

HOW CHOICE MODEL AFFECTS TEACHER COLLABORATION WITHIN THE
LINKED LEARNING COLLEGE READINESS INITIATIVE

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Abstract

Research supports that teachers are the most important factor that influences student outcomes. Therefore, any reform effort to transform learning for students must begin with teachers and their work. Collaboration is a critical component of teachers' work, especially within reform efforts. The goal of college readiness reform initiatives is to disrupt the predictable pattern of the achievement gap by transforming instruction. The ability of teachers to transform their instruction comes from their own learning as a result of professional development and collaboration with colleagues, yet many teachers are either reluctant to participate or lack the skills to participate effectively. Understanding what factors motivate teachers to participate and how those factors are related to qualities of team collaboration will give educators insight on how to better structure and learn from team collaboration.

This research seeks to understand the impact of choice participation as it is related to teacher collaboration within the Linked Learning College Readiness Reform Initiative. Grounded by the theoretical frameworks of the rational choice theory and the social constructivist learning theory, this paper will review literature that will inform and present a coherent premise for the study. The literature review will focus on the development of career academies that have led to the current iteration of Linked

Learning, descriptions of teacher efficacy, teacher choice, teacher collaboration, and factors that contribute to or hinder effective collaboration. The methodology employed by this research will be a qualitative case study approach that operationalizes the variable of choice participation and its relationship to qualities of teacher collaboration.

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CHAPTER 1

Introduction

The publication *A Nation At Risk* by the National Commission on Excellence in 1983 cited the devastating impact of educational disparity in schools for society at large. It brought to light America's mediocre academic performance as the eventual downfall of United States citizenry and inability to compete in the global economy. Especially of concern were the high dropout rates and low post-secondary graduation rates of poor minority students. Nearly 6.8 million students in United States between the ages of 16 and 24 in 2009 dropped out of high school. According to National Center for Education Statistics (NCES) the dropout rates for students living in the lowest quartile of family income were more than seven times higher than those of students in the highest family income quartile (NCES, 2010). In response to dismal statistics and growing public concerns, the federal government took on the role of instituting education policies to reform schools.

The institution of the Higher Education Opportunity Act in 1965 spurred our nation's first college readiness initiative in order to address the perpetual problem of predictable underachievement. The initiative aimed to restructure the school's curricula, instructional goals, and the way we offer "schooling" for different groups of students. College readiness programs are designed to primarily address the academic, social, and financial needs of students that are at-risk for low academic achievement. The goal is to implement strategies that will disrupt the past and present patterns of predictable outcomes by race, socio-economic status, and gender. The surge of college readiness

programs we see today is a direct response to the shift in the public's perception of the need to address this issue in our education system.

The characteristics, structures, and qualities of college readiness initiatives can vary greatly from program to program. These variances contribute to the overall impact of the program, the work of the teachers, and ultimately the achievement of the students. But most importantly, one factor that remains constant in any reform effort is the critical role of teachers who are at the forefront of implementation. Teachers are the main actors in the reform process, and their ability to understand the goals, learn the new curricula, embrace new strategies, and ultimately transform the way they teach is critical to the success of reform efforts. Schools have traditionally used the professional development model to train teachers for new innovation. In recent years, collaboration has become the focus of professional development in different disciplines (John-Steiner, 2000). Collaborative practices are considered to be central to professional development due to the fact that collaboration allows teachers to establish networks that reflect on their practices and beliefs to transform instruction (Achinstein, 2002; Chan & Pang, 2006; Clement & Vandenberghe, 2000).

The Linked Learning Initiative shares many common best practice characteristics with other programs, including the need for teachers to lead the implementation effort. At the same time, it features the characteristic of choice participation for teachers unlike most others. This initiative has purposefully structured choice participation as a means to recruit highly motivated, willing participants. Also unique to this initiative is the required academy team interdisciplinary teacher collaboration. Teachers who have chosen to

participate in the academies collaborate to design, co-construct, and transform learning for students. The teachers' ability to collaborate with their colleagues and learn from those experiences implicitly impacts their work with students.

Myers and Thompson (2009) have documented the value and importance of teacher collaboration. According to them, collaboration among teachers allows students to comprehend different academic as well as technical concepts and principles better. What teachers learn and practice are directly related to student outcomes. What they experience and learn about the collaboration process through their own collaboration work is an important point of study within reform efforts. The goal of reform initiatives, such as Linked Learning, is to transform teaching and learning to meet twenty-first century academic and career needs. Teacher practitioners' understanding of and experience with effective collaboration will increase their ability to transfer this knowledge to their instruction for students. Therefore, examining how the variable of choice is related to this collaboration outcome will also add to the literature about factors that contribute to or hinder effective qualities of collaboration.

The independent variable that will drive this study is the choice participation model for teachers. Any reform effort must focus on infiltrating the walls of the classroom. The epicenter is the classroom, where the change must occur to impact student learning, yet this is the level where most reforms fail to make an impact. As Labaree (1998) stated, teachers' professional success depended on their ability to motivate an involuntary group of students to learn what they were teaching. In order to get buy-in from this group, they must take on a persona that students will relate to and

can build on the type of relationship that will motivate students to learn. In essence, this persona that a teacher must adopt is perceived as “who they are,” and therefore very difficult to change. Teachers themselves need a strong motivation to take on reform efforts that fundamentally change who they are and what they do. Understanding the factors that motivate teachers to take on reform initiatives is an important variable of study for structuring reform initiatives. Who these teachers are and what replicable qualities they possess add to the teacher profile for recruitment. But most importantly, examining the relationship between choice participation and teacher collaboration will help educators identify the factors that affect the dynamics of team collaboration. This knowledge has the potential not only to improve the way teachers work together, but also to transform the way they structure collaboration groups for students.

In order to understand the inception of the issue better, the current problem that exists, and the need and the importance of the study, this first chapter includes research pertaining to the background, problem statement, purpose statement, and significance of the study. Also, to clarify the aim of this study, four research questions are presented, followed by definitions to establish common understanding of the terminology that will be used throughout this paper.

Background

The ability to successfully complete high school with the necessary skills to enter college and career can serve as the gateway to the quality of life one can be afforded in society. The inability to attain higher education results in higher unemployment rates and lower lifetime earnings. Poor academic performance has shown to be a leading factor

that increases the propensity for dropping out of high school (Hess, 1987). Family income status has also been found to be one of the strongest predictor of post-secondary attainment (Cameron, 2001).

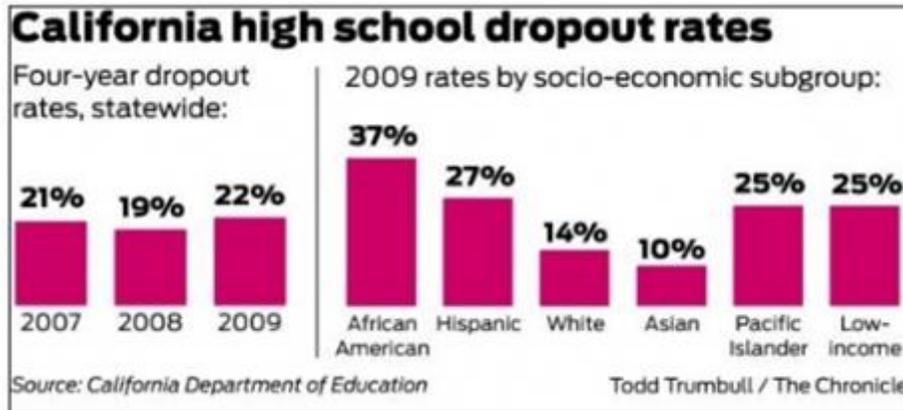


Figure 1. California high school dropout rates.

Other characteristics associated with the propensity for dropping out include repeating one or more grades, coming from a low socio-economic background, speaking English as a second language, becoming pregnant, being frequently absent or truant, and being of traditionally underserved racial/ethnic background (Hess, 1987). African-American and Hispanic students are documented to complete high school and attend college at much lower rates than their White and Asian counterparts. Dropout rates remain high. Twenty percent of all students in California fail to graduate from public high schools (California Department of Education (CDE), 2009), and nearly one million students, ages 18 to 24, do not have a high school diploma (Center for Student Success of the Research and Planning Group for California Community Colleges, 2005). In 2008,

high school students from lowest-income families were seven times more likely to drop out than students from higher-income families (Snyder & Dillow, 2009).

Socioeconomic status (SES) as an indicator shows an indirect correlation to racial/ethnic backgrounds, parental characteristics, and school/neighborhood locations (Bronfenbrenner, 1998). More often than not, students from low socio-economic backgrounds are of ethnic/racial minority groups living in neighborhoods with higher rates of unemployment, and higher incidences of criminal activity (McWhirter, 1993).

As a response and in the attempt to disrupt this attainment gap, the institution of the Higher Education Opportunity Act in 1965 spurred our nation's first college readiness initiative to address the perpetual problems of predictable underachievement. Today, there are hundreds of college readiness initiatives across the nation. The structures of these initiatives can have great variances. However, all college readiness initiatives share the aim of providing services for traditionally at-risk students. At the same time, there is disagreement about the specific initiative and strategy that have the greatest effect on the outcome variables. Many of these initiatives share best practices strategies and offer similar structure and philosophy to that of the Linked Learning Initiative. However, the Linked Learning Initiative offers a selection design that delineates its approach from the other readiness programs. The teachers choose their participation based on interest rather than assignment by a predetermined set of credential criteria. This factor of choice participation is at the heart of this research. Traditional reform models assign teachers based on a set credential criteria. This study aims to draw characteristic conclusions about the teacher participants in the program. Who are the teachers that choose to teach in these

academies? Why did they choose to participate? What are their personal and professional characteristics? What is the actual outcome of choice participation model as it relates to teacher collaboration? What do the participating teachers believe are factors that contribute to or hinder effective collaboration? What inferences can we make about the propensity for successful reform based on qualities of teacher collaboration within the academies? Ultimately, this research seeks to answer the questions of how the program design of choice participation affects teacher collaboration.

Problem Statement

The implications of low academic achievement and educational attainment have a devastatingly negative impact on the individual as well as society. The lack of job opportunities, lower lifetime earnings, poor health, and increased probability of engaging in criminal activity for these individuals affects not only themselves but also the economic health and social well-being of the society (Dorn, 1993). Lowering the high school dropout rate in California by half for just a single year, would increase the economic health by saving the government more than \$26 billion (Belfield, 1999).

One third of high school students drop out before graduating. Another third of high school students manage to graduate yet lack the academic and technical readiness to succeed in college or career (ConnectEd, 2008). High school dropouts receive lower earnings versus their college attended or college graduated counterparts. Annually, high school dropouts earn about \$10,000 less than those with high school diplomas, about \$20,000 less than those with Associates degrees and approximately \$35,000 less than those with bachelor's degrees (ConnectEd, 2008). Based on the Bureau of Labor

Statistics (2011), the median annual income for a non-high school graduate is approximately \$23,088 compared to \$32,916 for a high school graduate and \$59,800 for college graduates in the United States (Bureau of Labor Statistics, 2011).

In response to high dropout rates and lack of preparation for college and career for high school students, college readiness reform initiatives have been instituted to provide a comprehensive approach in order to increase engagement, raise academic achievement, and prepare students with twenty-first century skills to enter college or career (ConnectEd, 2008). However, since the inception of these programs to present day, the academic achievement and college attainment rates have continued to remain low for at-risk populations of students (Gladieux & Swail, 2000; Swail, 2003). The realization of the limited impact of these programs has given education leaders and stakeholders much to debate about in determining those additional factors, variables, and strategies that influence educational outcomes.

There are a myriad of College Readiness Initiatives with multitudes of variance in structures and strategies. Most share common best practices and research proven strategies. All reform initiatives share one important strategy of teachers leading the implementation. The Linked Learning Initiative has the design of choice participation as a strategy to attract highly motivated teachers who will engage in interdisciplinary team collaboration to integrate curriculum and to transform classroom instruction in order to address the perpetual problem of underachievement and attainment for students.

Linked Learning is currently the most comprehensive initiative that is being instituted in order to advance and transform the education system. It was appointed by

legislature in 2002, and recommended as the state's new Master Education Plan. The initiative implemented A-G, the high school courses required to gain entrance to the University of California and California State University systems, to become the standard curriculum for all students and for the state to offer multiple pathways to help students complete it. The Linked Learning reform initiative approach is to create pathways that are intended to increase student engagement, reduce high school dropout rates, raise student achievement, increase high school completion and postsecondary transition rates, and boost students' earning power after high school. The objective is to transform the comprehensive high school experience and prepare students for both college and career (ConnectEd: The California Center for College and Career, 2008).

The Freedom Unified School District was one of 10 school districts that received a grant from the Irvine Foundation to be a part of the first cohort to implement the Linked Learning College Readiness Initiative in 2009. The district met the criteria of serving more than 50% of the at-risk student population to be included in this cohort. The demographic population of the district is 47% Hispanic/Latino, 21% African American, 12% Asian, 6% Filipino, and 13% White. The district also has high dropout rates that the initiative aims to address. The dropout rate disaggregated by race and ethnicity showed that 22.7% Hispanic/Latino, 20.9% African American, 8.8% Asian, 6.9% Filipino, and 12.1% White students dropped out of high school in 2011 according to the California Department of Education (2011). Furthermore, the students bring more than 80 home languages and one in three receives services for English Language Learners. More than

two-thirds of all students are eligible under federal guidelines for free or reduced lunches (CDE, 2011).

Choice High School, the high school of study, is one of six large urban comprehensive high schools in the district. This particular high school has been identified as persistently underperforming by the state and therefore reconstituted under School Assistance and Intervention Team (SAIT) status three years ago. As a result of the SAIT process, it has experienced overturn of leadership, addition of mandates, and expansion of school hours. At the same time, the Linked Learning Initiative was adopted by the school district and implemented at this high school. The demographic population of this school is 47% Hispanic/Latino, 20% African American, 14% Asian, 7% Filipino, 10% White, closely mirroring the district population at large (CDE, 2011).

The specific location of the study is the Health Academy. The Health Academy currently serves 204 students in grades 10-12. Most of the students in the academy meet the criteria of being at-risk with demographic population of 47% Hispanic/Latino, 24% African American, 15% Asian, 10% Filipino, and 5% White. These students represent populations of at-risk underrepresented minorities, low socio-economic status, English Language Learners, and Special Education designations. A team of eight teachers from various disciplines represent the Health Academy Collaborative. These teachers have voluntarily chosen to participate in the academy through an informal self-selection process. Currently, there is no formal participant selection process in place within the district or the school. Together, they are responsible for preparing their students for college and career readiness by planning lessons, designing assessments, developing

projects, and making connections with outside agencies through interdisciplinary collaboration. Most of this development takes place during their formally structured team collaboration meetings. It is within those sessions that one can get a sense of the individual teachers' impact on the dynamics of team collaboration.

Purpose Statement

The purpose of this study is to understand the impact of choice participation as it is related to teacher collaboration within the Linked Learning College Readiness Reform Initiative. Grounded by the theoretical frameworks of the rational choice theory and the social constructivist learning theory, this paper will review literature that informs and presents a coherent premise for the study. Therefore, the literature review will focus on the development of career academies that has led to the current iteration of Linked Learning, descriptions of teacher efficacy, teacher choice, teacher collaboration, and factors that contribute to or hinder effective collaboration in order to frame the study. The qualitative case study methodology employed by this research operationalizes the variable of choice participation to measure its effect on qualities of teacher collaboration.

Ultimately, this study seeks to identify factors that motivate teachers to participate in reform initiatives, recognize personal and professional characteristics of teachers that choose to participate in reform initiatives, link the relationship between choice participation and teacher collaboration, add to the literature about factors that contribute to effective collaboration, allow teacher practitioners to reflect about their collaborative practices, and inform teachers about effective collaboration structures and processes that can be utilized to transform instruction for students.

Significance of the Study

The significance of this study is its potential to positively impact student outcomes. Teachers are the most important factor that influences student outcomes since they are the ones that work directly with students. Therefore, any reform effort to transform learning for students must begin with teachers and their work. Collaboration is a critical component of teachers' work, especially within reform efforts. The goal of college readiness reform initiatives is to disrupt the predictable pattern of the achievement gap by transforming instruction. The ability of teachers to transform their instruction comes from their own learning as a result of professional development and collaboration with colleagues, yet many teachers are either reluctant to participate or lack the skills to participate effectively. Understanding what factors motivate teachers to participate and how those factors are related to qualities of team collaboration will give educators insight on how better to structure and learn from team collaboration.

The one common variable that all college readiness initiatives share is teachers that lead the reform effort. In all instances, it is teachers that are directly responsible for implementing the vision, curricula, and new learning for students. What they feel, say, and do directly influences student outcomes. Their ability to learn from professional development, collegial collaboration, and transfer of that learning to students through transformation of instruction positively impacts student outcomes. Therefore, understanding their work and improving their practices can significantly increase the impact of college readiness initiatives.

The Linked Learning Initiative is different from a traditional high school program. The program varies in terms of its focus on collaboration for students as well as teachers. The approach requires highly motivated, efficacious teachers to form interdisciplinary teams to transform classroom instruction. In order to make this approach successful, it is important for qualified, willing teachers to collaborate in the design and delivery of curriculum by developing lesson plans, coordinating project-based learning activities, and performing tasks beyond basic pedagogy and subject area knowledge. Their ability to successfully fulfill all of these duties is critical to their achievements within the Linked Learning Initiative.

Research Questions

The focus of this research is the effect of the choice participation model on teacher collaboration. The research aims to answer the following four questions. The following research questions have been formulated to guide the examination of this inquiry.

1. What factors contribute to teachers' decision to participate?
2. What are their personal and professional characteristics?
3. What is the relationship between choice participation and qualities of team collaboration?
4. What factors do teachers believe contribute to effective team collaboration?

Definitions

The following definition of terms have been provided by the researcher to establish common understanding of how these terms were utilized within this research paper.

At- risk students. Traditionally underserved students who tend to be of low socio-economic, racial minority background that have higher propensity for dropping out.

Career Academies Initiative. High school reform that is designed to increase the engagement of students within their field of study. Career academies aim to prepare students for college as well as professional careers by providing personalized training environments and offering integrated academic and technical courses.

Linked Learning Initiative. It is the most recent iteration of multiple pathways/career academies led by ConnectEd and funded by the James Irving Foundation. It aims to increase college and career readiness skills for at-risk students guided by four principles and four core components.

The Linked Learning guiding principles are as follows (ConnectEd, 2008):

1. Linked Learning prepares students for both college and career.
2. Linked Learning connects academics to the real world.
3. Linked Learning leads to the full range of postsecondary opportunities.
4. Linked Learning improves student achievement.

The Linked Learning core components include the following (ConnectEd, 2008):

1. A challenging academic component.
2. A demanding technical component.

3. A work-based learning component.
4. Supplemental services.

Linked Learning Initiative in this study is the location of the career academy that uses the choice model for teacher recruitment and requires extensive collaboration for participating teachers.

Choice model. Structural component within the Linked Learning Initiative to recruit highly motivated, willing participants.

Collaboration. The process of shared creation as a result of two or more people working together. The interactions create a shared understanding that none had previously possessed or could have come to on his or her own. Collaboration creates a process, a product, or a learning that is fluid and co-constructed. The true medium of collaboration is the interactions with other people. The construction of meaning and new knowledge comes from the social matrix based on one's relationships to others and interactions within those groups. Collaboration in this study is operationalized as in person, structured professional development meetings of academy team teachers required by Linked Learning participation.

Storytelling and scanning for ideas. The first and most minimal level of collaboration identified by Judith Warren Little (1990) was one in which teachers shared their account of practice and complaints. In this stage, the interexchange was not deep. The stages of storytelling and scanning focus on problem solving.

Aid and assistance. The second level of collaboration identified by Judith Warren Little (1990) was one in which teachers provided help when they were asked by

their colleagues. Teachers offer little evaluation and do not interfere with the activities of other teachers. In aid and assistance relationships, deep associations are not established.

Sharing. The third level of collaboration was identified by Judith Warren Little (1990) where teachers shared much information about themselves. In sharing, teachers utilize a large number of resources and knowledge. Also by sharing, teachers exchanged ideas frequently and provided suggestions related to the work of other teachers. However, teachers make little effort to work together.

Joint work. The final and maximum level of collaboration identified by Judith Warren Little (1990) was one in which teachers developed deep and rich associations with their colleagues. Joint work also allowed teachers to develop productive relationships. This type of collegial relationship is considered to be the highest and most advanced form. Teachers pursue different activities together, and are engaged in team teaching, collaborative planning, peer coaching, mentoring, and other activities. Joint work is a type of collegial relationship that involves collective commitment and improvement. It involves greater readiness to participate in different activities.

The four stages of collaboration defined above are terms described by Judith Warren Little (1990) to detail the levels of collaboration that teachers engaged in. These terms will be operationalized by the researcher to identify the level of collaboration of the academy teachers in this study.

All of the terms above were defined by the researcher to ensure common understanding for readers and to describe how it was utilized within this research paper.

The researcher chose to define these specific terms due to the relevance and significance of these terms within the study and explanations in this paper.

CHAPTER 2

LITERATURE REVIEW

Introduction

For several decades, the United States has been undertaking different efforts in order to transform the education system of the country. The goal of transformation is to prepare all students for their real life experiences. In order to transform the education system of the country, it is important to pay close attention to the work of teachers in designing reform initiatives. Teachers play a critical role in the education system. They are the main actors in the implementation of any reform effort. As practitioners, they are the direct service providers to the students. If we are to conceive of any change in student outcomes, it must be as a result of transformation in teacher instruction. Teachers' own belief in their abilities, motivations to participate, and work with colleagues influence the way they teach, and, therefore, impact student outcomes. The development of personal characteristics and professional interactions for teachers serves as role modeling for students as well as enhancing their skills, abilities, and outcomes. Understanding how teachers' characteristics, choices, and collaborations are related to reform efforts is important knowledge in structuring future reform initiatives and recruiting efficacious practitioners. Also, for the teacher practitioners, this valuable information can inform not only their work with their colleagues but also transform how they structure and facilitate team collaboration for their students.

According to industry leaders of Arts, Media, Entertainment, Engineering, Finance, Business, Information Technology, Health Science, Hospitality, and Medical

Technology, just to name a few, there is a strong and steady demand for workers with communication, problem-solving, and collaboration skills in the United States. This is largely because of the shift from repetitive jobs to innovative tasks. As a result of this increase in skills' requirements for jobs, the academic requirements have also risen (ConnectEd, 2008). With these changing demands of employers, there is a strong need for education that produces students that can successfully meet these demands. It is, therefore, important for high school graduates to possess all necessary skills required to achieve success in the modern work environment (Weis, 2009).

In order to prepare students to achieve success in life, modern schools are required to shift their focus from preparing students to graduate to the focus on preparing them for college and career readiness. The Linked Learning Reform Initiative has been adopted by school districts to accomplish that goal. As a result, this study seeks to understand the effect of the choice model on teacher collaboration within the Linked Learning College Readiness Reform Initiative grounded in the theoretical framework of the Rational Choice Theory written about by a Sociology professor, John Scott, (2000) and Social Constructivist Learning Theory theorized by a Russian psychologist, Lev Vygotsky, (1978). The two theories lay the foundation for the research. Also, the literature review in this chapter presents relevant and current research related to understanding and framing the research questions. Therefore, the literature review will focus on the development of career academies that has led to the latest iteration of the Linked Learning Initiative, followed by the descriptions of teacher efficacy, teacher

choice, teacher collaboration, and factors that contribute to and hinder effective collaboration.

Theoretical Framework

The first theoretical framework that grounds my research is the Rational Choice Theory. This theory has been conceptualized by many social scientists without a clear scientist or discipline of origin. Social scientists of various fields such as economics, politics, psychology and sociology have worked over the decades to test and develop this theory. The foundation of choice theory rests on the thought that all individual choices are made based on rational decision making process in which one anticipates the outcomes of alternative courses of action and calculate which is most beneficial for them (Scott, 2000).

The primary premise of the Rational Choice Theory is that all decisions are rational and that a person balances costs against benefits of any decision before taking any action. At the same time, this theory also assumes that the consideration of alternatives occurs with accurate and adequate information (Green, 2002). In applying this theory to program choice, this would mean that teachers calculated all of the pros and cons of participation before making the decision to participate in the program. Based on the availability of resources that teachers can access, they make rational and informed decisions regarding the benefits for themselves before choosing. Understanding what factors teachers perceive as beneficial is important in designing future reform efforts in order to attract highly motivated practitioners.

The Rational Choice Theory also gives credence to the relationship between class structures defined by employment, education, income, and social networks as factors that influence decision making. The theory posits that one's position in society, level of access to information, and social relationships are determining factors that weigh in on decision making; therefore, no choice is equally accessible or accessed by all (Smrekar, 1996). Examining how these factors play a role in their decision making will also add another layer of analysis to the factors that contribute to the choice to participate. Therefore, knowledge about teachers' personal and professional characteristics is also useful in understanding the factors that contribute to participation.

The Linked Learning Initiative has purposefully designed the choice model for teachers with the philosophy that it will attract highly motivated practitioners who see more benefits of participation than not. But will that be the true outcome? Will the participant outcome match the desired intent of the initiative? What are the factors that have contributed to the decision to participate in a time and effort consuming reform for teachers? The identification of these contributing factors can assist in creating a teacher profile for future recruitment of teachers for reform efforts. Therefore, my first research question seeks to analyze what factors contribute to teachers choosing to participate in the Linked Learning Reform Initiative. The next theoretical framework will serve as the rationale for answering how that decision and their characteristics impacts the quality of their team collaboration.

The second theoretical framework that guides this research is the Social Constructivist Learning Theory of a Russian psychologist, Lev Vygotsky (1978). As a

social scientist, he has written extensively about collaboration. He envisioned collaboration as a new way of learning for students, and a new way of planning and teaching for teachers. The social constructivist perspective provided the theoretical structure for viewing collaboration as a social process in which meaning was co-constructed as a result of interactions within group discussions. He also, theorized that humans learned through social engagements with one another, and that knowledge construction was a social, cooperative venture as a result of relationships (Moran & John-Steiner, 2003). In accordance with this social constructivist perspective, collaboration between individuals in a pair or group bring about new meaning, understanding and knowledge that are co-constructed within those unique circumstances, dynamics and settings. This means that relationship is the unit of analysis, and environment is a consideration within that analysis (Lincoln & Guba, 1985).

As a Linked Learning Academy team, teachers are required to engage in extensive collaboration to co-construct new knowledge and information. Each individual contribution adds something different to the dynamics of the group. What individuals bring in terms of their personal characteristics, level of motivation, and participation influence the outcome of team collaboration. Understanding how these factors are related to team collaboration will give insight to administrators and teacher practitioners about how to manipulate grouping and teaming strategies to create synergy that will produce desired outcomes for team collaboration. The theoretical framework of the Rational Choice Theory and Social Constructivist Learning Theory provides the foundation for framing the research question in this paper. Also, the review of the following literature

related to the development of the academies provides the historical context for the latest iteration of the Linked Learning Initiative. The literature about the Linked Learning Initiative gives information about the setting of this study. The review of literature associated with teacher efficacy, teacher choice, teacher collaboration, and factors that contribute to or hinder effective collaboration serve to inform the study and analyze the findings.

Related Literature

Development of Career Academies

The initial focus of academies was on vocational preparation and the prevention of dropouts. However, with the passage of time, the focus shifted towards college preparation. The National Academy Foundation (NAF) was established in order to provide technical support, curriculum, and professional development to teachers for the early academies. The network of the National Academy Foundation has been established in as many as 40 states to carry out this work. Then the College and Career Academy Support Network (CCASN) was established in 1998 at the University of California at Berkeley to further extend the philosophy of career academies to focus on college readiness. The purpose of the support network was to ensure the continual development of the curriculum and professional development focused on college and career readiness as well as to maintain the structure of the early academies (Stern, Dayton & Raby, 2003).

Career academies' initiative is high school reform that is designed to increase the engagement of students within their field of study. Career academies aim to prepare students for college as well as professional career. Career academies provide personalized

training environments and offer integrated academic and technical courses (Stern, Dayton & Raby, 2003).

There are various characteristics of career academies. The first feature is small learning communities. Academies consist of students from differing backgrounds who attend classes together under the same career focus. Teachers who work in teams teach courses to students. These teachers are from various disciplines including academic, career, and technical education. All of these teachers coordinate their instructional approaches as well as course content (CCASN, 2010). To that end, it is critical that these teachers have the ability to collaborate in order to align their instruction. Another important characteristic of career academies is a college preparatory curriculum. This curriculum is developed around a career cluster. The curriculum is designed in a way to expose students to different skills and knowledge required to understand the association between academics and work. The third characteristic of career academies is their partnership with employers, higher education institutions, and the community. The partnership with leaders in career industries, colleges and nearing businesses is beneficial for students because it allows them to connect to mentors and to acquire necessary skills and trainings for success in college and career (CCASN, 2010).

In the Career Academy approach, students are engaged in scheduled classes and a group of teachers work together in order to teach students. The collaboration of teachers creates an integrated environment for education in which the various content disciplines design curriculum through the industry lens of the academy (CCASN, 2010). This system allows students to gain insight and knowledge of their field. The approach connects

academics with the real world experience in a variety of fields including engineering, arts, media, and health. This approach of learning is helpful for students since it allows them to gain useful knowledge and skills that gives them a competitive advantage for college admission and entrance to career field. The Linked Learning Initiative extends this goal to prepare today's students for twenty-first century civic and labor participation (Connect Ed: The California Center for College and Career, 2008).

Linked Learning Initiative

The Linked Learning Reform Initiative is the latest iteration of this career academies/multiple pathways concept. The Linked Learning Initiative is led by a working group in California known as ConnectEd: The California Center for College and Career. ConnectEd was founded with a grant from the James Irvine Foundation. It was appointed by legislature in 2002 to recommend the state's new Master Education Plan (Connect Ed, 2008). The group advocated for A-G, high school courses required to gain entrance to the University of California and California State University systems, to become the standard curriculum for all students and for the state to offer multiple pathways to help students complete in. The Linked Learning reform initiative approach creates pathways that are intended to increase student engagement, reduce high school dropout rates, raise student achievement, increase high school completion and postsecondary transition rates, and boost students' earning power after high school. The objective is to transform the current learning outcomes of high schools and successfully prepare students for college and career by providing the skills necessary for both, not just one or the other (ConnectEd: The California Center for College and Career, 2008).

The California Linked Learning approach is grounded in a set of four guiding principles according to ConnectEd (2008):

1. **Linked Learning prepares students for both college and career.**

Pathways are designed to meet both college and career objectives without forcing a choice. Linked Learning program views choice option as critical component.

2. **Linked Learning connects academics to the real world.**

Strong academics are integrated with a demanding Career Technology Education (CTE) curriculum. Linked Learning transforms how core academic subjects are taught, without lowering expectations.

3. **Linked Learning leads to the full range of postsecondary opportunities.**

Academies prepare graduates for the full range of options, including two- and four-year college, job training, apprenticeships, and certificate programs.

4. **Linked Learning improves student achievement.**

The design improves graduation rates, increase postsecondary enrolments, higher earning potential, and greater civic engagement (ConnectEd, 2008).

California Linked Learning programs are comprised of four core components according to ConnectEd (2008):

1. **A challenging academic component.** A-G curriculum prepares students for success without remediation in all postsecondary options.

2. **A demanding technical component.** Four or more technical courses prepare youth for high-skill, high-wage employment by emphasizing industry-related

knowledge and skills, as well as academic principles and authentic applications that bring learning to life.

3. **A work-based learning component.** Work-based learning helps students relate what they are learning in the classroom to the real world through internships, apprenticeships, and job shadowing.
4. **Supplemental services.** Students are provided with counselling, mentoring and academic support to ensure success (ConnectEd, 2008).

Linked Learning is currently the most comprehensive initiative that is being instituted in order to advance and transform the education system. Linked Learning activities are student-centered approaches that integrate different components of an education system into related activities. Originally, Linked Learning systems were developed in order to link assignments. With the passage of time, the focus of Linked Learning changed and became more comprehensive (ConnectEd, 2008).

Now, Linked Learning approaches focus on encouraging interaction and dialogue among academia and different industry groups in order to strengthen academic, career, and citizenry skills of high school students. The approach also aims to address issues of working in a multicultural and global society by creating opportunities for various agencies to collaborate. In the education setting, Linked Learning activities aim to create an environment of collegiality. The approach shares different educational perspectives and envisions the profession through the eyes of all stakeholders involved. Linked Learning approach can also be described as a college and career readiness program that develops personal and professional skills of students through integration of curriculum

and project-based learning and mentoring. Under this approach, different activities and tasks are linked throughout the program in order to stimulate high levels of engagement. Linked Learning attempts to increase motivation and engagement by offering multiple pathway options for students and professional participation choices for teachers (ConnectEd, 2008).

The Linked Learning Initiative aims to improve high school education by establishing a connection between academics, technical education, and real-world experiences. The programs designed under the Linked Learning Initiative aim to connect education to regional and state economic needs (Branham, 2011).

The Linked Learning curriculum addresses the shifts that have occurred in the labor force of California reflecting the changing requirements of the modern workplace. In the current work environment, employers value the ability to communicate effectively as well as to collaborate in a productive manner. There is a strong and steady demand for communication, problem solving, and collaboration in the United States. This is largely because of the shift from repetitive jobs to innovative tasks. As a result of shifting requirements of jobs, the requirements of potential employers are also changing. The growing expectations regarding academic preparation and career readiness for students are changing respectively (ConnectEd, 2008). It is the school system that is charged with restructuring the current program to accommodate this shifting demand. And ultimately, it is the responsibility of the teachers to transform the way they teach to ensure the delivery of the curriculum as intended. Teachers must structure their instruction to allow maximum opportunities for students to communicate, problem solve, and work in

collaborative groups. These are fundamental twenty-first century skills that Linked Learning emphasizes. At the same time, it is critical that teachers themselves demonstrate these same skills within their own work. Their ability to communicate effectively, problem solve, and collaborate professionally serves as a model for students as well as transform instructional outcomes. The way in which teachers communicate, problem-solve, and collaborate with colleagues and students is fundamental to establishing positive relationships and promoting self-efficacy. It is important to remember that teachers have the power of inspiring their students as well as one another.

Teacher Efficacy

Self-efficacy can be defined as the beliefs of individuals in their personal abilities or competence to execute different tasks (Henson, 2001; Bandura, 2010). Self-efficacy plays an important role in determining the level of effort that individuals will put in in order to execute different tasks. If teachers have a high level of self-efficacy, they are likely to implement innovative strategies due to their belief that it will work (Bandura, 2010). Teachers that have an increased sense of self-efficacy will take on tasks with a greater sense of responsibility for enhancing the achievement of students because they know they have the power to influence their own and student outcomes. The efficacy of teachers can be enhanced through peer collaboration because collaboration allows teachers to work in a community of practice to learn from each other, support one another, and foster professional development for everyone involved. Through the co-construction of new knowledge and exchange of information with colleagues, teachers

gain confidence in their abilities as an instructor. When the efficacy level of teachers is high, they work together in order to improve instruction.

In the literature available on the topic of teachers' self-efficacy, two levels of efficacy have been mentioned. These levels include a humanistic and a custodial level. According to Gordon (2001), teachers with a high level of efficacy accompanied with a humanistic approach results in the development of beliefs that allowed a trustful view of students. Teachers with such beliefs empowered students to work harder and take responsibility of their actions. On the other side, teachers that take the custodial approach focus on maintenance of order due to their distrust of students. Teachers who execute this approach do not foster efficacy for themselves or their students (Gordon, 2001).

The efficacy of teachers is found to be associated with a number of benefits. According to the studies conducted to explore the benefits of teachers' self-efficacy, the scores of students whose teachers have a high level of self-efficacy are better than those whose teachers have a low level of self-efficacy (Gordon, 2001; Henson, 2001). Goodwin (2011) conducted a study to explore the benefits of teachers' self-efficacy. The study revealed that there is a direct connection between the academic achievement of students and self-efficacy of teachers. On the other side, teachers who lack efficacy beliefs have low expectations of students and possess a negative outlook of students (Ferguson, 2003; Gordon, 2001). The self-efficacy beliefs of teachers are reflected in their ability to bring a positive change to the classroom (Osborne, Walker, & Rausch, 2002). Highly efficacious teachers approach their work and activities with a great degree of optimism and possess a high level of confidence. The high level of self-efficacy allows teachers to remain

persistent during difficult time periods and to deal with difficult situations successfully (Gordon, 2001; Bandura, 2010). The literature review has revealed that the efficacy of teachers is positively related to classroom instruction and students' achievements. The Linked Learning Initiative's choice model design aims to attract highly efficacious teachers that can positively transform classroom instruction that leads to improved student achievement.

Teacher Choice

The choice of teachers to participate in collaboration efforts has an important impact on their motivation (Deci & Ryan, 2000). Teachers must be provided with the choice to participate in professional development and collaboration. When teachers are forced to attend development trainings, collaborations, and other programs, they are not as willing to integrate new ideas and learning into their instruction. One of the studies that highlighted the importance of teachers' choice was by Brooks (2006). Brooks conducted a study to determine differing factors that have had an impact on school reform. In order to conduct the study, Brooks (2006) spent two years to research the topic. During this time period, the researcher participated in different school events, meetings, classroom observations, and other similar activities. On the basis of the study, Brooks (2006) revealed that in many reforms teachers have had limited choice to participate. In many conditions, teachers are required to participate in meetings associated with reform efforts because they have been instructed to do so by the administration. In such situations, teachers feel that they are being coerced to attend, therefore feeling resentful and disconnected.

Consequently, the reforms have limited impact in changing the behavior of teachers and enhancing student achievement. The study by Brooks (2006) has revealed that choice for teachers has a positive impact on their behavior. The importance of giving teachers a choice has also been highlighted by Leithwood, Menzies, and Jantzi (1994). According to their study, the commitment of teachers depended on their desire to be involved with different efforts aimed to change the education process. When teachers are provided with the autonomy, they are more likely to be motivated and transfer their learning to classroom instruction. It is this rationale that Linked Learning also provides for its structure of choice participation for teachers. Its philosophy is that choice gives rise to levels of motivation and engagement. In that, voluntary participants will bring the level of commitment necessary for interdisciplinary team collaboration that is required for effective implementation of the Linked Learning Academies.

Teacher Collaboration

According to DuFour, DuFour, Eaker, and Karhanek (2004), teacher collaboration has had the potential to increase the achievement of students. In the United States, multitudes of schools have been identified as failing due to poor student achievement. Teacher collaboration has demonstrated the potential to increase the achievement of students. According to Jackson and Davis (2000), teacher collaboration has had a significant impact on student achievement.

Jackson and Davis (2000) have discussed different types of teacher collaboration found in schools. These types include interdisciplinary teams, multidisciplinary teaming, team teaching. Interdisciplinary teams consist of as many as five or more teachers that are

from different departments. These teachers work together in order to develop project-based instruction for students. Multidisciplinary teaming involves sharing of instructional responsibilities within their subject department with team members. The team members, in this structure, are responsible for only their departmentalized area. Team teaching is teachers of the same grade level or department working together and collaborating for a brief time period (Jackson and Davis, 2000). Partnering is another type of teaming in which two teachers work together to teach a class. Altogether, these types of teaming strategies allow for teacher collaboration in which teachers work together in Professional Learning Communities to provide professional development for each other (DuFour, 2003).

For instance, The Linked Learning Initiative employs the interdisciplinary teaming strategy to ensure coordination among the different disciplines. Teachers of various disciplines including English, Math, History, Science, etc. join together to form the academy under one career discipline. This interdisciplinary team then meets together for teacher collaboration.

TEAMING TYPE	DEFINITION
Interdisciplinary Teaming	Consists of teachers from different departments that work together to create thematic units and project-based instruction for students.
Multidisciplinary Teaming	Teachers share instructional responsibilities with other members of the team but are responsible for their departmentalized area.
Teacher Collaboration	Teachers work and learn together in a Professional Learning Community providing each other with professional development.
Team Teaching	Team teaching occurs when the same grade level or department of teacher come together to share teaching responsibility for a brief period of time.
Partnering	Partnering occurs when two teachers work together and teach a class.

Figure 2. Types of teaming in schools.

In recent years, collaboration has become the focus of research in different disciplines (John-Steiner, 2000). According to John-Steiner (2000), collaboration involved connectedness among individuals and was strengthened by joint purpose and aim. The collaboration was strained when conflicting feelings arise. Collaborative practices are considered to be central to professional development. Collaborative practices allow teachers to establish networks that reflect their practices and beliefs (Achinstein, 2002; Chan & Pang, 2006; Clement & Vandenberghe, 2000).

Teacher collaboration has been conceptualized in terms of the required communicative behaviors. Collaboration requires adequate planning as well as problem solving (Montague & Warger, 2001). Unfortunately, teacher collaboration occurs infrequently in American schools, with only 5 to 10 hours of collaboration per week (Pfaff, 2000; Stokes, 2001).

The most important outcome of teacher collaboration is increased learning and achievement of students. There are different case study examples of teacher collaboration. In a study conducted by Strahan and Hedt (2009), the case of two middle schools was documented. In the study, the researchers evaluated two middle schools in which teachers were engaged in collaboration efforts. The findings of the study have revealed that teacher collaboration was associated with the growth of students on reading and math assessments. Taylor and Pearson (2004) also investigated teacher collaboration in relation to students' reading. They conducted their study on eight elementary schools. The study revealed that collaboration allowed teachers to improve their instructional practices. York-Barr, Ghere, and Sommers (2007) too evaluated teacher collaboration among general education and English Language teachers as it related to student achievement in math and reading. The study was conducted in the setting of one urban elementary school. York-Barr et al. (2007) documented teacher collaboration through different sources including team meetings, workshop observations, and interviews. The study found that as teacher collaboration became more consistent the performance of students on math and reading assessments improved significantly over the course of the study.

Teacher collaboration is considered to be an important factor that has an impact on the academic success of students. According to Garet, Porter, Desimone, Birman, and Yoon (2001), by working together, teachers were more likely to discuss concepts, problems, and skills that arose during professional development experiences. Garet et al.

(2001) also argued that teachers who shared the same student were also likely to discuss the needs of students across classes.

Teacher collaboration is defined as teachers working and learning together in a Professional Learning Community (PLC) providing each other with professional development (DuFour, 2011). Judith Warren Little provided the theoretical framework for teacher collaboration in the year 1990. According to Little (1990), teacher collaboration was a concept in which teachers start with a minimum level of collaboration and reach to a maximum level. According to the definition provided by Little (1990), teacher collaboration was a concept under which teachers were interdependent upon each other. Little's theoretical framework (1990) described collaboration from a minimal collaboration level to the maximum. The levels of collaboration, as noted in the framework, included storytelling, scanning, aid and assistance, sharing, and joint work. The storytelling, scanning, and aid and assistance were referred to as forms of independence. According to Little (1990), the lowest collaboration level was storytelling and scanning in which teachers were opportunistic. In these levels, teachers acquired information by exchanging stories. If teachers in a school reached the highest level of joint work collaboration, they collaborated in order to improve the curriculum. DuFour et al. (2004) have explained that teachers could improve the achievement of students by working together. From these arguments, it is evident that one of the ways to improve the academic achievement of students is to allow teachers to collaborate. Teachers must be allowed to develop and implement best instructional practices by co-constructing knowledge.

There are different teaming structures and strategies through which teachers can maximize collaboration efforts. The structure of an interdisciplinary team allows for coordination across varying disciplines. Strategies such as utilizing different instructional techniques, integration of different learning standards, developing project-based learning, and integrated assessments can be enhanced by teacher collaboration. Teachers within the Linked Learning Academies collaborate in all of these areas as an interdisciplinary team. The goal is to move past the storytelling level of collaboration and reach the level of joint work collaboration focused on improving curriculum and instruction to positively impact student achievement. Each individual teacher within the team contributes to the synergy of the group and dynamics of collaboration. Who these teachers are as individuals, what they believe about themselves and their students, and why they chose to participate are all important factors to consider in examining the level of collaboration a team can reach. Also relevant to this research are the factors that contribute to effective collaboration since that is the ultimate goal of any collaboration--the ability to be effective. The knowledge of these contributing factors will give insight to variables that may be manipulated to structure effective collaboration efforts.

Factors that Contribute to Effective Teacher Collaboration

Hausman and Goldring (2001) provided a meaningful insight to different factors that contribute to effective teachers' collaboration. In their study, Hausman and Goldring (2001) have characterized schools as communal organizations. According to their study, collaborations occurred in a variety of settings; for instance, regular and special education teachers often collaborate in order to meet the requirements of students with disabilities.

In middle schools, teachers follow a team model in order to improve instruction. Hausman and Goldring (2001) argued that the role of school administrators was critical in establishing collaboration among teachers. Friend and Cook (2000) have also emphasized the importance of school administration in enhancing the level of collaboration among teachers. These sources of evidence suggest that one of the factors that contributed towards teachers' collaboration was school administration. Friend and Cook (2000) have emphasized the importance of teachers' interaction in their study. According to the study, collaboration took place when teachers were provided with the opportunity to discuss their professional work. According to the arguments of Hausman and Goldring (2001) and Friend and Cook (2000), it could be comprehended that schools could provide teachers with several opportunities to collaborate. The shared values of teachers also contributed towards collaboration among them. When teachers shared similar values regarding learning, instruction, and students, collaboration was likely to achieve positive outcomes. When teachers work together in a department and share similar values, they are more likely to collaborate with each other. Furthermore, they are also likely to share their common beliefs regarding learning. When teachers share the same educational values, they are likely to view their colleagues as partners.

According to Cohen and Hill (2001), the learning of teachers was a significant factor that contributed towards their collaboration. Another study to encourage collaboration was conducted by Seifert and Mandzuk (2006). According to Seifert and Mandzuk (2006), pre-service cohort groups had the potential to encourage peer collaboration. In order to carry out this study the researchers gathered data through in-

depth interviews. The researchers identified and described the personal experiences of participants during their interaction with cohort peers. According to the findings of the study, cohort groups contributed towards providing social and emotional support to participants for collaborative efforts. Feiman-Nemser (2001) and Moir and Gless (2001) have also discussed the potential of quality mentoring and teachers' induction programs for teacher collaboration. According to these researchers, induction programs must incorporate teacher collaboration. It can be comprehended from the arguments of these researchers that programs designed and implemented for the training of teachers have the potential to encourage collaboration among them.

According to DuFour (2003), in order for schools to build a culture of collaboration, it was important to formulate structures that support collaboration. The structure of schools must allow teachers to analyze and enhance their classroom practice. Collaboration culture allows teachers to engage in continuous learning that results in higher levels of student achievement. Teachers must constantly use the cycle of inquiry to assess their teaching practices and monitor and adjust instruction to meet the needs of the students. Multiple sources of data must be synthesized, analyzed, and discussed to serve as a tool to improve instructional practices.

DuFour (2003) explained that professional dialogue was an essential component of collaboration. Professional dialogue resulted in an ongoing cycle that encouraged deep learning of teams. In the study, DuFour (2003) cited the experiences of teachers working at a rural elementary school. In the school, the staff members engaged in a process of teaching-learning. The final step of the process was an on-going cycle that identified

strengths and needs in student learning. The process resulted in an enhanced learning of students and teachers.

According to Goleman (2006), a school's culture can be interpreted as interactions between teachers, students, and staff. The literature on collaborative teacher models has discussed two aspects of school culture including shared vision and values that lead towards an increase in community and shared goals. Collaborative school culture is based on mutual support and joint work. The collaborative work environment is a broad agreement of educational values that are identified as factors essential for learning. Goleman (2006) discussed that the most common strategy for the attainment of collaborative environment was common school goals. There was a significant difference between schools that operated with specific goals and schools that operated without goals. Therefore, a critical element to effective collaboration is the presence of an explicit goal that leads towards explicit results. The outcomes of effective collaboration are increased accountability and an enhanced level of dependence among teachers. Shared goals and structure have the potential to unite a group of teachers to increase effectiveness. On the other side of this research are the factors that hinder effective collaboration. Understanding what these factors are also gives us the insight on what hindering variables need to be manipulated to structure effective collaboration efforts.

Factors that Hinder Effective Teacher Collaboration

According to DuFour (2011), the primary barrier to effective teacher collaboration was time. Andree, Chung Wei, Darling-Hammond, Orphanos, and Richardson (2009) have argued that countries that outperform the United States on

international assessments have spent adequate time for sustained teacher collaboration. Andree et al. (2009) further discussed that in the United States, teachers spent more time on classroom instruction and less on planning. Delnero and Montgomery (2001) have explained that time was a barrier to the effectiveness of collaboration. According to them, the daily schedule of teachers is frantic; therefore, it was very difficult for them to collaborate.

Martin (2008) has identified poor organizational structure as another factor that hindered effective collaboration. According to Martin (2008), effective teacher collaboration was related to logistical and organizational factors that are applied by the school administration. The degree of autonomy provided to teachers by these structures also has an impact on effective collaboration. Martin (2008) also noted that barriers to effective collaboration among teachers included different issues associated with the existing curriculum, poor performance of students, backgrounds of teachers, and frameworks of schools. Abrahams (1998) also supported those findings by pointing to issues related to personal background, cultural background, departmental structures, accountability, and interpersonal relations as factors that hindered teacher collaboration.

Bunker (2008) discussed another important factor that hindered the effectiveness of teacher collaboration. According to Bunker, the lack of motivation during collaboration leads to poor results. The intrinsic motivation of the teacher influenced the outcome of collaboration. Therefore, factors that are associated with the ineffectiveness of teacher collaboration are not only external but also internal. Understanding how these external and internal factors are related to the outcome of team collaboration will give

insight to administrators and teacher practitioners on what variables need to be manipulated to structure collaboration to increase motivation and effectiveness.

Summary

This chapter focused on the review of literature that is associated with the development of career academies, the latest iteration of Linked Learning Initiative, teacher efficacy, teacher choice, teacher collaboration, and factors that contribute to and hinder effective collaboration in order to establish foundational knowledge for the premise and analysis of this study.

The review of the literature about the development of career academies provides the history of the multiple pathways concept that is central to the latest iteration of the Linked Learning Academies. From its conception to present day, the concept of the academies has been to transform the structure and experience of the large comprehensive high school by creating smaller learning communities focused on preparing students for college and career (ConnectEd: The California Center of College and Career, 2008).

The review of the studies on teacher efficacy finds that the efficacy of teachers is associated with a number of benefits, including academic achievement of students (Goodwin, 2011; Gordon, 2001; Henson, 2001). Studies revealed that when the efficacy level of teachers was high, they worked together in order to improve instruction. The self-efficacy beliefs of teachers are reflected in their ability to bring a positive change to the classroom (Osborn et al., 2002). Highly efficacious teachers are motivated by their great degree of optimism for students and high levels of confidence in their own abilities.

The review of literature on teacher choice indicates that the choice of teachers to participate in collaboration efforts has an important impact on their motivation (Deci & Ryan, 2000). According to studies conducted by Brooks (2006), choice for teachers has had an important impact on their behavior. When teachers felt a lack of choice to participate, the reforms had limited impact in changing the behavior of teachers and enhancing student achievement. The commitment of teachers depends on their desire to be involved with different efforts aimed to change the educational process. When teachers are provided with autonomy of choice, they are more likely to be motivated and transfer their learning to classroom instruction to improve student achievement (Leithwood, Menzies, & Jantzi, 1994).

The literature review associated with teacher collaboration further evidences teachers' potential to increase student achievement through collaboration (DuFour et al., 2004; Fovargue, 2008; Jackson & Davis, 2000; Strahan & Hedt, 2009; Taylor & Pearson, 2004; York-Barr, Ghore, & Sommersness, 2007). These studies highlight the ability of collaboration to connect individuals and strengthen joint purpose and aim of the group (John-Steiner, 2000). Collaborative practices allow teachers to establish networks that reflect on their practices and beliefs (Achinstein, 2002; Chan & Pang, 2006; Clement & Vandenberghe, 2000). By working together, teachers are likely to discuss concepts, problems, and skills that arise during professional development experiences and students that they share across classes (Garet, Porter, Desimone, Birman, & Yoon, 2001). When administrators structure meaningful opportunities for teachers to interact around shared values, the likelihood of effective collaboration that positively impacts student

achievement increases (Friend & Cook, 2000; Hausman & Goldring, 2001). On the other hand, poor organizational structure, lack of time, and lack of motivation negatively impacts teacher collaboration and student outcomes (Andree, Chung Wei, Darling-Hammond, Orphanos, & Richardson, 2009; Delnero & Montgomery, 2001; DuFour, 2011; Martin, 2008; Reeves, 2003).

Myers and Thompson (2009) have documented the value and importance of teacher collaboration as it related to student outcomes. According to them, collaboration among teachers allowed students to comprehend different academic as well as technical concepts and principles better. What teachers learn and practice are directly related to student outcomes. What they experience and learn about the collaboration process through their own collaboration work is an important point of study within reform efforts. The goal of reform initiatives such as Linked Learning is to transform teaching and learning to meet twenty-first century academic and career needs. Teacher practitioners' understanding of and experience with effective collaboration will increase their ability to transfer that to their instruction for students. Therefore, examining how the variable of choice is related to this collaboration outcome will add to the literature about factors that contribute to or hinder effective qualities of collaboration.

CHAPTER 3

METHODOLOGY

Introduction and Purpose of the Study

The purpose of this study is to understand the impact of the choice participation design of the Linked Learning Initiative for teachers. What is the outcome of teachers' choice of participation based on interest rather than qualification based on predetermined set of criteria? What can we say about the self-selected set of teachers leading the academies? Why have they chosen to participate? What are their characteristics? What is the relationship between their choice to participate and qualities of their team collaboration? What inferences can be made about the link between choice participation and desired outcomes of collaboration? This research employed a qualitative approach to conduct the study. A qualitative approach was used to interview a team of Linked Learning Health Academy teachers to learn about their motivation to participate and how that choice is related to qualities (frequency, role, level) of their team collaboration. The themes that emerged from the interviews were triangulated with team collaboration documents such as sign-in sheets, agendas, minutes, and work produced along with the researcher's observations to draw conclusions and make recommendations based on the findings. The researcher aimed to identify relationships between characteristics, motivations of voluntary teachers, and qualities of team collaboration such as frequency of participation, role of participation, and level of collaboration as described by Little (1990). Ultimately, the research aimed to determine if the choice participation design produces the desired outcome of the initiative: highly motivated, willing participants that

will put in the extra time and effort to engage in collaboration that is required by the Linked Learning Reform Initiative. Since the teacher choice participation variable is one purposefully designed by this initiative based on the philosophy of willing participant motivation, who these teachers are, and how their personal and professional characteristics influence their motivation to participate in collegial collaboration is an important point of study. This choice model design has been employed by the Linked Learning Initiative to attract professionals who can produce intended outcomes for the intended at-risk target population. If the result of the choice participation model creates small communities of high performing, highly motivated teachers that are willing to take on additional collaboration, then results will match the stated outcome of the initiative. Ultimately, the conclusions of this study will make recommendations about future teacher participant selection processes that can lead to successful structuring of team collaboration. Also, for teacher practitioners, the insight into the factors that contribute to decisions to participate and how that influences collaboration efforts can be utilized as a strategy to structure team collaboration for themselves and their students.

Logic and Rationale

High school students that drop out have had a significant negative impact on themselves, their communities, government spending, and crime. College and Career Readiness Reform initiatives are designed to disrupt this pattern. It is crucial that policymakers create education reform legislation that focuses on instituting equity-based programs, services, and resources for these initiatives, while school districts focus on the effective implementation by recruiting and hiring administrators and teachers who can

carry out the intended vision and mission of the initiative. The classroom teacher is at the heart of any successful reform effort. Due to the fact that teachers are directly responsible for developing, guiding, and shaping student learning, they have the most impact on student outcomes. Their personal characteristics, teaching strategies, and abilities to make connections with students are related to student outcomes. How they approach their work with colleagues also influences student outcomes. Their ability to learn from colleagues by planning and co-constructing knowledge together can powerfully transform their instruction. This transformation in the way teachers think and teach is critical to the success of the Linked Learning Reform Initiative. The structure of this initiative requires interdisciplinary teams of teachers to work together unlike any other traditional program. The synergy and dynamics of team collaboration are dependent upon the attributes, motivations, and contributions of each member. Therefore, the assembly of a team that can work well together would potentially produce better collaborative outcomes. In order to increase the likelihood of team transformation, site administrators need to be cognizant of factors that motivate participation when structuring team collaboration to produce desired outcomes. Also, for the teacher practitioner, the understanding of the role that choice plays in motivation and how that motivation along with personal characteristics influence dynamics of team collaboration will support their work with students. Since team collaboration, communication, and problem solving are vital skills that need to be taught to students for success in the twenty-first century workforce, teachers who understand this process will be better equipped to structure their classroom instruction to

model their own collaboration. When teachers internalize their learning, they can then transform their instruction to better meet the needs of students.

Research Design

The researcher has chosen to employ a descriptive case study methodology to answer the research questions. A qualitative approach was used to interview high school teachers who are voluntary participants of the Linked Learning Initiative. These teachers have chosen an academy of interest and have formed a collegial group of eight to establish the team. As a team, these teachers conceptualize, plan, develop, and implement curriculum for the cohort of students who have chosen to participate in their academy. Their ability to collaborate around instructional goals is critical to student success in the academy. The reason the researcher chose the qualitative approach is to capture the honest responses that result from face to face human interactions unlike impersonal surveys and number crunching of quantitative approaches. To that end, this qualitative study seeks the answers to the following questions.

Research Questions

The focus of this research is the effect of the choice model on teacher collaboration. The research aims to answer the following four questions.

1. What factors contribute to teachers' decision to participate?
2. What are their personal and professional characteristics?
3. What is the relationship between choice participation and qualities of team collaboration?
4. What factors do teachers believe contribute to effective team collaboration?

Participants/Sample

The participants are eight teachers who form a collaborative team in a Linked Learning Academy housed in a Northern California comprehensive high school. Participants for this study were selected based on district data analysis. The researcher targeted two variables in order to identify the sample population. The first variable was student demographics, and the second variable was student Grade Point Average (GPA). First, the researcher identified all academies within the district that most closely resembled the district student demographic population of 47% Latino, 21% African American, 13% White, 12% Asian, 6% Filipino, and 4% mixed race. The researcher used this methodology of selecting like populations to increase generalizability. Then the researcher accessed student GPA data for all existing cohorts of academy students across the district and identified the academies with the highest overall GPA. The researcher chose the academy with the highest GPA with the assumption that there was a link between student performance and teacher collaboration as the earlier literature review revealed. Then the researcher cross referenced the data of all academies identified under both variables of student demographics and student GPA and chose the academy that had the highest percent of at-risk students and GPA among all academy students. After the identification, the researcher contacted the site principal and asked for permission to solicit the academy team of teachers. The researcher then met the potential participants at a face-to-face meeting and received their consent to participate in the interview process. The interviews were then scheduled for later dates in which each participant interviewed

with the researcher for two 1-hour sessions. Eight teachers in total that make up the Health Academy Team participated in all parts of the interview process.

Context/Setting

The Freedom School District is located in the San Francisco Bay Area, encompassing five cities and several unincorporated areas with less than 30,000 students, pre-K through twelfth grade. The district serves a diverse population with students of color comprising 86% of the student body. The students bring more than 80 home languages and one in three receives services for English Language Learners. More than two-thirds of all students are eligible under federal guidelines for free or reduced lunches.

Choice High School is one of six large urban comprehensive high schools in the district. This particular high school has been identified as persistently underperforming by the state and therefore reconstituted under School Assistance and Intervention Team (SAIT) status three years ago. As a result of the SAIT process, it has experienced turnover of leadership, addition of mandates, and expansion of school hours. At the same time, the Linked Learning Initiative was adopted by the school district and implemented at this high school. The demographic population is 47% Hispanic/Latino, 20% African American, 14% Asian, 7% Filipino, 10% White, closely mirroring the district population at large (CDE, 2011).

Inside this high school there are three academies within the larger comprehensive program. The first is the Health Academy, the second is the Law Academy, and the third is the Technology Academy. All three academies have been in existence since the beginning of the initiative in the 2009-2010 school year.

The specific academy of study is the Health Academy. The Health Academy currently serves 204 students in grades 10-12. Most of the students in the academy meet the criteria of being at-risk with the demographic population of 47% Hispanic/Latino, 24% African American, 15% Asian, 10% Filipino, and 5% White (CDE, 2011). These students represent populations of underrepresented minorities, low socio-economic status, English Language Learners, and Special Education designations. A team of eight teachers from various disciplines represents the Health Academy Collaborative. Together, they are responsible for preparing their students for college and career readiness by planning lessons, designing assessments, developing projects, and making connections with outside agencies. Most of this development takes place during their team collaboration sessions. It is within those sessions that one can get a sense of the individual teacher's impact on the dynamics of team collaboration. That is the reason the researcher also chose to conduct observations of team collaboration meetings in order to see these dynamics at play.

Instrumentation

A semi-structured interview guide was developed by the researcher to target the research questions. The questions aim to answer how the variable of choice is related to qualities of collaboration. The interview guide consists of open-ended interview questions that were created by the researcher to gather information about characteristics of teachers, motivations to participate, and qualities of collaboration (See Appendix A.).

Procedures

The researcher used student GPA data collected by the district superintendent to identify the Linked Learning Health Academy of study. The researcher then contacted the principal of the high school where the academy is located to describe the study and to solicit permission to conduct the study at the school site with the identified participants. Then the researcher met the teachers to ask for their participation. All eight teachers of the academy agreed to participate and interview dates were set up during the winter quarter. The researcher set up two sessions of 1-hour interviews with each of the participants and observations during two team collaboration sessions. All interviews and observations were voice recorded, transcribed, and coded. The transcriptions were then analyzed using open coding to generate themes, axial coding to position identified themes within theoretical model, and selective coding to explicate a story from the interconnection of themes. Lastly, the data were triangulated with the review of documents provided to the researcher by the school principal.

Data Collection

The purpose of this study was to determine how choice affects teacher collaboration. This research used an interpretive approach to conduct a qualitative study. The data were collected through review of meeting minutes, two observations of teacher collaboration meetings, and two face-to-face interviews for each participant involving eight high school teachers within the Linked Learning Academy. All observations and interviews were tape recorded and transcribed by the researcher. The data were also manually coded and analyzed by the researcher using open coding, axial coding, and

selective coding. Open coding was applied to generate categories or themes of information. Axial coding was applied to position emerging themes within the researcher's theoretical model. Selective coding was applied to then explicate a story from the interconnection of the selected themes.

Participants' responses about choice participation and collaboration were described in text and applied throughout this research. Data were collected during researcher observations of teachers engaging in collegial collaborations as well as during one-on-one interviews concerning their choice participation as it relates to team collaboration. The participants were observed as they interacted within the collaborative setting. The researcher did not participate in the conversations or interactions during the observations.

During the observations the researcher took notes as to what was heard and observed. The researcher recorded these events and conversations into on site written field notes and then added thoughts and comments after listening to the tape recordings. Audiotapes were used during the observations and interviews. Then they were reviewed and cross-checked with the field notes that were written by the researcher.

The initial meetings with the participants were personable in nature. The researcher asked unthreatening questions about the participants' age, years of experience, personal background, and family history to establish a level of comfort. The researcher also shared her own biographical information to establish a trusting rapport with participants. This methodology allowed for more in-depth questioning during the second interviews due to the relationships that were built in the initial interview phase.

The two face-to-face interviews were conducted outside of team collaboration meetings and on two separate dates. The principal of the school arranged for the release of each teacher during a designated time on two dates to meet with the researcher for the interviews. The two face-to-face interviews of the eight participants also lasted 45 minutes to one hour for each interview session. Also, the team was observed on two different predetermined dates with each observation lasting between 45 minutes to one hour.

Data Analysis

The researcher transcribed responses to the interview questions and recordings from the collaboration meetings. The researcher then analyzed the data by coding and categorizing emerging themes from participant responses, observation notes and meeting minutes. The actual tape recordings provided accuracy for interpretations of the interviews and observations. In order to ensure reliability and validity, the researcher gave a copy of the transcripts to each participant for member check-in.

The researcher coded interview transcriptions for analysis. Specifically, the transcripts were documented in a table format with common themes that emerged for the researcher to make connections and inferences. The researcher also reviewed relevant documents such as meeting minutes and observation notes to verify and cross reference all emerging themes. The first research question of choice to participate was analyzed through interview response data. The second question of participant characteristics was analyzed through interview response and researcher observation data. The third question of choice participation effect on teacher collaboration was analyzed through interview

response, researcher observation, and document review data. The last question of teachers' perception of effective qualities of collaboration was analyzed through interview response data. Also to ensure reliability and validity, another researcher reviewed the transcripts to validate the emerging themes. The information gathered is reported in this paper in a case study and chart format in Chapter 4 under Findings.

Limitations of the Study

Some of the perceived limitations of this study are the small sample size of the participants and that the interviewees are limited to one team of teachers in one high school of one school district, which may limit generalizability to other settings. Also, the generalizability of qualitative research findings are often minimal due to the fact it is only a representation of a particular person/people in a specific context, not to be extended across the population being studied (Creswell, 2009). At the same time, the use of multiple sources of information including interviews, meeting minutes, and observations to collect evidence aids in triangulation of data. This aspect of case study design allows for the construction of validity and transferability (Yin, 2009). Also, the benefit of a qualitative study is the ability to dig deep, peel back the layers, and give voice to participant responses unlike quantitative research.

Summary

The purpose of this study is to examine how choice participation affects teacher collaboration within the Linked Learning Reform Initiative. This choice model aims to attract highly motivated, efficacious teachers to participate in interdisciplinary team collaboration to transform instruction. The goal of the research is to examine the actual

outcome of this choice model as it relates to teacher participation and team collaboration. A qualitative case study approach was used to conduct this study. Data were collected through document review, researcher observations, and participant interviews. The interviews were open-ended questions that provided invaluable information about why the teachers chose to participate and how that decision impacted qualities of their team collaboration. The research questions also assessed whether the design of choice participation was vital to future reform initiative design. Further, the answers to the questions brought to light the characteristics and qualities that motivated teachers to voluntarily take on time consuming and highly demanding initiative efforts and how that element of choice was related to collaboration efforts. The participants were selected based on their participation in the Linked Learning Initiative as an academy team with students that closely mirror the district population and demonstrated the highest collective overall GPA of all academy students in the district. Taking notes and recording each of the interviews completed the data collection. Once the data were gathered, the researcher coded the interview responses and identified common themes that emerged. Then the data were triangulated with document review and researcher observations. A case study format is utilized to share the data in Chapter 4. The researcher also makes recommendations based on those findings in Chapter 5.

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CHAPTER 4

FINDINGS

This chapter describes the results of in-depth interviews of the eight participants. The chapter also includes the results of document reviews and researcher observations as it is related to the research questions. The results are presented under each research question in a narrative as well as chart form to give specific examples and to clearly illustrate the findings. Discussion of the results highlights and reviews the most common and prominent findings. The chapter concludes with a summary of the findings.

Findings and Analysis

The study embraces four critical questions: (a) the factors that contribute to teachers' decision to participate; (b) the professional and personal characteristics of participants; (c) the relationship between choice participation and qualities of team collaboration; and (d) the factors that participants believe to contribute to effective collaboration. The aim of this study is to understand how choice participation affects qualities of teacher collaboration. For this purpose, the researcher structured open-ended questions aimed to unveil major factors that have direct impact on the teachers' decisions to participate in the highly demanding and collaborative Linked Learning Initiative. It should be noted that previous studies have been conducted to investigate the impact of choice for teachers. However, according to literature reviewed, there is a gap of information as to the factors that influence the teachers' decision to participate and how that choice participation affects team collaboration. Therefore, the researcher asked the questions from the participants to discover the facts about their participation decisions.

The researcher asked 43 different questions from the participant to extricate the role of personal and professional background, relationship with students, team collaboration, and professional development as it relates to choice participation. The responses of the research respondents reveal a variety of factors that have direct influence on the motivation of the teachers regarding their participation. These factors include personal benefit, access to adequate information, relationships layered with collegial influence, and peer pressure and political pressure as per the responses of the research participants.

Factors that Contribute to Teachers' Choice to Participate

The analysis of the research participants' responses to interview questions under the subsection Professional Background (See Appendix A: Q1-Q9.) extrapolated three factors that contributed to the teachers' choice to participate. The three emerging themes were

- Personal Benefit
- Access to Adequate Information
- Relationships (collegial influence, peer pressure, political pressure)

Personal Benefit

Interview responses from the lead teacher, S. Thurman, revealed personal benefit as the leading motivational factor that gave him the desire to implement the Linked Learning Initiative at his school. He told the researcher that he has a son who was struggling with the curriculum in high school at that time, and he was not satisfied with the quality of education or support that his son was receiving. That prompted him to leave his job in the private sector and become a high school teacher. Soon after he entered the

profession, he was given the opportunity to visit a Linked Learning model school as a part of professional development training. He was impressed with the program and felt that it could work in his school to enhance the learning outcomes of the students and increase the skillset of students transitioning to college and professional career. For him, the personal benefit of helping his son was the leading motivational factor behind his decision to choose participation in the profession as well as the academy.

Two other teachers, F. Mann and T. Santos, shared that they too had children of their own that were attending high school at the time that they chose to participate in the academy. For them, learning about the Linked Learning program meant that they could help their own children as well as students that they serve at work. This personal benefit for their own children gave them added reason to participate. As for E. Perry and F. Chang, they saw the personal benefit of participating in the academy. For them, the personal benefit was the ability to work with colleagues that they trusted and respected. They chose to join due to their relationships with F. Mann and T. Santos. They had been colleagues at the school for about seven years and enjoyed a collegial friendship over the years. They worked together on several projects in the past and felt that it would be to their benefit to work closely with them within the Linked Learning Initiative. In the words of E. Perry, “I’ve known T. Santos for quite some time. She has helped me on previous projects. She also likes to bring goodies to the meetings. I knew that if she was involved, it would be good for me” (E. Perry, personal communication, December 7, 2012).

Access to Adequate Information

The lead teacher, S. Thurman, chose to join the Linked Learning Academy after he participated in a professional development opportunity that took him to observe a model school. He said, “I got to see firsthand how well it can work. I was so impressed by what I learned about the program. I wanted to implement it at my school” (S. Thurman, personal communication, December 7, 2012). The two other teachers, F. Mann and T. Santos, were introduced to the Linked Learning Initiative during a Professional Development Training at their site. At this particular time, the district had already made the decision to adopt the initiative and was in the process of recruiting teachers to lead the academies. From the information they were given, they agreed with the vision and goals of the initiative and since, they too had their own children in high school at that time, they felt this would be a good opportunity for them to learn, teach the students of their school, and teach their own children. “The goal of preparing student for college and career is important. I certainly want my children to go to college and get good jobs. I want that for my students, too” (T. Santos, personal communication, December 7, 2012).

Relationships (Collegial Influence)

On the other hand, two teachers, E. Perry and F. Chang, that chose to participate in the academy, revealed in their interviews that they were asked by their colleagues to participate, and they agreed to participate because they liked and respected their colleagues. They also felt that the initiative was in line with their philosophical views, but mainly, it was the collegial relationship that prompted them to join. According to F.

Chang, “I really like and respect F. Mann, he is a good guy and I knew I would enjoy working with him again” (F. Chang, personal communication, December 7, 2012).

Relationships (Peer Pressure)

In the same way the previous two teachers revealed that they agreed to participate on the basis of collegial influential, S. Randawa said that she was asked by the lead teacher during passing period to join the academy without much more information. Although she was a bit unsure since she did not know anything about the initiative, she chose to participate since she knew the lead teacher. She met him in a social setting at the school and felt that the informal relationship was the reason he asked her to join. In hindsight, she wished that she had more information before she agreed to participate since she felt she had taken on more than she would have, had she known. At this point, she felt some resentment toward the lead teacher for getting her to agree without giving her proper information:

I didn't even know what he was talking about. We were just passing by each other in the hallway during passing period and he asked me to join something. I nodded OK without thinking too much about it. Later I realized that I agreed to teach in the academy. I feel like I was tricked; he should have told me what it was all about” (S. Randawa, personal communication, December 7, 2012).

Relationships (Political Pressure)

The remaining two participants, T. Gray and S. Martin, revealed that they participated because the principal of the school asked them to participate. They shared that they have a professional and amicable relationship with the principal. T. Gray felt

that the fact that the principal asked him to join meant that the principal was pleased with his work. Moreover, they told the researcher that they were not comfortable to say “no” to the principal; therefore, being afraid of political repercussions was the overarching reason that they chose to participate. They also cited that in general they think that the initiative is good, and they like the idea of the academies. At the same time, they are not sure if they would have chosen participation on their own accord. The table below shows the factors that contributed to each teacher’s decision to participate.

Table 1

Factors Contributing to the Decision to Participate

	Personal Benefit	Access to Adequate Information	Relationships (collegial influence)	Relationships (peer pressure)	Relationships (political pressure)
S. Thurman (lead)	Son in high school	Professional development			
F. Mann	Son & daughter in high school	Professional development			
T. Santos	Daughter in high school	Professional development			
E. Perry	Friends with F. Mann & T. Santos	Information from F. Mann & T. Santos	Solicited by F. Mann & T. Santos		
F. Chang	Friends with F. Mann & T. Santos	Information from F. Mann & T. Santos	Solicited by F. Mann & T. Santos		
S. Randawa				Solicited by S. Thurman (lead teacher)	
T. Gray		Information from Principal			Solicited by Principal
S. Martin		Information from Principal			Solicited by Principal

Discussion of the Results

The research participants highlighted the variety of factors that contributed to their decision to participate in the Linked Learning Initiative. The results show that the factors of personal benefit, access to adequate information, and relationships layered with collegial influences, peer pressure, and political pressures were influences of their decision making. Out of these factors, personal benefit seemed to be a prominent reason for choosing participation with five out of eight teachers joining the academy in this way. Also, access to adequate information was another prominent theme for three out of eight participants. The decisions that were made by these three teachers to participate as a result of professional development were made with adequate information about the Linked Learning Initiative.

This finding supports that access to adequate information through professional development as well as the personal benefit for the teachers were influential factors in the decision to participate. Five out of eight teachers also cite influence and pressure based on relationships as factors to participate. The five members--E. Perry, F. Chang, S. Randawa, T. Gray, & S. Martin--that were solicited by colleagues, the lead teacher, and the principal, participated as a result of relationships to others. This finding highlights social relationships layered with peer influence as a major factor behind E. Perry and F. Chang's decision to participate. The finding also points to relationships that put peer and political pressure as the most influential factor in the choice to participate for S. Randawa, T. Gray, and S. Martin.

Professional Characteristics of Participating Teachers

The analysis of the research participants' responses to interview questions under the subsection Professional Background (See Appendix A: Q1-Q9.) extrapolated three professional characteristics to add to the profile of teachers that have chosen to participate. The three emerging themes were as follows:

- Alignment with Personal Philosophy
- Years Invested
- Lack of Collaboration Training

Alignment with Personal Philosophy

One of the teachers, T. Santos, told the researcher that her experience in teaching has given her the understanding of the needs of students, and she believed that Linked Learning could help address those needs. The lead teacher, S. Thurman, shared with the researcher that the students were not getting what they needed to enter college and career after high school. He felt that more effective educational opportunities could be offered within the Linked Learning Academy. These two example statements represent the strong sentiments of the three teachers that chose participation without solicitation. The other two teachers that joined as a result of collegial influence also mentioned that the Linked Learning philosophy was one that was close to their personal values about the goal of high school. They too cited that factor was important in their decision to participate. At the same time, the remaining three participants said that they agreed with the philosophy of the Linked Learning initiative even if that was not the prominent reason they chose participation. They believed that the purpose of schooling was to prepare students for life

after high school, which is college or career. The following quote from S. Martin represents the sentiments of all three teachers:

Wow, that's an interesting question. I guess I do believe that the goal of high school is to prepare for the life after. Not everyone has to go to college, but they should have the skills to get into a career. I suppose that is aligned with the goal of Linked Learning. (S. Martin, personal communication, December 7, 2012)

Years Invested

Years invested refers to the number of years the teachers have been teaching overall within the school and the academy. The number of overall years in teaching showed a range from five years to sixteen years, demonstrating no common thread. S. Randawa, who was solicited by the lead teacher, had the least number at five years and T. Santos, who joined due to personal benefit and access to adequate information through professional development, had the highest number at 16 years in education.

At the same time, the number of years at the school and in the academy showed a trend. Interestingly, the five teachers--S. Thurman, F. Mann T. Santos, E. Perry, & F. Chang, who chose participation due to personal benefit, access to adequate information, and collegial influences also shared characteristics of more than five years invested in the school and greater investment in the program. These teachers have been a part of the staff before the current principal was there and they have known each other professionally throughout the years. Collectively, these teachers have more experience teaching than the other three teachers that have become a part of the school and the academy recently. S. Thurman, F. Mann, and T. Santos have been a part of the academy since the very

beginning in 2009. E. Perry and F. Chang have invested three years in the academy, joining in 2010. Lastly, S. Randawa, T. Gray, and S. Martin have only been a part of the academy for one year.

Lack of Collaboration Training

The third theme that emerged from all of the eight participant responses was the lack of collaboration training. Although there was no common institution where they received their teacher training, all of the teachers cited that their program did not specifically address collaboration by explicitly teaching pedagogy or strategies. They said that they worked in collaborative groups to some degree to complete certain projects, but they were never given information about group dynamics or effective strategies of collaboration. One of the participants, T. Gray, said that he wished they would have addressed collaboration explicitly since that was what they and the students had to do. Another teacher said, “I never thought about having training about collaboration. I thought collaboration was just getting together and discussion ideas. I didn’t realize there were strategies to be learned” (E. Perry, personal communication, December 7, 2012).

Table 2 charts the professional characteristics of each teacher participant.

Table 2

Participant Profiles - Professional Characteristics

	Years in Teaching	Years at School	Years in Academy	Collaboration Training	Alignment with Personal Philosophy
S. Thurman (lead)	7	7	4	No	Yes, goal of schooling is to prepare for college & career
F. Mann	12	6	4	No	Yes, high school should prepare students for college and work

T. Santos	16	6	4	No	Yes, our job is to make sure students are ready to work in a career field or go to college
E. Perry	6	6	3	No	Yes, Linked Learning's goal matches the goal of getting kids to college or occupation
F. Chang	8	6	3	No	Yes, I believe we need to make sure students have the skills to get into college or get a job
S. Randawa	5	3	1	No	Yes, we have to prepare our students to go to college or get a job because not everyone wants to go to college
T. Gray	6	5	1	No	Yes, I suppose my personal philosophy is that students should be equipped for college or career after high school
S. Martin	7	4	1	No	Yes, that is our job, to prepare students for the life after which is more school or job, whether it be a profession or vocation

Discussion of the Results

The detailed analysis of the participants' responses regarding their professional characteristics revealed that alignment with personal philosophy and lack of collaboration training were the most common among all participant profiles that eight out of eight teachers referred to during their interviews. They each felt that the purpose of schooling was to prepare students for life after high school, which included college, vocation, and professional career. They believed that Linked Learning's goal of multiple pathways preparation was in line with their personal philosophy about the goal of schooling. The other profile unanimously shared by all participants was their lack of collaboration training. Regardless of the teacher training institution, one common thread was the lack

of explicit training around collaboration. Teacher responses showed the lack of explicit collaboration training offered within teacher credential programs.

Lastly, the number of years the teachers had been working in the school and the academy added to their professional profiles. Three out of these five participants have been a part of the program since its implementation in 2009, and these teachers volunteered to participate in the collaborative program on their own accord. The other two teachers have been a part of the academy for the past two years and joined as a result of collegial influence. These five teachers have more years invested in the school as well as the academy than the other three teachers. Findings demonstrate that alignment with personal philosophy, lack of collaboration training, and years invested are prominent professional characteristics that give insight to teachers' personal values, level of commitment, and skills for collaboration that is needed for high level team collaboration within the Linked Learning Initiative.

Personal Characteristics of Participating Teachers

The analysis of the research participants' responses to interview questions under subsections Personal Background and Relationships with Students (See Appendix A: Q10-Q21) extrapolated four personal characteristics to add to the profile of teachers that have chosen to participate. The four emerging themes were as follows:

- Family Background
- Ethnicity and Class
- Relationship with Students
- Sources of Student Success

Family Background

The research questions about family background revealed that five out of eight teachers come from families of educators. Two participants had a parent that was a teacher, and the other three had an aunt, uncle, or grandparent that was in the profession. As one participant noted, “Education was always important in my family. My mother was a teacher when I was growing up. I didn’t realize then that I would become one too” (F. Chang, personal communication, December 7, 2012). The other three teachers come from families in the health field and construction. The teacher who has the father that worked in construction recounted, “I remember my parents working a lot. They were too busy to help us with homework most of the time. But one thing that was clear was their value of education. They made sure I went to school” (E. Perry, personal communication, December 7, 2012).

Ethnicity and Class

The responses to the interview questions regarding ethnic and class origin elicited responses are in alignment with the common teacher profile. Four of the eight teachers described themselves as White. Historically and presently, White teachers represent the majority within the teaching field. One teacher is African American, one teacher is Asian Indian, one teacher is from Hong Kong, and one teacher is from the Philippines. In terms of class, six out of eight teachers said that they are from middle class working families; one said she was from upper class and never had to worry about money. According to one of the participants, “Truthfully, I don’t have to work if I don’t want to. My parents would support me if I just wanted to go to school. You know how that is” (S. Randawa,

personal communication, December 7, 2012). And the last teacher said that he grew up very poor and lived in a trailer home. “We were very poor growing up. I guess I am doing pretty good considering where I come from. I don’t make a lot of money as a teacher, but I am doing better than my parents” (T. Gray, personal communication, December 7, 2012).

Relationships with Students

The researcher noted that all eight teachers have good working relationships with their students. All of the teachers expressed that they had good relationships with their students due to their influence and effort. They shared that their ability to serve as father figure, authority figure, ability to relate to students, work hard, be understanding, be respectful and nurturing, factor into building those positive relationships with students. They said that having the students in common with other academy teachers really support those relationships due to the fact that they talk about the students together and support one another in dealing with student issues. The overwhelming responses demonstrated the confidence level of the teachers regarding the impact of their relationships to their students’ performance and learning outcomes:

I do my best to be understanding of student’s circumstances and where they are coming from. That helps to build good relationships with my students. I take the time to get to know them. That makes them want to do better and try harder” (S. Martin, personal communication, December 7, 2012).

T. Santos stated, “I have a nurturing relationship with my students. They are all like my children. I think they see me like a mother too when they are at school. They know I care

about them and that makes a difference” (personal communication, December 7, 2012). Another teacher said, “I have excellent relationships with my students. I think it’s because I am young and I can relate to them” (S. Randawa, personal communication, December 7, 2012).

Sources of Student Success

The teachers named sources such as parents, home environment, personal motivation, and peer groups as influencing student success. Five teachers, F. Mann, T. Santos, E. Perry, S. Randawa, & T. Gray, said that the parental, family, and home support influenced students’ success. The words of one participant best expressed the sentiments of a majority of the group. “It starts from the home. The parents have to care about the students’ education and be involved. That motivates students. Also, when teachers can see that the parents really care, it motivates us to do more too” (T. Gray, personal communication, December 7, 2012).

But most significantly, all eight of the teachers included themselves as a source of student success within the academy. When asked to describe the specific factors that support student success, each of them incorporated the role of teachers and good teaching within their responses. According to S. Martin, his ability to make connections with his students and inspire them is a large source of their success. E. Perry cited good teaching as a source of student success, and that is the reason he plans his lessons so carefully to engage students in learning. The teachers provided their confident response that they are in fact responsible for and have the power to make positive difference in the lives of the students by providing them with best learning opportunities. The statement of one of the

teachers echoes their collective sentiments, “I know that I am ultimately responsible for student learning outcomes. Although it really helps to have support from parents, I know that is outside of my control. I can only do what I can by providing my best teaching possible” (F. Mann, personal communication, December 7, 2012). Table 3 charts the personal characteristics that add to the profile of participating teachers.

Table 3

Participant Profiles - Personal Characteristics

	FAMILY BACKGROUND	ETHNICITY	SOCIO-ECONOMIC	RELATIONSHIPS with STUDENTS	SOURCES of STUDENT SUCCESS
S. Thurman (lead)	Educator in family	African American	Working middle	Good-father figure	Personal motivation of students & good group of teachers (academy team)
F. Mann	Educator in family	White	Working middle	Good-authority figure	Parental support & teachers
T. Santos	Educator in family	Pilipino	Working middle	Great nurturing mother	Teachers that care, family & friends that care
E. Perry	Health profession	Asian	Middle	Good-respectful	Home environment & good teaching
F. Chang	Educator in family	White	Working middle	Good in general	Students' desire to learn, do well & follow teaching
S. Randawa	Health profession	Asian Indian	Upper	Excellent-relatable	Parental and teacher influence on students
T. Gray	Construction	White	Lower	Good-work hard	Support from home, student & teacher motivation
S. Martin	Educator in family	White	Working middle	Very good-understanding	Connections with teachers & peer groups

Discussion of the Results

The researcher aimed to identify the personal characteristics of the teachers within the academy. For this purpose, the researcher asked different questions from the research respondents about their personal background with the intention to profile the personal characteristics of the participating teachers. It was discovered that coming from a family background that values education, especially families of educators, and being a product of working middle class families were the prevailing themes for personal characteristics of participants. Also, being of White European ethnic origin was relevant for half of the participants, while the other half comprised of teachers from various ethnic backgrounds. Most importantly, all of the participants have the characteristic of having good relationships with their students and seeing themselves as a source of student success; which give insight to teachers' sense of their ability to impact students.

Relationship Between Choice Participation and Qualities of Team Collaboration

The analysis of the research participants' responses to interview questions under the subsection Team Collaboration (See Appendix A: Q23-Q31.) along with researcher observation notes and meeting minute analysis extrapolated relationships between the factors that contributed to the teachers' decision to participate and the three qualities of team collaboration that were measured. Those three qualities were: (a) Frequency how often do they attend collaboration meetings, (b) Role--what role do they play within the collaboration meeting, and (c) Level--what level of collaboration do they engage in.

Factors Contributing to Choice Participation that Effect Frequency of Participation within Collaboration

The frequency of attendance was excavated by reviewing the meeting minutes that list all attending participants along with the direct responses of the participants from the interviews. The results of interview data show that S. Thurman, F. Mann, and T. Santos attend all required weekly meetings, afterschool meetings, and Saturday meetings. These three teachers actively seek out other professional development opportunities within and outside of the Linked Learning Initiative. The following words of one interviewee reflected the sentiments of several of the participants, “I have attended district trainings, state trainings, ConnectEd trainings, partnership trainings. So many I can’t count them all. As the academy lead, I have to represent and also stay current with all information that is relevant to the academy” (S. Thurman, personal communication, February 8, 2013). E. Perry and F. Chang also attended all required, and most additional, academy meetings. In general, they do not necessarily seek out additional professional development opportunities, but when the team calls for a meeting after school or on Saturdays, they make all efforts to attend. “I do my best to attend all meetings so I know what’s going on and what I need to do” (E. Perry, personal communication, February 8, 2013). On the contrary, three teachers (S. Randawa, T. Gray, & S. Martin) do not attend all of the additional meetings beyond the once a week required meetings. They do not feel that they should give up their own time to attend extra meetings. S. Randawa exclaimed that she does not need to attend these meetings since she was not given information about them when she chose to participate. She believes that had she been

Factors Contributing to Choice Participation that Affect the Role of Participant within Collaboration

The researcher measured participants' role in terms of three categories. The first category is facilitator, the second is active participator, and the third is passive participator. The role of facilitator is the one who leads the meeting. Most likely, he or she sets the agenda and facilitates the process. The role of the active participator is to engage in discussions by contributing ideas and offering insight. The role of the passive participator is to be there, listen, but make minimal contribution in the way of sharing ideas.

The role of participant was determined by coupling the researcher observation data with the direct responses of the participants from the interviews. The interview responses demonstrate that the lead teacher plays the facilitator role in all of the academy meetings. He sets the agenda, he leads the discussions, and he guides the conversations. It is apparent that he is the one who is ultimately responsible for the team's outcomes. As was expressed by the lead teacher, "I lead the collaboration, but of course I have required topics that I have to cover according to the Linked Learning Framework and district initiatives" (S. Thurman, personal communication, February 8, 2013). F. Mann and T. Santos play a very active role within the collaboration. Although they do not facilitate the meetings, they collaborate with the lead teacher to give input on the agenda. They also play a support role to the lead teacher within the collaboration meetings by actively voicing their ideas and following the directions of the lead teacher. "S. Thurman leads the meetings. He sets the agenda and guides the meetings. I try to help him as much as I can"

(T. Santos, personal communication, February 8, 2013). E. Perry and F. Chang play the roles of active participators by contributing to the conversation. They listen attentively and share ideas related to the conversation. “The topic of collaboration is determined by S. Thurman, but the discussion is up to us. The more we have to say, the better the discussion. I try to give my input” (F. Chang, personal communication, February 8, 2013). On the other hand, the three teachers, S. Randawa, T. Gray, & S. Martin, play a more passive participator role within the collaboration team. “I do what I can to contribute to the meetings. I do what I am assigned or asked” (S. Randawa, personal communication, February 8, 2013).

The results of the researcher observation data show findings similar to the interview data. The lead teacher was the sole facilitator of the collaboration meetings. S. Thurman, F. Mann, T. Santos, E. Perry, and F. Chang actively participated in discussions by sharing their ideas and offering to support one another. In contrast, S. Randawa, T. Gray, and S. Martin had much less to say during the meetings. Although they are physically present and seem to be listening, they do not contribute as much of their own ideas as the other teachers. Especially S. Randawa seemed disengaged and distracted during parts of the collaboration. Table 5 shows the role of each teacher participant within the team collaboration by charting the specific contributions made by each teacher during the two observed collaboration meetings.

Table 5

Role of Participants During Observations (Observe) 1 and 2

	FACILITATOR		ACTIVE PARTICIPATOR		PASSIVEPARTICIPATOR	
	Observe 1	Observe 2	Observe 1	Observe 2	Observe 1	Observe 2
S. Thurman (lead)	*set agenda *lead meeting	*set agenda * lead meeting	*introduces topic of discussion: Health care delivery systems model	*introduces topic of discussion: creating project based assessment		
F. Mann			*expands on topic of health care delivery systems models	*discusses the link with Kaiser as part of assessment		
T. Santos			* discusses how it can be affected by cost	*discusses content area need focus & needs		
E. Perry			*discusses how the law affects it	*discusses possible lesson plan		
F. Chang			*discusses how it can be affected by managed care and technology	*discusses individual teachers' contribution to the overall assessment		
S. Randawa					*reads through agenda *asks about end result	*taking notes *reads materials in hand
T. Gray					*take notes *answers questions from team	*offers to work with S. Martin to coordinate with Kaiser
S. Martin					*contributes response when asked	*offers to contact Kaiser liaison

Factors Contributing to Choice Participation that Effect the Participant Level of Collaboration

According to J. Little's Teacher Collaboration Theory (1990), there are four distinct levels of collaboration that teachers engage in starting with the minimal level of scanning and storytelling. This is a first stage and least effective due to the fact that teachers are putting in minimal effort. At this level, teachers are only scanning for quick ideas and sharing stories that have nothing to do with teaching and learning. The second medial level is aiding and assisting, where teachers help each other by performing tasks without much interaction. The third level is sharing, where teachers share their work with each other and are more interdependent on one another. The last maximum level and the most ideal is the joint work level of collaboration. At this stage, the teachers are actually co-constructing and producing joint work together. This is the level that all teacher collaboration should strive to reach (Little, 1990).

The level of the team collaboration was determined by triangulating the interview response data and document review data with observation data. The review of the meeting minutes show that the team collaborates around topics of integrated projects, evaluations, assessment, study trips, student grades, college fairs, student tutorials, academy certification, etc. Unfortunately, the meeting minutes do not reflect individual contributions; it simply states the topics discusses by the team. Due to this fact, individual contributions cannot be charted.

The results of interview responses from all participants show that they work together to create lesson plans, produce integrated projects, coordinate study trips with

industry partners, participate in program evaluations, and co-produce student assessments. The following comment reflects the collaborative work of the teachers.

I believe that our work together can have a strong effect on our classroom instruction. For instance, when we create lessons together, it benefits all of our classroom instruction. Putting all of our ideas together and coming up with creative activities really supports our student learning. (S. Thurman, personal communication, February 8, 2013)

S. Randawa went on to say, “We plan lessons together all the time. Most of our big projects are products of our collaboration” (personal communication, February 8, 2013).

E. Perry further reiterated,

The effective quality of our collaboration is our ability to work as a team. We listen to each other and allow for a discussion, then come to decisions together. There is a level of respect there. I think our students can see that too and that gives them cues about how they should work together. (personal communication, February 8, 2013)

The response from T. Santos also shows the effect of their shared discussions and joint work. “When we share ideas to develop integrated projects for student, it benefits students of course. I know that the hard work we put in during planning pays off when we see students engaged in learning and doing better on assessments” (personal communication, February 8, 2103). Table 6 shows the level of collaboration that the individual teacher participant engaged in during collaboration meetings according to their individual interview responses.

Table 6

Level of Collaboration (Interview Data)

	SCANNING STORYTELLING	AIDING ASSISTING	SHARING	JOINT WORK
S. Thurman (lead)		*coordinate study trips * plan activities	*plan lessons *create assessments *develop student support strategies	*integrated lesson plan *integrated assessments
F. Mann			*plan lessons for integrated projects *develop grading rubric	*integrated projects *student grades
T. Santos			*discuss student progress *plan strategy for student support *plan lessons, projects & study trips	*integrated lesson plan *integrated projects
E. Perry		*plan field trips	*develop assessments *create standards based projects *plan lessons	*integrated assessments *integrated projects *integrated lesson plan
F. Chang			*develop grading/evaluation criteria *develop projects	*integrated grading/evaluation rubric *integrated projects
S. Randawa	*discuss what's going on with students	*coordinate activities for students	* plan lessons * develop assessments	*Integrated lesson plan *integrated assessments
T. Gray		*coordinate with industry partners	*develop projects *plan lessons	*integrated projects *integrated lesson plans
S. Martin		*set up field trips	*plan lessons	*integrated lesson plans

The researcher observation results show that S. Thurman, F. Mann, and T. Santos mostly share their ideas regarding curriculum and teaching strategies. Two other teachers, E. Perry and F. Chang, also engaged in sharing of ideas around lesson planning and instructional practice. S. Randawa, T. Gray, and S. Martin did not share as much in the

discussion, although in general they did not impede conversations or redirect it in a non-purposeful way. T. Gray and S. Martin mostly engaged in aiding and assisting by offering to take on assigned tasks. S. Randawa displayed behaviors that would be best considered as scanning and storytelling. She spent a lot of time in the collaborations reviewing the paperwork they had in front of them and even told stories about specific student behaviors rather than teaching strategies. Randawa stated, “I know we’re trying to create a lesson about the health care delivery model, but I am concerned that some students like “Bobby” will be unable to grasp such concepts since he rarely pays attention” (S. Randawa, personal communication, February 8, 2013). Table 7 extricates the level of collaboration that the individual teacher participants engaged in during the two researcher observed collaboration meetings by charting the specific contributions of each teacher.

Table 7

Level of Collaboration (Observation Data)

	SCANNING/ STORYTELLING		AIDING/ ASSISTING		SHARING		JOINT WORK	
	Observe 1	Observe 2	Observe 1	Observe 2	Observe 1	Observe 2	Observe 1	Observe 2
S. Thurman					*share sample lesson	*share sample assessment		
F. Mann					*share ideas about cross content lesson	*share ideas about partnering with Kaiser		
T. Santos					*share lesson plans from previous years	*share assessments from previous years		

E. Perry					*share outline of joint lesson plan with F. Chang	*share ideas about cross content analysis		
F. Chang					*share outline of lesson plan with E. Perry	*share ideas about specific content plan		
S. Randawa	*reading agenda *story about student behavior	*reading through materials						
T. Gray				*offer to assist S. Martin coordinate with liaison	*share current student learning			
S. Martin			*offer to write sample lesson plan	*offer to contact industry partner				

Discussion of the Results

The researcher aimed to link the relationship between choice participation and qualities of collaboration. It was found that the differing factors that contributed to the teachers' decision to participate show a relationship to the frequency, role, and level of collaboration they engage in. Teachers S. Thurman, F. Mann, & T. Santos, who felt that they chose to participate due to personal benefit and access to adequate information from professional development, attended meetings with most frequency, played facilitators and active participator roles, and engaged in sharing levels of collaboration. The teachers E. Perry and F. Chang chose participation due to their positive relationships with colleagues also attended meetings with more frequency, played active participator roles, and

engaged in the sharing level of collaboration. However, the teachers that chose participation due to their informal relationships with “authority” figures (S. Randawa, T. Gray, & S. Martin) only attended required meetings, played more passive participator roles, and engaged in aiding, assisting, and scanning and storytelling levels of collaboration.

In examining the level of collaboration according to researcher observations, the majority (five out of eight) team members mostly engaged at the level of sharing. Review of the meeting minutes revealed that according to what was recorded, as a team, they mostly engaged in collaborative conversations about the integration of curriculum, sharing of lesson plans, creation of project-based assessments, coordination of study trips, student grades, and other tasks related to accreditation. Based on those results, the team collaborates mostly at the level of sharing and produces some joint work. Analysis of the interview data yielded similar results to the findings of the document review. Teachers reported that they worked together to produce lesson plans, integrate projects, create project-based assessments, coordinate study trips, and much more related to student outcomes. Due to the fact that sharing of ideas has to be involved to produce the work related to the named activities jointly, the researcher believes that the team is engaged at the sharing and joint level of collaboration. At the same time, the researcher was unable to substantiate the joint level work inferred by the review of meeting minute documents and interview responses with final work products. Therefore, the researcher is unable to include joint work as the level of team collaboration. In triangulating the findings of the document review along with the researcher’s own observations and individual teachers’

responses, the researcher concludes that the sharing level most accurately portrays the overall level of the team collaboration.

Factors that Contribute to Effective Team Collaboration

The analysis of the research participants' responses to interview questions under subsections Team Collaboration, Professional Development, and Support Needed (See Appendix A: Q23-Q39.) extrapolated four factors that the teachers who have chosen to participate believe contributed to effective collaboration. The four emerging themes were as follows:

- Time for Collaboration
- Additional Resources
- Purity of Academies
- True Choice to Participate

Time for Collaboration

Research participants cited different factors, concluding time was the most common factor that was cited by all of the participants. All of the teachers believe that time is the most crucial factor that contributed to enhancing the effectiveness of team collaboration. The lead teacher cited that adequate time to plan together is required by the participant teachers in order to efficaciously integrate the linked learning strategies in the academy. Five teachers (T. Santos, E. Perry, F. Chang, S. Randawa, & S. Martin) especially emphasized the importance of time to collaborate during the school day. According to their responses, meetings should take place during school hours to make collaboration more effective. In the words of E. Perry,

Teachers don't like to attend meetings after school hours and Saturdays because they have their personal commitments. If the meetings are scheduled during school hours then all of the team members would be able to attend and share their ideas to make the collaboration more effective. (E. Perry, personal communication, February 8, 2013). These sentiments were further reiterated by another member's comment about the lack of time.

"More money does not solve the issue of lack of time. Even if we were to get paid extra for meetings, where would we find the time?" (S. Martin, personal communication, February 8, 2013).

Additional Resources

The teachers defined resources as relevant professional development and financial resources to facilitate field trips with students as well as support personnel that serve as liaisons to industry partners. All eight of the participants cited the importance of adequate resources as a crucial contributing factor to effective collaboration. As one interviewee observed,

It would be great if we could pay someone on the team that can just focus on coordinating all of the activities and serving as a liaison to all of the industry partners. That would take a lot off our plates to focus on planning during our collaborations. (S. Martin, personal communication, February 8, 2013)

Teachers believe that availability of financial resources is essential to facilitate the work related to study trips as well as to motivate participation in additional team collaboration meetings and professional development trainings. Four teachers (S. Thurman, F. Mann,

T. Santos, & T. Gray) also felt that the team should engage in professional development training in order to enhance their competencies as well as to transfer that learning to students. “It would be a good idea to learn about how to collaborate effectively. After all that is what we are asked to do and what we need our students to do” (S. Thurman, personal communication, February 8, 2013).

Purity of Academies

The teachers defined purity of academies as teachers of academies only teaching one subject and only academy students. Three out of eight teachers cited that purity is crucial in enhancing the effectiveness of team collaboration. According to them, academy teachers currently serve a mixture of academy and non-academy students due to the need to configure classes based on enrollment size. Also, for the same reason, these three teachers teach multiple subjects and levels within a subject which means they have to lesson plan for multiple curricula. Moreover, they have to collaborate with multiple departments. According to them, there is not enough time in the day to meet with all departments. S. Randawa shared that it is impossible to make collaboration happen with all of the departments:

I have no choice but to pick and choose which team meeting I will attend on that day because the meetings are happening at the same time. If I only taught one subject within the academy, it would be a “no “brainer.” I can attend all of the academy meetings. (S. Randawa, personal communication, February 8, 2013)

True Choice to Participate

The three teachers that were solicited by the lead teacher and the principal cited that true choice to participate without pressure was crucial for the development and progress of team collaboration. They revealed during the interviews that they did not have true choice of participating because they feared some type of negative consequences if they said “no”. One of the teachers, S. Martin said that although he did not think that the principal would have done anything in retaliation if he said “no,” just the fact that he was his boss made him uncomfortable to say “no”. They agreed to participate because the principal, who has formal authority, and the lead teacher, who has perceived authority, asked them to participate. S. Randawa suggested that the effectiveness of the team could be increased by providing the teachers true choice regarding their participations rather than being asked to participate which put pressure on them. She went on to say, “I have some resentment towards the lead teacher for asking me to join without giving more information and time to consider my options” (S. Randawa, personal communication, February 8, 2013). She stated that the lack of true choice for her made her feel differently about the lead teacher and the collaboration meetings led by him. Table 8 shows the responses of individual teacher participants regarding their perception of the factors that contribute to effective collaboration.

Table 8

Factors Teachers Believe Contribute to Effective Collaboration

	TIME	RESOURCES	PURITY of ACADEMY	TRUE CHOICE to PARTICIPATE
S. Thurman (lead)	More time for collaboration	Additional personnel & professional development		
F. Mann	More time for collaboration	Additional professional development & money		
T. Santos	More time for collaboration during school hours	Additional personnel & professional development		
E. Perry	More time for collaboration during school day	Additional personnel & money		
F. Chang	More time for collaboration during school hours	Additional personnel		
S. Randawa	More time for collaboration during school hours	Additional money & time in the day	Should just teach academy students	Should have true choice to participate without pressure and more information
T. Gray	More time for collaboration	Additional professional development, personnel & money	Should just teach 1 subject, 1 level in academy	Would be better if principal didn't ask
S. Martin	More time for collaboration during school day	Additional personnel & money	Should only teach 1 level to academy students	Since principal asked I didn't feel comfortable to say no

Discussion of the Results

These four factors represent the varying themes that emerged as contributing factors for effective collaboration according to the teacher participants. The researcher

asked questions about the teachers' personal experiences with team collaboration, professional development, and needed support to elicit responses about what the teachers believed about effective collaboration. Time and resources were two themes that were common among all participants. Purity of academies and true choice were common for S. Randawa, T. Gray, and S. Martin. These data are truly unique to the Linked Learning setting.

In echoing the findings of previous research cited in the literature review section, the participants of this research unanimously named time and resources as factors that contribute to effective collaboration. Most of them (five out of eight) feel that time for collaboration needed to be structured into the teacher workday rather than after hours. Also, they fervently spoke about the need for adequate resources in terms of relevant professional development for skill development, financial resources, and personnel resource to support the goals of the initiative and effective collaboration.

The findings related to purity of academy and true choices to participate are specific to the Linked Learning Academy setting. Purity in the academy is cited by the same teachers that saw true choice as a need. These three teachers who felt pressure and limited choice to participate also stated that the non-purity of academies and mixture of students brings about additional work and challenges that impede effective collaboration.

Summary of the Findings

The researcher analyzed the responses from the participants to summarize the following findings as it relates to the four research questions.

Question 1-Factors that contribute to teachers' decision to participate.

- There are different factors that have direct influence on the choice of the teachers to participate in the Linked Learning Initiative.
- Personal benefit, access to adequate information, and relationships to others were the main factors that induced the teachers to participate.
- Professional development trainings that provide adequate information play an essential role in creating positive impressions on the perception of teachers to participate.
- There are different types of relationships that contributed to the decision to participate.
- These relationships are positive collegial relationships and informal relationships with “authority” figures that layer peer and political pressures.

Question 2-Professional and personal characteristics of participants.

- Personal and professional characteristics of individuals add to the profile of teachers choosing participation within the Linked Learning Initiative.
- Family background of valuing education, coming from a working class background, having positive relationships with students, seeing themselves as a source of students’ success, program goal alignment with personal philosophy, years invested, and the lack of collaboration training also add to the personal and professional profiles of participating teachers.

Question 3-Relationship between choice participation and qualities of collaboration.

- The factors that contribute to teachers' decision to participate have a relationship with the frequency, role, and level of collaboration the individual teachers engage in.
- The factors of personal benefit and access to adequate information show a correlation to high attendance, active participation, and the sharing level of collaboration.
- The factor of positive collegial relationships also shows a correlation to high attendance, active participation, and the sharing level of collaboration.
- The factor of informal relationship with "authority" figures shows correlation to low attendance, passive participation and aiding, assisting, and scanning and storytelling level of collaboration.

Question 4-Factors that teachers believe contribute to effective collaboration.

- Time for collaboration is the most crucial factor cited by all participants that affects the effectiveness of collaboration.
- Purity of academies is the other important factor that teachers believe have a direct impact on the effectiveness of team collaboration. Academy teachers feel that they should only serve academy students rather than serving a mixed population, and they should teach only one subject. That way they can focus on one department, one team, and can attend all collaboration meetings.
- Adequacy of resources is another crucial factor that contributes to effective collaboration. Teachers believe that they should be provided with adequate

financial and personnel resources as well as professional development trainings to improve collaboration efforts.

- True choice to participate without solicitation is cited as an important factor that affects effective collaboration. Not having that true choice takes away the sense of autonomy that is so important to teachers.

The findings of this study support research cited by Zaslavsky, Chapman, and Leikin (2003) that teachers should have the right to make true choice of participating in team collaboration due to its effect on the level of their motivation (Deci & Ryan, 2000). The researchers evidenced the variance in individual teacher's participation during collaboration meetings and linked its relationship to the factors that contributed to the teachers' decision to participate in the academy. The teachers that chose participation as a result of personal benefit and professional development felt that they had adequate information and true choice in decision making. In turn, they attended meetings most frequently, took on lead, active roles during the meetings, and engaged in conversations that were more at the sharing level of collaboration. The teachers that chose participation due to their positive relationships with colleagues also attended meetings regularly and actively participated during the meetings and engaged in the sharing conversations during the collaboration meetings. On the other end of the spectrum, the teachers that chose participation due to their informal relationships with "authority" felt that their choice was pressured. They only attended required meetings and took less of an active role in terms of their personal contributions to the conversations during the meetings. Especially the teacher that felt she was coerced to participate with little information about the academy

lacked participation during the meetings and contributed more in the way of scanning for information during the observed meetings. According to interview responses, researcher observations, and document analysis, there is clear evidence that the factors influencing choice has an effect on the three qualities of frequency, role, and level of collaboration the individual teachers engage in within collaboration meetings.

In summary, results show the following personal and professional characteristics as most common profiles of participation teachers:

- coming from family backgrounds valuing education
- having good relationships with students
- seeing themselves as a source of student success
- having personal philosophy aligned with program goals
- years invested in the school and the academy
- lacking collaboration training

The findings also evidenced three factors that contributed to the teachers' choice to participate:

- personal benefit
- access to adequate information through professional development
- relationships layered with collegial influence, peer pressure, and political pressure

The sum of the findings clearly demonstrates a relationship between the three factors that contributed to the teachers' decision to participate and the three qualities of collaboration that were measured. Depending on the factor that contributed to the choice at the time of decision making, there is variance in the frequency, role, and level of

collaboration the individual engages in. The participants who perceived limited choice due to relationships with “authority” figures showed the lowest levels of attendance, participation, and collaboration. On the other hand, the participants who perceived ultimate true choice demonstrated the highest levels of attendance, participation, and collaboration. According to this researcher’s findings, there is a clear and distinct relationship between choice participation and qualities of collaboration.

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CHAPTER 5

DISCUSSIONS, CONCLUSIONS, and RECOMMENDATIONS

The last chapter of this study presents the discussion of the findings and the analysis of the findings in relation to each of the research questions. In addition, this chapter examines the implication of the findings in light of the literature review and the grounded theoretical framework. Finally, this chapter concludes with the researcher's recommendations for improvement in policy and recommendations for future research.

Discussion

The research findings reveal a relationship between choice participation and qualities of teacher collaboration within the Linked Learning Academy. According to the findings, the frequency, role, and level of collaboration that the teachers engaged in varied depending on the factor that contributed to the teacher's decision to participate in the reform initiative. Teachers that chose participation with the reasons of personal benefit and access to adequate information through professional development attended most meetings even after school and Saturdays, took on facilitator and active participator roles within the meetings, and engaged in conversations that represent the sharing level of collaboration. Similar outcomes were true for the teachers that chose to participate on the basis of their collegial relationships. They also attended most additional meetings, played active roles during the meetings, and engaged in sharing. On the other hand, the teachers that chose participation due to their informal relationships with "authority" figures only attended meetings required during the school days, played the role of passive participator,

and engaged in conversations that were more at the level of aiding, assisting, and scanning.

The researcher observed that the factors that influence choice to participate have direct effect on the measured qualities of collaboration. According to the findings of the research, teachers that chose to participate in the initiative due to personal benefit and access to adequate information are more likely to engage in collaboration with active participation. It is evident that each member's contribution is affected by the factors of choice and in turn that contribution affects the overall collaboration effort and outcome of the team. In support of Vygotsky's (1978) social constructivist learning theory, collaboration outcomes were dependent upon the unique interactions of the individuals within the group. Each member of the collaborative team can enhance the effectiveness of collaboration outcomes with their individual contributions. According to the findings of this research, the individual teachers' contribution to the team collaboration was affected by the factors that influenced their choice participation. Depending on the factors that contributed to decision making, participants felt that they had differing amounts of choice, which in turn manifested in the differing amounts of participation within the collaboration team. Participants that felt they had ultimate true choice showed higher levels of overall engagement within collaboration as compared to participants that felt they had limited choice. The following discussion of the findings was organized in relation to the individual research questions.

Factors that Contribute to Teachers' Decision to Participate

On the basis of the teachers' responses to interview questions, three themes emerged as factors that contributed to teachers' decision to participate. The factors include personal benefit, access to adequate information, and relationships layered with collegial influence, peer pressure, and political pressure. These three factors represent the varying reasons that teachers cited as influential to their decision making. Those teachers that were influenced by personal benefit and access to adequate information felt that they ultimately had true choice to participate. The teachers that were influenced by collegial relationships felt that there was some level of pressure to participate, but ultimately they joined due to the personal benefit of working with colleagues that they respected and trusted. At the other end of the spectrum, the teachers that were solicited by the lead teacher and the principal felt that their informal relationships with "authority" figures were layered with peer pressure as well as political pressure to participate feeling that saying "no" could have some professional repercussions.

In relation to the Rational Choice Theory, teachers made decisions as a result of balancing the cost against the benefit of participation. They made rational choices after the consideration of the alternative outcomes with accurate and adequate information (Green, 2002). Based on the resources that were available to them, they were able to make informed decisions regarding the benefit of participation. The teachers that chose participation as a result of professional development presentations were given access to accurate and adequate information about the initiative. They were able to look at the pros and cons based on the information they were provided about the initiative and then added

the layer of the personal benefit for their own children as a benefit for participation. Both of these findings related to decision making based on weighing personal benefits with adequacy of information is supported by the Rational Choice Theory. The theory also posits that one's position in society, level of access to information, and social relationships are determining factors that weigh in on decision making; therefore, no choice is equally accessible or accessed by all. The teachers that chose participation with collegial influence made rational choices primarily based on social relationships. The teachers that chose participation as a result of their informal relationships to "authority" made rational choices based on their position in relation to the position of the principal within the school. Due to the hierarchical nature of the principal/teacher positions within the school, the teachers felt it beneficial to choose participation when asked by the principal. The one teacher that was solicited by the lead teacher also chose participation due to her informal relationship. She felt peer pressure and was given limited information. She did not have the benefit of adequate information, and she had the added factor of pressure based on her position in relationship to the lead teacher's position within the school. The Rational Choice Theory that posits social networks and relationships as influencing factors to decision making also addresses pressure based on relationships. This finding is also supported by various studies that evidence peer pressure as playing a crucial role in creating pressure on the decision of the employees to participate in collaboration programs (Nicklaus & Ebmeier, 1999). In relation to the framework of the Rational Choice Theory, the balance of personal benefit, adequate

information, social relationships, and one's position were the major factors that weighed in on the teachers' decisions to participate.

Personal and Professional Characteristics of Participants

The responses of the participant teachers highlighted some personal as well as professional characteristics of the teachers who decided to participate. The intention of the researcher was to explore the unique personal and professional traits of the teachers that chose to participate in the Linked Learning Initiative to add to the profile of teachers that willingly take on rigorous, time consuming initiatives. The findings evidence various personal and professional characteristics that add to each teacher's profile and give insight to who they are.

The characteristics of coming from a working middle class family background of educators surfaced as common characteristics for the majority of participants. The Rational Choice Theory gives credence to the relationship between class structures defined by employment, education, income, and social networks as factors that influence decision making (Smrekar, 1996). The fact that the majority of the teachers are from middle class educator family backgrounds supports the theory about the influence of class structures in relation to employment and income.

Years invested in their work highlights the commitment of teachers that have more years invested in the school and the academy. This finding seems to evidence that years of experience and investment into an organization play a role in shaping the attitude and perception of the teachers regarding their role within the school and academy. Moreover, this characteristic seems to indicate their likelihood to get involved in future

trainings, programs, and other initiatives. Due to the number of years they have invested in the school and the academy, they are more connected to the vision, the goal, and the students of the school. They have more extensive collegial networks and relationships of influence. Furthermore, it was observed that these experienced teachers did not require peer pressure or political pressure to participate. They chose to participate with the intention to enhance their own knowledge and served the needs of the school and its students. The literature review on teacher efficacy stated that teachers with a high level of efficacy are more likely to implement innovative strategies and remain persistent during difficult times and deal with challenging situations successfully (Gordon, 2001; Bandura, 2010). The teachers that have invested more years at the school and in the academy have remained persistent during difficult times and have chosen to take on challenging situations, thus demonstrating characteristics of high-level efficacy.

Program goal alignment with personal philosophy was common among all participants and showed that teachers within the academy had personal values that matched the stated goal of the initiative and therefore had the potential to increase the effectiveness of their collaboration according to earlier literature review that states shared goals, values, and structure have the potential to unite a group of teachers to increase effectiveness (Goleman, 2006). Another study by Brooks (2006) further supported that the commitment of teachers depends on their desire to be involved with different efforts aimed to change the educational process. Due to the fact that the goal of the initiative matched their personal values, the teachers were more committed to the change process to increase their effectiveness within the initiative.

Good relationships with students and seeing themselves as a source of student success were also common characteristics among all participating teachers. They cited that teachers were responsible for student outcomes, and they had the power to influence student outcomes through the work that was produced during their collaborations. They also said that their relationships with students affected student-learning outcomes. That is the reason they made efforts to build positive relationships with them. These findings gave evidence to the characteristics associated with highly efficacious teachers. The review of literature about teacher efficacy brought forth research findings that showed teachers with high levels of efficacy had a greater sense of responsibility for student outcomes and belief in their own abilities to influence those outcomes through their action (Gordon, 2001). These studies further revealed that there was a direct connection between academic achievement of students and self-efficacy of teachers (Goodwin, 2011; Henson, 2001).

The lack of collaboration training was one that was interesting and common to all participants regardless of the credential program. Although there were no common threads in the institution or the type of program they attended, all of them shared the trait of no explicit collaboration training. This finding showed a gap in teacher training programs that needed to be addressed. Feiman-Nemser (2001) and Moir and Gless (2001) have discussed the potential of quality mentoring and teacher collaboration within teacher training programs. According to these researchers, induction programs must incorporate teacher collaboration. Programs designed and implemented for teacher training have the potential to encourage collaboration and, therefore, should explicitly teach the strategies

and skills to implement effectively. Providing explicit collaboration training for participating teachers would increase the level of knowledge and skill for individual teachers to increase the level of team collaboration.

The characteristics of participating teachers related to having more years invested in the school and the academy, personal philosophy being aligned with the goal of the program, having good relationships with students, and seeing themselves as a source of student success are all associated with characteristics of highly efficacious teachers cited by the literature review. Unfortunately, these teachers do not have the added benefit of previous collaboration trainings that could strengthen the effectiveness of their collaboration. Adding the characteristic of professional development training focused on effective collaboration would enhance the teachers' level of efficacy and increase the level of their team collaboration. This premise has been supported by the research of Guskey (1999) who defined the importance of professional development in enhancing the efficacy of collaborative teams.

Relationship Between Choice Participation and Qualities of Team Collaboration

On the basis of the teachers' responses, researcher observation, and meeting minute analysis, the researcher identified relationships between the factors that contributed to the teachers' decision to participate in the academy and the qualities of their team collaboration. The researcher found that the reasons the teachers chose to participate had a direct correlation with the frequency, role, and level of collaboration he or she engages in. In analyzing the data regarding factors that contributed to teachers' decision to participate, it was found that the teachers that chose to participate mostly due

to personal benefit and access to adequate information through professional development felt that they ultimately had true choice. The teachers that joined as result of collegial relationships felt that they too ultimately had choice, but it was influenced mostly by their relationships to respected colleagues. The teachers that joined due their informal relationships to the lead teacher and principal, however, perceived peer pressure as well political pressure to participate. They noted that the fact that they were asked by someone of “authority” limited their choice to participate. Depending on the factors that contributed to their choice to participate, there was distinct variance in the frequency, role, and level of collaboration the individual teacher engaged in.

The teachers that chose to participate on the basis of personal benefit and access to adequate information through professional development concluded that they had true choice to participate and play lead roles and actively participate in the meetings even after school hours and Saturdays. In contrast, the teachers who decided to participate on the basis of informal relationships to “authority” figures remarked that they had limited choice to participate and demonstrated comparatively less active involvement within the team collaboration. This finding was supported by the literature review about teacher choice. According to Deci and Ryan (2000), the choice of teachers to participate in collaboration efforts had an important effect on their motivation. When teachers are forced to attend development trainings, collaborations, and other programs, they are not as willing to integrate new ideas and learning into their instruction.

The findings evidence a clear distinction in the attitudes and behaviors of the teachers within the collaboration team dependent on factors contributing to the amount of

choice the participant perceived to have at the time of decision making. This evidence shows the link between amount of choice and the qualities of team collaboration. This means that the teachers' level of collaboration, as well as effectiveness of the team, can be enhanced by increasing the amount of choice available to potential participants during the time of decision making. Creating opportunities to choose participation based on personal benefit, access to adequate information, and positive collegial relationships would increase the amount of choice and add weight to the benefit of choosing participation as cited by the Rational Choice Theory. Therefore, this will increase the likelihood of assembling a team of highly committed, efficacious teachers that have chosen participation due to personal benefit and adequate information. Also, since collaboration is a social interaction in which relationships are the unit of analysis according to the social constructive learning theory, teachers that already have positive collegial relationships would have increased likelihood of engaging in effective collaboration with one another. Creating opportunities for teachers to interact socially and allowing for the development of those relationships could create the positive synergy and dynamics that would carry over to formal team collaborations.

Factors that Teachers Believe Contribute to Effective Team Collaboration

The answer to this research question highlights some crucial factors that teachers believe contribute to the effectiveness of team collaboration. On the basis of the teachers' responses, the most important factor that was cited by all participants of the research was time. This supported the findings of Gersick's study on the importance of time in teamwork (1988). According to Gersick, the progress of the team was most dependent on

focus and time on task rather than executing an absolute job in a specific stage of development. The teachers overwhelmingly stated that lack of time is an issue. They believe that structuring the school day to include collaboration for teachers would increase its effectiveness.

In the same way, there was unanimous response that resources in terms of professional development, financial, and personnel support would enhance collaboration outcomes. This finding has been supported by the work of Gatliff and Wendel (1998) who suggested that institutions must be committed to the collaborative ideal, and they were required to provide financial support to increase the effectiveness of collaboration. In addition, the teachers expressed desires to be provided with relevant professional development in order to maximize participation in team collaboration. This finding supported the research of Guskey (1999) who defined the importance of professional development in enhancing the efficacy of collaborative teams.

Teachers also said that maintaining purity of academies would increase the effectiveness of collaboration since their time and focus would not be divided by additional department and various content subject planning and collaboration. Lastly and most importantly, teachers emphasized the concept of true choice of participation for teachers. According to them, participation on the basis of peer or political pressure does not induce effective participation of teachers. Therefore, the collaboration of any team can be more effective if the teachers have true choice to participate in the collaboration. This finding was supported by the research of Zaslavsky et al. (2003) that concluded teachers should have the right to make true choice of participating in team collaboration.

In the literature review about the factors that hinder effective collaboration, time was the number one factor cited by DuFour (2011). Therefore, it came as no surprise that all participating teachers named time as the factor needed for effective collaboration. Also cited in the research by Martin (2008) was the degree of autonomy provided to teachers that had an impact on effective collaboration. That research supported the findings of this study regarding teachers' belief that true choice participation would affect effective collaborative outcomes. The findings of Eteläpelto and Lahti (2008) reported on the importance of perceived autonomy for teachers. According to their study, the perception of lack of autonomy was a factor that hindered effective collaboration along with fear of increased workload and lack of resources. The teachers' responses about the need for additional resources to be more effective also are supported by these research findings.

Conclusions

The concept of choice signifies a true sense of freedom, equality, and autonomy. The ability to choose as an individual is viewed as fair and equitable for all. Due to this reason, it is a championed heavy weight hitter in the political arena of education policies. According to policymakers and researchers like Chubb and Moe (1990), the ability to choose creates a market-like environment in which competition will raise academic competency that would produce benefits in education. Due to this reason, it can be seen as a mechanism for producing educational policy superior to what is currently in existence. In line with this theory, the designers of the Linked Learning Initiative framed the choice model to recruit highly efficacious teachers.

The participants of this study proved to have characteristics associated with high-level efficacy. All eight participants who chose to participate were found to have good relationships with their students and believed themselves to be a source of their students' success. It was further evidenced that they had strong beliefs in their own abilities, abilities of their students, and a strong sense of responsibility for the outcomes of their student learning. These characteristics were supported by the literature associated with highly efficacious teachers. Also evident in the review of literature was the direct correlation between efficacious teachers and increased student achievement. This team of teachers possessed the characteristics that were associated with a high level of efficacy that is in turn associated with increased student achievement. These findings gave credence to the rationale of the researcher for identifying this team for the study based on the high overall student GPA with the assumption that if students are performing at a high level, then teachers must also be collaborating at a high level. The results of the personal and professional characteristics associated with a high level of efficacy supported the researcher's premise for linking student GPA with desired teacher selection of the Linked Learning choice model.

Also, in terms of the level of collaboration the team engages in, the evidence shows that the team does in fact collaborate at a high level. According to Judith Warren Little's (1990) theory of teacher collaboration, the highest level was joint work and the level before that was sharing. The researcher found that based on all of the evidence presented by review of documents, personal observations, and participant responses, the team most accurately engaged in the sharing level of collaboration. At the same time,

there was distinct variance in individual teachers' contribution to the collaboration team.

This variance was marked by factors that contributed to their decision making.

Depending on the specific factor, some participants felt they had true choice while others stated that they had limited choice. As implied by the Rational Choice Theory, due to the unequal availability of information for each individual, no choice is equal or accessible to all. The participants that saw the personal benefits and had access to adequate information about the initiative before joining had more choice accessible to them.

Especially the teachers that received their information from professional development trainings had information that gave them positive incentives to participate. This was in line with the findings from Penuel, Fishman, Yamaguchi, and Gallagher (2007), who suggested that professional development trainings exert positive impacted the perceptions of teachers. This finding meant that adding to the amount of choice available would provide weight to the benefit of participating, and therefore could increase the likelihood of attracting highly motivated, efficacious teachers to join the team.

Another choice participation factor that was linked to positively affecting collaboration was collegial relationships. Teachers who joined on the basis of positive relationships with their colleagues were just as active, attended as frequently, and engaged in the sharing levels of collaboration. This highlights collegial influence as a major factor in the decision of the teachers to participate. This finding supports the research that collegial influence plays a crucial role in reshaping the attitude of the teachers regarding their participation in collaborative teaching. This was also supported by the findings of Park, Henkin, and Egley (2005) regarding the impact of teamwork,

working condition, and peer influence. According to these researchers, teamwork exerted positive impressions on the attitude of the teachers (Park, Henkin, and Egley, 2005). They believed that teachers were more likely to participate in specific tasks when the comfort level between them is high and they are more likely to execute volunteered participation in team projects when they are influenced by their colleagues and have respect for senior teachers. In addition, Ross and Gray (2006) suggested that transformational leadership played a crucial role in enhancing teachers' commitment to the educational system particularly in terms of collective teachers' efficacy. This showed that the lead teacher, as well as actively participating veteran teachers, had crucial roles to play in terms of influencing the perceptions of other teachers. Moreover, effective leadership and smooth working conditions contribute to enhancing teacher commitment to the partnership in terms of collective efficacy of the teachers. This finding meant that positive relationships were the medium through which teachers can best learn from one another. When teachers have good working relationships with one another that build respect and trust, their commitment and ability to work effectively together is increased. Therefore, creating opportunities for teachers to forge those positive collegial relationships outside of the required mandatory meetings could increase the level of collaboration within the formal structured meetings due to those prior relationships.

In summary, according to the findings of this study, true choice to participate best produces the desired outcome of the Linked Learning Initiative of recruiting teachers associated with highly motivated, efficacious characteristics that are willing to put in the extra time and effort to collaborate with their colleagues. In line with the definition of

collaboration in this paper, the participants of this study engaged in team collaborations that created shared meaning and co-constructed knowledge at the sharing level. In this sense, there was nothing routine about it. Something is there that was not there before. But the true medium of collaboration is other people. Real innovation comes from the social matrix based on relationships and interactions. The finding of this study has revealed the crucial role of relationships and the effect of rational choice to impact qualities of team collaboration within the Linked Learning College Readiness Reform Initiative.

When teachers are able to choose participation based on personal benefit, access to adequate information, and positive collegial relationships, they demonstrate high levels of participation and performance within each unique collaboration setting. Teachers' ability to achieve high levels of collaboration with their peers increases efficacy for themselves as well as their students. The continual goal of any reform effort needs to focus on structuring communities of learning and practice around effective collaboration for teachers and students. When teachers desire to work together in the best interest of students, the interests of all stakeholders within the education community and larger society can be realized. Just as quality teaching is not an individual accomplishment, but rather the result of a collaborative culture that empowers teachers to team up to improve student learning beyond what any of them can achieve alone (Carroll, 2009), a quality society can only come to fruition when members within it work together collaboratively and effectively to reach best educational outcomes for all.

Implications of the Study

The implication of this study is to continue the implementation of the choice model with the addition of the formal choice selection process within the Linked Learning Initiative. Since the study results found the profile of the choice participants to possess characteristics associated with high levels of self-efficacy, the participant sample matched the intended outcome of the choice model. Also, since there was variation as to the level of participation and collaboration based on amount of choice associated with differing factors, the initiative should structure recruitment procedures that allow for access to adequate information, personal benefits, and positive collegial relationships to add weight to the benefit of participation. Structuring recruitment focused on true choice participation without solicitation that puts negative pressure on the individual's decision making should be the strategy implemented to attract highly motivated, efficacious teachers for reform efforts.

Recommendations for Improvement in Policy and Practice

The practitioners in this study gave evidence to the factors that contributed to their choice to participate and voiced recommendations to consider in improving collaboration among teachers. The researcher also collected data regarding the influence of personal and professional characteristics of individual teachers to add to the profile of willing and efficacious teachers within the initiative. After examining the findings, analyzing the participants' responses, and reviewing relevant literature to understand the effect of teacher choice as it is related to teacher collaboration, this researcher has compiled enough empirical evidence to make several recommendations in an effort to

increase the effectiveness of teacher collaboration within college readiness reform initiatives to impact student learning outcomes. The following are the researcher's recommendations for improvement in policy and practice.

1. Encourage participation in initiatives and collaboration by providing access to adequate information through relevant professional development training opportunities.
2. Present participation opportunities in a manner that personally benefits the participant.
3. Structure formal process for true choice participation without exerting peer or political pressure.
4. Provide opportunities within the work environment that allow teachers to build positive personal and professional relationships.
5. Structure meeting times within school hours.
6. Schedule classes for students and teachers to maintain purity within the academies.
7. Provide adequate financial and personnel resources.
8. Provide explicit instruction around effective collaboration theories and strategies including the choice model within teacher credential programs.

Recommendations for Future Research

Recommendations for future study related to this research involve addressing limitations of sample size, time, and specific setting. First, future research should be expanded to include a larger sample size over extended geographic areas to assess the

validity and reliability of this study's findings. Second, a quantitative or mixed methods approach should be employed to make the findings more quantifiable and generalizable across various settings. Third, a longitudinal study should be employed to collect data extended over a longer period of time. Lastly, future research should expand the choice model research outside of the Linked Learning Initiative setting to increase generalizability of this research finding to other reform efforts.

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Appendix A

Linked Learning College Readiness Reform Initiative: Teacher Team Collaboration

Semi-Structured Interview Questions for Study

SESSION ONE

Introduction

Thank you for agreeing to meet with me today to discuss your experiences as a teacher that has chosen to collaborate with other teachers within the Linked Learning Academy. My interest in this topic stems from my desire to learn about the Linked Learning College Readiness Initiative. Specifically, how the choice model component of Linked Learning works to support equitable outcomes for students. During my research in graduate school I did not find literature that focused on why teachers choose to participate in reform initiatives and how their choice to work collaboratively with their team colleagues influence outcomes for their students. There is an abundance of literature, which states that effective teacher collaboration is positively linked to student achievement. I did not find research that spoke to how the element of choice influenced the dynamics of team collaboration. So, I am undertaking this project to capture the stories of practicing urban teachers within the Linked Learning Academies who strive to prepare students for college and career readiness so that I and others can learn from your work.

I am particularly interested in hearing stories about your personal experiences, professional preparation, team collaboration, support needed, and any other stories related to your practice and how you learned from them. Often the student outcome statistics don't give voice to the factors that influenced those data. Teachers are expected

to raise academic levels and create learning environments that produce success for all students. Given the complexity of the achievement gap and the connection to reform initiatives, it seems important to get inside the experience of teachers that have chosen to work collaboratively within the Linked Learning Academies to understand the challenges, emotional work, the learning, and the successes.

We will meet today for about 1 hour and then again on _____ for another 1 hour.

I hope during these sessions you will share examples from your experiences. Today, I will ask you to share experiences pertaining to your professional background, personal background and relationships with students. In our next session, I will ask you to share your experiences with team collaboration, professional development and support.

I understand that you may not be able to remember every decision that you made during your career as an educator, and that you may not be able to recall everything during our interview. As a result, if you think of anything else between now and our next meeting that you would like to share with me, please feel free to email me or jot down notes to discuss in our next session. So today, we'll talk until approximately ____ o'clock. Today my questions will focus on professional and personal background and with your work and experiences. I will be recording our conversations so I can be sure to capture your responses in its entirety and accurately portray your stories. I also want to assure you that everything you say is strictly confidential and no one else besides me will have access to the recordings. All information will be coded and your name will not be used unless that is your preference. Also, all recordings will be destroyed after the completion of this research.

Do you have any questions before we begin?

Professional Background

1. Tell me a bit about yourself and how you came to be a teacher?
 - a. How long have you been teaching? / teaching experiences prior to this one?
2. Where did you obtain your teaching credential? Can you describe the type of program you participated in?
 - a. How did the program address teacher collaboration?
3. What type of credential do you hold? Any supplemental credentials?
 - a. Are you interested in pursuing another credential? If so, what?
4. Why are you motivated to be a high school teacher? What do you get out of it?
5. Why did you choose to be a Linked Learning Academy teacher? Why did you choose that field? What are some benefits? What are some challenges?
6. Describe how the features of the Linked Learning Academy suit your personality/teaching style. How does the element of team collaboration relate to your personality/teaching style? How would you describe your personality?
7. What do you believe is the purpose of schooling?
8. What do you believe is the purpose of the Linked Learning Initiative?
9. Do you believe that all students/teachers have equal opportunity/access to participate in Linked Learning Academies? Why or why not?

Personal Background

10. Please tell me about your family background and where you grew up.
 - a. Can you describe your earlier experiences that influenced you to become a high school teacher?
 - b. Can you describe how your parents or family influenced your educational, career decisions? If so, what did they say or do?
11. How would you describe your family of origin's ethnicity? Socio-economic class?
 - a. How does that compare to your class status now?
12. What was your major/minor in college?
 - a. Why did you choose that major/minor?
 - b. What extracurricular activities did you choose to participate in if any? Why?
 - c. How, if at all, do these experiences affect your decision to participate in the Linked Learning Initiative as an academy teacher?
13. Who are your friends /close colleagues at this school?
 - a. Are your friends primarily academy teachers?
 - b. Do your friends share your socioeconomic class? Ethnicity? Gender?

- c. How would you describe your relationship with other teachers at this school? Academy teachers? Non-academy teachers?
 - d. How would you describe your relationship with the administrative team? Principal? Vice-Principals? Counselors? Linked Learning Coordinators? Do you believe that your relationships with them affect your student outcomes?
14. Can you share some examples of how your personal/professional background influences your beliefs, actions, or experiences as a teacher working collaboratively within the Linked Learning Reform Initiative?

Relationship with Students

15. Will you tell me about your relationship(s) with student(s) that you feel good about?
- a. To what degree and how do you believe you have influenced that relationship?
16. What do you think is a family's responsibility to make sure their child is academically ready to succeed in school and behave appropriately?
17. How would you describe your relationship with students?
- a. Are there groups of students with whom you have a particularly good relationship? What do you believe is the reason?
 - b. Are there groups of students with whom your relationship is more strained or difficult? What do you believe is the reason?
 - c. What strategies do you use to build relationships with your students?
18. What is your belief about the academic ability of students in general? EL students? Special Ed students? At-risk students?
- a. Can you share examples from your teaching that addresses the needs of these students?
19. What is your belief about your students' ability or need to attend college after graduation?
- a. Do you explicitly talk to students about college/career goals? Do you teach lessons related to this topic?
20. Describe specific factors that support student success. What patterns, if any, have you observed?
- a. What are your thoughts about the source of the student success within the Linked Learning Academy?
 - b. How do you feel when students are not successful?
 - c. Do you experience feeling of guilt? Frustration? Anger?

21. How do you think your relationships with your students affect their outcomes emotionally? Academically?

Next Meeting time: _____

SESSION TWO

Thank you for meeting with me today. We will continue talking about your experiences as an academy teacher faced with the challenges of preparing students for college and career readiness. Today we will talk until approximately _____ o'clock. Do you have any questions before we begin?

22. Since we last met, did you think of anything you wanted to share with me?

Team Collaboration

23. What is the nature of your team collaboration?
- How often do meet for collaboration?
 - Who leads the collaboration?
 - How is the topic of collaboration or content determined?
24. What are some characteristics of your team collaboration?
- What are some effective characteristics?
 - What are some challenging characteristics?
25. What types of discussions do you engage in?
26. Describe how disagreements are handled during these discussions?
27. How do you address team members who disagree with your ideas?
- Can you describe an incident where you felt that a team member(s) voice(s) were not heard during collaboration? How did you encourage communication between team members?
28. To what degree and how do you think effective collaboration with your team influences your classroom instruction?
29. Can you walk me through a recent collaboration meeting with your academy team regarding strategies of support for specific students? Are there some groups of students that need more support to access the Linked Learning curriculum?
- How do you bridge the gap for those students?

30. Can you recall examples of conflicts within the team related to support for specific students? What happened?
 - a. What did you do, think, feel, and learn?
31. How do you believe your team dynamics effect student outcomes? Can you provide me with examples of student work that was a product of collaborative planning?

Professional Development

32. Have you participated in professional development about teacher collaboration? What effect, if any has this had on your decision to be an academy teacher?
 - a. Have you participated in any other professional development that supports your work as an academy teacher?
 - b. What would have been/would be more effective?
33. What professional development experiences are available to you as an academy teacher?
34. Describe the support you have received as an academy teacher?

Needed Support

35. What support do you need from Linked Learning Administrators in order to collaborate more effectively with your team?
36. What types of professional development do you feel would benefit your ability to collaborate more effectively?
37. How would you personally benefit from training focused on team collaboration? Do you believe that would influence your instructional practices?
38. How would you share your new insights with your team? Other staff?
39. What type of support is needed to encourage communication between team members?