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Learning Beyond the Classroom:

Community Partnerships for Project-based Learning

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Education

by

Deborah E. Park

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ABSTRACT OF THE DISSERTATION

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Community partnerships present opportunities for expanding students' learning experiences outside traditional classroom settings. However, under-resourced low-income communities often lack access to such opportunities. This qualitative study explores how high school teachers, community liaisons, and community partners establish and sustain collaborative partnerships to implement project-based learning experiences for high school students. Through semi-structured reflective interviews, experiences of key stakeholders from four high school sites reveal insights into partnership motivations, connective structures, the vital role of liaisons, systemic barriers, and strategies for extending partnerships into project-based learning. While community partnerships increase access to authentic learning experiences, co-designing of PBL curricula predominantly lies with teachers, offering opportunities for community partner contributions. These findings explore how school community partnerships come to be and thrive, illustrating the voices and perspectives of formal and informal educators engaged in collaborative work to deepen student learning.

The dissertation of Deborah E. Park is approved.

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DEDICATION

This dissertation is dedicated to the amazing middle and high school students I have had the privilege of teaching and serving over the last twelve years. I discovered the magic of project-based learning through your courageous voices, inspiring stories, and unapologetic curiosity. May you continue to grow in new places, learn in unconventional spaces, and create the change you want to see [through projects] wherever you go.

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ACKNOWLEDGEMENTS

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VITA

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CHAPTER ONE: INTRODUCTION

Personal Background

As an English teacher, my favorite event of the year was the spring research symposium. By February, my classroom would transform into a bustling think tank where my middle school students would become expert researchers teaching me about issues that mattered to them. Year after year, I became more accustomed to project-based learning and learned to let go of my role as teacher and instead became a connector of resources and manager of dozens of research groups. One of the required components of our symposium projects was to have an outside expert in the industry provide input. For example, a group of three students researching recidivism within the juvenile justice system were mentored by a chief probation officer. Witnessing eighth graders work with scientists, professors, and community activists helped me realize that young people can develop rigorous academic skills and social competencies if given the opportunity.

Later, as a program specialist for a grant-funded high school, I had the privilege of coordinating place-based learning excursions where 60 high school students would leave campus twice a week to work on projects at five local spaces in the city. Students would spend hours with their cohorts in spaces like historical archives or a local architecture firm, planning exhibitions with curators or pitching ideas to architects to address challenges that impacted their neighborhoods. I witnessed students attending town halls about issues such as the growing encampments of unhoused people, filming a documentary about food deserts, and designing blueprints for green spaces in downtown alleyways. It was magical to watch teens, specifically from Title 1 schools and historically marginalized communities, work directly with community partners, gaining access to art galleries and nonprofit centers. When the pandemic interrupted these experiences, our partnerships became virtual, and I started to focus on the coordination between teachers and community partners that make such learning experiences possible. What worked and what didn't work in these partnerships? How were these connections between

community partners and teachers established? How were learning goals communicated and curriculum co-designed, if at all? As I was navigating these relationships and entering leadership roles at the high school and later the district office, I became even more certain that the unique connections between formal and informal educators from the classroom to the community were worth exploring. In my heart, I know that when students actively engage in projects they care about with the guidance of their teachers and mentorship from community partners, there are rich opportunities for learning rigorous academic skills, connecting with expert thought partners, and growing in one's voice. As a researcher, I aim to explore the phenomenon of community partnerships for project-based learning with the hope that more students have opportunities to learn beyond the classroom.

Statement of the Problem and Research Project

Community partnerships in schools provide students with additional networks and opportunities to extend learning experiences outside of their school classrooms. While research shows that school-community partnerships increase student access to deeper learning opportunities, students in under-resourced low-income communities often have limited access to such learning experiences (Noguera, Darling-Hammond, and Friedlaender, 2015). Furthermore, the traditional connections that students make to local institutions and organizations in their communities may be limited to one-time engagements, such as field trips, often seen as a day out (Sorenson, 2003), which limits the learning opportunities that can potentially happen if there were more collaborative teaching moments between formal and informal educators. This qualitative study will investigate how community partnership liaisons, high school teachers, and the community partners they work with navigate the process of collaboration for the purpose of designing and implementing project-based learning for high school students. Through semi-structured reflective interviews, this study will examine the experiences of key players within the networks built between formal and informal educators. I aim to uncover key strategies and processes for how connections with community partners can

extend beyond a field trip and into relationships, collaboration, and ultimately the designing of project-based learning experiences that provide deeper and more authentic learning experiences for traditionally marginalized high school students.

The Case for Deeper Learning

When students engage in learning that goes beyond their classroom contexts, they are able to access deeper learning experiences (Noguera, Darling-Hammond, & Friedlaender, 2015). Deeper learning refers to the skills that prepare students for the challenges and experiences of the world, such as the ability to communicate, collaborate, encounter complex issues, persist, reflect, monitor, and set pathways for their own learning (Noguera, Darling-Hammond, & Friedlaender). Donovan and Bransford (2005) report that students can learn effectively if they are able to apply their learning and conceptual understanding outside of the classroom. Thus, educators must look beyond textbooks, traditional curriculum, and teaching strategies to expand learning beyond the school campus and prepare young people with essential skills. Donovan and Bransford further state that teachers can facilitate deeper learning by creating rigorous and relevant learning experiences or projects that are related to real world industries and careers.

Extending Learning Beyond the Classroom

One way that educators might create such engaging and authentic learning experiences is by reaching outside the walls of their school to connect with the community. The Covid-19 pandemic has underscored the urgency to rethink the limited classroom space. According to Darling-Hammond, Schachner, and Edgerton (2020), schools during and after the Covid-19 pandemic should focus on ten priorities in order to reinvent schools. One of those key priorities is “emphasizing authentic, culturally responsive learning,” (p. ix), which means students being engaged in learning that directly applies to real-world issues. In my own work in facilitating project-based learning at a public high school, this would look like having a cohort of high school geometry students learn from their math teacher while also connecting with a local architecture

firm to design green spaces for the underutilized alleyways of their local community's downtown area. When students are able to calculate area, the maximum volume of rainwater run-off, and sketch blueprints to scale, they are learning how to apply geometry concepts to solve real world issues that impact their local neighborhood. Thus, project-based learning in conjunction with a community partner can provide meaningful ways of learning that procedural geometry worksheets may not provide. Likewise, Darling-Hammond, Schachner, and Edgerton (2020) cite well-established findings from over 400 researchers that state a multitude of the most effective learning strategies, which includes the notion that learning happens when students are given the opportunity to learn with hands-on experiences and when their learning applies to meaningful, real-world contexts.

Community Partnerships as a Means to Support Deeper Learning Experiences

One way that teachers can increase access to such hands-on and deeper learning experiences is to connect with informal educators, professionals, and members of the community to align what students are learning to the real world. These connections or community partnerships to create project-based learning experiences can support deeper learning opportunities that are correlated to positive student outcomes. Darling-Hammond, Friedlaender, and Snyder (2014) refer to schools that offer these types of learning experiences as "student-centered schools," where students have access to innovative learning strategies, such as linking curriculum to the real world. In a case study of four high schools in California, Darling-Hammond, Friedlaender, and Snyder (2014) investigated how student-centered high schools, which implement community partnerships through internships, career-based learning opportunities, and community service, have higher graduation and college-going rates than district and state averages. The schools highlighted in this case study serve low-income communities of color. The findings suggest that when schools partner with outside agencies to provide hands-on and experiential learning opportunities, they can close the opportunity gap.

Community partnerships extend learning environments beyond the classroom context and provide meaningful and authentic learning experiences for students (Willems and Gonzalez-DeHass, 2012; Casto, 2016). In secondary classrooms, community partnerships occur when schools or teachers partner with cultural and educational institutions like art, science, or history museums, non-profit organizations, businesses, and universities (Willems and Gonzalez-DeHass). Oftentimes, these partnerships entail a project or a learning-by-doing experience. Such experiential learning opportunities include collaborating with private and public partners to implement forestry plans (Smith, 2011); working in partnership with a local university to redesign a public space to revitalize a local neighborhood (Heffez and Bornstein, 2016); constructing historical narratives with a local museum (Marcus, 2008); or connecting with youth mentors from the University of Minnesota to create community gardens (Rogers, Livstrom, Ropiger, and Smith, 2020). Community partnerships in conjunction with project-based learning can offer a myriad of rich learning experiences for students, but the reality is that these collaborative moments are not widely implemented.

Deeper Learning Opportunities and Community Partnerships for Low-income Students

Despite the known impact of extending learning beyond the walls of the classroom, schools in low-income communities are not providing enough opportunities for students to engage in deeper learning experiences, where instruction and assessment has authentic and meaningful connections to the real world. In an extensive review of 27 studies, Camburn and Han (2008) highlight how authentic instruction and assessment are more prevalent in high income middle and high schools than their lower-income counterparts. These instructional disparities exacerbate the opportunity gaps that exist between high- and low-income students. According to Wenglinsky (2004), who explores the link between instructional practices and the racial achievement gap, eighth graders who worked on authentic real-world problems did better on the National Assessment of Educational Progress (NAEP). In this same study, researchers found that specifically for Latino students, engaging in projects also reduced the achievement

gap by 6 points. Although Wenglinsky notes that these figures are too small to be statistically significant, there is still relevance in exploring how effective instructional practices like teaching through authentic learning experiences, such as exposure to projects that pertain to the real world, can reduce racial disparities in student achievement.

Schools in low-income communities are less likely to provide opportunities for students to connect with their local community through partnerships that teach them the skills and competencies to be prepared for the real-world challenges beyond high school. In a national study, Spring, Grimm, and Deitz (2008) surveyed 1,847 K-12 public school principals nationwide and found that schools in low-income regions were 26% less likely to have service-learning opportunities than schools in higher-income areas. In a study examining civics education at six high schools in New York City, Wolff and Rogers (2019) found that higher and average income schools provided more experiential civic engagement learning opportunities than did lower income schools. These include community service, internships at organizations, field trips to civic sites, visits to local government convenings, student clubs and volunteer organizations, and access to guest speakers in professional careers. Meanwhile, the four schools in the study serving high-poverty communities had fewer experiential learning activities.

Because of the lack of access for deeper learning opportunities and community partnerships for marginalized students, it is relevant to study how partnerships between key players in the community and educators in the classroom can collaborate to provide deeper learning experience for students through projects that make learning more authentic and meaningful for the students who are most in need of such learning opportunities.

The Project

This study aims to answer the question of how community partnerships for high school project-based learning experiences come to be and thrive. I explored how key players like teachers, partnership liaisons, and community partners navigate the collaborative process of planning and implementing project-based learning for high school students. These types of

experiences are atypical and not widely practiced. This study aimed to uncover the strategies used so that these types of learning experiences can become more prevalent in high school environments. In a state where community-based schools and cultivating connections with one's community is a priority, stakeholders need to understand how community resources like museums of science, art, or history, learning institutions, non-profit organizations, private companies and businesses can effectively collaborate, co-design, and implement project-based learning opportunities for students. As a result, educators and community partners can gain insight on successes, challenges, and practical strategies that take place when designing and implementing project-based learning experiences for high school students together.

Research Questions

1. How do high school teachers and community partners establish and sustain collaborative partnerships?
    a. What barriers and successes do teachers and community partners perceive that they face in these efforts?
    b. How are community partnership liaisons perceived to contribute to the partnership between teachers and community partners?
2. What do teachers and community partners recommend as necessary strategies in establishing school community partnerships that extend into project-based learning experiences?
    a. What processes and strategies do high school teachers and community partners utilize to co-design project-based learning experiences for students?

Design and Methods

This study employed a qualitative design in order to focus the perceived experiences of community liaisons, teachers, and community partners navigating the world of school and community partnerships for project-based learning. Because this research is focused on exploring experiences, a qualitative design is most appropriate (Merriam and Tisdell, 2016).

Methods include semi-structured reflective interviews. Four sets of collaborative teams that implement project-based learning with community partners were recruited. These methods of data collection allowed for the experiences of different key players and roles to be incorporated in the findings.

Site, Participants, and Recruitment

The sites chosen for this research study were high schools that already practice project-based learning with community partners and that serve historically marginalized and low-income populations. I recruited participants by first reaching out to community partnerships liaisons at schools within the HS Lab network that includes public and charter high schools. The schools within the HS Lab network have been awarded grants to rethink the high school experience with innovative pedagogical practices such as project-based learning with community partners. I also recruited from local schools that work with The Learning Collaborative, another program that prioritizes project-based learning with local community resources and businesses, as well as local schools and teaching teams that are recommended to me by community liaisons and school leaders who know of collaborative project-based learning efforts at various high school sites. Participants who agreed to be part of the study were asked to commit to one interview, and a possible follow-up focus group interview if needed, and participants were also asked to bring a voluntary artifact to share, if applicable. A total of four partnership sites were included in this study. A project-based learning partnership site may include 2-3 people, such as a partnerships liaison (if applicable), a teacher, and a community partner, which totaled to 12 interviews. I chose to interview four project-based learning partnerships to ensure that I bring in various voices and school contexts (large or small student body, charter or public high school, geographical location, etc.). According to Merriam and Tisdell (2016), the sampling size can be determined by stopping the sampling at the point of redundancy. A total of four partnership teams were interviewed to ensure that I gather the perspectives of liaisons, teachers, and community partners, until their perspectives become redundant.

Significance

The findings from this study detailed the collaborative experiences of teachers working with community partners who bring in industry expertise into project-based learning lessons for high school students. I identify specific findings that illuminate successes, barriers, and strategies that individuals use to establish and sustain partnerships for project-based learning for high school students. Community partnership liaisons, school administrators, educators, and community partners can learn from findings gleaned from this study, so they can implement project-based learning with community partners at their own school sites, increasing access to deeper learning experiences for more students. For example, these findings may contribute to administrators designing the master schedule to ensure a teacher can have additional prep periods to co-design and collaborate with community partners. Other potential impacts could mean district or school leaders including more staff development and community connection opportunities for teachers to link with local community partners or broadening their framework for project-based learning to incorporate connections with local organizations, such as the local business council or non-profit organization. Teachers and community members may also learn about practical and effective ways to recruit community partners and collaborate with others to design and implement project-based learning opportunities for high schoolers. Furthermore, the relevance of schools looking beyond the campus walls to find resources within the community is reflected in current educational policy and trends. In a policy brief by the Learning Policy Institute, Maier and Niebuhr (2021) report that California is investing $3 billion into the California Community Schools Partnership Program, showing the state's prioritization of extending the classroom into the community, interlacing local resources to the learning experiences of students. Therefore, it is even more urgent today to explore the opportunities of bridging informal educators in community spaces and formal educators in school buildings to work together to design innovative learning experiences for more positive academic outcomes particularly for our most marginalized and underserved youth. This study contributes to the

scholarly research that can provide practitioners with the tools and strategies to increase access to deeper learning opportunities to make learning more relevant and innovative in an ever-connected world.

CHAPTER TWO: LITERATURE REVIEW

School communities hold the potential to create meaningful learning experiences for their students by breaking the barriers between their classrooms and the outside world. Understanding how project-based learning experiences are designed, implemented, and sustained in collaboration with community partners will help educators engage their students with meaningful experiences that will increase deeper learning for students, and eventually prepare young people for the challenges and opportunities of the real world. Community partnerships for project-based learning converge two innovative pedagogical opportunities: project-based learning, which links content knowledge from the classroom to authentic contexts in society, and community partnerships, which brings in career connections from practitioners in various fields and industries that apply concepts and skills to solve complex issues in their daily work. Yet, community partnerships for academic learning are limited in practice, siloed into one-time presentations or isolated field trips, limiting the enriching potential for continuous learning through sustained partnerships. Furthermore, collaborative experiences where community partners collaborate with formal educators to produce and implement project-based learning experiences for students are not widely practiced. Specifically, in a review of 27 studies, Camburn and Han (2008) report that learning experiences that include authentic instruction and assessment, as well as student thinking, reasoning, and problem-solving, which are associated with project-based learning experiences, were found to be more prevalent in math classrooms serving higher socioeconomic status populations. In contrast, Camburn and Han state that students in areas with lower socioeconomic status had fewer opportunities for authentic learning experiences and experienced an increased emphasis on traditional rote computational skills compared to students in more affluent areas. The lack of access further exacerbates inequitable learning experiences among students. As communities become more invested in public education and as schools start to look outward beyond their campuses for additional resources and expertise, it is relevant to explore the relationship between informal and formal educators,

and how this relationship is formed to produce engaging project-based learning experiences for students. As classroom teachers are the brokers of the classroom space, creating and designing the learning experience and making decisions on how students engage with the learning targets and skills in the class, it is important to explore the adults in the classroom - the formal educators, or teachers, and the informal educators, or the individuals working in specific industries or careers, to see how these partnerships are developed and sustained over time. By focusing on the adults, who play the role of architects of student learning, we can study the experiences and strategies that are necessary to build upon and spread community partnership for project-based learning among other high school classrooms to ensure that more students have access to deeper learning experiences. This qualitative study will document teachers' experiences through investigating the strategies and processes to establish and sustain community partnerships for project-based learning in high school environments.

Road Map of Research

To understand the significance of community partnerships for project-based learning in schools, I first ground this literature in the theoretical framework involving social constructivism, the pedagogy of place, and experiential learning. These three theories will work as a framework that constitutes community partnerships for project-based learning in schools. Next, I highlight the opportunity gap for K-12 students and present a case for more innovative and deeper learning experiences for marginalized youth. This is followed by an overview of existing types of experiential learning opportunities with community connections. Then, I present community partnerships as a potential for deeper learning, as a more meaningful alternative to one-time field trips, and as an opportunity for collaborative project design. I also outline examples of such project partnerships. Finally, this chapter ends with a discussion of what is lacking in the research, and I discuss how this study attempts to contribute to scholarly exploration of community partnerships for project-based learning.

Theoretical Framework: People, Places, and Experiences Help Students Learn

The concept of working with community partners to design and implement project-based learning experiences for high school students is rooted in learning theories that emphasize the importance of social and contextual environments in a student's learning process. From Vygotsky's theory of constructivism to Gruenewald's pedagogy of place, and experiential learning theories, scholarly research has extensively explored the power that people, places, and experiences have on effective student learning.

Vygotsky's Constructivist Approach as a Basis for Project-based Learning

According to Vygotsky (1978), a child's learning development happens first on a social level, spurred on by the relationships and interactions the student has with peers and other people. This idea of constructivism is based on the notion that children construct knowledge as active participants in their learning. Examples of active learning in line with Vygotsky's constructivist approach include cooperative learning, problem-based learning, and project-based learning (Topçiu, 2015). When students engage in hands-on activities, they are able to make sense of new concepts with those around them and are actively engaged in the process of gaining new knowledge and skills. Through collaboration, problem solving, and designing solutions for real world issues posed by project-based learning units, students are no longer passive learners who receive information from a teacher. Vygotsky's theory of constructivism underscores the need to present students with opportunities for active learning, such as project-based learning. In addition to project-based learning, placing these projects within places, authentic spaces in industries or careers, and within one's local community has the power to provide students with even more meaningful learning experiences.

Gruenewald's Critical Pedagogy of Place as a basis for Community Partnerships

Gruenewald's Critical Pedagogy of Place emphasizes the importance of space and place for building relevance and power to one's learning experience. Gruenewald (2003) calls this the "critical pedagogy of place," in which students' learning is not classroom-based, but

rooted in the cultural and ecological implications of the space they inhabit; he further explains that centering one's learning within one's neighborhood is a method of decolonization, as school communities can reclaim their environment and break the barriers between the walls of their school building and the outside world. This centering of place can be achieved through connecting with community partners. Placing students' learning experiences and projects within their local community contexts by connecting to local resources, organizations, and businesses can deepen the learning opportunities posed by project-based learning lessons. In fact, Smith (2007) states that when students go out into local spaces to design solutions for the unique challenges facing their own communities, they learn by directly engaging with the world around them. Thus, connecting students' projects with community partnerships that place those projects in authentic spaces and contexts that impact industries, businesses, and initiatives is an instructional paradigm that deepens students' connections with their local area, finding value in their environment, while providing the opportunity to learn in deeper and more meaningful ways.

Experiential Learning Theory as a basis for Project-based Learning with Community Partners

In addition to Vygotsky's learning theory of social constructivism and Gruenewald's Critical Pedagogy of Place, the notion of project-based learning with community partners is further justified by experiential learning theory, or the notion of learning by doing. Experiential learning theory is a process where individuals create knowledge "through grasping and transforming experience" (Kolb, 1984, p. 41). Kolb, Boyatzis, and Mainemelis (2014) expand on experiential learning theory by defining the modes of grasping experience through concrete experience and abstract conceptualization. They refer to transforming experience through two modes as well: reflective observation and active experimentation. These modes of the process of experiential learning theory work in conjunction as new knowledge and skills are gained, or as the human brain learns. An instructional practice that includes moments for concrete experience, abstract conceptualization, reflective observation, and active experimentation is

learning through projects that are placed within authentic contexts. The potential for students to engage in meaningful experiential learning experiences through project-based learning with community partners is the driving force for why this study is necessary to explore.

The Opportunity Gap for K-12 Urban Students

The racial and socioeconomic disparities seen in academic achievement in the United States is well-documented and extensively studied, yet these inequities are pervasive because of growing inequality and systemic injustices. According to Darling-Hammond (2014), various societal and educational factors like housing, food, healthcare, access to high-quality teachers, equitably funded schools, implementation of 21st-century aligned standards, curriculum, and assessments, and school organizational structures converge to impact students' academic outcomes. Studies show that in the United States, the achievement gap between those of higher and lower socioeconomic levels is clear. Darling-Hammond (2014) cites that for White and Asian students compared to African American and Latinx students, and for schools in high-income communities compared to those in high poverty communities, there are distinct disparities. For example, on the PISA assessment, White and Asians scored above the average international rankings in mathematics, reading, science, and problem solving.; furthermore, students in high income schools scored at the very top of international rankings for reading (Darling-Hammond, 2014). However, students who attend schools in high-poverty areas scored near the bottom in international rankings for reading. These international rankings paint a sobering picture, highlighting the opportunity gaps of our most marginalized and underserved student populations. As a nation, the USA ranked 14 in reading, 20 in science, and 27 in mathematics out of 40 countries, according to the OECD in 2010 (Darling-Hammond, 2014). The opportunity gap in the state of California is just as dire. According to a report by Californians for Justice (n.d.), there are clear disparities in academic outcomes between traditionally dominant groups in educational achievement (White and Asian students) and minoritized groups (Black, Latinx, Pacific Islander, Southeast Asian, and Native American students), with 1 in 5

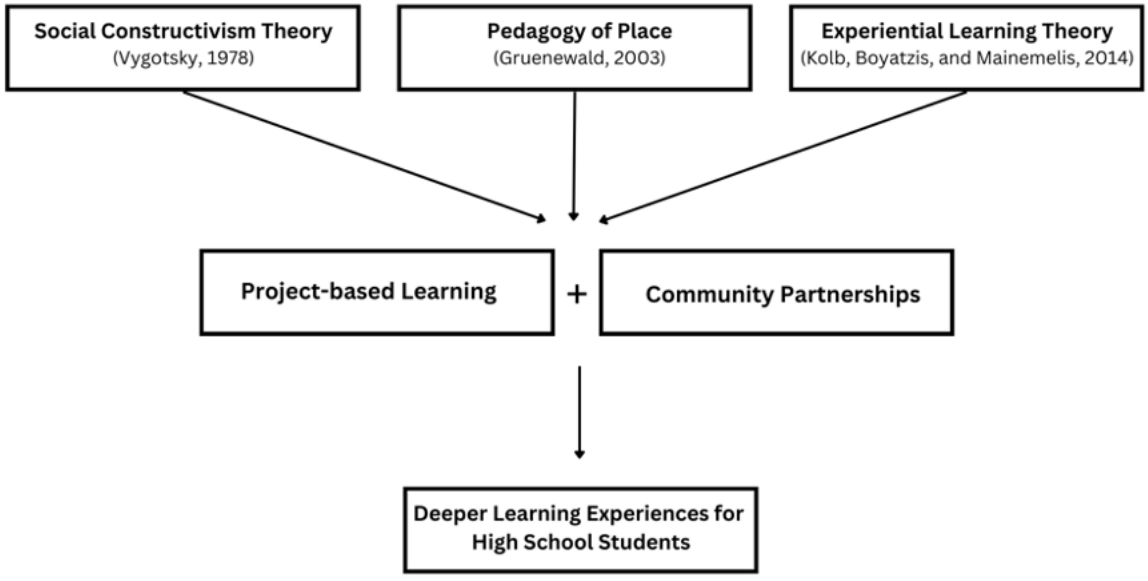
Latinx students and 1 in 3 Black students in the state of California not graduating with their class according to a 2017 WestEd study. Yet, the state of California proves to be one of the most diverse states, with 3.3 million Latinx students, and three out of four students in public schools being students of color (Californians for Justice, n.d.). The ongoing dilemma of racial and income disparities in academic achievement is a complex issue that must be encountered through multiple approaches. As educators, one way to help lessen the inequity in school-based opportunities is to improve and innovate when designing the student learning experience and make these opportunities more accessible for our most marginalized youth.

Project-based Learning: Deeper Learning Experiences for Marginalized Youth

According to the Buck Institute, project-based learning is an instructional strategy that encourages deeper learning by engaging students in exploring and solving real world issues and problems (Ravitz, 2008). Through project-based learning, schools can provide more access to deeper learning experiences for high school students. Yet, there is an opportunity gap as more affluent schools provide opportunities for higher-order thinking and hands-on experiences, while schools serving low-income students implement remedial content, rote memorization, and skills-based curriculum (Noguera, Darling-Hammond, and Friedlaender, 2015). Not only do these students have less access to valuable learning experiences, but they and their communities are also viewed through a deficit mindset (Weiner, 2003). Therefore, students in marginalized and low-income communities are in need of learning experiences that challenge them while uplifting their communities and valuing the cultural assets and resources in the spaces that surround them. One possible strategy to increase access to deeper learning experiences is through project-based learning. Project-based learning has been extensively studied by researchers as an effective learning tool that is associated with sustained and transferable skills rather than rote memorization or the hearing of information to learn (Mergendoller, Maxwell, & Bellisimo, 2006). When students engage in project-based learning, they develop skills that they would need entering the workforce or 21st century skills, such as

the ability to work collaboratively, design solutions, listen to others' perspectives, evaluate their own progress, and interact on teams in productive ways (Bell, 2010). Furthermore, because project-based learning incorporates inquiry-based learning focused on authentic problems in society, students are challenged to think beyond content knowledge; students transfer such knowledge into new skills and apply them to problems that require creativity and critical thinking to solve (Barron and Darling-Hammond, 2010). In fact, viewing students who are historically marginalized and overlooked as skillful problem solvers and creative critical thinkers is the antithesis of traditional surface-level teaching practices. Students in low-income and marginalized communities deserve to experience the most engaging, authentic, and relevant learning experiences that can deepen their learning and equip them with the skills needed for their

futures.



Types of Experiential Learning Practices with Community Connections

Experiential learning for high school students in partnership with the community currently exists in a variety of forms and have existed for years in the context of work-based learning

programs, place-based learning, and service learning (Melaville, Berg, & Blank, 2006). Each model offers different avenues for student learning, though they all seek to provide students with opportunities to learn by working in collaboration with individuals outside of traditional classrooms. This section of the literature review will focus on the experiential learning practices that already exist with community partners in some high school environments. By showcasing the potential opportunities and positive outcomes that such community connections can have on a student's learning journey, a case for studying such partnerships between community and classroom will be presented.

Work-based Learning

Work-based experiential learning is one model that exists at the high school level in different capacities. According to a report by WestEd investigating 13 different sites with work-based learning programs across California, Darche, Nayar, and Bracco (2009) outline work-based learning programs in practice. Some high schools currently implement work-based learning through: direct engagement in authentic workplaces such as students working on projects in architecture firms or government agencies; connections between the workplace and the classroom, where the curriculum aligns with industry standards and objectives or where students are directly mentored by industry professionals; and hands-on work, where students receive credit for working or interning directly at the site for the benefit of the community partners. An example of a wide-spread work-based learning programs in the state of California is CTE, or Career and Technical Education, where students are often taught by teachers who have had industry experience and students make connections with experts in various careers and trades, yet these types of opportunities are not widely accessed as they could be (American Student Assistance, 2021). In work-based experiential learning, students access the world of work, exploring the responsibilities and application of knowledge of engineers, chefs, business owners, and more. These authentic experiences would not be possible to access within the constraints of a siloed classroom space. Work-based experiential learning programs are shown

to provide high school students with training for jobs they may want to pursue, as well as the skills and experiences they will need to know to successfully transition into life after high school (American Student Association, 2021).

Place-based Learning

Place-based learning is another version of experiential learning, where students' learning is connected to the community outside of their immediate classroom. In place-based learning, students go out into local spaces to design solutions for the unique challenges facing their own communities and learn by directly engaging with the world around them (Smith, 2007). Smith presents place-based learning as an instructional paradigm that deepens students' connections with their local area, finding value in their environment. Place-based learning positions classrooms within a local business, within the office space of a company, or the streets of a neighborhood. Place-based learning provides a student-centered learning experience that seeks to transform not only the learner, but the community that surrounds him or her. According to Melaville, Berg, and Blank (2006), in place-based learning, the historical, environmental, cultural, and economical context of the community, as well as the local resources, community members, partners become actively engaged in students' learning, creating shared responsibility for the education of all citizens and the well-being of the community. Therefore, the positive benefits of place-based learning include students' opportunity to reclaim their own community and practice skills they will need as future workers and citizens in life.

Service Learning

According to Melaville, Berg, and Blank (2006), another type of experiential learning that is tied to the community is service learning, where students' academic learning is aligned to community service. For example, students can apply knowledge learned in the classroom to impact their community for good, such as spending a day cleaning up a local shoreline, as they learn about shoreline ecosystems and pollution in their academic course. Another example of

service learning is when a group of middle schoolers at Nestucca Valley Middle School worked with the Bureau of Land Management to design a plan for forest management and create an informative video to educate the public about land use and forest management (Melaville, Berg, and Blank, 2006). In a study surveying 1,052 students, where 645 of those students engaged in a service-learning program, researchers found that for those engaged in service learning, their school engagement, as well as their plans to vote, or civic engagement was positively correlated (Billig, Root, & Jesse, 2005). Overall, opportunities for students to engage in experiential learning experiences that extend beyond the walls of the classroom are connected to positive outcomes that are worth exploring as an avenue to improve the learning experiences and outcomes of underserved students.

The Case for Community Partnerships: Social Capital and Community Cultural Wealth

Community partnerships are a critical cultural asset that can positively contribute to the learning journeys of our marginalized youth while empowering students to have the tools and connections to navigate their futures. Community partners can support student success after graduating high school. Washor and Mojkowski (2013) explain that working with community partners through internships or community service, are linked to an increased motivation to learn outside of school and decreased dropout rates. Furthermore, Kniess, Buschlen, and TzuFen (2020) presented a study exploring a leadership program run by a local foundation that provided African American male students with service-learning opportunities, mentoring, and a cohort-based leadership program which positively supported their transition to college. Community partners can also expand students' social circles, specifically their *social capital*, as students' network of contacts grows to include influential adults and connections within the community. Social capital theory stresses that social networks and information channels can provide access to opportunities outside individuals' initial social structures and environments (Bourdieu, 1977; Coleman 1988; Putnam, 1995). This access opens doors to colleges, professional advancement, and higher-status social circles (Coleman, 1988; Dika and Singh,

2002; Lin, 1999). While new work offers a critique, social capital remains a significant factor in opening college and career opportunities.

Yosso (2005) challenges Bourdieu's version of social capital and argues that it disempowers minorities by posing social capital as exclusive to upper middle-class hierarchies. Using a critical race theory perspective, Yosso (2005) highlights the ways that minoritized communities also hold cultural wealth and social capital. However, community cultural wealth often goes unrecognized by the dominant culture. Although the idea of social capital framed by dominant cultural ideals is exclusionary, professional and educational spaces often continue to operate within the dominant culture's ideas about social capital.

Social capital and community cultural wealth play an important role in unlocking pathways and building a network of support that students can access as they enroll in higher education or start their careers. Social capital can help individuals increase their social mobility and reach their academic and professional goals in spaces where power is held by those in dominant groups. In addition, community partners within one's own local community can help to broaden students' network of connections and open access to the skills and knowledge that students will use to impact their own communities and their lives. Furthermore, drawing on Yosso's theory, it is important to recognize the cultural and social capital that minoritized students already bring into opportunities for project-based learning that their schools can support with increased access to deeper learning experiences. In these ways, community partnerships have the potential to increase access, connecting students to their own networks and communities, as well as the wider community of organizations, businesses, and spaces for students who are historically marginalized.

Community Partnerships: A Potential for Deeper Learning

Community partnerships can do more than simply open doorways to different worlds and experiences for students; they can support students' access to authentic and deeper learning experiences. In a report by Noguera, Darling-Hammond, and Friedlaender (2015) outlining the

foundational principles that ensure students have access to meaningful learning opportunities, they found that schools committed towards equity and deeper learning offer elements that include authentic instruction, where students are provided with opportunities to connect instructional content to connections to the real world. For example, students at Dozier Libbey Medical High School and Life Academy of Health and Bioscience make connections between their science curriculum and projects and internships they complete in hospitals and laboratories (Noguera, Darling-Hammond, and Friedlaender, 2015). Bridging curriculum to the real world through community partnerships support learning. In a study focusing on several instructional approaches that facilitate meaningful learning experiences, Willems and Gonzalez-DeHass (2012) found that authentic instruction, problem-based learning, and service learning helped to facilitate meaningful learning, which they define as the learning of skills and information that is not limited to school context but can be applied to everyday life.

Community Partnerships: An Alternative to One-time Field Trips

Although community partnerships have always existed in the context of field trips, these one-time events do not suffice. In order to provide worthwhile learning experiences for students, schools and community partners must work together to move beyond the one-time field trip that is most associated with school visits and transform these visits into sustained opportunities of learning. According to Dewitt and Storksdieck (2008), in order to make museum visits cognitively beneficial for students, there needs to be an active partnership between the two stakeholders - classroom teachers and museum educators. Hannon & Randolph (1999) showcase how successful museum-school partnerships can be supported when museums work with teachers to co-develop curricular materials. Behrendt and Franklin's (2014) review of research on school field trips to venues such as museums and their value in education showcase that such experiences are correlated with increased student interest, knowledge, and motivation, though these outputs are dependent on teacher inputs of pre-planning, implementation, and reflection. In order to study the complex relationship and roles of formal K-

12 educators and informal museum educators, Kisiel (2013) conducted a research study using a communities of practice lens in which he gathered information from over 200 teachers and staff from Southern Californian science institutions and found that converging resources across the K-12 and museum sectors, increasing capacity, improving communication, and decreasing complexity in navigating between the two worlds would greatly support student learning during museum visits. When formal educators from the classroom and informal educators from museum spaces work together to develop learning experiences together, they can create deeper learning experiences for students. Students can gain scientific understanding through post-visit activities after visiting science museums (Anderson, 1999). Art exhibitions can become interdisciplinary resources for knowledge, showcase visual complements to human history, provide exposure to careers in museums, and facilitate critical thinking into formal and symbolic functions of artwork and theme-making (Garoian, 1992). Natural history museums can lead to multiple outcomes from “concrete experience” or the learning of scientific concepts, “connecting knowledge” where students bridge their prior learning with ideas exhibited at the science museums, “student-student interactions” or social learning, and most commonly, “personal relevance and willingness to visit a museum again” (Bamberger and Tal, 2008). Visiting history museums can build students’ content knowledge, facilitate sensory learning experiences, and support students’ historical empathy and exposure to multiple perspectives, and allow students to explore how evidence is used to construct historical narratives (Marcus, 2008). When students take their learning outside the walls of their school beyond a one-time event, and when this learning is tied to what they are learning inside the walls of their school, there is increased access to deeper learning.

Community Partnerships: An Opportunity for Collaborative Project Design

For classroom teachers, developing and implementing project-based learning units while also establishing community partnerships and collaborating with them can be novel and challenging tasks. In order to foster community partnerships for project-based learning, it is

necessary to explore the strategies and tools utilized by teachers who implement project-based learning in collaboration with community partners. There are many benefits to collaborating with community partners when implementing project-based learning. The co-design process for teacher development is associated with increasing teacher leadership (Scornavacco, Kelly, & Boardman, 2021); supporting teacher agency (Severance, Penuel, Sumner, & Leary, 2016); and facilitate positive classroom practices and strengthen teacher collaboration in schools (Kwan, Wardip, & Gomez, 2014). The collaborative process is essential in providing the opportunity to implement pedagogical practices like project-based learning with community partners in high school contexts.

Enhancing Project-based Learning with Community Partnerships

Community Partnerships can also support project-based learning, which is correlated with increasing students' access to deeper learning experiences. Community partners and experts in their respective fields and professions, can consult with teachers on designing learning experiences that ensure that project-based learning units are genuinely centered on real world challenges. Community partners can also provide students with authentic audiences and opportunities for feedback during the project cycle, as well as access to the strategies, tools, and skills that are only known by those working in specific professional fields. Whether it is high school biology students partnering with local scientists to study the impact of humans on the local cougar population (Quitadamo & Campanella, 2005) or teaching middle and high school students how to study and advocate for the protection of watersheds by partnering with the Gulf of Maine Institute (Miner & Elshof, 2007), establishing community partnerships through project-based learning units create deeper learning experiences for students.

Furthermore, community partnerships for student learning may rely on experiences where students connect remotely with community partners via video-conferencing platforms like Zoom. A study by McCombs, Ufnar, and Shepherd (2006) found that two-way interactive video conferencing provided the convenience and effectiveness for university scientists to educate K-

12 students and teachers in science classrooms. Over a three-year period (2003-2006), survey results indicated that 69% of students and 88% of teachers believed the interactive videoconferencing with university scientists increased access to professional scientists in authentic environments. Furthermore, 100% of the scientists involved indicated that they would participate in future virtual collaboration with K12 classrooms.

In a study by Dupuis and Ludwig-Palit, they explored how middle and high school students were able to make connections between their science curriculum to authentic learning experiences regarding community health issues by working with the Museum of Science and Industry in Chicago to access a program that allowed them to learn about biology, anatomy, and science through human patient simulations through the MedLab program. Of the 15 out of 20 partner teachers who were interviewed in this study, all 15 stated that they "strongly agreed" that the MedLab partnership was a positive use of time, engaging for their students, and that they felt their students learned the content presented (Dupuis and Ludwig-Palit, 2016). It is through these collaborative experiences between teachers and community partners that students have the opportunity to relate content knowledge and skills to authentic contexts.

Deepening the Research Base: Creating Connections, Fostering Collaboration, and Sustaining Partnerships

Although there are benefits of project-based learning with community partners, this pedagogical framework is not widely practiced by comprehensive public high schools that serve predominantly low-income students in urban neighborhoods. In a program evaluation of four place-based education schools, Powers (2004) found that school-based participants mentioned two main challenges in implementing place-based education: a lack of time to devote to curricular changes and inconsistent support or unclear guidelines for integrating place-specific elements into established curricula at the school. Although the literature is clear about the benefits of project-based and place-based learning, there is little research on what is required by key stakeholders of successful school and community partnerships. How do community

partners and educators collaborate to co-construct curriculum to produce positive outcomes? What examples or case studies exist that showcase practices between community partners and educators in designing, implementing, and sustaining experiential or project-based learning experiences for high school students? How can these practices be replicated?

Potential Contributions to the Field

There is a gap in research in how to make place-based learning more accessible to comprehensive public high schools. This is a significant issue because the traditional methods of teaching in most high schools continues to produce an achievement gap, where more affluent students are outperforming lower-income and marginalized student groups. Furthermore, community partnerships between industry professionals and public schools will continue to grow and school leaders will need to know how to navigate the collaborative process between professionals and educators when designing effective learning experiences for students. Teachers are in need of the strategies and resources to navigate the world of fostering community partnerships with individuals who work in spaces outside the traditional classroom. Likewise, business owners, community members, museum educators, librarians, non-profit organization workers, and industry experts need the strategies and tools to navigate the world of public education and how to successfully foster relationships and collaboration with teachers. By exploring the forging of relationships between the adults who open the pathways for students to engage in meaningful and deeper learning experiences, we can generously share the knowledge and strategies that will continue to open the walls of a school campus to blend the boundaries between community and school.

CHAPTER THREE: METHODS

The goal of this study is to understand how teachers and community partners collaborate to go beyond traditional singular field trip excursions and into the realm of project-based learning experiences for students. These collaborative interactions allow informal educators in the community to support students' deeper learning that is authentic and relevant to students' lives beyond the classroom. Through reflective semi-structured interviews, I investigated the connective process by gathering three perspectives: community partnership liaisons, teachers, and community partners. As a result of these interviews, I explored the processes and strategies that cultivate and sustain community partnerships to contribute to project-based learning experiences for high school students.

Research Design and Rationale

This study uses a qualitative research design to explore how teachers and community partners, such as non-profit organizations, businesses, and educational or cultural institutions, collaborate with high school teachers to create and implement project-based learning experiences for students in low-income communities. A qualitative design was appropriate for this study because qualitative studies seek to understand processes and study how people make meaning of their experiences (Merriam and Tisdell, 2016). I am interested in understanding the process that initiates and fosters a collaborative relationship between formal educators and community liaisons, as well as community partners. How are these partnerships sparked and cultivated over time to create project-based learning experiences for students? By asking individuals questions about their experiences on what was beneficial and challenging when initiating contact and collaborating with others outside their respective fields, I was able to glean information that is not observable. Patton (2015) states that interviews allow for researchers to learn about feelings, thoughts, or intentions, which cannot be directly observed. Through the method of interviews, we gain significant knowledge about the strategies that have worked and are recommended, as well as the challenges faced by practitioners in the field.

When school community partnerships are established, we increase opportunities to enhance project-based learning opportunities, and thereby increase access to deeper learning experiences for students. Furthermore, I asked participants to bring an artifact to help them delve into their experiences through the process of storytelling by walking me through their experiences partnering with others. Merriam and Tisdell (2016) state that credible documents and artifacts can provide relevant insights aligned to research questions. By showcasing documents, participants were able to center their perceptions on concrete examples of collaborative moments in their experience connecting with others to implement project-based learning for students.

Sample

This study incorporates a unique, criterion-based sample. A unique sample is utilized because it allows for a specific atypical context to be studied (Merriam and Tisdell, 2016). For the purposes of this study, teachers, community partners, and community partnership liaisons who work in specific schools that already practice project-based learning in collaboration with community partners is the criterion. For example, I sent out recruitment flyers and emails to potential participants who I know work within the HS Lab Grant network, which includes schools that are funded by a grant to rethink the high school experience. One common innovation that each of the Lab Grant schools practices is project-based learning with community partners. Secondly, I also reached out to my own contacts who work in local public schools who I know engage with community partners on project-based learning experiences for high school students. Due to the fact that these school communities already have such pedagogical practices in place, I only reached out to such individuals who meet the criteria.

Recruitment

In order to recruit participants, I sent out an introductory email to individual school administrators, and community partnerships liaisons or coordinators, who I know oversee the project-based learning programs at their school sites. I chose these specific places because of

my connections with school leaders in the HS Lab Grant network, access to public website information, and my personal connections to local schools through my own experience with project-based learning with community partners. After approval from the university's Institutional Review Board, I started my process of recruitment by emailing eleven Lab Grant and local schools that I know implement project-based learning with community partners. The initial email I sent out included an introductory message as well as a flier about the opportunity to participate in this voluntary research study. When potential participants responded with interest, I then sent the study information sheet and a Calendly link for interviewees to sign up for sessions to be interviewed. The informational flier, email, and Calendly appointment reminder all included a reminder encouraging participants to bring an artifact that showcases their collaborative experiences in implementing project-based learning for high school students. The artifact was explained to be a schedule, lesson plan, sample of collaborative work, or any other document showcasing collaboration. Finally, on the study information sheet and flier, I informed participants that they would be given a token of gratitude through a $25 gift card to a store of their choice (Amazon, Starbucks, or Target). Therefore, through the use of emails, recruitment fliers, and study information sheets, I clearly communicated the expectations and purpose of the study to all potential participants.

Coordinators and liaisons acted as my initial informants who provided me access and knowledge of their roles in the partnership process, suggesting the names of specific teachers and community partners that I can reach out to. I interviewed coordinators or liaisons first; then, they would suggest the names of community partners and teachers that may be able to provide more insight into their experiences collaborating on project-based learning experiences. The liaisons wrote introductory emails that connected me to teachers and community partners, creating a snowball sampling effect. By using snowballing or network sampling (Merriam and Tisdell, 2016), I was able to recruit additional participants. However, during this process of recruiting and scheduling interviews, I encountered several challenges. Due to the busy nature

of the high school sites, only three of the sites stated that they were interested in participating in this study, two of which continued through the process and one of which decided they would no longer be able to participate due to time constraints and a discomfort with being part of the study. Therefore, I conducted interviews with stakeholders from two sites from the HS Lab Grant, which were River High School and Bay High School located in different parts of the United States. In addition, I recruited from local high school programs through my own personal connections through the Spring High School program and at Mountain High School, totaling four different high school sites or programs.

Sites and Participants

I individually interviewed twelve participants from four different high school programs to provide an opportunity for each perspective of the collaborative process to share personal experiences and perceptions. In the following tables, I provide more context about each of the sites and participants:

Table 1

River High School

River High School Central Southeastern United States		
Participant:	Role:	Storytelling Artifact:
1. Tom Stewart (he/him)	Teacher and PBL Coordinator at River High School	student project podcast and video
2. Bill Brandt (he/him)	Partnerships Coordinator at River High School	pictures of the community partnership advisory group meetings
3. Kelly Winston (she/her)	Community Partner, a retired CEO of Valley Bank	banking project curriculum lesson sheet

River High School Context. River High School is a comprehensive district high school serving 860 students in a rural area of the Southeast United States. Supported by the HS Lab Grant, it prioritizes project-based learning with community partners to provide innovative experiences. While not a Title I school, 33% of students qualify for free and reduced lunch and the school is located in an economically struggling area of the United States. According to the school's mission, River aims to empower students towards entrepreneurship and community transformation. The three individuals who were interviewed from River High School include Tom Stewart, a teacher leading project-based learning opportunities in his classes, Bill Brandt, a partnerships coordinator who works for the school, and Kelly Winston, a retired bank president collaborating on project-based learning experiences as a community partner.

River High School Teacher. Tom is the PBL coordinator and a teacher at River High School, where he has taught Social Studies courses in the past. Currently, he teaches an intro to teaching course and implements project-based learning as the main method of teaching and learning in his class. Tom shared about multiple project experiences, but specifically focused on a current podcast and documentary project that his students are working on that is centered on student engagement in schools. This student-led project was recently submitted to the PBS student documentary contest and won an award. For this particular project, Tom facilitated various partnerships, from a news anchor who helped with students' interviewing skills, a gaffer with production knowledge to support students with technical aspects of filming and recording, a local university that supported with editing platforms and software, and architects and school space experts who presented their knowledge on school building design as interviewees in the documentary film. Tom also provided a connection to River High School's partnerships coordinator named Bill Brandt, as well as a community partner named Kelly Winston.

River High School Liaison. Bill Brandt currently works as the partnerships coordinator and the college and career director at the high school. Bill comes from the local state university as the former Associate Director for undergraduate admissions at the university, so he brings in

his connections from that previous role into this school community. Bill established the CPAG or Community Partnership Advisory Group at River High School and has brought in various community partners into River High School's community contacts through this initiative. Bill shared artifacts of photographs of CPAG meetings that occur in their library. These CPAG convenings meet once monthly over lunch in the school's library. The meetings include opportunities for students to share current and future projects they are working on, for teachers to contribute to the sharing of project ideas, and for community partners to have access to the projects going on in the classrooms. Bill shared that members of the local chamber of commerce are an integral part of this community partnership advisory group, which includes Kelly Winston.

River High School Community Partner. Kelly is a retired bank CEO and a member of the local community's chamber of commerce. She and her team have helped to launch a branch of their local bank on the River High School campus with students working at the bank. One specific instructional collaboration that she has worked on with Tom Stewart was a financial literacy project, which was centered on car loans and ownership. Kelly and teachers from the school created and implemented a set of lessons that simulated the process for applying for an auto loan and purchasing a car. In terms of projects, Kelly and her team have supported project-based learning by primarily working to fund many of the students' projects, such as materials, tools, and resources, as well as financially supporting materials needed for student showcase exhibitions.

Tom, Bill, and Kelly from River High School ensured that the perspectives of a classroom teacher, a community partnerships coordinator, and a community partner are shared to provide insight into the processes and strategies that connect formal and informal educators.

Table 2

Spring High School

Spring High School District Program Western United States		
Participant:	Role:	Storytelling Artifact:
4. Matt Gonzalez (he/him)	Teacher at Spring High School	images of students' projects (slide shows and photographs) of the People's History Project
5. Rose Chan (she/her)	Curriculum Specialist in Spring Unified School District	no artifact was shared, but Rose described planning partnerships for the People's History Project
6. Cynthia Gomez (she/her)	Community Partner as the Executive Director of the Aguante Organization	no artifact was shared, but Cynthia described her role in the People's History Project

Spring High School Context. Spring Unified School District is located on the west coast of the United States and serves a large student population of over 40,000 students, with 45% of the students considered English Learners and 87% of students coming from low-income households. All schools in this district are categorized as Title 1 and the majority of students are from historically underrepresented groups, with 96% Latinx, 2% Asian, and 2% other. Spring Unified provides opportunities for teachers to design courses centered on projects called summer enrichment, which are funded by the school district. Key educators for the interviews from the Spring High school program include Rose Chan, a social studies curriculum specialist from the district office, Matt Gonzalez, a teacher who teaches the People's History project course, and Cynthia Gomez, one of the community partners who is the director of a local agency that works to advocate for issues relevant to the local Latinx community. I reached out to this particular team because I personally know the individuals and I am aware of their work with the People's History Project as an experience that interweaves political, cultural, and

educational community partners to provide a curriculum to students that is co-taught by various experts throughout the summer.

Spring High School Teacher. Matt Gonzalez is a teacher who has been teaching for 18 years and is currently in his 12th year teaching at Spring High School as a social studies teacher. During the summer, he leads the project-based learning course called the People's History Project, where high school students engage in project-based learning centered around social justice issues that matter to their local community. For example, a student conducted a research project on unhoused LGBTQ+ youth in their local community, interviewing community leaders and students regarding their experiences. Through this project-based learning course, Matt partners with various community partners and conducts place-based learning excursions, where students learn about different racial and ethnic groups as well as local history through partnerships with a local university professor, political advocacy organizations, and the director of a local history museum. Matt designed this PBL course to be centered on learning about local history through an ethnic studies lens, where students research an issue that matters to them by interviewing experts, and by showcasing their learning through a project showcase that includes an artistic artifact. This project is designed to give voice to historically marginalized groups through the voices of the students working to contribute to the People's History Project.

Spring High School Liaison. Rose Chan is a social studies curriculum specialist with the Spring Unified School District and has been in education for 25 years, eight of those years outside of the classroom as a district curriculum specialist. She has worked closely with Matt Gonzalez to create the People's History project and shared extensively about planning for this project. She regularly works with various organizations that include non-profit organizations, as well as paid and unpaid consultants that partner with the district to provide social studies project opportunities for students, such as OCDE, Mikva Challenge, and Project Soapbox. In the last two years, Rose has been focusing on implementing ethnic studies for the school district, working with XITO and partnering with non-profit organizations. Therefore, she brings in the

perspective of a liaison who bridges community partners with the school community and classroom teachers.

Spring High School Community Partner. Cynthia Gomez is one of many community partners that works with Rose Chan and Matt Gonzalez on the People's History Project. Cynthia is the executive director of Aguante Org, which currently is working on campaigns focused on housing insecurity, immigration rights, and ethnic studies in school districts. The Aguante Org believes in taking an intergenerational approach and incorporating more youth voices in their advocacy work. She provides resources, instruction, and feedback on students' projects, and leads local tours in the community that provides students with access to relevant topics for their People's History projects.

Matt, Rose, and Cynthia represented the key players of a collaborative team that includes a classroom teacher, a district representative who provides the role of a partnerships coordinator, as well as a community partner positioned in the local community. These three individuals extend beyond their own fields to create PBL experiences for high school students.

Table 3

Bay High School

Bay High School West South-Central United States		
Participant:	Role:	Storytelling Artifact:
7. Marie Laurent (they/them)	Project-based Learning Specialist at Bay High School	lesson plans, unit plans, project calendars, and logistics documents
8. Helen Dupont (she/her)	Community Partner as the Education Coordinator at the Shoreline Center	photographs of students working on projects along the coast

Bay High School Context. Bay High School is a charter school that is in its fifth year of existence, and it is also part of the HS Lab Grant network of schools. Bay is a Title 1 school with

a population of 29.8% White, 60.1% Black, 8% Latinx, and 2.1 % other. The school's mission focuses on fostering interconnectedness between people, land, air, and water to prepare students for college and career. Projects are centered on coastal restoration and preservation as the high school is located in a community that is recovering economically and environmentally after a natural disaster that has negatively impacted the local community and has uncovered threats to environmental sustainability. This school is founded on project-based learning centered in the local community, where every student engages in projects throughout their four years. For example, all freshmen take a project course called Outdoor Adventures and sophomores take a project-based learning course called Design for Sustainable Justice. The school collaborates with community partners regularly by organizing trips and working with organizations that work to restore and preserve land and water. Key educators for the interviews include Marie Laurent, who is the project-based learning specialist at the high school and Helen Dupont, one of several community partners that works with the school to provide project and place-based learning experiences for students. Although there were multiple attempts to recruit a teacher for this partnership, it was not possible to recruit a third member for this site, as teachers did not express interest in being part of this study. However, I recruited Maria and Helen, who provided the perspectives from within and outside of the school to provide insight into their partnership.

Bay High School PBL Specialist. Marie Laurent is the project-based learning specialist at Bay High School. They are a math teacher who later became a curriculum leader and administrator for the school, focusing specifically as director of curriculum and instruction. Marie is responsible for writing the project-based learning curriculum and courses. Marie shared curriculum and timelines that were created for various student projects with community partners. For the artifact share, Marie showcased project units that were implemented by teachers, including pre-learning lesson slides, logistical planning documents that showcase rotations with community partners at various excursion sites like the bayou, national park, and local coastal

education research facility, and vertically articulated course descriptions that span from a students' freshmen to senior year. Marie also connected me to a community partner, Helen Dupont.

Bay High School Community Partner. Helen is the educational coordinator at the Shoreline Center, which is housed on the campus of the local state university. Helen is also a former science teacher and currently in a doctoral program. She primarily works to train science teachers on implementing project-based learning in science classrooms. Most of the interactions that Helen engages in when it comes to working directly with students is through field trips at the Shoreline Center. The nature of the partnership with Bay High School is that the Shoreline Center is one of the various excursions that students go on to support their research projects in their courses through place-based learning. Students collect data and samples from the environment and Helen's team engages in teaching students science lessons while they are at the Shoreline Center.

By recruiting both Marie and Helen, I was able to include the perspective of a formal educator who writes project-based learning for school-wide implementation as well as one of the various community partners they work with to provide students with hands-on experiences to work on their projects.

Table 4

Mountain High School

Mountain High School Western United States		
Participant:	Role:	Storytelling Artifact:
9. Fiona Perez (she/her)	Teacher at Mountain High School	students' business proposals in slides format as well as photos from market day (project showcase event)

10. Michelle Suarez (she/her)	Assistant Principal at Mountain High School	slides presentation on community partnerships that was presented at a conference in Sacramento
11. Tina Ly (she/her)	Community Partnerships liaison role as Executive Director of The Learning Collaborative stationed at Mountain High School	curriculum book documenting a project created in partnership with SunEnergy, a solar power company
12. Maria Gomez Pinault (she/her)	Community Partner and board member of the Chamber of Commerce	no artifact was shared, but Maria described her role in coaching students on their business pitches and plans

Mountain High School Context. Mountain High School is one of eleven high schools in the Spring Unified School District. Mountain High School is the only comprehensive high school in the district that has an academies program, where the school is made up of 8 different academies that focus on different career pathways, such as the Culinary Academy, or the Business Academy. As a Title 1 school, Mountain High School has the highest number of English Learners as well as the highest number of homeless and socio-economically disadvantaged students compared to that of other high schools within the district. Key participants for the interviews include individuals who worked together for a project for the Business Academy, where students had to create a business from proposal to full implementation: Fiona Perez, a teacher in the Business Academy Michelle Suarez; the assistant principal Tina Ly; a community partner who leads a non-profit organization that is centered on business connections and is housed on the Mountain High School campus; as well as Maria Gomez Pinault, who is a community partner and a board member of the local city's Chamber of Commerce. This school incorporates academies into their school design and houses a non-profit organization called The Learning Collaborative on the campus. This organization aims to connect industry experts and businesses from the community to the school team, providing community partnerships that teachers can partner with to provide authentic learning experiences for students.

Mountain High School Teacher. Fiona Perez is the CTE Business teacher at Mountain High School. She has been with the Business Academy for the past five years and during the process, she has worked with various business owners and community partners to support student's business ideas from pitches to business plans to starting their businesses. The artifact that Fiona shared to story tell about her collaborative experiences with community partners were students' pitches of their businesses as well as photographs from Market Day, which is the culminating student showcase event where students present their businesses to the school community.

Mountain High School Assistant Principal. Michelle Suarez is the assistant principal at Mountain High School. I know Michelle previously from working with her at a small school where project-based learning with community partners was funded by the HS Lab Grant. Michelle frequently presents on community partnership work as a representative of Mountain High School as well as the district. Most recently, Michelle, along with Tina Ly and Maria Gomez-Pinault have presented on community partnerships and collaboration at a conference for school leaders in Sacramento. Michelle shared the slides from that presentation as her artifact.

Mountain High School Liaison. Tina Ly is the Executive Director of the Learning Collaborative, which is a foundation that works to empower youth and strengthen communities through education and business partnerships. One of the core initiatives of the Learning Collaborative is to focus on project-based learning and bring industry relevance into the classroom through hands-on experiences. She oversees this non-profit organization that is housed on the Mountain High School campus; she is closely involved in linking school projects with community partners.

Mountain High School Community Partner. Maria Gomez Pinault is a local business leader and member of the city's Chamber of Commerce. She is connected to many business owners in the area and has been an active community partner of Mountain High School for the

past 15 years. Maria is also an alumnus of Mountain High School and contributes to students' projects primarily through the Global Business Academy. Although Maria did not bring an artifact to share during the interview, she shared about students' businesses including a t-shirt company, a greeting cards company, and a movie screening event. She has contributed to these projects through coaching students on pitches and marketing surveys and giving feedback on business proposals.

I recruited various members of a team that collaborated together to ensure that students in the business academy have access to work with community partners for their business projects. The schoolteacher and administrator allowed for the perspectives of formal educators and leaders to be heard while the non-profit organization and community partner provided insight into the strategies and processes of informal educators who work with school teams to provide authentic connections between students' projects and the business industry.

Data Collection Methods

I employed retrospective interviews in this study to provide participants with an opportunity to reflect on recent partnerships they have had. Participants shared the processes, strategies, successes, and challenges they personally experienced and perceived while connecting with community partners, teachers, or community partnership liaisons to provide project-based learning experiences for students. I utilized a semi-structured interview protocol, with each interview lasting between 45 to 60 minutes on average. These individual interviews were held virtually on Zoom. All interviews were recorded, transcribed, and saved on a secure hard drive.

Semi-structured Reflective Interviews

According to Merriam and Tisdell (2016), the semi-structured interview format allows for specific topics and questions to be predetermined, but still allow for the interviewer to ask follow-up questions based on the ideas shared by the respondent. This ensures that the researcher can ask additional questions, ask for examples and clarification, and dive deeper into the

respondents' personal experience with establishing and sustaining community partnerships with the purpose of influencing project-based learning experiences for students. I utilized a set of questions that were prepared (Appendix A), but I also allowed for room for follow up questions. Furthermore, because I asked participants to bring an artifact, the structure of the interview was more informal and in a story-telling format, where the interviewee was able to explain a partnership experience by talking through an artifact, such as a schedule, a lesson plan, a presentation, or an example of a project-based learning product.

It is important to note, however, that this study does not explore the quality of the projects in the project-based learning partnership nor the academic outcomes of students as a result of such partnerships for project-based learning. This study solely focused on the collaborative relationship and process of connection to create project-based learning experiences for high school students. The interviews aimed to ensure that the key stakeholders who make these partnerships happen in the first place, such as the teachers, community partnership liaisons, and community partners, share their stories and perceptions about partnership work.

The semi-structured interview protocol (Appendix A) was directly aligned to the research questions of this study, with slight variations based on who the interview was with (a liaison, teacher, or community partner). All interviews were reflective, where participants reflected on a concrete past experience when collaborating with informal or formal educators on a project-based learning unit. The interview began with introductory questions about roles, responsibilities, and experiences when collaborating with community partners before moving on to specific questions about strategies and processes, and their experiences in the collaborative process. Based on participants' responses, follow-up and probing questions allowed for in-depth exploration into their specific individual experiences. For instance, when teachers reported that it was difficult to establish meeting times to collaborate on planning with a community partner, I asked them follow-up questions about how meeting times were scheduled, why they think it was

difficult to have meetings, what changes they believe could have alleviated this challenge, and how the meeting time challenge impacted, if at all, the project-based learning implementation. Alternatively, when community partners reported that the district procedures were difficult to navigate, I probed further into finding out what specific barriers they faced and asked what changes may alleviate such barriers for community partners to work with public schools.

Artifacts as a Tool for Storytelling

Most participants brought additional documents such as project-based learning unit plans, community partner schedules over a period of time, students' project slides, and photographs of community partnerships in action. Participants shared these documents during the interview as an artifact to aid in the storytelling process as a snapshot into the collaborative process between community partners, teachers, and community partnership liaisons. However, not all participants brought these items to the interview, but I was able to ask follow-up questions that ensured those participants who did not share an artifact were able to still share about specific instances of collaboration for project-based learning.

Data Analysis Methods

I employed thematic analysis to code interview responses based on several common themes. I documented and followed various themes related to the main research questions– these themes were centered on participants' experiences as *connectors*, their perceptions of *expertise*, the *structures* that surround partnership work, the pedagogical *motivations* of participants, the perceived *benefits* and *barriers* experienced in partnership work, the meaningful *learning* experiences that are created through such partnerships, and finally, the *sustainability* of project-based learning with community partners programming. Units of analysis (Appendix B) or the overarching themes that I gleaned from the data collected show the specific ideas that would later generate the study's main findings.

Analyzing Interviews

When asked about establishing and sustaining collaborative partnerships, participants discussed various methods and strategies of how such partnerships are established and sustained. Furthermore, in their discussion of their perceptions and experiences, participants also included the successes and barriers they encountered during the collaboration process, the role of community partnership liaisons in doing such work of connecting formal and informal educators, and their ideas of what next steps and recommended strategies would ensure community partnerships for project-based learning are possible for the future and for other schools to implement.

First, after completing each interview, I reviewed the transcription of each of the interviews by reading and listening to the recording. Secondly, I wrote a memo for each of the twelve interviews. Thirdly, I hand-color-coded the interviews based on specific themes that I discovered while listening, reading, memo-ing, and reflecting on participants' responses to grasp what they were trying to say about their experiences. The themes that resonated were connections, expertise, structures, challenges, successes, deeper learning, and sustainability. I then cross-referenced these themes with the research questions and outlined preliminary findings. I ensured that my preliminary findings, which will be explored in the next chapter, were supported by the voices of the participants and were relevant to the significant themes listed.

Positionality

As an educator at a site that has received the HS Lab Grant in the past, I understand that my role as an instructional leader who has implemented project-based learning with community partners may have significantly impacted the way that participants perceived my involvement as the interviewer. From the beginning of the recruitment process, I ensured that all communication, from the initial email to the recruitment flier and interview appointment reminders, included the disclaimer that participation in this research study is not affiliated with the HS Lab Grant and that it is a voluntary research study affiliated with UCLA. Furthermore, I was given confirmation in writing from the HS Lab Grant that they encourage educators to be in

a community of practice that supports research among the schools and that there is no formal process or permission for gathering data from colleagues across HS Lab Grant schools, as long as the participants themselves are voluntarily participating in this study and more importantly, as long as the formal IRB processes and approval from UCLA are followed.

Furthermore, I positioned myself first as a UCLA graduate student and then as a district employee who previously worked with the HS Lab Grant but no longer does community partnerships for project-based learning work, as I transitioned into a district position as an instructional coach. All participants knew of my interest and former involvement in project-based learning with community partners, but they were informed that I no longer lead the program and that my involvement in this project is to learn and explore how partnerships come to be and thrive. After conducting each interview, I provided all participants who were involved in the project with gift cards and a thank you note, sharing my gratitude to them for being part of this research process. Furthermore, findings from this study will be shared with all participants and school leaders to ensure that others in the educational community can benefit from the major learnings about how community partnerships can develop to create project-based learning experiences for high school students. In addition, as a former community partnerships coordinator for project-based learning, I remain intentionally mindful of my own perspectives throughout the research process and worked towards ensuring my familiarity towards liaisons and teachers did not cloud my analysis.

Ethical Considerations

Several ethical issues may arise from this study. Although I used pseudonyms for each of the sites that I included in this study, one possible issue that participants could have experienced was the thought that I was somehow evaluating or assessing the quality of partnerships or the quality of students' project-based learning experiences. Another ethical issue that could have arisen is that the interviews may have led some participants to feel uncomfortable based on challenging situations they have had in the past. In my recruitment

process, there was one team that decided to revoke their interest in participating in the study due to discomfort of being recorded or having their responses affiliated with their school; I had, however, assured them they would not need to worry about this connection due to the use of synonyms for participants and school names. Lastly, by conducting one-on-one interviews with liaisons, teachers, and community partners, there exists the risk of potentially providing opportunities for these different parties to express negative perspectives about each other, which could potentially create professional conflicts for the specific school community or trio of participants. To ensure that these ethical issues were minimized, I ensured that all school names, the network name, as well as participants' names were changed, using pseudonyms. I also ensured that participants were able to stop during the interview if they no longer felt comfortable disclosing their experiences, and I also made sure to keep all identities confidential, to prevent any professional conflicts based on participants' honesty during the interview process. I ensured the safety and privacy of participants by using pseudonyms for names of all the participants and sites. All of the data was securely stored on a password-protected cloud platform.

Reliability and Validity

One threat to the credibility of this study was reactivity, where the influence of myself as a researcher can impact the outcome of the study (Maxwell, 2013). I am aware that as a former Curator of Projects and Partnerships who has experience working with community partners to create project-based learning experiences with community partners, I could potentially influence how other liaisons, teachers, or community partners respond to interview questions, as they may assume that I am looking for positive examples and achievements. Another challenge to credibility and trustworthiness is the notion of reflexivity, where my involvement in the world that I am studying may have inevitably influenced the liaison, teacher, or community partner being interviewed. I understand that I bring in my own experiences and assumptions as a fellow liaison who coordinates community partnerships. For example, I may have identified more with

other community partnership liaisons and may have been more biased towards their experiences, as opposed to the experiences of teachers or community partners. Furthermore, as a fellow educator, it was difficult for me to refrain from being a resource and supporting liaisons, teachers, and community partners when they share the challenges or needs they have in navigating community partnerships. In order to increase credibility of findings, I ensured that I incorporated multiple perspectives including the liaison, teacher, and community partner, and at one site, an administrator. I also ensured that all responses were transcribed and objectively analyzed for common themes. Finally, I encouraged participants to be candid about what is working or not working in their experience.

Study Limitations

A limitation of my study is the external validity of the findings. The criterion-based sample or population of participants in this specific research study is not reflective of common high school programs in this country. The participants in this study were from schools and programs that already taught through project-based learning and work with community partners. Both of these concepts are innovative and are not widely practiced among high schools, especially those that serve low-income communities. We know that two of the four sites or programs are also grant-funded, so community partnerships liaisons and additional resources are provided to fund these project-based learning experiences for students. Such funding and opportunity are not widely available among comprehensive schools. However, the other two sites and programs in this study are district schools and shed light onto how partnership work may be possible.

Conclusion

This study used a qualitative method design to collect data through reflective semi-structured interviews from the perspectives of community partnerships liaisons, high school teachers, and the community partners they work with. This project documents and explores the connective relationships and collaborative experiences between educators in

different spaces - formal educators in classrooms and informal educators in the community, to provide insight into the possibilities for creating more authentic and deeper learning experiences for high school students. The resulting data will be shared with participants in the study, as well as schools who want to implement project-based learning experiences with community partners, to illuminate the perceived strategies, processes, barriers, successes, and ideas for sustainability that have the potential to increase access to richer student learning experiences through the implementation of project-based learning with community partners.

CHAPTER FOUR: FINDINGS

My dissertation study focuses on four high school community partnerships. At each site, I interviewed key stakeholders to better understand how they connected and collaborated to implement project-based learning experiences for high school students. These individuals include a teacher, a community partnership liaison, coordinator, or administrator, and a community partner. I met with each of the twelve participants individually on Zoom. These participants engaged in storytelling using an artifact to share their perceptions about connecting and collaborating with others. In this chapter, I discuss findings in relation to my two research questions:

1. Research Question #1 - How do high school teachers and community partners establish and sustain collaborative partnerships?
    a. What barriers and successes do teachers and community partners perceive that they face in these efforts?
    b. How are community partnership liaisons perceived to contribute to the partnership between teachers and community partners?
2. Research Question #2 - What do teachers and community partners recommend as necessary strategies in establishing school community partnerships that extend into project-based learning experiences?
    a. What processes and strategies do high school teachers and community partners utilize to co-design project-based learning experiences for students?

The first research question focuses on strategies that have been implemented to establish and sustain partnerships, while the second research question focuses more on recommended strategies looking forward, based on what participants have learned from their experiences collaborating and connecting with others. Through my analytic process, I learned how community partnerships come to be and thrive including the motivations that drive formal and informal educators to engage in partnership work, as well as the strategies that helped

participants to establish and continue partnerships, the barriers and successes experienced by participants, as well as the role of liaisons in this process. Furthermore, I also found perspectives on specific strategies that extend partnerships into project-based learning experiences for students and the co-designing process of creating project-based learning experiences for students.

A Road Map

For the first research question that is focused on *establishing* and *sustaining* community partnerships, I found that (1) beliefs about the importance of teaching and learning beyond the classroom shapes willingness to engage in partnerships; (2) teachers and community partners rely on connective structures to recruit, establish, and sustain collaborative partnerships; (3) liaisons are vital for collaborative partnerships, but their roles are varied; and (4) community partners and teachers experience systemic and logistical barriers. For the second research question, which is focused on *extending* partnerships and the *co-designing* process, I found that (5) strategies to extend partnerships into PBL experiences include logistics, intentional collaboration, and documentation or projects; and (6) rather than co-designed, the PBL curriculum is usually driven by the teacher with opportunities for community partners to contribute. These findings are presented through the voices of teachers, community partnership liaisons, and community partners.

Research Question 1: Establishing and Sustaining Community Partnerships

The primary goal of this study is to explore perceptions of the collaborative experiences of informal and formal educators who work on supporting project-based learning experiences for students. How do these classroom teachers, the liaisons that form bridges for them, and the partners who work in businesses and organizations in the surrounding community work together and how do they get connected? Why do these partnerships get initiated and how do they thrive to create learning experiences for students in the form of project-based learning? Through a series of questions and storytelling, participants interviewed explain how such partnerships are

established and sustained, as well as the barriers and successes, and the role of community partnership liaisons in this connective experience.

It is important to note that in asking participants about the "how" behind the partnership work they engaged in, participants instead responded with their "why," Participants responded with stories interwoven with why they are willing to establish community partnerships for project-based, why they choose to teach through projects, and why this work is so important to them. In this way, the first research question, which is focused on "how" participants establish and sustain partnerships was not fully addressed. However, in participants' responses, their stories and experiences illuminated their perceptions on how partnerships could be sustained and some of the barriers and successes that they have faced. Through their stories, the following findings address parts of Research Question 1.

Finding 1: Beliefs about the Importance of Teaching and Learning Beyond the Classroom Shapes Willingness to Engage in Partnerships

Participants' beliefs and motivations for establishing community partnerships and doing the partnership work were significant parts of their stories and stood out as an aspect that shaped how they engaged. Teachers shared stories where it was clear that they viewed others' expertise as complementary to their own, valuing the knowledge that people in industry can bring into the classroom. Community partners and liaisons shared stories where they expressed their desire to resist traditional teaching methods.

Teachers' Beliefs about the Importance of Distributed Expertise and Community Partners' Specialized Knowledge

The teachers interviewed in this study expressed their perceptions of expertise as a distributed resource strengthened by the interconnections between formal educators in classroom settings and informal educators in their respective fields. Instead of being seen as the bearer of knowledge, teachers see themselves as facilitators of learning, creating an openness to bring others into the co-teaching process. For Tom Stewart, a veteran teacher at

River High School, he strongly believes that he is not the all-knowing expert in the classroom. Alluding to experiences where he brought in veterans to support his history projects or reaching out to a local gaffer at a production studio and a university media center to support in teaching his students how to create a podcast and a documentary film, Tom explained to me that he didn't know anything about podcasting, so he went to look for people who did. He says, "so I always felt like bringing in other people was like the best idea. Just admit you don't know anything, just say it and then just find the people that know everything and bring them in" (T. Stewart, personal communication, February 22, 2023). In the interview, Tom had a humorous tone when stating this, but he also is referencing the notion that for most traditional teachers, admitting they are not experts is not common practice. Tom approaches teaching differently, seeing expertise as shared and believes partnering with others can help his students' projects.

Other teachers had similar views of the distributed nature of expertise. Fiona teaches the business class at Mountain High School, and when her students had tax questions for their business proposals, she stated she did not have expertise in that field but was able to partner with a CPA that came into the classroom to co-teach with her. In the same vein, Matt Gonzales, a teacher at Spring High School, knew that his students who were working on a project about the trends in the LGBTQ+ unhoused youth community in their local city could benefit from working with a community partner who has direct experience and expertise in that field. Matt connected the project group to an organization called Transit MCS so they could interview them and have access to authentic connections relevant to their project. And finally, at Bay High School, the community partnerships coordinator and former teacher, Marie Laurent, also expressed their willingness to go outside of the walls of the classroom to bridge learning and extend opportunities to the community, leveraging the knowledge that others can bring into students' projects. Marie states, "it's so often that everyone is working in their own silo, and you have your head down, but there are so many organizations out there and people who want to support the work I'm doing and vice versa" (M. Laurent, personal communication, February 28,

2023). In Marie's perspective, they are motivated to connect student projects with a variety of local wildlife and conservation organizations who have the expertise to provide authentic connections so that students can see their projects on coastal restoration and preservation having an impact on brainstorming solutions for climate change that impacts their futures. Marie mentions the idea of a silo, the traditional notion of separate classrooms operating on their own, away from the world, and with a sole teacher as the expert in the room.

All four educators who were participants in this study expressed that they reach outside the classroom walls for expertise because they don't see themselves as the only experts in the room. They see others as having specialized knowledge that is important for their students' learning. This mindset led teachers to establish community partnerships for project-based learning purposes. For example, these four teachers reached out to community partners when students dived into projects and they needed someone with production knowledge or tax experience, or individuals with experience working with unhouse youth, or environmental scientists who have specialized knowledge about local wetlands.

Community Partners' Beliefs about Individual and Community Transformation

The community partners I interviewed shared stories of how they step into the work of partnering with teachers because of their beliefs in pursuing non-traditional methods often alluding to their own experiences as students as well as their passion to engage young people to be active within their own communities. In their own words, traditional teaching methods entail teaching from a textbook, teaching to a standardized test, or teaching as a transactional experience where a teacher delivers content, and the student responds with completed work. For Helen Dupont, the community partner of Bay High School, she has partnered with many schools and teachers as she works as a coordinator at the Shoreline Center, which is a science educational organization affiliated with the local university. In the interview, she frequently lamented on how testing often gets in the way of teachers being able to engage in projects with kids. She said, "once we get them out here, they're looking and they're wishing they would have

come two months ago, before students took the state assessments because the concepts you're teaching that students struggled to understand are right there." For Helen, the scientific concepts that are on such tests can be experienced with hands-on labs where kids can see real soil samples, make observations of the wetlands, track changes in water levels, and experience science in real life. During our interview, she explained that:

> Science can't just be done by reading a textbook; it has got to be experienced. Yes, and I feel that way even with math and social studies. Incorporate the math and show how data is collected and how analysis is done. Yes, show how certain things are having socio-economic impacts. Show how we've had Native American tribes there since before written record and how they are now having to leave their ancestral lands because it's not there anymore. Showing them is more important to me as well as taking them out and showing them. (Dupont, 2023, p. 7)

Helen is motivated to do the work of partnering with schoolteachers to provide project-based learning experiences for students because she sees that students can gain knowledge that is relevant for state assessments and their ability to see and understand how concepts work in practice. Beyond content knowledge, she mentions a transformative element involved, where kids can directly see the impact of global warming or climate change in real life, and how it affects entire communities of people. Helen explains such transformation as when students see that they can do something about the problems that are in their communities through science education. Similarly, two other community partners share the same mindset of resisting traditional transactional teaching and learning with a more transformative approach.

Transformative over Transactional Teaching and Learning

Cynthia Gomez, the community partner working on the People's History Project with Spring High School, discussed transactional versus transformational spaces, explaining that her goal in establishing partnerships with classrooms is to resist transactional teaching and learning seen in traditional spaces, such as when information is given through a one-way street from

teacher to student. Instead, she believes transformation occurs when information and expertise is shared between students, teachers, and community partners in order to learn about relevant issues like gentrification and rent control in the local downtown area. In our interview, she shared the following viewpoint about transformation:

> I think a lot of times, it's like go go go, like let me give you this. Okay, give me whatever you have. Give me this piece of information. So, I think I advocate a lot for operating from a space of transformation, like transformational spaces. How are we making transformational spaces versus transactional things? (Gomez, 2023, p. 10)

When Cynthia talked about transformation, she gave examples of taking students to a Noche de Altares event in the local community and seeing students' faces light up while observing the glowing altars lining the downtown streets. For Cynthia, this was an opportunity for students to see their own cultures illuminated by their own peoples' histories from the past. She further explained how this is transformative learning to have students research their own people's history and find value and a voice in their culture. This is a transformational experience because students' understanding of their own identity is shaped by their experiences physically going out to community events and viewing themselves as cultural assets in the community. These types of experiences would not be possible in a traditional classroom where they may learn about cultural practices in a textbook or through a lecture.

Empowering Projects with Community Partners

Other non-traditional methods cited by community partners include students running a bank at their school. For community partner Kelly Winston, who is a retired bank president, providing students with real world opportunities to run a bank branch at their school and apply for loans promotes financial literacy and business acumen, skills that would not be gained from a PowerPoint presentation that is traditionally used in business classes at the high school level. Furthermore, Ms. Winston mentioned that students' ability to call her and her colleagues for financial mentorship and project support showcases their access to people and spaces that

they may never have had otherwise. She believes her partnership work is in equipping students with financial literacy and knowledge that can make lasting impacts on their lives, how they see themselves, and their financial futures. Because of the opportunity to contribute to a students' life in this way, Kelly continues the work in fostering partnerships with schools, such as River HS.

The notion of empowering students to see their own impact also resonates with Maria Gomez-Pinault, the community partner for Mountain HS. For Maria, giving back to her alma mater by going into the classroom every two weeks to co-teach with the business teacher is her way of contributing to community transformation, especially in a school community with the highest number of low-SES population in the 6th most densely populated city in the country. Maria shared her own personal story about lack of access to higher education and how she hopes to resist such trajectories for students and increase access to community partners and business connections for youth. She states:

> Yes, it's my passion. Yes, it's my community. I grew up with the people that are involved. I have made long time friendships, and people are committed. And if people find out and open up a little bit, they too will see how this could change and how they can impact the community and not just the school community, but the surrounding community. (Gomez-Pinault, 2023, p. 12)

For Marie, working as a community partner is not just a way to contribute to the lives of students, but to contribute to a transformed community. For Helen and Cynthia, working on projects with community partners goes beyond teaching content and instead empowers students to see their impact in reducing climate change or finding value in their own cultural histories. The community partners interviewed in this study see the education space as an opportunity to resist the traditional methods of learning from textbooks and instead forge new opportunities to learn from places, organizations, and from each other. For teachers as well, learning from each other, from expertise found outside the walls of the classroom, motivates

them to do the work of establishing the community partnerships that enrich their students' project-based learning experiences.

Finding 2: Teachers and Community Partners Rely on Connective Structures to Recruit, Establish, and Sustain Collaborative Partnerships

I asked participants how they first connect with community partners or teachers. I found that most teachers draw on existing partnerships established by their schools; in contrast, community partners and liaisons actively recruit to create school community partnerships. For three of the four teachers, they are able to draw from a list of partners because of the work of a community liaison or an outside organization, while for one teacher, this network is built on personal connections.

Teachers Use Existing Networks and Personal Contacts to Recruit Community Partners

The three teachers who draw on already existing networks include Tom Stewart at River High School, Fiona Perez at Mountain High School, and Marie Laurent at Bay High School. At River High, Tom works with the Community Partnership Advisory Group (CPAG) and the networks of community partners established by the community partnerships coordinator. CPAG meets once a month in the library and brings in various members of the community to showcase students' current and prospective projects. This event garners ample opportunities for teachers and students to partner with community members on various projects.

At Mountain High, Fiona relies primarily on The Learning Collaborative organization and their existing network of community partners. This collaborative was established through people like Mary Tran, who is the executive director. Joanna, a teacher at Mountain High, states, "the Learning Collaborative is a big part of initiating contact with community partners. We do have a monthly meeting with them and then kind of decide what we are covering, and we try to do this at the beginning of the school year." The difference in this partnership is that there is an outside non-profit organization housed on this high school campus that provides the network of community partnerships for the teachers.

At Bay High, Marie relies on the list of community partners that was established when the school first opened as a High School Lab Grant School, which requires schools to have community partners in place. Furthermore, a community partnerships coordinator worked during the first few years of the school's opening to cultivate a network of community partners, although the coordinator and the position is no longer there.

For Matt Gonzalez, the teacher from Spring High, establishing community partnerships looks a little different. For the People's History Project, he and district curriculum specialist, Rose Chan, relied on their own personal networks. Both Rose and Matt are activists in the local community and were able to build their network of community partners through their own personal relationships and experiences. Matt states, "you know Rose and I are both involved in the community, and it starts with being involved in the community because when you're involved in the community, it's a lot easier to make these connections." Although most of the teachers rely on the lists of community partners established by a third entity such as an advisory group, a partnerships coordinator, or a non-profit group that connects businesses to students' projects, for one teacher, it was his own personal contacts because of his social justice activism work that helps him to find and establish partnerships for students' projects. These experiences show that perhaps for teachers, unless their personal networks are filled with connections within the community, the partnerships must first be established and readily available to them, as the work of teaching itself is a full-time job. Teachers find it more practical to establish connections with the community partners that have already been lined up to support the school.

Community Partners Recruit Educators Through Collaboratives and Community Outreach Events

For community partners, connecting with schools is an active recruitment process. Unlike the teachers interviewed who shared how they draw on existing networks, community partners from the four sites explain that establishing school partnerships means actively

recruiting districts and schools by reaching out to specific teachers, schools, districts, and hosting events where they can meet with students, families, teachers, and school leaders.

In the River High School team, community partner, retired bank president and member of the local Chamber of Commerce, Kelly Winston mentioned that because her community is small, she is able to make direct calls and recruit partnerships to support local schools in different ways, including partnering with classes to support project-based learning both through connections with the bank and through funding. More significantly, Kelly stated the importance of serving in the local Chamber of Commerce and bringing in new partners to the CPAG group to meet teachers and students. These monthly collaborative gatherings helped to connect formal educators with community partners. In the Spring High School team, community partner Cynthia Gomez, who is the executive director of local Latinx advocacy group Aguante Org., stated that her method of establishing school partnerships is also through active recruiting and community events as well. However, unlike the River High School community partner, she was not able to offer funding. Instead, she offered learning experiences where she worked directly with students to explain local opportunities for civic engagement. Therefore, Cynthia reached out mostly to teachers and counselors at school sites and also hosted outreach events with tables and booths, where she'll meet teachers and students who invited her into their classrooms. For the Mountain High School team, community partner Maria Gomez-Pinault, a board member of the local Chamber of Commerce, mentioned that she was the one who reached out to the non-profit, The Learning Collaborative, many years ago to work with them at Mountain High School. Similarly, In the Bay High School team, community partner Helen Dupont, who is the Education Director at the Shoreline Center, mentioned active recruiting and hosting community events to forge school partnerships for the Shoreline Center. She shared the following:

> Throughout time, the teachers that we sent out flyers to for recruitment, we've created a listserv and so that's our first kind of method. We send out flyers of things like our

> teacher workshops or big events through that portal. Then, we also have other partnerships that are non-formal education settings where we ask teachers to come to events. Social media is another one that we use to recruit out to teachers and districts. We also have agents out in different parishes that cover areas, so we could host a wetland day in their area. (Dupont, 2023, p. 3)

Community partners took on an active role in establishing connections with classrooms, by actively recruiting and finding opportunities to engage with community liaisons and classroom teachers through collaboratives and outreach events. These community partners worked in organizations where their values and missions aligned with working directly with students or giving back to the community. Because of this symbiotic relationship between teachers and community partners, partnerships were established to ensure that students reap the educational benefits of learning from informal and formal educators. However, it is important to note that the role of the community partner liaison acts as the bridge between community partners and their involvement with students' projects in the classroom. Although community partners recruit, it was the liaisons who made these connections actualize into classroom experiences where partners worked directly with teachers and students on projects.

Community Partners and Teachers Rely on Intentional Structures to Establish and Sustain Partnerships

Both teachers and community partners stated how they rely on intentional and connective structures to sustain collaborative partnerships, such as advisory groups that meet monthly, school tours that bring outside organizations onto school campuses, newsletters that showcase student learning, and student project exhibitions that bring in current and prospective community partners. These activities that school and community members engage in are intentional and connective in nature, as the purpose is to bridge the outside world of organizations, industry professionals, businesses, or community partners, with classrooms, teachers, and students.

Advisory Groups and School Tours. First, monthly gatherings, such as advisory groups and school tours, that are structured into the school year are integral in ensuring partnerships are established and sustained. At River High School, teacher Tom Stewart and partnerships coordinator, Bill Brandt, explained the importance of the CPAG or community partnerships advisory group that meets once a month in the library over lunch. Members of the community including business owners, members of the local chamber of commerce, representatives from higher education institutions and non-profits, gathered together to learn about past, current, and prospective project ideas from students and teachers. According to Bill, these CPAG meetings are "a good opportunity to showcase what our students are doing each month, and it really gives our community members ideas on how they can utilize our students in what they're doing." In addition, Bill noted that because the meetings were a structural component of the school program, they ensured that partnerships continued to be created throughout the year. All members, students, and teachers knew that these meetings happened each month, so it drives the project showcases, pitches, and opportunities to invite new partners into the school space. In fact, Kelly Winston, one of the community partners who worked with Bill and Tom at River High, believed that structure and frequency of these meetings were important. For example, she shared the following: "if you only do something once every six months, it really loses steam right? I think by doing it monthly, there's value in that" (K. Winston, personal communication, February 28, 2023). This same type of structural practice is done at Mountain High School and included teacher Fiona Perez, assistant principal Michelle Suarez, community partnerships liaison Tiny Ly who leads the Learning Collaborative non-profit on campus, as well as community partner Maria Gomez-Pinault. All of these individuals mentioned that monthly meetings with the Learning Collaborative, where teachers can pitch their students' projects needs, as well as twice-monthly school tours that bring community members into the hallways and classrooms of Mountain High School supported collaborations. They also mentioned that without these structural and regularly programmed meetings and events,

partnerships could not be established or sustained. It is important to note that for most traditional high schools, it is rare for schools to frequently open their doors to the public beyond Back to School Night or Open House. Bringing in business leaders, non-profit directors, and members of a local Chamber of Commerce on a monthly basis is a structural and intentional decision made by the school to ensure that partnerships can continue to be sustained over time.

Project Showcases and Newsletters. Another aspect of intentional and connective structures include storytelling and publicity through the form of student project showcases and newsletters. For the Spring High School team, teacher Matt Gonzalez, district curriculum specialist Rose Chan, and community partner Cynthia Gomez individually elaborated on the importance of the student project showcase to bring in the community to learn about the ethnic studies work that students are doing. For the People's History Project, student exhibitions are a valuable opportunity to publicize project-based learning for district leaders to continue to support this program, and for potential community partners to work with students in the future. These decisions are rooted in the idea that storytelling can be a powerful resource that contributes to sustainability. To Cynthia Gomez, she reiterated the importance of "mak[ing] sure people understand that it's a program that needs to stay alive" (personal communication, April 3, 2023). Similarly, at Mountain High School, students showcase their projects at market day, which brings in additional businesses from the community and potential community partners that can work with students on future projects. According to Mountain High's assistant principal, Michelle Suarez, storytelling and sharing what students are doing is pivotal for sustainability. She states, "I think making it visible, so that every teacher, every student, every counselor understands, and that's how you build culture and that's when it is sustainable because people can jump in" (T. Ly, personal communication, March 12, 2023). To add to this, some schools like River High School publish a project-focused newsletter that publicizes the work students are doing. These newsletters are shared with the local community to bring in more interest and awareness about

the potential partnership work and intentionally building in structures that ensure partnerships for project-based learning can continue to grow.

Community Partners and Teachers State Sustaining Partnerships is a Challenge

For the Bay High School team, project-based learning specialist, Marie Laurent, and community partner, Helen Dupont, framed sustainability about their project programming with the need for more structural support. For these two individuals, the possibility of continuing project-based learning partnerships with community partners was reliant upon several factors that include structural support, such as funding, and the existence of the liaison and PBL coordinator roles for the next school year. Their perceptions will be included in the discussion on barriers in finding 5. Their response shows that sustainability is a challenge in some sites when it comes to a lack of intentional and connective structures. For Bay High School, participants did not mention monthly partnership meetings, newsletters, or project showcases, thus highlighting that if there is a lack of connective and intentional structures at a school site, then it is difficult for teachers and community partners to ensure that partnerships can thrive into the future.

Finding 3: Liaisons are Vital for Collaborative Partnerships, but Their Roles are Varied

Teachers, community partnership liaisons, and community partners consistently emphasized the importance of partnership liaisons in establishing and sustaining community partnerships for project-based learning. When participants were asked the extent to which they perceive community partnership liaisons as contributing to, establishing, and sustaining partnerships, a majority responded positively. For River High School, Bill Brandt, the liaison, states, “I don’t really think that based on everything we’re doing, it could really go on with full strength with a person who did not have partnerships as their primary responsibility” (personal communication, March 1, 2023). Bill’s perspective alludes to the idea that asking a teacher or a school leader who already has responsibilities to take on the additional role of securing partnerships is not realistic. At Spring High School, teacher Matt Gonzalez also emphasizes the importance of liaisons stating that the average teacher may not already have deep cultural and

community connections to the local area because they may live in a different city or not be an activist like himself. At Mountain High School, community partner Maria Gomez-Pinault, referenced The Learning Collaborative's director, Tina Ly, stating "without a liaison like Tina, this program cannot exist because I can't imagine the teachers and administrative staff putting this on." Maria explained that teachers and administrators are already preoccupied with their leadership roles and may not be well-connected to industry leaders and businesses. Finally, at Bay High School, project-based learning specialist, Marie Laurent, expressed concern over the fact that in the last year, the partnerships coordinator role was vacant and that their role as the project-based learning instructional leader is soon ending as they are planning to leave after this school year. They state, "I've held this work for a long time and once I leave, what is it going to take for this to continue and not just get lost in the one hundred other things that are important to making a school function, you know, and I don't know if I have the answer." Losing the partnership liaison is likely to have a negative impact on the future of project-based learning programming at the school, a sentiment shared amongst all four sites. Asking school leaders and teachers to commit to establishing partnerships is unsustainable because it is a full-time commitment.

Partnership Liaisons Vary in Roles

Despite the concurrence on the significance of the liaison role, the four sites implement the role of community partnerships liaison or coordinator in varying ways. For the team at River High School, Bill Brandt is the partnerships coordinator, and this role is funded by the HS Lab Grant, although his role has changed recently to also include college and career coordinator. Bill also stated that his school relies on the Chamber of Commerce as another intermediary connecting to the community. At Spring High School, the school district representative, Rose Chan, takes on the role of partnership liaison, as she is responsible for recruiting community partners with schools. At Mountain High School, The Learning Collaborative acts as partnership liaison. This specific non-profit organization is uniquely housed on the Mountain HS campus to

connect industry partnerships for students' projects. This organization and its director, Tina Ly's work is further bolstered by the assistant principal of the school, Michelle Suarez, who believes that there must be three entities to establish and sustain school community partnerships. Michelle calls this method the "trifecta" where there are three components to a strong community partnership: the school, supported by a school leader like an administrator or liaison; the community partner, which could be a business, organization, or higher education site; and finally, the intermediary between school and community partner, such as a non-profit organization whose purpose is to bridge the school community with business and industry. It is clear that the participants agree that it takes additional people to ensure the community partnerships for student learning can be sustained.

Lastly, at Bay High School, the role of community partnership liaison is taken on by the director of curriculum and instruction, Marie Laurent, who coordinates project-based learning at the school. It is important to note that Bay High School is also another program funded by the HS Lab Grant. However, according to Marie, it is likely that this role will not be continued in the following year. It is also important to note that at Bay High School, there was a community partnerships liaison up until last year, which illuminates two main ideas that arise in the four cases: one, is that a community partnership liaison can have a lasting impact on establishing and sustaining partnerships, as shown by the fact that Marie continues to rely on the list of community partners established by the liaison who is no longer there; two, the role of partnership liaison is often grant-funded and does not seem to have permanence in the two schools that have been supported by the HS Lab Grant, and even so, liaisons are often asked to take on additional roles. In other words, a community partnership liaison is not a permanent role in a high school, like that of a school librarian or counselor.

This study showcases the need for the role of community partnership liaison to exist and be supported by schools. At some sites, the liaison can be in the form of a district curriculum specialist, a school administrator, a non-profit organization, a chamber of commerce, a school's

instructional leader, or a combination of those roles, but the role must be protected with longevity in order for schools to ensure that more students have access to perceived deeper learning experiences through project-based learning with community partners.

Finding 4: Community Partners and Teachers Experience Systemic and Logistical Barriers

Establishing and Sustaining Partnerships is not an easy task. There are various barriers that participants mention they must navigate in order to ensure that school community partnerships for project-based learning are possible. The main barriers that participants discuss deal with resistance to new ways of teaching and learning, risk management obstacles, logistical time constraints, and a reliance on one or a few individuals for partnership work to happen.

Beliefs about Expertise in Project-based Learning Create Barriers

Some of the participants shared a resistance to different ways of teaching and learning as one barrier that gets in the way of establishing school community partnerships. Tom from River High School stated, “there’s always barriers. Yeah, then it wouldn’t be fun. There’s a lot of people who are literally scared to death to let anybody in the school, I mean terrified.” He further elaborated that creating belief-in project-based learning with all teachers at his site has been a challenge, but they are slowly making progress by inviting teachers into their monthly CPAG meetings. Tom stated that “overcoming long-held conceptions of educators” to see expertise beyond their degrees and training is important. For Marie from Bay HS, she mentioned, “I think some of the biggest challenges are working with people or organizations that aren’t used to working with kids” stating that for some partners, the idea of working with kids may entail a college-level type of lecture that may not be conducive to how young high schoolers can engage in learning. Similarly, Michelle Suarez and Tina Ly elaborated on a shift of culture for community partnership for project-based learning experiences to consistently happen at a school site,

stating that not all educators are trained or willing to adopt this way of teaching and learning outside of traditional methods.

Risk-Management Policies Present Barriers

Secondly, participants also mentioned risk management obstacles and policies as barriers that create obstacles for school community partnerships to exist. Matt from Spring High School mentions, “it is just making sure that students are safe and secure, so sometimes, we have to go through all these different processes to bring people onto campus” which alludes to his district’s policies on approving consultants if they have more than one visit or interaction with students. Rose Chan from the same district explains this in more detail, stating that the district has a requirement that all community partners or consultants have SAM insurance of 3-6 million in coverage, which she states most volunteers cannot afford. Cynthia, a community partner, mentions that in order to work with schools, her organization needs to create MOUs with districts, which is a long process that has been challenging, stating, “sometimes it can take months of going back and forth in negotiations.” Helen, the community partner who works with Bay High School states funding policy, saying there is a current bill in legislation that is about to dissolve the state’s environmental education commission, would severely impact the work her organization does by cutting funding to work with low-income schools on hands-on projects and place-based learning experiences.

Time Constraints Create Barriers

Thirdly, the most frequently expressed challenge that was shared by ten out of the twelve participants was the lack of time, or the logistical scheduling of opportunities for community partners to collaborate with teachers and also to work directly with students. For Fiona from Mountain High School, the most challenging part about working with business partners is scheduling, indicating that it was slightly easier when school was done virtually on Zoom during the Covid-19 pandemic. Due to the nature of the collaborative process of having community partners come in every other week into her classroom, the scheduling can at times

be difficult to manage if a community partner is unable to come, but students' projects need to be continued. The same sentiment was shared by teachers from all four sites, stating that scheduling was a significant challenge. For other teams, time logistics was also a factor in terms of having the time for teachers and community partners to sit together to collaborate, which is rare if it happens at all, which will also be elaborated in the sixth and last finding.

Determining Personnel to Lead the PBL Work Creates Barriers

Fourthly, the team from Bay High School mentioned their concern over the sustainability of school community partnerships if there were only a few key individuals who manage these types of collaborative connections. Community partner, Helen Dupont, mentioned that sustainability can be a challenge when someone from a school district retires or a teacher leaves and the point of contact is no longer there. She said, "you make this partnership, and you grow it, and then this person leaves and that's tough. It's like, if nobody is willing to pick it up afterwards, then it kind of dies. It leaves with the individual. So, while maintaining these relationships are great and wonderful, it's just keeping that systematic role going." A similar perspective was shared by the project-based learning specialist from Bay High School, Marie Laurent, who shared their concern that next year, after Marie leaves, they are uncertain what these projects with community partnerships may look like if no one is leading this type of work. Currently, they are in large part writing the curriculum and coordinating these project opportunities for the school. These perceptions illuminate a major threat that exists in ensuring community partnerships for project-based learning. If too few people are implementers of these innovative teaching and learning experiences, then what happens when they leave? These concerns were shared by Marie, Helen, Michelle, Tina, Matt, Tom, Bill, or seven of the twelve participants. Furthermore, at the two HS Lab grant schools, Marie mentioned that the previous partnerships liaison had left the year prior, and the position was unfilled. Furthermore, Marie mentioned that they would also be leaving the school after the school year is over at Bay

High School. For the other HS Lab grant school called River High School, Bill who was the community partnerships liaison has taken on another role of college and career director at the school, taking on a new responsibility, further showing that the role of partnership liaison may not be permanently a full-time role. Therefore, a notable trend that is seen and that garners concern is that at some sites, the work of implementing project-based learning with community partners is not widespread and limited to one or a handful of people doing the work, where if those people left, it is uncertain if the work would be continued.

Therefore, the four challenges of resistance to change, risk management policies, logistical constraints, and reliance on too few individuals illuminate both the micro and macro aspects of school organizations and district systems that contribute to difficulties in implementing project-based learning with community partners. On the micro-end, teachers and school leaders may have personal resistance or fear of change and uncertainty, or a lack of time might simply be the reason why it is difficult to establish collaborative connections between formal and informal educators. On the macro end, district policies and lack of professional development and funding may impact the establishment and sustainment of school community partnerships.

Summary of Findings from Research Question 1

The first research question driving this study focused on how teachers and community partners establish and sustain partnerships, the role of community liaisons in making these connections, and the barriers and successes involved. Through the voices of participants included in this study, I found that beliefs about teaching and learning in non-traditional ways impact community partners' and teachers' willingness to implement project-based learning with community partners. I also learned that teachers and community partners rely on connective structures, whether it is existing networks, outreach events, advisory groups or collaboratives, or project showcases to ensure that partnerships can be sustained. Furthermore, it was clear that

community liaisons play a vital role in ensuring the partnerships that are established become true partnerships that carry over into students' learning experiences and projects. Last, I outlined several systemic and logistical barriers that arise related to risk management, limited time, and personnel.

Research Question 2: Recommended Strategies to Extend into and Co-design PBL

The second research question focuses on suggestions for future practice based on the strategies that teachers, community partners, and partnership liaisons have utilized or believe they should utilize in the future to extend community partnerships into project-based learning experiences. The findings generated that align to the second research question are centered on how participants believe partnerships can extend into projects and how projects are collaboratively designed and written.

Finding 5: Strategies to Extend Partnerships into PBL Experiences Include Logistical Scheduling, Intentional Collaboration, and Documentation of Projects

Looking forward, participants were asked about recommended strategies they believe would take community partnerships to the next level of implementing project-based learning experiences. For each of the sites explored, the interviewees had different ideas of what strategies would be beneficial for taking a partnership to the next level of project-based learning facilitation and implementation, but there were several themes that continued to be shared among teachers, as well as among community partners, and among liaisons through their individual interviews. Some of these strategies include logistical planning, productive collaboration, and documentation of curriculum.

Teachers Shared that Logistical Scheduling is a Strategy That can Support Project-based Learning Implementation With Community Partners

The teachers interviewed alluded to backwards planning and scheduling time as a strategy to ensure that community partners were part of the project-based learning experience. For Tom Stewart, he finds moments during students' project journeys where community

partners can interject and contribute their skills and expertise to support students when needed. The same is true for the teaching team for the people's history project at Spring High School. Matt Gonzalez, teacher at Spring High School, asks presenters and community members what he would like them to do, for example, asking a city planner to help teach students how to do EIS mapping for a map they were working on to investigate the demographics of their city to investigate equity issues in within their local neighborhoods. His colleague, Rose Chan, also mentioned using the curriculum and learning goals as the frame in which to bring in community partners to support students' projects. She says, "the struggle is just matching their schedules with our schedules, and then we have to build curriculum around their presentation" showing that the process of integrating community partners into students' projects and student learning is not a randomly assigned or haphazard, but instead intentionally scheduled with instructional goals being the priority. Then, when the community partner is scheduled to come in based on a specific skill or topic that is going to be the focus of their support, the teachers backwards plan to ensure that students' skill sets, questions, and work are ready for when the partner intervenes in their project pathway.

The same strategies for backwards planning and scheduling are practiced at Mountain and Bay High Schools to ensure that partnerships move towards projects. By intentional scheduling, there is a purpose for why the community partner is there and the focus is on building students' knowledge and skills to be part of the project-based learning process, rather than a one-time field trip or guest speaker presentation that may be more associated with traditional ideas of community partners for high schools. For teacher Fiona Perez at Mountain High School, it is very important for her to tell the community partners what he needs from them before they come in and she preps students between their visits. For example, their community partner, Maria Gomez-Pinault comes in every two weeks, so Fiona supports students between those visits to ensure they can reach milestones and are ready for when Maria Gomez Pinault is back in the classroom. Fiona stressed the importance of not wasting the community partner's

time and being strategic with when the community partners come in and preparing students for these opportunities Lessons by the community partners are scheduled in advance and are interwoven into the curricular and instructional journey that students are experiencing as they complete their projects.

Community Partners Perceive Communication With Teachers About Student Needs as a Means to Better Implement Project-based Learning Experiences

The community partners interviewed at the four sites mentioned the idea of communication about students' needs as a way to ensure that projects can be better implemented. When discussing productive communication, they indicated that the context, instructional needs, and prior knowledge of students were discussed between community partners and teachers to produce a lesson where students could engage in what teachers perceived to be deeper learning experiences. Conversations about instructional design and student needs prior to lesson implementation does not always happen, but community partners mentioned the importance of such discussions for their collaborations.

Kelly Winston, the community partner at River High School, was able to implement a car loan project with students by collaborating with the teacher beforehand and creating lessons with teachers and members from her bank. Kelly had specific conversations with the teachers at River to find out what real-life financial literacy project would most benefit students and what students would need to know by the end of the unit. After determining what day the students would be going to the bank to apply for loans, Kelly and the teachers worked backwards to create assignments throughout the project journey, so that students would have key knowledge and be ready for the bank visit. For Cynthia, the community partner at Spring High School, more opportunities for collaboration about students' needs and learning is desired. She stated how she hopes to be able to communicate more with educators and co-design the lesson for students, rather than being added to the lesson plan after the fact. Maria Gomez-Pinault, community partner at Mountain High School, also believes that planning together with teachers

is a strategy that would strengthen the students' projects. She explains how this year, they had a late start to the planning process and did not start the project until February. Maria stated that if they had more time to plan with the teachers and the collaboration wasn't rushed, the students' projects in terms of quality could have been improved. At Bay High School, the idea of close communication and planning increases the rigor and quality of the projects. Helen Dupont and Marie Laurent work together each year on the wetlands project. Helen states, "we've built a relationship together and I will talk with Marie and say what do your students need…their background and schemas are just a little different and by going by what their students need, then we build a workshop around those particular needs" (personal communication, April 14, 2023). Helen and Marie take the time to custom design the lessons for each group, shifting some of the activities based on what students want to know and what they already know, creating a distinct experience each year rather than a prescribed or repeated lesson from the previous years. Therefore, communication about student learning and needs between teacher and community partners is a key strategy that can ensure that students engage in perceived deeper learning experiences catered to their learning needs and goals.

Community Partnership Liaisons Perceive Documenting Project Units as a Strategy for Ensuring Project-based Learning Units are Sustained

While interviewing liaisons who work to establish the partnerships between school and community, I noticed that the liaisons frequently shared the idea of documentation as a means to ensure that partnerships become projects. If projects are not documented, there is no record of the project and there is a higher likelihood that if a teacher or community partner retires, moves away, or decides not to participate in project-based learning partnerships, then that project idea may also disappear and won't be accessible for another teacher to implement. Additionally for some sites, the idea of documentation is also seen as establishing culture and a foundational framework for high quality PBL at their school site.

For Spring High School liaison, Rose Chan, documenting and mapping out the unit for the people's history project was a group effort between her, Matt Gonzalez, and a former community partner, a local museum director. A curriculum map that documents the learning experiences that students will have over the course of the people's history project unit ensures that she can use this year after year, proving its longevity in its fifth year, as she adds and revises the unit based on current events in the local community. The documented unit plan is the tool that she uses to ensure this PBL program gets funded each summer by the district and can be implemented by newer teams. Documentation is key at Mountain High School, where assistant principal, Michelle Suarez, and the community partnership liaison, Tina Ly, are dedicated to improving the project-based learning program at their school site by hiring a consultant to conduct collaborative design sessions between community partners and teachers to write out PBL units based on their school's new PBL framework. Michelle states "we're going to have our own codex here. We're going to be able to say here's this, here's that, here's this timeline, and be able to reference projects done in the past even if the teacher has left." Similarly, Michelle's colleague, Tina Ly shared a project booklet on solar panels that has been used for nearly a decade through the Zoom screen and explains that it would be hard to replicate a project and ensure that the industry partner contributes to students' learning through projects year after year if there is no record or guidebook to ensure that projects like the solar one can continue and evolve each year. Similarly, Bay High School's director of curriculum and instruction, and project-based learning specialist, Marie Laurent, shared artifact after artifact of documented units for each of the grade levels, all focused on sustainability and environmental justice, with each grade level progressively increasing in rigor and agency, culminating in a student-driven project for students' senior year. Marie creates all of the pre-lessons before place-based excursions, activities, questions, and a strategically designed unit plan on spreadsheets, google docs, and slides, that are shared with the teaching team. Marie says "I make the slides and student resources like student work documents, and then I'll share them

and talk about it with the advisory teachers. I tried to make it as student-centered and like the least work the teachers have to do as possible, right, so let's look at some examples of what their pre-learnings are going to be for this unit." These types of pre-learning activities that prime students for their projects are documented and they can be replicated, revised, and refreshed each year because they exist on digital documents shared by the teaching staff, which increases the likelihood that these coastal restoration PBL units can be used by teachers and community partners in the future.

Finding 6: Rather Than Co-designed, the PBL Curriculum is Usually Driven by the Teacher with Opportunities for Community Partners to Contribute

While creating the research questions, I made an assumption that teachers and community partners co-write curriculum together. However, each of the interviewees revealed that for most of the partnerships, curriculum was written and driven by the teacher; community partners were asked to chime in or contribute during specific moments of the unit when teachers asked them to.

At River High School, Tom Stewart explains multiple projects he has worked on where he asks various community partners to come in to support with specific skills he needs his students to learn for their projects. For example, he brought in a university media center to support students with editing their documentaries. For other projects like the car loan project, he pitched the idea to the community partner, Kelly Winston, who then created loan documents and designed the scenario with Tom. However, the project itself was driven by Tom - what his business students needed to know, and what he asked Kelly to provide for the project. Furthermore, through the community partnerships advisory group meetings that occur each month, teachers and students pitch their ideas to the community partners, who then find opportunities to support those projects. The driver of the curriculum is the school, whether it be students or teachers.

At Spring High School, the people's history project is completely written by the teacher, Matt Gonzalez, and the district curriculum specialist, Rose Chan. Matt and Rose create opportunities for multiple community partners to come in at specific moments during the project program. Community partners provide insight into different ethnic communities, offer oral histories, teach specific research or interviewing skills that are necessary for students to complete their final projects, or provide tours of historical spaces within the local community to provide more context into investigating peoples' identities. For Spring High School, the teacher and curriculum specialist are the drivers of instruction; the community partners enrich key moments of the curriculum when applicable.

At Mountain High School, the projects are driven by the teachers' requests and needs. The liaison at The Learning Collaborative will match teachers' projects with the network of industry professionals they have connections with. Those industry professionals will come in once every two weeks and the teacher will tell them what specific areas they would like their students to focus on, and therefore how they would like the community partner to aid in the students' learning. Furthermore, the documentation and curricular decision making is done in large part by the teacher. When discussing the process of co-design and collaboration between teacher and community partners, Tina Ly states, "we facilitate conversations between the community partner and the teacher and for the most part, the person writing down the curriculum and things like that has to ideally be the teacher and I feel like that's where you can sustain it" (personal communication, March 12, 2023). It is important to note that this practice is seen as effective by Mountain High School community partner Maria Gomez-Pinault, who says "I'm not an educator, so I don't try to make up curriculum, but I'll let you know how to do a business project" (personal communication, April 17, 2023). For some community partners, like Maria, they appreciate that the curriculum is driven by the teacher.

Time Constraints Make It Difficult to Co-Write Curriculum

The assumed collaborative process for teachers and community partners may be limited to instruction, mentorship, and interactions with students during key moments while they complete their projects. Among the sites interviewed, there is little to no collaboration between teachers and community partners in co-writing and co-designing curriculum. This may be due to the barriers that were outlined in finding 5 regarding issues with time constraints and lack of structured collaborative time for teachers and partners to sit and write together.

For example, at Bay High School, Marie Laurent, the community liaison and curriculum director writes most of the curriculum for the project-based learning experience. When asked about co-designing or co-writing with community partners, Marie states that it is a challenge to write together since oftentimes the community partners have their own programs or goals in mind, and there is not enough time. Generally, Marie will simply let the community partner know what the students are learning through sharing the overarching essential or guiding questions of their projects. Marie says:

> I think that's definitely a part that can be strengthened with the program. I would say I do meet with them beforehand, and we have at least one conversation, but the conversation is about the programming that they offer, what they typically do, and then talking about what are the big guiding questions of the project unit that students are working on. (Laurent, 2023, p. 5)

Marie continues to explain the challenges of co-designing PBL units by stating that it is challenging when working with multiple organizations or community partners. When Marie provides community partners with the learning goals of the unit, two different results may happen - "they're like, great, how can we adapt and focus more on what you're focusing on? And some community partners are like great, you know, that is definitely adjacent to or in line with what we are doing, so we're gonna move forward with what we're doing and it's fine." Overall, curriculum is primarily driven by the instructional teacher or liaison at the school site, rather than being co-written as a shared responsibility between teacher and community partner.

Summary of Findings from Research Question 2

The second research question driving this study focused on strategies that may support community partners and teachers to connect with each other to implement project-based learning in the future. Through the perspectives shared at each of the four sites interviewed, I learned that in order for PBL experiences to be implemented and sustained into the future, stakeholders must schedule opportunities, build moments for intentional collaboration, and document the project units for future use and reference. Lastly, I learned that PBL units are generally written by the teacher, with moments when community partners can contribute. In order to build more connection and collaboration, it is important for there to be more time and opportunities for teachers and community partners to collaborate so they can truly co-write and co-design project-based learning curriculum for students that bridge the authentic world experiences and skills with course content knowledge.

Conclusion

While interviewing the key stakeholders who make the decision to explore school community partnerships to enhance student learning experiences, I gleaned several findings from the data collected. For the first research question focused on establishing and sustaining partnerships, as well as the role of liaisons, as I learned about how teachers and community partner engage in partnership work for projects because of their desire to implement non-traditional ways of teaching and learning, I recognized that the work of project-based learning and innovative work is often dependent on individual teachers who have a penchant to reach beyond their classrooms. Another trend that stood out to me was that for the schools that seem to have a reliable source of community partners to work with, there is a collaborative group, such as a Community Partnerships Advisory group, or a Chamber of Commerce that meets regularly with the goal of providing partners for students' projects. These connective structures exist regardless of if school leaders or teachers change, which can significantly impact the sustainability of project-based learning with community partners. Furthermore, I found that for

community partnerships that do exist, the potential to develop co-curricular content and project units is not fully realized, as most lessons and projects are written by the teacher. There is simply a lack of time and structures for community partners and teachers to sit together to write and design curriculum.

Through exploring the project-based learning experiences with community partners that exist at four school sites, we can see that formal and informal educators are utilizing the resources and passions they have to implement project-based learning. There is not a one size fits all strategy. Each site, team, program, and project exhibit a variety of ways that partnerships are established, sustained, and extended into PBL experiences. These findings are a glimpse into how these specific four sites embrace that challenge.

CHAPTER FIVE: DISCUSSION

This qualitative study was designed to learn about how community partnerships for project-based learning are established, how they are sustained, and what strategies, people, and processes might support such partnerships to thrive at high schools and community organizations. In Chapter 4, I incorporated the voices and perceptions of stakeholders which include teachers, community partnership liaisons, school leaders, and community partners from four sites, and discussed various findings related to stakeholders' belief systems that contribute to their desire to engage in partnerships, the people and structures that ensure that such partnerships can be maintained, recruiting practices that may vary based on differing roles, and the teacher-designed curriculum that often drives those projects forward.

In this chapter, I discuss the implications of the findings for educators, school leaders, and community partners who want to engage in school community partnerships for project-based learning. First, I provide an interpretation of the findings, focusing mainly on the "why" and "how" of fostering school community partnerships for project-based learning. Participants expressed strong perceptions of their "why" or the motivations and success stories that fuel their work of forging partnerships. To connect participants' stories with theory, I discuss social capital, pedagogy of place, and deeper learning theories outlined in chapter two. Then, I focus on the "how" for what strategies and processes could be used to support such partnerships. Next, I include a section on personal observations I have made regarding two prominent areas worth exploring that were not included in my original research questions – teacher willingness and the diversity of approaches of project-based learning partnerships. Throughout each of these sections, I include recommendations on how partnerships might thrive despite challenges. Lastly, I present limitations, and future research needed.

Interpretation of Findings

Educators and community partners who want to work with students on project-based learning experiences are unique. Whether they are credentialed teachers in a traditional

classroom, or they are informal educators who work at banks, non-profit organizations, and private businesses, they face the challenge of taking a different approach to teaching and learning by establishing partnerships, collaborating with others outside one's own area of specialty, and sustaining such partnerships through communication, consistency, recruiting, documentation, and lesson creation. Therefore, project-based learning with community partners, specifically experiential learning opportunities, is not a widely practiced program that occurs in all schools. Furthermore, project-based and experiential learning tends to be enacted in schools that are in more affluent areas (Spring, Grimm, and Deitz, 2008). Communities that serve low-income and historically marginalized groups of students often have unequal access to such opportunities for deeper learning (Noguera, Darling-Hammond, and Friedlaender, 2015).

This study intentionally focused on four schools that serve communities of historically marginalized or economically struggling neighborhoods. In fact, three of the four sites interviewed are Title I schools, and one school is in an economically struggling small town. How can we ensure that more students, specifically those who are in historically marginalized communities, can access such deeper learning experiences through project-based learning with community partners? A possible answer would be to influence belief systems and cultural ideas of what teaching and learning should look like. I have learned that the implementation of project-based learning with community partners is dependent on individuals who truly believe in the value of experiential learning. Ensuring access to project-based learning with community partners is linked to teachers' and community partners' beliefs that such partnerships for students are valuable and worth doing.

Personal Interest and Perceived Student Success Drive School Community Partnerships

For the informal and formal educators I interviewed, their responses included how they valued pursuing partnerships and how they were fueled by perceived student successes they experienced as they worked with high schoolers. In this study, student success is framed as "perceived" student success because student learning was not measured. Participants had

various stories of anecdotal student success that can be linked to the theories outlined in chapter two regarding the impact that project-based learning with community partners can have on students. Of twelve individuals I interviewed for this study, not one expressed that they established partnerships because they were told to or because it was mandated. In fact, all four teachers explained how not all teachers at their school sites implement project-based learning, and even fewer implement project-based learning with community partners. In each of the participants' stories, there was a clear reason for why they value engaging in partnerships with those outside their fields. Many of these reasons were related to perceived student success stories and the participants' sense of fulfillment and purpose they gain when implementing collaborative partnerships for the benefit of students.

School-Community Partnerships to Increase Social Capital and Community Cultural Wealth

For certain community partners and teachers, increasing students' network of contacts and access to people with expertise and experiential knowledge was part of the perceived student success. This type of access to people with specialized or cultural knowledge, although not explicitly named by teachers, refers to social capital (Bourdieu, 1977; Coleman 1988; Putnam, 1995). The idea of gaining access to social capital was frequently shared as one of the main reasons why participants engage in school-community partnerships. Of concern, social capital theory assumes that traditionally dominant spaces have the power of influence that is to be desired by those in underrepresented groups, a problematic notion because all groups have inherent value, knowledge, and skills. In fact, Yosso (2005) explains that minoritized communities hold cultural capital and wealth that are often unseen by dominant cultures. However, in the context of this study, many of the participants mentioned students having access to people they would never have had access to if it weren't for community partnerships.

That access was detailed by all four partnerships sites. For example, for the River High School team, participants mentioned how a student was able to call the bank president about an

issue the project group was having with their account. According to the teacher, a student from a wealthier area may have been able to call the president of a bank who could have been his or her dad's friend, but in this particular community of River High School, knowing the personal phone number of a bank president is uncommon. At Spring High School, taking students through the Noche de Altares, where they were able to see generations of Latino and Chicano family histories displayed under candlelight helped them to recognize their own cultural wealth and power through the contributions they can make by researching their peoples' history. Beyond gaining access to people and cultural affirmations, others mentioned students having access to real skills like pitching business plans, interviewing candidates, and speaking monthly with members of the local chamber of commerce. Such experiences in spaces outside of students' networks provide them with connections to bank presidents and members of the chamber of commerce. Place-based learning with community partners opens gates that are traditionally closed to individuals, especially teenagers, who are often learning in spaces where knowledge is gained through textbooks and screens. Aligned with research that focuses on the impact of increased social capital, these partners can open doors to colleges, professional advancement, and social circles for career advancement (Coleman, 1988; Dika and Singh, 2002; Lin, 1999). For the teachers, community partners, and liaisons in this study who are willing to do the work of creating school-community partnerships, the idea of increasing social capital for students drives them to think of instructional practices differently.

School-Community Partnerships to Transform through the Pedagogy of Place

As we know from Gruenewald's Pedagogy of Place (2003), connecting student learning to relevant issues that directly impact students' neighborhoods and community spaces can be transformative. From this perspective, students' learning is directly tied to the cultural and ecological spaces they live in as well as feeling empowered to take action in relation to the social issues facing their own neighborhoods and environments. The informal and formal educators in this study described how connecting learning to the immediate world or local area

that surrounds students is empowering and gives them voice and authority in a world that traditionally does not give such platforms to teens.

For the teachers and community partners who participated in this study, taking opportunities to engage in school-community partnerships for project-based learning became a personal endeavor to transform students' lives and impact the local community. For Maria Gomez-Pinault, the community partner from Mountain High School, working closely with students at the high school with the highest poverty rate in her district was her way of giving back to the community she grew up in. For her, education is a way to transform students' lives and in return, their own communities. For the community partner working with Spring High School, helping students find their own voice and speak up about issues that matter to their community is exactly what the Aguante Organization is about. Students are encouraged to be resilient and take back power in their own community, writing their own history through the voices in the community. For the project-based learning units that Bay High School focuses on each year, students take ownership of their local wetlands and the impact of global warming and natural disasters by designing solutions and becoming experts of the endangered species and the human practices that negatively affect the land they live on.

In sum, centering projects within one's community through the help of community partners allows for students to see themselves as powerful and active members of their community. This study contributes to Gruenewald's Critical Pedagogy of Place in that we see how project-based learning can be a pathway to access such critical pedagogy, where students critically explore their land and local environment through relevant projects.

School-Community Partnerships Increase Perceived Access to Deeper Learning

We know from past studies that project-based learning with community partners can have positive benefits for student learning, specifically increasing students' access to deeper learning experiences (Mergendoller, Maxwell, & Bellissimo, 2006). However, at most schools, we practice traditional methods of teaching and learning, spending time inside siloed

classrooms, viewing the teacher as the sole holder of expertise, and learning about concepts from textbooks with little exposure to real-world industry applications. There is a dire need for deeper learning experiences that engage students' competencies and skills, beyond rote memorization and test preparation. In this study, deeper learning was not measured as student outcomes and experiences were not collected as data. However, interview participants perceived that students had more opportunities for deeper learning through the projects they were engaged in. Accordingly, the community partner for Bay High School, stated that in order for students to learn deeply, science should be experienced. The skills and competencies that students develop are valuable and include: running a branch of a bank on their school campus or creating a nationally award-winning podcast (River High School); presenting a business proposal that is later implemented (Mountain High School); interviewing local LTBTQ+ foster youth activists (Spring High School); advocating for local solutions to combat climate change (Bay High School). These students gain interpersonal skills, professional knowledge, developing language and vocabulary specific to those areas, gaining contacts and relationships with business owners and local activists, and seeing academic concepts come to life. The skills they gain from such projects and partnerships can carry over to their futures in their careers and in college.

Traditional Systems vs. Community Partnerships for Project-based Learning

When teachers, community partner liaisons, and community partners shared their strategies for establishing and sustaining partnerships, it was clear that their strategies were ways that navigated the barriers and difficulties of forging partnerships in traditional school settings. The teachers and community partners who were interviewed in this study shared their passion for engaging in community partnerships and how they had to work against systems such as time constraints, district MOUs, and dependence on personnel that may not be sustained. Schools and districts that operate to continue the status quo of tradition, teaching solely from textbooks and limited to siloed classrooms do not provide environments for project-

based learning to thrive. There is a need for more time and resources, as well as curricular guidance, to ensure that more students have access to learn through engaging projects. For example, as stated by Powers (2004) the two main challenges that exist when implementing projects is the lack of time to devote to curriculum and the unclear guidance of what to include in the curriculum. The findings from this study reinforced these challenges.

Planning Time

Participants needed to plan and calendar to ensure that community partners could enter into the learning arch of a project at the right times and be more involved in curriculum writing with teachers. Furthermore, time was a constraint because of the nature of the school day, where teachers have one period of prep time. There is limited time for teachers to become curriculum designers and co-writers with community partners. At one school (Mountain High School), where they tried to implement pull-out days for planning, it was still difficult for teachers and community partners to co-write because they felt rushed. Similarly, at other high school sites in this study, teachers were the main authors of the curriculum, with little to no opportunities for community partners to co-write. Teachers and community partners need time to collaborate. These precious opportunities to connect, brainstorm, and plan together cannot be an afterthought or the responsibility of a teacher to schedule these sessions after hours. District leaders and school principals need to allot time, through additional planning periods or consistent pull-out days each month that are dedicated to collaborating with community partners. For community partners who hope to work with teachers, they can offer their spaces, advocate on behalf of the teachers they work with, and if possible, support the funding of substitute teachers and pull-out days for teachers to have regular collaboration sessions with community partners.

Working with Risk Management.

A systemic issue that community partners and teachers mentioned were the risk management policies of school districts that required MOUs and stringent safety parameters to

work with community partners. The long approval process and insurance requirements create barriers between schools and community partners. Districts can work on expediting approval processes for community partners that work with students in settings where their credentialed teacher is also in the classroom. This would ensure that the classroom is in compliance with safety, but also provide easier access to community partners. Furthermore, risk management directors at districts need to understand the academic significance of partnering with organization for the purpose of student learning. I challenge risk management directors to streamline systems for MOUs and create pathways that encourage, not deter, institutions, organizations, and businesses to work with schools and students for project-based learning experiences.

Rethinking Schedules

In order for other schools and districts to support and implement community partnerships for project-based learning, they must rethink traditional schedules. Teachers need dedicated class periods where they can focus on developing project-based learning opportunities and collaborating with community partners on an on-going basis. Having the traditional six-period day, where students are shifting from one class to another after a short 50 minutes of time does not create an environment where students can engage in projects with community partners. Furthermore, if teachers want to take projects out into the community through place-based learning, the traditional schedule needs to shift to allot more time for students to be out in spaces beyond the school campus. One shift that could work is for students to be provided with a project-based learning period, which would count as a college prep elective credit, where they are given a longer amount of time once or twice a week to engage in project work and work off campus if needed. Teaching through projects requires rethinking the traditional school day that is not conducive to the current needs of students who deserve to engage in authentic hands-on experiences to learn.

Community Liaisons to Establish Community Partnerships

Given what participants shared about the value of community partnerships liaisons, schools and districts must invest in personnel. The sharings show the need for a full-time liaison to coordinate school and community partnerships. Mountain High demonstrated that a high school can also host a non-profit organization on a campus which acts as the liaison between school and community. Participants mentioned the importance of community partnerships liaisons, often explaining how their role is so vital that without their help, there may not be partnerships.

It is also worth noting that for two of the school sites interviewed, they had full-time liaisons at one point in time that were supported by the Learning Lab Grant. For Bay High School, the liaison produced a strong list of community partnerships, which the school is still dependent on, before leaving the school and the position never being filled. For River High School, the liaison helped build a network of community partners and established the Community Partnerships Advisory Group, but his position recently changed to College and Career Coordinator and the funding for the partnerships liaison role is soon ending. If schools are able to have partnership liaisons based on grants, then what should schools who do not have access to such grants do? Perhaps schools can host a non-profit organization on their campus, which functions to coordinate partnerships between industry professionals and teachers. At Mountain High School, the non-profit group The Learning Collaborative acts as the liaison or middle person in between school and community. If this is not possible, then perhaps schools can leverage their local business council or Chamber of Commerce, which are additional networks that River High School and Mountain High School both engage with.

In sum, in order for project-based learning with community partners to be established and sustained, there needs to be people whose sole job is to coordinate and navigate these partnerships for schools. As indicated by all teachers interviewed in this study, it is not possible for them to have the additional role of partnership liaison. In the words of Assistant Principal Suarez at Mountain High, there needs to be a “trifecta” in order to make school-community

partnerships for project-based learning possible. The trifecta includes the school, the community, and the third person, entity, or organization that acts as a bridge.

Personal Observations

Due to the nature of this study, I was able to learn from the stories and perspectives of twelve individuals as they spoke freely about their experiences. In doing so, I noticed two major ideas that arose that were not part of my original research questions. The first was related to participant willingness to engage in community partnership work, particularly related to the profile of teachers at each of the four different sites I interviewed. The second observation was that there was a diversity of approaches to project-based learning that was shared. These personal observations have implications for how to spread the practice of project-based learning with community partners and to address that project-based learning may manifest in varied ways depending on context and purpose of the projects.

Characteristics of Teachers Who Delve into Project-based Learning with Community Partners

Teachers who participated in this research study were educators who expressed that they feel personally invested in fostering community partnerships for project-based learning. They are leaders of project-based learning at their school sites, where not all teachers engage with community partners, or even in project-based learning. They mention that for some of their colleagues, there is a fear of letting go of control of the classroom and of the curriculum. However, among the teachers interviewed, they exhibited the willingness to take risks and to accept the open-endedness of student-driven projects. One characteristic that may have impacted this fearlessness may be that most teachers were veteran teachers. Tom Stewart taught for 20 years, Matt Gonzalez taught for 18 years, Fiona Perez taught for 7 years and Marie Laurent, though no longer a teacher, has taught for many years before becoming a curriculum director. In this study, teachers expressed their willingness to divert from traditional curriculum and they all had many years of experience. Furthermore, the teachers interviewed in

this study exhibited leadership characteristics– they were department chairs, a union representative, a PBL coordinator, and a curriculum leader, which may be related to their willingness to implement new strategies.

The teachers in this study are drawn to project-based learning and after trying it, as Tom Stewart explained, they can never go back. They were passionate about curriculum design, resourceful in finding people and places that could help students in their project endeavors, and most importantly, they believed that students are capable of becoming investigators, environmental scientists, business owners, and podcasters.

The implications of the correlation between the teacher profile and willingness to engage in project-based learning with community partners call for veteran teachers to mentor novice teachers in exploring opportunities like project-based learning with community partners. Furthermore, given that the four teachers I interviewed were all veteran teachers, there are implications for newer teachers, who are graduating credentialing programs. Although not a part of this research study, new teachers may learn about project-based learning in their teaching credential programs, at their school sites, or through professional development opportunities. We know that project-based learning is not a new phenomenon. However, entering into the teaching workforce as a temporary or probationary teacher may cause new teachers to be more cautious about delving into project-based learning.

In order to ensure that more teachers can believe in and execute project-based learning experiences with community partners in their classrooms, school and district leaders must incorporate project-based learning as part of wider instructional shifts and professional development practices. For example, districts can build consensus about the need for project-based learning and incorporate professional development training teachers on project-based learning. Districts must also create a culture and climate where young teachers are encouraged to engage in innovative teaching methods that have positive outcomes, even if they veer away from traditional teaching methods. District and school leaders, as well as teachers, must

recognize that project-based learning with community partners is a curricular diversion that is worth the risk.

Diversity of Approaches to Project-based Learning

A second personal observation that I made through the twelve interviews conducted was that for all four sites, the nuanced approaches to inquiry and research greatly varied depending on the type of project and partnership that was implemented. For some partnerships that were more business-focused, the partnerships typically included someone with business expertise, such as a retired bank president, a member of the Chamber of Commerce, an accountant, or a local businesswoman, who would work directly with students to help them make their business proposals, budgets, interviews, and presentations more realistic so that they could create profitable businesses. In some instances, students ran businesses and showcased their companies at Market Day at Mountain High School or ran a branch of a bank at River High School. In other cases, students engaged in car loan simulations at River High School. These types of business-oriented partnerships were geared towards increasing students' financial literacy, job market skills such as interviewing and resume writing – skills taught in traditional business classrooms but enhanced through industry experts who came in to support the lessons. There were also partnerships that had a more social political lens that offered student-driven, open-ended, inquiry-based projects that culminated with community-facing products. For example, the podcast that students worked on at River High School won an award with PBS and is a podcast episode that is available to the public. At Spring High School, teacher Matt Gonzalez shared multiple examples of students' public art projects and murals that were displayed in public spaces that showcased the unheard stories of marginalized people in the community as part of the People's History Project. At Bay High School, the local state university and the Shoreline Center worked with students to engage in scientific research and problem solving. Therefore, based on the context of the course, academy, and the purpose of the

project, the ways that teachers and community partners approached the project-based learning experiences were varied.

In this study, the projects were nuanced in how the curriculum aligned to rigor, relevancy, or student agency. Based on these observations, it is important for school programs to have a grounding framework for what constitutes a project-based learning experience and how community partners contribute to deepen student learning. Having such a framework can ensure that project-based learning with community provides access to rigorous, relevant learning opportunities that support student agency. None of the four schools that I worked with had specific frameworks that ensure quality of projects or the nature of community partnerships, although Mountain High School expressed they were in the process of creating one. In my own experience as a project-based learning curriculum specialist for a high school, we quickly discovered that the quality of our projects varied in rigor and quality of student work. Therefore, we worked in a professional learning community to create iterations of an instructional vision and rubric. The rubric that we developed over time was called our “RRA Feedback” which stands for Rigor, Relevancy, and Agency, which each of those fields broken down into sub-sections that we would use to assess projects that teachers developed with community partners. Our PLC would hold RRA feedback sessions, where teachers from various disciplines and students would sit and assess project ideas that were pitched by teachers. Teachers and students would provide feedback on these project ideas to ensure they were improved through an iterative process each year. This practice took three years to develop and implement. Because project-based learning with community partners is not a widespread school-wide practice for most sites, it is difficult to ensure standards of academic rigor and how much the community partner contributes to the rigor, relevancy, and student agency within that project. In my experience, including a community partner to a project made the project more engaging and authentic, but looking closely at the skills students engage in and the academic expectations set forth through these projects can vary.

Limitations

The first limitation of this study is the scope of the project due to the small number of participants, which makes this project not applicable to multiple contexts. This study gathered individual voices from twelve stakeholders from four sites - two in California, and two in two different states across America. Two of the four sites operate their project-based learning programming through the HS Lab Grant, a national grant that funds 19 high schools nationwide to rethink the high school experience. Three of the schools are Title I schools and the fourth school that is not categorized Title I is located in a rural region that has been economically struggling. Furthermore, 3 of the 4 schools are public and one is a charter school. According to Ravitch and Carl (2019), “the goal of qualitative research is not to produce true statements that can be generalized to other settings” (p. 168). The school sites and voices included in this study are specific to this study and do not represent the voices of all teachers, community partnership liaisons, community partners, or Title I schools.

The second limitation of this study is the possibility of selection bias and desirability bias during the interview. Participants may have chosen to participate because they were more passionate about sharing their stories or knew my role as someone who formerly worked at another HS Lab grant-funded school on projects and partnerships. Due to the participants’ and my own excitement on project-based learning and working with community partners, desirability bias may have inflated stories of success or downplayed challenges. Additionally, assumptions and biases I bring into this study, particularly due to my own background coordinating project-based learning with community partners, may have affected how I perceived and analyzed the findings. Specifically, I hold biases related to quality of projects, as it relates to rigor, relevancy, and student agency. This research project did not consider the quality of projects. Rather, it focused on the connections established and sustained by community partners, teachers, and liaisons, as they implement project-based learning. However, my own personal beliefs and

expectations on the quality of projects may have impacted how I perceived interview responses and how I analyzed the data.

Third, another limitation is dependability. According to Ravitch & Carl (2019), dependability refers to how the data is dependable in relation to the research question. When thinking of the data gathered and if the research questions were fully answered, there are some limitations. For example, many of the respondents shared stories about themselves and what brought them to do the work of project-based learning with community partners, which provided context and relevant information. However, the story-telling format also opened up the interview to stray away from the research questions. While I wanted to delve more deeply into the process of establishing and sustaining partnerships, teachers focused on sharing their personal stories and motivations for engaging in project-based learning.

Finally, a limitation in this study was in the data collection methods. It was initially planned that this study would incorporate two levels of interviews, where the first would be on individual interviews and the second would include focus groups. However, due to recruitment challenges, I was unable to conduct focus groups, which would have provided a deeper exploration into the interactions and collaborative nature of teams who worked together on project-based learning experiences. I had initially reached out to over 25 possible participants with the hope of interviewing at least six sites. However, due to educators' and community partners' busy schedules, unwillingness to voluntarily participate, or lack of response, only four sites were included in this study. Furthermore, conducting interviews with the twelve individuals spanned three months of time, and participants were unable to participate in an additional interview in focus groups due to busy schedules. Therefore, the research is limited in that only individual perceptions and perspectives were used to discern findings and implications regarding establishing and sustaining community partnerships for project-based learning.

Future Research Needed

These interviews provide a snapshot of the connections that teachers and community partners experience, but there is still very little research published on the topic of project-based learning with community partners. Specifically, the research incorporating students' outcomes, voices, and experiences is missing. There is little research that measures the quality of project-based learning based on measuring student learning outcomes, student surveys, student work samples, and student interviews. This particular study focused only on the adults in the experience– the teachers, community partnership liaisons, and community partners. Future research needs to include the voices of students. Furthermore, future research is needed in measuring the quality of community partnerships – how are we defining community partnerships and how are we measuring the quality of partnerships - is it by how meaningful or engaging the partnership was for students, how much it improves students' learning outcomes through pre- and post- surveys, or how often or involved the community partner is in co-teaching with the classroom teacher? There are many unanswered questions related to the topic of establishing and sustaining community partners that must be explored.

Lastly, another area for future research is in what school-community partnerships look like for curriculum and instruction. Although it is a common practice for school community partnerships to occur for extra-curricular programming or health and wellness support, there is a need to research what school community partnerships look like for teaching and learning. Partnerships between school and community for academic learning is especially relevant because of the recent California Community Schools Partnership program, which funds community schools across the state. One of the four pillars of this program is "enriched and expanded learning opportunities" (Maier & Niebuhr, 2021) which explicitly lists project-based learning and real-world educational experiences in the overview. How might schools interpret school community partnerships in the context of opening classroom spaces and partnering with community members like scientists from universities, documentary filmmakers, museum curators, and industry workers to support student learning? The need to explore the

phenomenon of project-based learning with community partners opens doors to future research that can continually drive educators to deepen student learning.

Conclusion

This research study includes valuable insights for educators, school leaders, and community partners interested in fostering school-community partnerships for project-based learning for high school students. Not all schools or teachers are willing to break down the walls that traditionally silo the classroom space from the outside community. For those educators and community partners who do engage in the unique work of bridging school and community to provide authentic real-world learning experiences that link curriculum with industry, it is necessary for their stories to be shared so that others who are inspired to do the same can learn from their experiences. Working outside one's own world is challenging, vulnerable, and not widespread, as we have heard from the voices of participants of this study. Yet, we know that providing our most underserved students with the opportunities to see themselves as climate activists, business owners, scientists, bankers, and historians can be powerful. Students can engage in what teachers perceive as deeper learning experiences, see the transformative power of working on projects within the spaces in their own communities, and connect content to authentic challenges in professional fields.

As we see a move towards community schools and a vision for equipping students with new skills for a technologically advanced world, there is an urgent need to push the way we traditionally teach and learn because learning should not be limited to a textbook inside of a classroom. This study aimed to learn from stakeholders' belief systems, the role of dedicated community partnership liaisons, and the strategies needed to ensure successful partnerships are established and sustained over time. By understanding the processes, strategies, and recommendations behind establishing and sustaining partnerships for project-based learning, we must work as a collective community to disrupt traditional teaching practices. We must be bold enough to bridge classrooms with community spaces, textbooks with activism, and lectures

with field work to make learning more project-based and authentically connected to the world for all of our students.

APPENDIX A

INTERVIEW PROTOCOL

INTERVIEW PROTOCOL

Hello! Thank you for agreeing to participate in this interview. I wanted to confirm with you that you received and read the study information sheet and you are consenting to be a part of this voluntary research study.

I also wanted you to know that I will be **recording** this conversation so I can **transcribe** it later. I will be using **pseudonyms** for school and participant names. Is that okay with you for me to record?

You probably already know my interest in exploring community partnerships for project-based learning from our email communication, the flier, and the study information sheet, but I am conducting this study to learn from you and your experiences because the idea of implementing PBL with a community partner is so something I think there's so much I can learn about, such as how these collaborations can happen. So, thanks so much for being part of this research and agreeing to be interviewed.

Pre-Question

Can you remind me again what your role is and what type of school you're at?

Context

1. Can you share with me the artifact that you brought to share with me today to tell me more about a specific PBL partnership that you've experienced? Would you walk me through the artifact and share your story?
    a. How did you collaborate with the community partner [teacher or liaison] to design this project-based learning experience possible?

Establishing Collaborative Partnerships

2. In your experience, what was the process of initiating contact with a community partner [teacher or liaison]?

3. Beyond the initial contact, what has the process been like for you in terms of collaborating with the community partner?

a. (Clarifying questions - back pocket questions)
    1. How did the collaborative meetings occur?
    2. When did the collaborative meetings occur?
    3. What resources were in place to support the collaboration with the community partner?

4. How did the partnership develop into creating a PBL opportunity for students? (What were the components of the PBL opportunity for students? How did you bring the activities you did with the community partner back into the classroom space)

[option if not yet addressed] How have you collaborated with the community partner to

create the performance task for students?

Barriers and Opportunities
5. From your perspective, what successes did you experience when collaborating with a community partner?

6. From your perspective, what kinds of challenges did you experience when collaborating with a community partner? How did you work around those challenges?

Role of Partnership Liaisons
7. From your perspective to what extent does the community liaison *(community partner OR teacher)* contribute to the collaborative process between the community partner and teacher?

8. From your perspective, how do other stakeholders, if at all, contribute to this partnership? (administrators, students, parents)

Sustaining Collaborative Partnerships
9. What do you believe is necessary for community partnerships to be sustained across multiple years? (oh, can you tell me more about that?)

Strategies in Establishing & Collaborating School Community Partnerships for PBL
10. To share with other educators interested in doing this type of partnership work for PBL– what are some of the ways that partnerships can extend beyond a field trip so that students can experience project-based learning with a community partner? What could you share with other educators about implementing project-based learning partnerships?
a. (possible follow-up) Do you have an example when you were able to do this really well?

Open-ended Closing:
11. We've talked about a lot. Is there something you really wanted to share that we weren't able to get to?

APPENDIX B

UNITS OF OBSERVATION CHART

Research Question	Units of Observation	Data Collection Method
Research Question #1 How do high school teachers and community partners establish and sustain collaborative partnerships?	• Lists and contacts from Community Partnerships Liaisons or Coordinators • Cold emails to potential community partners • Following leads from people in their community (friends, family, connections from principal, school, colleagues) • In-person visits and meetings • Zoom virtual meetings • Texting, email, Slack, or other methods of instant communication • Set meetings in a calendar • Meeting Agendas • PBL curriculum or unit plan templates, learning targets or documents	**Individual Interviews** (teachers, liaisons, or community partners) The following interview questions correspond with the research question: 1. Can you share with me the artifact that you brought to share with me today to tell me more about a specific PBL partnership that you've experienced? Would you walk me through the artifact and share your story? a. How did you collaborate with the community partner [teacher or liaison] to design this project-based learning experience possible? 2. In your experience, what was the process of initiating contact with a community partner [teacher or liaison]? 3. Beyond the initial contact, what has the process been like for you in terms of collaborating with the community partner? (Clarifying questions - back pocket questions) a. How did the collaborative meetings occur? b. When did the collaborative meetings occur? c. What resources were in place to support the collaboration with the community partner?

Research Question #1a What barriers and successes do teachers and community partners perceive that they face in these efforts?	• Lack of communication from community partner, from liaison, or from teacher (one or all) • Difficulty managing time • Difficulty establishing meetings • Challenges with aligning content in classroom and community partnership expertise • Positive personal relationships • Student Success Stories • Recurring Partnerships or sustained partnerships each year • Scheduled meeting times • Collaboration time embedded within work day • Collaboration time compensated by the school • Alignment of curricular goals	**Individual Interviews** (teachers, liaisons, or community partners) The following interview questions correspond with the research question: 5. From your perspective, what successes did you experience when collaborating with a community partner? 6. From your perspective, what kinds of challenges did you experience when collaborating with a community partner? How did you work around those challenges?

Research Question #1b How are community partnership liaisons perceived to contribute to the partnership between teachers and community partners?	• Initial recruiting of community partnerships • Setting up meetings between partners and teachers • Attending collaboration meetings between community partner and teachers • Being included in emails and correspondence between community partner and teacher • Advocating for embedded collaboration time with school leadership • Meeting with community partners first before determining best fit with	**Individual Interviews** (teachers, liaisons, or community partners) The following interview questions correspond with the research question: 7. From your perspective, to what extent does the community liaison *(community partner OR teacher)* contribute to the collaborative process between the community partner and teacher? 8. From your perspective, how do other stakeholders, if at all, contribute to this partnership? (administrators, students, parents)

	teacher teams or curriculum connections	

Research Question	Units of Observation	Data Collection Method
Research Question #2 What do teachers and community partners recommend as necessary strategies in establishing school community partnerships that extend into project-based learning experiences?	• Initial recruiting of community partnerships • Setting up meetings between partners and teachers • Attending collaboration meetings between community partner and teachers • Being included in emails and correspondence between community partner and teacher • Advocating for embedded collaboration time with school leadership • Meeting with community partners first before determining best fit with teacher teams or curriculum connections	**Individual Interviews** (teachers, liaisons, or community partners) The following interview questions correspond with the research question: 9. What do you believe is necessary for community partnerships to be sustained across multiple years? (oh can you tell me more about that?) 10. To share with other educators interested in doing this type of partnership work for PBL– what are some of the ways that partnerships can extend beyond a field trip so that students can experience project-based learning with a community partner? What could you share with other educators about implementing project-based learning partnerships? (possible follow-up) Do you have an example when you were able to do this really well?

Research Question #2a What processes and strategies do high school teachers and community partners utilize to co-design project-based learning experiences for students?	• Community Partner brings in resources, lessons, or ideas for project-based learning • Teacher and Community Partner co-create original project-based learning together on shared doc synchronously or asynchronous	**Individual Interviews** (teachers, liaisons, or community partners) The following interview questions correspond with the research question: 4. How did the partnership develop into creating a PBL opportunity for students?

	• Teacher and community partner communicate frequently • Teacher and community partner co-teach lessons together • Community partner is actively engaged in school community • Teacher is actively engaged with community partner's organization • Community partner attends showcase of student work • Community partner connects with students and creates relationships with school community	(What were the components of the PBL opportunity for students? How did you bring the activities you did with the community partner back into the classroom space) [option if not yet addressed] How have you collaborated with the community partner to create the performance task for students? 11. We've talked about a lot. Is there something you really wanted to share that we weren't able to get to?

REFERENCES

Ahn, J., & McEachin, A. (2017). Student enrollment patterns and achievement in Ohio's online charter schools. *Educational Researcher*, *46*(1), 44-57.

American Student Assistance (2021). Working to learn and learning to work; a state-by-state analysis of high school work-based learning policies. https://www.asa.org/research-study/working-to-learn-and-learning-to-work/

Anderson, D. (1999). *The development of science concepts emergent from science museum and post-visit activity experiences: Students' construction of knowledge.* Unpublished doctoral dissertation, Queensland University of Technology, Brisbane, Australia.

Bamberger, Y., & Tal, T. (2008). Multiple outcomes of class visits to natural history museums: The students' view. *Journal of Science Education and Technology*, *17*(3), 274-284.

Barron, B., & Darling-Hammond, L. (2008). Teaching for Meaningful Learning: A Review of Research on Inquiry-Based and Cooperative Learning. Book Excerpt. *George Lucas Educational Foundation*.

Behrendt, M., & Franklin, T. (2014). A review of research on school field trips and their value in education. *International Journal of Environmental and Science Education*, *9*(3), 235-245.

Bell, S. (2010). Project-based learning for the 21st century: Skills for the future. *The clearing house*, *83*(2), 39-43.

Billig, S., Root, S., & Jesse, D. (2005). The impact of participation in service-learning on high school students' civic engagement.

Bourdieu, P. (1986) "The Forms of Capital" in Richardson, J. G. (ed.) *Handbook of theory and research for the sociology of education*. New York: Greenwood Press, Pp. 241-258.

Californians for Justice. (n.d.). Why race and relationships matter in California schools. https://caljustice.egnyte.com/dl/XDr3C96lKt/

Casto, H. G. (2016). " Just One More Thing I Have to Do": School-Community Partnerships. *School Community Journal*, *26*(1), 139-162.

Coles, A. (2012). The Role of Community-Based Organizations in the College Access and Success Movement. Research to Practice Brief. *Pathways to College Network*.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

Darling-Hammond, L. (2014). Closing the achievement gap: A systemic view. In *Closing the achievement gap from an international perspective* (pp. 7-20). Springer, Dordrecht.

Darling-Hammond, L., Friedlaender, D., & Snyder, J. (2014). Student-centered schools: Policy supports closing the opportunity gap. *Policy Brief from Stanford Center for Opportunity Policy in Education. Stanford, CA: Stanford Center for Opportunity Policy in Education. Retrieved from https://edpolicy.stanford.edu/sites/default/files/scope -pub-studentcentered-policy.pdf.*

Darling-Hammond, L., Schachner, A., & Edgerton, A. K. (2020). Restarting and Reinventing School: Learning in the Time of COVID and Beyond. *Learning Policy Institute*.

Darche, S., Nayar, N., & Bracco, K. R. (2009). Work-based learning in California: Opportunities and models for expansion. *Los Angeles: James Irvine Foundation*.

DeWitt, J., & Storksdieck, M. (2008). A short review of school field trips: Key findings from the past and implications for the future. *Visitor studies*, *11*(2), 181-197.

Dupuis, J., & Ludwig-Palit, D. (2016). Simulation for authentic learning in informal education. *Journal of Museum Education*, *41*(2), 91-99.

Engberg, M. E., & Wolniak, G. C. (2010). Examining the effects of high school contexts on postsecondary enrollment. *Research in Higher Education*, *51*(2), 132-153.

Garoian, C. R. (1992). Art history and the museum in the schools: A model for museum-school partnerships. *Visual arts research*, 62-73.

Gruenewald, D. A. (2003). The best of both worlds: A critical pedagogy of place. *Educational researcher*, *32*(4), 3-12.

Hannon, K., & Randolph, A. (1999). Collaborations between Museum Educators and Classroom

Teachers: Partnerships, Curricula, and Student Understanding.

Heffez, A. & Bornstein, L. (2016). Youth Fusion's Urban Environment Project: Increasing Youth Participation in Urban Planning through Place-Based Environmental Education. *Children, Youth and Environments, 26*(2), 110-127. doi:10.7721/chilyoutenvi.26.2.0110

Kant, J. M., Burckhard, S. R., & Meyers, R. T. (2018). Engaging High School Girls in Native American Culturally Responsive STEAM Enrichment Activities. *Journal of STEM Education: Innovations & Research*, *18*(5), 15–25.

Kisiel, J. F. (2014). Clarifying the complexities of school–museum interactions: Perspectives from two communities. *Journal of Research in Science Teaching*, *51*(3), 342-367.

Kolb, D. A. (1984). Experiential learning: Experience as the source of learning and development. New Jersey: Prentice-Hall.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2014). Experiential learning theory: Previous research and new directions. In *Perspectives on thinking, learning, and cognitive styles* (pp. 227-248). Routledge.

Kwon, S. M., Wardrip, P. S., & Gomez, L. M. (2014). Co-design of interdisciplinary projects as a mechanism for school capacity growth. *Improving Schools*, *17*(1), 54-71.

Lin, N. (1999). Social networks and status attainment. *Annual review of sociology*, *25*(1), 467-487.

Maier, A., & Niebuhr, D. (2021). California Community Schools Partnership Program: A transformational opportunity for whole child education. Learning Policy Institute. https://doi.org/10.54300/806.436

Marcus, A. S. (2008). Rethinking museums' adult education for K-12 teachers. *Journal of Museum Education*, *33*(1), 55-78.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach*. Sage publications.

McCombs, G. B., Ufnar, J. A., & Shepherd, V. L. (2007). The Virtual Scientist: connecting university scientists to the K–12 classroom through videoconferencing. *Advances in*

Physiology Education, *31*(1), 62-66.

Maier, A., & Niebuhr, D. (2021). California Community Schools Partnership Program: A Transformational Opportunity for Whole Child Education. Policy Brief. *Learning Policy Institute*.

Melaville, A., Berg, A. C., & Blank, M. J. (2006). Community-based learning: Engaging students for success and citizenship.

Mergendoller, J. R., Maxwell, N. L., & Bellisimo, Y. (2006). The effectiveness of problem-based instruction: A comparative study of instructional methods and student characteristics. *Interdisciplinary journal of problem-based learning*, *1*(2), 49-69.

Merriam, S. B. *& Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). San Francisco: Jossey-Bass Publishers.

Miner, J., & Elshof, L. (2007). Empowering youth: An international program prepares students to lead environmental stewardship of the Gulf of Maine watershed. *The Science Teacher, 74*(4), 24–26.

Murillo M. A., Hunter Quartz, K., & Del Razom J. (2017). High School Internships: Utilizing a Community Cultural Wealth Framework to Support Career Preparation and College-Going Among Low-Income Students of Color, *Journal of Education for Students Placed at Risk (JESPAR), 22*(4), 237-252, DOI: 10.1080/10824669.2017.1350182

Noguera, P., Darling-Hammond, L., & Friedlaender, D. (2015). Equal Opportunity for Deeper Learning. Deeper Learning Research Series. *Jobs for the Future*.

Patton, M. Q. (2015). Qualitative research and evaluation methods. (4th ed.). Thousand Oaks, CA: Sage.

Powers, A. L. (2004). An evaluation of four place-based education programs. *The Journal of Environmental Education*, *35*(4), 17-32.

Quitadamo, I. J., & Campanella, R. (2005). Cougars, & Curriculum, Community. *The Science*

Teacher, *72*(4), 28.

Ravitz, J. (2008). Project Based Learning as a Catalyst in Reforming High Schools. *Buck Institute for Education*.

Rogers, M., Livstrom, I., Roiger, B., & Smith, A. (2020). Growing North Minneapolis: Connecting Youth and Community through Garden-based Experiential Learning. *HortTechnology*, *30*(1), 25-30.

Setodji, Remote Learning Is Here to Stay: Results from the First American School District Panel Survey. Santa Monica, CA: RAND Corporation, 2020. https://www.rand.org/pubs/research_reports/RRA956-1.html.

Severance, S., Penuel, W. R., Sumner, T., & Leary, H. (2016). Organizing for teacher agency in curricular co-design. *Journal of the Learning Sciences*, *25*(4), 531-564.

Scornavacco, K., Kelly, M. R., & Boardman, A. (2021). Leading with Curricular Co-Design: An Exploration of Teacher Leadership Through the Co-Design Process. *Journal of Research on Leadership Education*, 19427751211017595.

Smith, G. A. (2007) Place-based education: breaking through the constraining regularities of public school, *Environmental Education Research, 13*(2), 189-207, DOI: 10.1080/13504620701285180

Smith, G. A. (2011). Linking Place-Based and Sustainability Education at Al Kennedy High School. *Children, Youth and Environments, 21*(1), 59-78. Retrieved October 24, 2020, from http://www.jstor.org/stable/10.7721/chilyoutenvi.21.1.0059

Sorensen, H. (2003). *School visits at science centres: It's fun, but is it learning?* Paper Presented at the meeting of the National Association for Research in Science Teaching, Philadelphia, Pennsylvania.

Spring, K., Grimm, R., Jr., & Dietz, N. (2008). *Community service and service learning in*

America's schools. Washington, DC: Corporation for National and Community Service, Office of Research and Policy Development. Retrieved from https://files.eric.ed.gov/fulltext/ED506728.pdf.

Topçiu, M. (2015). Vygotsky theory on social interaction and its influence on the development of pre-school children. *European Journal of Social Science Education and Research*, *2*(3), 172-179.

United Nations Educational, Scientific, and Cultural Organization. 2020. *Museums around the world: In the face of Covid-19*. UNESCO. https://en.unesco.org/news/launch-unesco-report-museums-around-world-face-covid-19

Washor, E., & Mojkowski, C. (2013). Leaving to learn: How out-of-school learning increases student engagement and reduces dropout rates. Portsmouth, NH: Heinemann.

Weiner, L. (2003). Why is classroom management so vexing to urban teachers? *Theory into practice*, *42*(4), 305-312.

Willems, P. P., & Gonzalez-DeHass, A. R. (2012). School-Community Partnerships: Using Authentic Contexts to Academically Motivate Students. *School Community Journal*, *22*(2), 9-30.

Wolff, J. R., & Rogers, J. R. (2019). Resources and Readiness: Exploring Civic Education Access and Equity in Six New York High Schools. *Center for Educational Equity, Teachers College, Columbia University*.

Yosso, T. J. (2005) Whose culture has capital? A critical race theory discussion of community cultural wealth, *Race Ethnicity and Education, 8*(1), 69-91, DOI: 10.1080/1361332052000341006