parkview High School regarding PLC

trust: superficial, and the idea of admin feeling "district pressure." For example, Samantha

(Parkview HS) shared:

I believe the relationship my PLC has with our site admin is a superficial one. Truthfully, until recently, they did not listen to our needs as a PLC. They did not listen to our needs because they did not trust us.

Robert (Parkview HS) shared a similar sentiment as Samantha, but also added comments about the new approach to PLCs:

The notion that we are finally trying something different with our approach to PLCs is a win in our minds (teachers). However, if they genuinely trusted about ability to collaborate, they would not be running or facilitating the meetings. So, no I don't think they trust our PLCs. Maybe they are getting pressure from district admin because we are deviating from the traditional PLC model.

Of the four PLC meetings that were observed none of them directly discussed whether or not

they felt site leadership trusted their PLC. However, in the two Bayside PLC meetings that

were observed, administrators participated in the meetings as collaborators and contributors.

Both administrators stay for approximately 20 minutes and did minimal talking. Conversely,

the two Parkview PLC meetings observed were facilitated by site administrators – for the

entire meeting. It was also noted that both administrators from Parkview HS spoke the most

amount times, more than any other teacher. The latter conforms sentiments shared by Robert.

Summary of Findings 3 & 4 – Research Question 2

Literature in teacher autonomy suggests that there is a positive relationship between schools that give their teachers autonomy and in increase student achievement (Pearson & Moomaw, 2005; Ingersoll 2003, 2009). Similarly, literature in relational trust notes that there is a positive relationship between institutions with high relational trust and increase in student achievement (Daly & Chrispeels 2008; Tschannen-Moran & Hoy, 1998). Quantitative and qualitative results indicated that Bayside High School and Parkview High school have a difference in PLC autonomy and trust. The majority of the data results indicated that PLCs at Bayside High School have greater autonomy and trust than PLCs at Parkview High School. This finding is important because it could offer an explanation why Bayside High School has positive trending student achievement, and conversely, why Parkview High School has negative trending student achievement.

Research question three. What other factors could be influencing the PLC's functioning and impact on student achievement? The survey instrument did not ask PLC participants to respond to any questions outside the topics of PLC procedures, PLC logistics, PLC fidelity, PLC autonomy and PLC trust. However, interview participants were asked research question three directly. Interview and PLC meeting data was analyzed to better understand what other factors could be contributing to PLC success or lack of success. A variety of responses were shared by the six interviewed participants: individual teacher instructional practice, student performance/demographics, aggregate experience level of the PLC team, demographics of the PLC team, and PLC team grading practices. However, two primary findings were aligned with the third research question.

Finding five. Bayside High School and Parkview High School have a difference in internal relationships within their own PLCs.

Analysis of interview data indicated that there was a difference in internal relationships within their own PLCs. All six interviewed participants mentioned there was in difference by school site when participants talked about relationships in terms of: "personality," "years together" and "ice – breakers."

Relationships & Personality

All six interview participants from both sites shared a variety of statements that were related to internal relationships and personalities within their own PLCs. Frequent responses from both sites included: "different personalities," "conflict," "frustration," and "resolution." Scott (Bayside HS) and Samantha (Parkview HS) shared similar intervention practices by their respective PLC's. Scott listed the different interventions his team has attempted:

> As a U.S. History team, all four of us have very different personalities, communication styles, and even political beliefs. We view our team diversity as a strength, it helps us push each other's thinking consistently. We have a saying "push on ideas, not on people." We have two team members that have a tendency to dominate conversations and over participate. The use of our norms helps us monitor their air time and ensure that everyone's voice gets heard.

Gabriela (Bayside) added:

> Our English team has some "type A" personalities and some "creative- big idea" types that are not organized at all. As a PLC lead, facilitation of meetings can be challenging, but I feel like the professional learning and modeling we have received from site admin has helped PLC leads navigate personality conflicts in their respective PLC's.

Joaquin (Parkview HS) shared how personalities impact his PLC team:

> Well, what can I tell you? Us math folk are different. We internalize a lot of

our feelings until we become overly frustrated and the we just blow up, and when that happens, not much gets done.   I guess you can say that we have communication issues. I am sure we frustrate Amy (pseudonym); who is the social butterfly of our Math 1 team. It will be interesting to collaborate with teachers outside of math for this new approach to PLCs that we just started piloting.

Robert (Parkview HS) shared:

Our personality conflicts stem from a difference in beliefs. We like to say that "we believe all kids can learn," but whenever we bring up things like "standards – based grading" or "no – zeros" people in our team become highly irritable, quickly.

Observation of the two Bayside High School PLC meetings confirmed the responses from the interviews. The use of norms by the PLC lead/facilitators was able to redirect and avoid internal personality conflicts. For example, one teacher was asked to follow the "two before me" norm when he was "over – participating." The observation of the two Parkview PLC meetings could not confirm the interview data results because site administrators facilitated both meetings. Both administrators were still in the process of explaining Parkview's new approach to organizing cross – curricular teams by innovation topic.

Relationships & Ice – Breakers

Four out of the six interview participants (three from Bayside HS, and one from Parkview HS) mentioned the impact (or lack of) that ice – breakers had on their PLC teacher – to – teacher relationships. Scott (Bayside HS) and Gabriela (Bayside HS) indicate similar impacts of ice – breakers on their ability to have effective PLC meetings. Scott shared:

We always do the "empty the cup" exercise at the beginning of every meeting for about five minutes. The exercise gives us the ability to check- in with each other to talk about a "thorn" (negative thing) and a rose (positive) thing of the week. This has improved our relationships with each other, and I believe, improved our ability to collaborate.

89

Gabriela (Bayside) added:

> We call them stokes, not ice – breakers, and we try a different one every time
> we meet. I believe it is central to our collaborative culture. In fact, the two
> times that we did not do one this year, people were confused as to why we
> didn't. Needless to say, those two meetings did not run as smoothly.

On the other hand, Joaquin (Parkview HS) has had the opposite experience with ice –
breakers:

> We have tried them (ice – breakers) with our Math team, and people thought
> they were cheesy. I don't think an ice –breaker can change a decade of tension
> between some of our PLC members. That is part of the reason why we are
> trying a new approach to PLCs.

The two PLC meetings that were observed at Bayside High School incorporated ice –breaker

exercises at the beginning of their meetings.   One PLC did a "highlight and lowlight" of the

week discussion protocol in pairs. The other Bayside PLC did an "alphabet soup" exercise in

which teachers had to physically re-create letters from the alphabet, without talking. Neither

of the PLC meetings observed at Parkview High School incorporated ice-breaker activities.

Relationships & Years together

Three out of the six interview participants (two from Bayside HS, and one from

Parkview HS) mentioned that PLC performance was tied to years together as a team. Leonel

(Bayside HS) shared:

> Our World History PLC team has changed team members for three consecutive
> years in a row. Myself and another team member are the only ones that have
> been on the team for more than three years. It's not that people want to leave
> our team, it's a more a product of the annual fluctuation of the master
> schedule. People teach different preps, sometimes every year. Every year, no
> matter who is on the team, we are able to come together make things work.

Gabriela (Bayside HS):

> Year – to – year our team changes, but our PLC values, norms, and beliefs

don't. That is why we are successful.

Samantha (Parkview HS) shares her frustration with consistent fluctuation of teams:

> Just when we start to build momentum as a PLC team, just when start to build community and know each other, they (admin) change our Biology team. It was very frustrating.

The observation of four PLC meetings did not collect any data on how long the PLC teams have been together. However, it was only the second time ever meeting as cross – curricular PLCs for the two teams from Parkview High School. Since it was only their meeting, there is no way to gauge the effectiveness of the new PLC yet.

Finding six. Bayside High School and Parkview High School PLC teams have a difference in internal team motivation & vulnerability.

Analysis of interview data indicated that interview participants felt that internal team motivation and vulnerability (or lack of) impacted their PLC performance. All six interviewed participants mentioned there was in difference by school site when participants talked about motivation and vulnerability in terms of: "internal/external motivation," and "vulnerability - willingness to take risks."

Motivation

The responses from interview participants reflected the work of Fowler (2017). Fowler suggests that external motivators do not motivate employees to improve performance in the long run, intrinsic motivation does. Five out of the six interviewed (two from Bayside, and three from Parkview HS) participants shared statements related to internal/external motivation. These statements included themes of: incentives, fear, and intrinsic motivation. Scott (Bayside HS) shared:

91

I guess our team is motivated by a common purpose. As a staff, we consistently revisit and align our vision, mission, and belief statement. We model that as a PLC, we always revisit our goals and beliefs as a PLC.

Leonel (Bayside HS) added how team interdependence motivates him:

I would like to think that our team is motivated by our interdependence in each other and by our students. We don't really need any other incentive for us to perform as a PLC.

Parkview High School participants shared a different perspective on how internal/external motivation impacts their PLCs. Samantha (Parkview HS) shared:

Our site admin raffles Starbucks gift cards for PLCs that submit all of their agendas and minutes on – time. I think they also do one for PLCs that have perfect attendance every semester. It is not a bad thing, but I don't think it has any impact on how well or bad our PLC performs.

Robert (Parkview HS) added:

What motivates our English 9 team? Honestly, the fact that we no longer have to meet with each other. I mean, we were always afraid of getting reprimanded for not having perfect attendance. At least we don't have to worry about that now. I don't know. That is a great a question. I guess it is probably a different answer for every member of the PLC team.

Analysis of PLC meeting observation results could not confirm the results from the motivation sentiments of the interview participants. However, the two Bayside HS PLC meetings that were observed did review their goals, norms, and aspirations together in the beginning meeting – that was confirmed.

Vulnerability

All six interviewed participants shared statements related to internal vulnerability impacting their PLC performance. Common responses included themes of: willingness to take risks, and connectedness. The degree to which respondents were willing to take risks, and felt connected to their PLCs varied by site. Gabriela (Bayside HS) shared:

We encourage each other to take instructional risks individually, and as a team. I think part of it is because admin gives us the space to be creative without fear of being reprimanded, but also part of it is because we don't judge each other for failing.

Leonel (Bayside HS) talked about the vulnerability by his PLC when discussing assessment results:

We look at assessment data as team. We don't say things like "why did all of teacher Z's students fail questions 10-15?" Instead we look at the aggregate PLC results and say things like "How did all of our students perform on questions 10 -15?" We do have an individual data reflection sheet that everyone completes prior to coming to the PLC meeting. I think this helps teachers say things like "My students seemed to struggle on questions 10- 15. How did you guys teach these concepts?" We have established a culture in which most of our team members feel comfortable sharing their results.

Robert (Parkview HS) shared a different experience disaggregating assessment results with his PLC:

We have data protocols that admin provided us and we used them, but when it came to teachers sharing their individual data results and having the humility to ask for help from teammates – it just didn't happen. Maybe we just weren't connected enough, or trust each other enough to do that.

Joaquin (Parkview HS) shared that a lack of connectivity constrained his PLC's ability to be vulnerable with each other:

I think because we never connected deeply on a personal level, we were never open to being silly, take risks, or vulnerable with each other. Our team relationship was compliance based.

Analysis of PLC meeting observation results could not confirm the results from the vulnerability sentiments of the interview participants.

Summary of Findings 5 & 6 – Research Question 6

Qualitative analysis indicated and identified other factors that could be impacting the performance of the PLCs at Bayside High School and Parkview High School, and consequently, student achievement. Other factors impacting PLC performance included:

internal relationships, motivation and vulnerability. All of the data results indicated that PLCs at Bayside High School have a higher degree of internal relationships, are more intrinsically motivated, and more open/vulnerable with each other than PLCs at Parkview High School. This finding is consistent with the work by Fowler (2017) whom argues that organizations that find way to intrinsically motivate employees outperform organizations that extrinsically motivate their employees.

Chapter Summary

This research study analyzed the PLC perceptions and experiences of teachers from two school sites (Bayside HS & Parkview HS) with similar student demographics, from the same school district (Belding), but with different trending student achievement results. Survey, interview, and field observation findings from this study suggested that Bayside High School and Parkview High School have similar PLC procedures, logistics and generally follow the Dufour & Eaker (1998; 2004) PLC model with fidelity. The sites had some differences in PLC procedures, logistics and in the PLC cycle, but the differences had a minor influence on the PLC fidelity scale (Graham & Ferriter, 2008). The differences were mostly attributed to fidelity factors that are associated with autonomy and trust.

Accordingly, the findings also suggested that PLCs at Bayside High School have more autonomy and trust than PLCs at Parkview High School. The difference in PLC autonomy and trust could be one explanation for the difference in student performance. The findings suggested that Bayside PLC's higher degree of administrative autonomy and trust contributed to their increase in student achievement. Conversely, the findings suggested that Parkview PLC's lower degree of autonomy and trust contributed to their decrease in student

94

achievement.

According to Parkview High School teachers, the recent change in how Parkview organized their PLCs was an attempt to improve their PLCs. Teachers expressed general optimism to the new approach, especially to the idea of collaborating across content areas. The new approach shifted away from organizing teams by content area, to organizing teams by innovation idea (i.e. PBIS, Technology). While the teams are no longer collaborating by content area, they are still committed to the PLC cycle and following the PLC model with fidelity.

Additional findings also suggested that internal relationships, motivation, and vulnerability factors were impacting PLC performance. These findings are consistent with the literature on individual teacher – to teacher trust (Daly & Chrispeels 2008; Tschannen-Moran & Hoy, 1998). Individual team members from Bayside High School trusted each other (within their own teams) to a higher degree than individual team members from Parkview High School. If you can't trust your own team, you are less likely to trust administration. Internal trust and relationships seem to be a pre – cursor to administrative trust. Coincidently, two interview participants from Bayside High School shared that their administration engages their whole staff in relationship building exercises at the beginning of every all – staff meeting. This is consistent with the PLC culture at Bayside of engaging their PLC teams in ice – breakers at the beginning of every PLC meeting. Therefore, it is no surprise Bayside High School PLCs had a higher degree of PLC fidelity, autonomy and trust than PLCs at Parkview High School.

CHAPTER 5: DISCUSSION

This chapter will review the problem of the study, the theoretical framework, and the methodology. Additionally, this chapter will offer a discussion of the findings and suggestions/implications for practice and for future research.

Overview of the Problem

Under NCLB, a disproportionate amount of Title I schools were categorized "program improvement" (PI) for not meeting adequate yearly progress (AYP) in federal student achievement measures (Kim & Sunderman, 2005). Program improvement schools were prescribed many corrective action measures by their respective local education agencies' (LEA) to improve student achievement, including the Dufour & Eaker (1998; 2003; 2008) PLC approach. Despite the adoption and implementation of the PLC method by Title I schools, the achievement gap persisted in the majority Title I campuses nationwide (Owens, 2018). Why? This could be for many reasons, including: teacher beliefs, instruction, pedagogy, assessment practices, school demographics, parent education, teacher collaboration (PLCs) and others. However, Dufour & Eaker (1998; 2003; 2008) argue, holding all other reasons equal, it is because schools have not implemented the prescribed PLC methodology with fidelity. Dufour & Eaker's claim was based off PLC self –assessment surveys, and from findings published by Solution Tree (their publisher) authors. Therefore, their findings lacked objectivity. Additionally, the literature review revealed a gap in the impact that perceived PLC autonomy/trust, and other factors, could have on PLC performance.

This cross – case study examined two Title I schools from the same school district. The two school sites selected for this study had similar demographics, were from the same

96

city, implemented PLCs at the same time, but had a difference in trending student achievement: one improving for three consecutive years, one declining for three consecutive years. This study sought to examine the similarities and differences in (1) PLC fidelity; (2) PLC autonomy and trust; and (3) other factors impacting PLCs between the two school sites.

Review of Theoretical Framework

The theoretical framework for this research was based on the foundational premise that employee collaboration, in any setting, can improve organizational performance (Follet, 1924; Cross, Liedtaka, & Weiss; 2005; Coutu, 2009; Erickson, 2012). Teacher collaboration was first studied in the 1970's by Chin & Benne (1978), they found that when teachers were involved in school decision – making, their problem-solving techniques would improve. Research in teacher collaboration in the 1980's, 1990's and 2000's suggested that teacher collaboration could improve school performance if teachers had decision – making autonomy and consistent time in their schedule to collaborate (Knowles, 1979; Little, 1982; Sparks, 1983; Williams, 2013). Previous research on teacher collaboration set the foundation for the Dufour and Eaker (1998, 2004) approach to teacher collaboration: Professional Learning Communities.

The PLC approach combined the idea of teacher collaboration with a loose interpretation of improvement science (Bryk, 2010; Bryk, Gomez, Grunow, & LeMahieu, 2015). The PLC method converted improvement science's Plan – Do – Study – Act (PDSA) cycle of continuous improvement to the PLC cycle. The PLC cycle asks PLC teams to ask themselves: (1) What do we want students to learn? (Plan) (2) How do we know they are learning? (Assessment – Do) (3) What are we going to do if students do not get it? (Study the

results, plan interventions), (4) How might we enrich the learning experience? (Act).

Subsequent research in teacher collaboration suggested that the PLC approach was the most widely accepted and practiced approach to teacher collaboration. Additionally, the literature on PLCs indicated that, if implemented with fidelity, Professional Learning Communities could help close the achievement gap and improve student achievement (Berry et al., 2005; Bolam et al., 2005; Hollins et al., 2004; Louis & Marks, 1998; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). Therefore, this study's conceptual framework analyzed teacher collaboration using Dufour and Eaker's (1998) Professional Learning Communities model as lens for school improvement.

Review of Methodology

This cross - case study used a sequential explanatory mixed-methods design (Creswell, 2013) to compare and contrast PLCs at both sites. The sequential explanatory mixed methods approach is a three - phase approach where the quantitative data is collected first followed by qualitative data collection. This approach analyzed qualitative results to explain the quantitative findings (Creswell, 2003). The quantitative data collected included: (i) PLC participant demographics, and (ii) Likert scale survey data on PLC meeting structures/procedures, PLC fidelity, perceived PLC autonomy, and perceived PLC trust (**Appendix A - D**). To gain more insight and get a better understanding of the quantitative data, the following qualitative data was collected: (i) Semi – structured interviews (**Appendix E**), and (iii) observations of actual PLC meetings were conducted to validate data from surveys and interviews (Yin, 2009). The observation of PLC meetings was the only non – self - reported source of objective data collected. The collection and analysis of the survey

data, interview data and PLC observation data allowed for the researcher to validate and triangulate the data. Additionally, each type of data collected presented the researcher with new information about PLCs that otherwise may not have been discovered by using one mode of data collection.

The first phase of the research design utilized a Likert scale survey that included questions to capture quantitative data about PLC meeting structures/procedures, PLC fidelity, perceived PLC autonomy, and perceived PLC trust. The survey was an amended version of preexisting trust/autonomy scales, as well as general questions about PLC procedures. The survey was initially sent out to several sites within Belding Union High School District that had similar demographics, but with different student achievement trends. Bayside High School and Parkview High School were selected for the cross – case study because: (1) they had the most number of teachers take the survey, (2) they meet the achievement trend criteria and (3) because the two sites had similar student demographics.

The second phase of the research design entailed semi-structured interviews focused on PLC logistics, PLC fidelity, PLC autonomy, PLC trust, and other factors that could impact PLC performance. Thematic coding, or thematic analysis, includes a process of multiple reads/analysis of qualitative data that includes description, categorization, and analytic codes (Gibbs, 2007; 2010). The interview section of the study was crucial because it provided a deeper understanding of the similarities and differences in PLCs between sites that the surveys could not capture. For example, while both sites generally followed the PLC model with fidelity, the survey results suggested that PLC teams at Bayside High School follow it with more fidelity. The narratives offered by interview participants offered some

explanations why, which included: implementation and ownership of norms, and a higher degree of PLC autonomy.

The third phase of the research design involved observations of PLC meetings focused PLC logistics, PLC fidelity, PLC autonomy, PLC trust, and other factors that could impact PLC performance. The observation stage of the study was vital because the previous two data collection methods (survey & interviews) were both self-assessment tools that lacked participant objectivity.   The observation of PLC meetings verified and verified and confirmed most of the findings produced by the survey and interview results, with some exceptions. A major distinction that was discovered by the observation of PLC meetings was that PLC meetings at Parkview High School were facilitated, planned and organized by administrators – not teachers. PLC meetings at Bayside High School were facilitated planned and organized by teachers. This finding aligned with PLC teams at Bayside High School having a higher degree of PLC autonomy and trust than PLC teams at Parkview High School. It should be noted that the facilitation of meetings by administrators at Parkview High School could be tied to the implementation of a new approach to PLCs.

The final phase of the research design included a triangulation and synthesis of quantitative and qualitative data. Trends and findings from all three phases of the research were compared to the current literature to examine the common themes in the quantitative and qualitative methodologies (Creswell & Plano Clark, 2011). Synthesis of the data helped provide a deeper level of understanding of the PLC procedures, PLC logistics, PLC fidelity PLC autonomy, PLC trust, and other factors impacting PLC performance at both sites.

Summary of Findings

The dichotomy of high and low student achievement trends from two school sites (Bayside High School and Parkview High School) that have similar student demographics, are part of the same district, and that are practicing the PLC model with fidelity, could be explained by a difference in PLC autonomy, PLC trust and other factors (i.e. internal teacher-to-teacher relationships) impacting PLC performance. The following section demonstrates how the findings from this study related to the theoretical framework, literature review, and the difference in student achievement by school site.

Literature that examined PLCs impact on student achievement suggested that there is a strong relationship between PLC participation and an increase in student achievement (Berry et al., 2005; Bolam et al., 2005; Hollins et al., 2004; Louis & Marks, 1998; Phillips, 2003; Strahan, 2003; Supovitz, 2002; Supovitz & Christman, 2003). However, Dufour & Eaker (1998, 2004) warned that if the PLC model is not followed with fidelity, PLCs will not positively impact student achievement. Therefore, the first research question of this study examined to what degree Bayside and Parkview High School PLCs were following the PLC model with fidelity? The findings did not indicate a significant difference in PLC procedures, PLC logistics, and PLC fidelity. The findings indicated that both sites generally practice the PLC model with fidelity. However, there was slight variance by school site in PLC fidelity factors: norms, and common assessments. Norms and common assessments are closely connected to individual teacher trust (norms) and teacher autonomy (assessments). The findings suggested that there might be other reasons for the difference in student achievement between school sites: autonomy and trust.

Literature in teacher autonomy suggested that there is a positive relationship between schools that give their teachers autonomy and an increase student achievement (Wilner, 1990; Fay, 1990; Hanson, 1991; Pearson & Hall; 1993; Farris-Berg, & Dirkswager, 2012). However, this research had never applied to PLC team autonomy. The second research question of this study examined to what degree Bayside and Parkview High School PLCs were similar and different in terms of PLC autonomy. The Pearson & Hall (1993) autonomy scale and the semi – structured interview questions were amended to gauge a PLC teams' autonomy from administrative oversight over the instructional process, assessments, grading, collaboration and general decision – making. The findings indicated a difference in PLC autonomy by school site. PLC teams from Bayside High School that participated in the study had more autonomy than PLC teams from Parkview High School. These findings align the student achievement trends for each school site.

Research in teacher trust suggested that there is a positive relationship between schools that trust their teachers individually and an increase student achievement (Daly & Chrispeels 2008; Tschannen-Moran & Hoy, 1998). However, this research had never applied to PLC team trust. The second research question (b) of this study examined to what degree Bayside and Parkview High School PLCs were similar and different in terms of PLC trust. The Tschannen-Moran & Hoy (1998) trust scale and the semi – structured interview questions were amended to gauge a PLC teams' trust of administration in terms of team risk, communication with admin, reliability of admin, competence of admin, and admin transparency. The findings indicated a difference in PLC trust by school site. PLC teams from Bayside High School that participated in the study had more trust than PLC teams from Parkview High School. These findings align the student achievement trends for each school

site.

The third research question explored other factors that could be influencing PLC's functioning and impact on student achievement? The findings indicated and identified other factors that could be impacting the performance of the PLCs at Bayside High School and Parkview High School: internal relationships, individual teacher motivation and vulnerability. All of the data results indicated that PLCs at Bayside High School have a higher degree of internal relationships, are more intrinsically motivated, and more open/vulnerable with each other than PLCs at Parkview High School. These findings align with the work by Fowler (2017) whom argues that organizations that find way to intrinsically motivate employees outperform organizations that extrinsically motivate their employees. While Fowler's work was directed towards the business management industry, her work also translates to the educational setting. She argues that in order to motivate employees, managers should work on increasing the autonomy, relatedness, and competence (ARC) that they grant to their employees. The more ARC an organization gives their employees, the higher the morale of the organization, and consequently higher performance.

Implications

Findings from this study suggested that Bayside High School's trending increase in student achievement could be attributed to their PLCs receiving a high degree of PLC autonomy and trust. Conversely, findings from this study suggested Parkview High School's trending decrease in student achievement could be attributed to a lower degree of PLC autonomy and trust. Administrators at Parkview High School should afford their PLCs more autonomy and trust. Holding instructionally quality, and many other factors equal, an

103

increase in PLC autonomy and trust at Parkview High School could potentially yield an increase in student achievement at Parkview High School.

To increase PLC autonomy administrators at Parkview High School should focus on giving their teams a sense of agency on curricular/ assessment decisions, and let teacher leaders organize and facilitate their own meetings. The findings revealed that PLC teams at Parkview High School felt pressure to give district created common assessments; which stifled team creativity and ownership of the assessment. Additionally, observations of PLC meetings revealed that administrators at Parkview High School facilitated and organized the PLCs. While this may have been attributed to the notion that it was only the second meeting in the new PLC structure, it still limited teacher voice, independence and leadership.

To increase PLC trust administrators at Parkview High School should focus on reducing compliance factors, include PLC input in decision – making, and use asset/team oriented communication with PLCs. The findings indicated that PLC teams at Parkview High School felt that agendas, attendance, meeting notes/minutes were compliance items that were a waste of time. Administrators at Parkview High School should focus on co – creating the agenda with PLC leads and give authentic feedback on meeting notes (and not just take them to ensure attendance). Additionally, Parkview High School participants shared that there was a lack of PLC input on decision – making, until recently. Administrators should continue to seek formative feedback from PLC teams on all decision – making that could impact PLCs. Lastly, findings indicated that administrators from Parkview High School used exclusionary language when communicating with PLCs. Parkview administrators should replace "your team" with "our team" – "your students" with "our students."

Parkview High School administrators should work to improve internal teacher – to – teacher relationships within PLCs, and individual teacher motivation. Administrators should provide team building, ice – breaker, stoke, and norms training for their PLC teacher leads to help build team morale and a collaborative culture. Using conversation protocols and relationship building exercises could also assist with developing a sense of purpose for each teacher. If teachers' have a sense of purpose, the will be intrinsically motivated. Having intrinsically motivated teachers, with a consistent culture of working on internal relationships should lead to strong PLCs. To improve internal teacher – to – teacher relationships and communication, administrators from Parkview High School should engage their PLC teams in personality calibration exercises to help. Examples include: the Myers-Briggs Type Indicator (2003) and the Deilotte Business Chemistry: Using Science to Improve the Art of Relationships (2018). Additionally, industries outside of education have been using the "Strengths Based Leadership" (Rath, 2008) to improve communication, relationships, and ultimately employee performance. The strengths – based approach puts employees through a strengths – based finder survey (Gallup, 2008) to help each employee identify their own strengths. Employees are then given tools to leverage their own strengths, and develop an asset – based mindset.

While the cross – case study nature of this research was designed to deeply understand the specific cases of Bayside High School and Parkview High School, and not to generalize (Stake, 2005), the findings do present an intriguing leadership approach to managing PLCs in Title I schools, and all other schools. Administrators should consider differentiating how much autonomy and trust they yield each PLC depending how much the PLC is following the PLC cycle. Dufour and Eaker (1998, 2004) cite the PLC cycle as the most important

105

component of the PLC method. Therefore, PLCs that are not following the PLC cycle should be tightly monitored to ensure compliance. However, PLCs that are following the PLC cycle should be yielded more autonomy and trust by administration.

This could also have implications for school district administration in terms of forcing school sites to administer district created benchmarks/assessments. Research participants from both school sites expressed general discontent with district benchmarks and felt that it takes away PLC team creativity and autonomy. District office administrators should also differentiate how they manage PLCs at each school site. Schools that have PLCs that are following the PLC cycle should be afforded more autonomy and trust. Conversely, schools that have PLCs that are not following the cycle should be monitored more by district office administration.

Limitations

Limitations that were referenced at the end of Chapter Three will be revisited in this section. In addition, new limitations that were discovered during the course of the study will be reviewed. Limitations of the study included: (a) limitations of the trust and autonomy scale(s), (b) demographics of teacher subjects & sample size of participants, and (c) timing and context of the study.

A limitation of the study was the design of the survey. The survey was designed in four sections: participant demographics, PLC logistics/fidelity, PLC autonomy, and PLC trust. The survey used in phase one consisted of 31 items (see Appendix A- D for survey questions) and was designed to take approximately 10-15 minutes to complete. The survey was

amended from preexisting scales and designed to minimize user error. Despite many cautionary efforts in the survey design, some errors were detected. Bayside High School and Parkview High School initially had a combined 68 survey participants. However, only a total 41 participants completed the survey. After analyzing the participant response distribution reports, it was evident that many participants stopped participating after the second the section of the survey: PLC fidelity. The survey design had the demographic questions and the plc fidelity questions on the same qualtrics window, after completing question eleven, participants had to click "continue" on the bottom right of the user interface window of the survey. Twenty – seven participants did not continue with survey after the eleventh question. The researcher lost valuable insight that the survey participants may have contributed. Additionally, the researcher had to use a smaller sample size.

The study was also constrained by the small sample of participants gathered from two school sites. The study fell short of its initial goal of obtaining thirty survey participants from each site, the actual number of participants from each site were: 22 from Bayside High School, and 19 from Parkview High School. However, the study did meet its goal of recruiting mainly participants that teach core subject areas: 26% of the survey respondents teach English, 16% teach Mathematics, 13% teach science, and 25% teach Social Science. The remaining 20% of participants teach non-core subject areas. Additionally, the study met its goal of interviewing six participants (three from each site). Lastly, the study came up short of its goal observing six PLC meetings (three from each site), only four PLC meetings were observed (two from each site). The limited participation constrained the researcher's ability to gather additional data that may have provided a deeper level of understanding of PLCs at each site.

The timing and the context of the study may have been the most significant constraint. While both Bayside High School and Parkview High School had been organizing their PLCs under the traditional content area teams since the mid 2000's, Parkview High School changed their approach to organizing PLC teams by innovation idea/practice in January 2019. Survey participants took the survey in December 2018, prior to the implementation of the new teams. Parkview interview participants were interviewed in January 2019, participants responded based off their experience in the previous model, but most of the Parkview participants referenced the new model. Observations of the PLC meetings took place in January and early February 2019. The two PLC meetings observed at Parkview High School were organized under the new PLC team model. The researcher did not get the opportunity to observe PLC meetings under the traditional content area PLC team model.

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PLC Autonomy & Trust Survey

Part A - Participant Information

Instructions: Please fill in the blank or mark your choice as appropriate.

Total years teaching experience _____

Teaching level

o Elementary o Middle   o High school

Department

o Art

o Business/Distributive

o Foreign language

o English/Mass/Comm/Speech

o Mathematics

o Music

o Physical education

o Science/Health

o Social Science/Studies1

o Language Arts

o Other (please specify) _____

PLC
PLC that you participate in (i.e. English 9, US History 11) _____

PLC Procedures – Cycle of Improvement	1 - SD	2 – So. D	3 - N	4 – So. A	5 - SA
1 - How many times per month does your PLC team meet?					
2 - We have developed and adhere to team norms.					
3 - Teams work to clarify the criteria by which we will judge student work and practice applying those criteria consistently.					
4 - We identify the specific standard or target students must achieve on each of the essential skills addressed by the formative assessment.					
5 - We monitor student learning on essential outcomes through team-developed formative assessments that are aligned with district and state assessments.					
6 - We provide a system of interventions that guarantees each student receives additional time and support for learning, if needed.					
7 – Our team consistently has an agenda, takes attendance, and writes meeting minutes/notes.					
8 - Teams build shared knowledge regarding state standards, district curriculum guides, trends in achievement, and expectations for the next course or grade level.					
9 - Each of our teams has identified a SMART goal that aligns with one of our school goals.					
10 - We use common assessments to identify students who need additional time and support for learning.					
11 - We use common assessments to discover strengths and weaknesses in our individual teaching.					
12 - We use common assessments to help measure our team's progress toward its goals.					

(Adopted from Graham & Ferriter, 2008; Solution Tree, 2018)

Part C – Autonomy

PLC Autonomy (8/18)	1 - SD	2 – D	3 - N	4 – A	5 – SA
1. Our PLC is free to be creative in our teaching approach.					
2. The selection of student – learning activities is under the control of my PLC.					
3. In my teaching, I use my PLC's guidelines and procedures.					
4. My PLC has little say over the content and skills that are selected for teaching.					
5. My PLC's meeting agendas are designed and organized by its own members.					
6. Our PLC focuses on teaching goals and objectives that were selected by our PLC.					
7. What I teach in my class is determined for the most part by my PLC.					
8. My PLC only has latitude to resolve our internal issues.					
9. My PLC has the autonomy to create its own formative assessments.					

		1 - SD	2 – D	3 - N	4 – A	5 – SA
10.	My PLC has the autonomy to create its own rubrics and guidelines for grading.					

<div align="right">(Adopted from Pearson & Hall, 1993; Moomaw, 2005)</div>

Part D – Trust

PLC Trust (10/23)		1 - SD	2 – D	3 - N	4 – A	5 – SA
1.	PLC teams in this school have faith in the integrity of the school administration.					
2.	The administration in this school typically acts in the best interest of the students and teachers.					
3.	PLC teams in this school can rely on the school administration.					
4.	PLC teams in this school trust the school administration.					
5.	PLC teams in this school are open with school administration about their needs and concerns.					
6.	School administration keeps PLC teams informed and communicates well.					
7.	School administration follows through on commitments and promises.					
8.	The school administration has confidence in the expertise of teachers.					
9.	The school administration effectively manages the school and makes the school run smoothly.					
10.	The school administration trusts my PLC.					

<div align="right">(Adopted from Bryk & Schneider, 2002; Tschannen – Moran & Hoy, 2003)</div>

Part E – Semi – Structured Interview Protocol

PLC AUTONOMY & TRUST – A Cross Case Study

Interview Protocol

Thank you for agreeing to be interviewed today. I am doing a study that explores your school's PLC practice, and perceived PLC autonomy/trust. I will be asking you questions about demographic characteristics, current status of your PLC, basic questions about PLC operations/norms/agenda, as well as questions about what your perceived PLC autonomy/trust is - as it pertains to school leadership. Before we start, let's take a minute to review the informed consent form.

A. Introductory Questions

Tell me about this school. What do you like about working here? What's challenging about working here?

B. PLC Practices

Now I'd like to ask you questions about standard PLC operations/norms/agenda.

Possible Questions:
What does teacher collaboration mean to you? What do your PLC meetings look like (in general)? How are they structured? Do your meetings have an agenda? Does your PLC have norms? Are they followed? What happens if they are not followed?

C. PLC Autonomy/Trust
Now I'd like to ask you questions about your perceived PLC autonomy/trust.

Possible Questions:
Describe your PLC's relationship with the school administration. Does your PLC have autonomy over your meetings, curricular decisions, common assessments, rubrics, and other decisions? How is the communication between your PLC and the school administration? Do you believe the administration is consistent in their decisions, and managing of PLC's? Does your PLC discuss their feelings, worries, and frustrations with the school administration? Does your PLC trust the school administration?

D. Closing:

    C1. How was your professional learning related to PLC's supported?

    C2. Anything else you would like to add?
Thank you so much for your time. It has been helpful to hear what you have shared.

Appendix B

Professional Learning Community

Collaboration Cycle

Inquiry
What learning needs do our students have?

Design
Collaborate with colleagues on designing an activity. How will it be assessed.

Evaluate
Are we making an impact? What changes do we need to make?

Teach
Teach the activity!

Reflect
How did OUR students do?

Assess
How did YOUR students do?

Share
Share your assessments with your colleagues.

@CraigMah
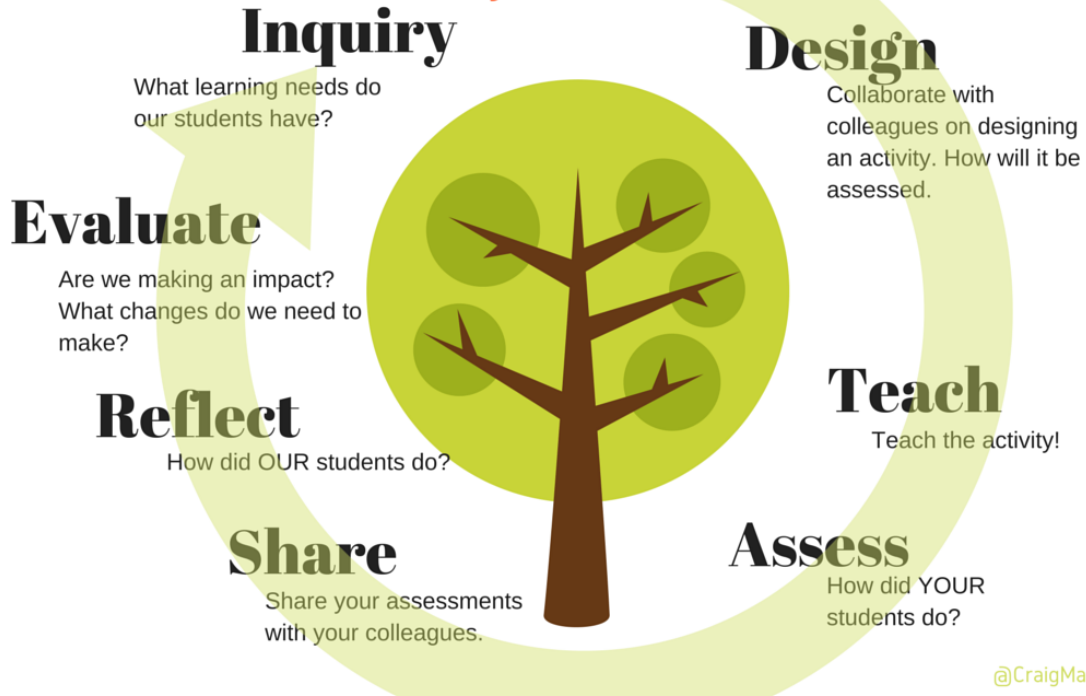
(Solution Tree, 2017)

122

Appendix C: Survey Script

Email Survey Recruitment script:

Dear <Teacher Name>,

You are invited to participate in a dissertation research project conducted in cooperation with your school district that will study your school's PLC practice, and perceived PLC autonomy/trust. Participation in the project is voluntary, and involves a survey that will take approximately 20 - 25 minutes. The voluntary survey may be completed during your professional time.

The purpose of the survey is to better understand: how your PLC operates, your perceived PLC autonomy/trust, and other leadership behaviors that impact your team's collaboration. Survey responses will be confidential: we will not share your responses with anyone in your building or district.

Please click this link to complete the survey:

<INSERT LINK HERE>

Sincerely,

Martin Casas
Candidate, Doctor of Education
University of California, San Diego
macasas@ucsd.edu

Appendix D: Interview Script

Email script:

Dear <Teacher Name>,

You are invited to participate in a dissertation research project conducted in cooperation with your school district that will study your school's PLC practice, and perceived PLC autonomy/trust. Participation in the project is voluntary, and involves an interview that will take approximately 30 minutes. Interviews will take place before or after school at a time of your convenience. The interview may be audio-recorded, with your agreement.

The purpose of the interview is to better understand: how your PLC operates, your perceived PLC autonomy/trust, and other leadership behaviors that impact your team's collaboration. Interviews will be confidential: we will not share your responses with anyone in your building or district.

Please let me know if you are interested and willing to participate in this project, and if you have any questions.

Sincerely,

Martin Casas
Candidate, Doctor of Education
University of California, San Diego
macasas@ucsd.edu

Appendix E: PLC observation recruitment script

PLC Observation meeting Recruitment script:

Dear <Teacher Name>,

You are invited to participate in a dissertation research project conducted in cooperation with your school district that will study your school's PLC practice, and perceived PLC autonomy/trust. Participation in the project is voluntary, and involves an observation of your upcoming PLC meeting. The observation will take the length of your meeting.

The purpose of the observation is to better understand: how your PLC operates, your perceived PLC autonomy/trust, and other leadership behaviors that impact your team's collaboration. Observations notes and transcription will be confidential: we will not share your responses with anyone in your building or district.

Please respond to this email if you are interested in participating:

Sincerely,

Martin Casas
Candidate, Doctor of Education
University of California, San Diego
macasas@ucsd.edu

Appendix F: Informed Consent Form – Survey

University of California, San Diego
Consent to Act as a Research Subject

PLC AUTONOMY & TRUST – A Cross Case Study

Informed Consent Form

Who is conducting the project, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the project?

Martin Casas, a doctoral student in education at UCSD and CSUSM, is conducting a project to better understand your school's PLC practice, and perceived PLC autonomy/trust. You have been asked to participate in this study because you are a teacher that participated in the initial PLC electronic survey. You have been selected because you are a teacher that belongs to a PLC team at one of the sites selected for this study. There will be approximately 180 participants that will be asked to take this survey.

Why is this project being done?
The purpose of this project is to:
1. Identify and evaluate the similarities and differences in PLC practice/implementation of two school sites.
2. Identify and evaluate the perceived PLC autonomy/trust of two school sites that have similar demographics.
3. Better understand the potential impact that leadership behaviors have on PLC's at two school sites that have similar demographics.

What will happen to you in this project and which procedures are standard of care and which are experimental?

If you agree to be in this project, you will complete an online survey that includes questions abo about your demographic characteristics, current status of your PLC, basic questions about PLC operations/norms/agenda, as well as questions about what your perceived PLC autonomy/trust is - as it pertains to school leadership.

How much time will each project procedure take, what is your total time commitment, and how long will the project last?
It will take you approximately 20 - 25 minutes to complete the survey.

What risks are associated with this project?

Participation in this project may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. However, no data about any individual participant or specific team will be reported to any organization. The only individual who will be able to see your survey responses and have access to the data will be the researcher conducting this project (Martin Casas). All survey data will be stored on secure servers with password protection. In addition, individuals' names and other identifiers will be removed from the data files and replaced with random numerical identifiers.

2. You may become bored or fatigued during the survey in which case you can just stop the survey and return later or stop the survey without returning later.

What are the alternatives to participating in this project?
The alternative to participation in this project is not to participate.

What benefits can be reasonably expected?
There is no direct benefit for participating in this study. However, the study could help school sites identify leadership behaviors that could increase PLC efficacy, PLC autonomy & trust – and potentially, student achievement.

Can you choose to not participate or withdraw from the project without penalty or loss of benefits?
Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions on a survey at any time without penalty. If you decide that you no longer wish to continue in this project, please inform the researcher, Martin Casas, macasas@ucsd.edu, (619) 438- 9626. You will be told if any important new information is found during the course of this project that may affect your wanting to continue.

Can you be withdrawn from the project without your consent?
Yes, the researcher may remove you from the project without your consent if the researcher feels it is in your best interest or the best interest of the project.

Will you be compensated for participating in this project?
There is no direct compensation to you for participating in the project.

Are there any costs associated with participating in this project?
There will be no cost to you for participating in this project.

Who can you call if you have questions?
You have the right to ask questions of the researcher without penalty (either in person, on the telephone, or via e-mail) and you may leave blank any survey questions you do not wish to answer for any reason. Further, you have the right to withdraw consent and discontinue participation at any time, including after completion of any of the survey, without penalty. To withdraw from the project, you may contact Martin Casas at (619) 438 – 96262 or

macasas@ucsd.edu. You may call the Human Research Protections Program Office at (858) 246-4777 to inquire about your rights as a research subject or to report research-related problems.

Your Signature and Consent
You have received a copy of this consent document.

You agree to participate.

_____   _____
Subject's signature   Date

_____
Print Name

University of California, San Diego
Consent to Act as a Research Subject

PLC AUTONOMY & TRUST – A Cross Case Study

Informed Consent Form

Who is conducting the project, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the project?

Martin Casas, a doctoral student in education at UCSD and CSUSM, is conducting a project to better understand your school's PLC practice, and perceived PLC autonomy/trust. You have been asked to participate in this study because you are a teacher, administrator, or instructional aide. You have been selected because you are currently listed as a staff member affiliated with your school. There will be approximately 20 participants in this study.

Why is this project being done?
The purpose of this project is to:
1. Identify and evaluate the similarities and differences in PLC practice/implementation of two school sites.
2. Identify and evaluate the perceived PLC autonomy/trust of two school sites that have similar demographics.
3. Better understand the potential impact that leadership behaviors have on PLC's at two school sites that have similar demographics.

What will happen to you in this project and which procedures are standard of care and which are experimental?

If you agree to be in this project, you will participate in an interview that includes questions about your demographic characteristics, current status of your PLC, basic questions about PLC operations/norms/agenda, as well as questions about who your perceived PLC autonomy/trust as it pertains to school leadership.

How much time will each project procedure take, what is your total time commitment, and how long will the project last?

It will take you approximately 30 minutes to complete the interview.

What risks are associated with this project?
Participation in this project may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. However, no data about any individual participant or specific team will be reported to any organization. The only individual who will be able to see your interview transcripts and have access to the data will be the researcher conducting this project (Martin Casas). All interview data will be stored on secure servers with password protection. In addition, individuals' names and other identifiers will be removed from the data files and replaced with random numerical identifiers.

2. You may become bored or fatigued during the interview in which case you can just stop the interview and return later or stop the interview without returning later.

What are the alternatives to participating in this project?
The alternative to participation in this project is not to participate.

What benefits can be reasonably expected?
There is no direct compensation for participating in this study. However, the study could help school sites identify leadership behaviors that could increase PLC efficacy, PLC autonomy & trust – and potentially, student achievement.

Can you choose to not participate or withdraw from the project without penalty or loss of benefits?
Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions from the interview at any time without penalty. If you decide that you no longer wish to continue in this project, please just inform the researcher, Martin Casas, macasas@ucsd.edu, (619) 438- 9626. You will be told if any important new information is found during the course of this project that may affect your wanting to continue.

Can you be withdrawn from the project without your consent?
Yes, the researcher may remove you from the project without your consent if the researcher feels it is in your best interest or the best interest of the project.

Will you be compensated for participating in this project?
There is no direct compensation to you for participating in the project.

Are there any costs associated with participating in this project?
There will be no cost to you for participating in this project.

Who can you call if you have questions?
You have the right to ask questions of the researcher without penalty (either in person, on the telephone, or via e-mail) and you may decline response to questions you do not wish to answer for any reason. Further, you have the right to withdraw consent and discontinue participation at any time, including after completion of the interview, without penalty. To

withdraw from the project, you may contact Martin Casas at (619) 438 – 96262 or macasas@ucsd.edu. You may call the Human Research Protections Program Office at (858) 246-4777 to inquire about your rights as a research subject or to report research-related problems.

Your Signature and Consent
You have received a copy of this consent document.

You agree to participate.

_____   _____
Subject's signature   Date

_____
Print Name

Appendix H: Informed Consent Form – Observation

University of California, San Diego
Consent to Act as a Research Subject

PLC AUTONOMY & TRUST – A Cross Case Study

Informed Consent Form – PLC Meeting Observation

Who is conducting the project, why you have been asked to participate, how you were selected, and what is the approximate number of participants in the project?

Martin Casas, a doctoral student in education at UCSD and CSUSM, is conducting a project to better understand your school's PLC practice, and perceived PLC autonomy/trust. You have been selected because you are a teacher that belongs to a PLC team at one of the sites selected for this study. There will be approximately 30 participants that will participate in the meeting observations.

Why is this project being done?
The purpose of this project is to:
1. Identify and evaluate the similarities and differences in PLC practice/implementation of two school sites.
2. Identify and evaluate the perceived PLC autonomy/trust of two school sites that have similar demographics.
3. Better understand the potential impact that leadership behaviors have on PLC's at two school sites that have similar demographics.

What will happen to you in this project and which procedures are standard of care and which are experimental?

If you agree to be in this project, you and your PLC team will be observed during your next PLC meeting. The researcher will be taking notes and audio recording the meeting. The researcher will not be asking any questions to the participants.

How much time will each project procedure take, what is your total time commitment, and how long will the project last?
The observation will take approximately 50 – 60 minutes (depends on the length of the meeting).

What risks are associated with this project?
Participation in this project may involve some added risks or discomforts. These include the following:

1. A potential for the loss of confidentiality. However, no data about any individual participant or specific team will be reported to any organization. The only individual who will be able to see your survey responses and have access to the data will be the researcher conducting this project (Martin Casas). All survey data will be stored on secure servers with password protection. In addition, individuals' names and other identifiers will be removed from the data files and replaced with random numerical identifiers.

2. You, and your PLC may not be comfortable, or completely truthful in the presence of a researcher, in which case you can request the researcher to conclude the observation and return later or stop the observation without returning later.

What are the alternatives to participating in this project?
The alternative to participation in this project is not to participate.

What benefits can be reasonably expected?
There is no direct benefit for participating in this study. However, the study could help school sites identify leadership behaviors that could increase PLC efficacy, PLC autonomy & trust – and potentially, student achievement.

Can you choose to not participate or withdraw from the project without penalty or loss of benefits?
Participation in research is entirely voluntary. You may refuse to participate or withdraw or refuse to answer specific questions on a survey at any time without penalty. If you decide that you no longer wish to continue in this project, please inform the researcher, Martin Casas, macasas@ucsd.edu, (619) 438- 9626. You will be told if any important new information is found during the course of this project that may affect your wanting to continue.

Can you be withdrawn from the project without your consent?
Yes, the researcher may remove you from the project without your consent if the researcher feels it is in your best interest or the best interest of the project.

Will you be compensated for participating in this project?
There is no direct compensation to you for participating in the project.

Are there any costs associated with participating in this project?
There will be no cost to you for participating in this project.

Who can you call if you have questions?
You have the right to ask questions of the researcher without penalty (either in person, on the telephone, or via e-mail) and you may leave blank any survey questions you do not wish to answer for any reason. Further, you have the right to withdraw consent and discontinue participation at any time, including after completion of any of the survey, without penalty. To withdraw from the project, you may contact Martin Casas at (619) 438 – 96262 or macasas@ucsd.edu. You may call the Human Research Protections Program Office at (858)

246-4777 to inquire about your rights as a research subject or to report research-related problems.

Your Signature and Consent
You have received a copy of this consent document.

You agree to participate.

_____   _____
Subject's signature   Date

_____
Print Name

Appendix I:

1 A Focus on Learning

The very essence of a *learning* community is a focus on and a commitment to the learning of each student.

2 A Collaborative Culture With a Focus on Learning for All

A PLC is composed of collaborative teams whose members work *interdependently* to achieve *common goals* for which members are mutually accountable.

3 Collective Inquiry Into Best Practice and Current Reality

The teams in a PLC engage in collective inquiry into both best practices in teaching and best practices in learning.

5 Commitment to Continuous Improvement

Inherent to a PLC are a persistent disquiet with the status quo and a constant search for a better way to achieve goals and accomplish the purpose of the organization.

4 Action Orientation: Learning by Doing

Members of PLCs are action oriented: they move quickly to turn aspirations into action and visions into reality.

6 Results Orientation

Members of a PLC realize that all of their efforts must be assessed on the basis of results rather than intentions.

6 Essential
Characteristics of a PLC

allthingsplc.info

Adapted from:
DuFour, R., DuFour, R., Eaker, R., & Many, T. (2010). *Learning by doing: A handbook for professional learning communities at work*™ (2nd ed.). Bloomington, IN: Solution Tree Press.

135