Research-Practice Partnerships: A Case Study About Boundary Work Across Communities of Practice, University Researchers, and K-12 Practitioners

"A Tale of Two Brokers"

by

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ABSTRACT

This dissertation examines the dynamics of research-practice partnerships (RPPs) through a qualitative multiple-case study that explores the boundary work between university researchers and K-12 practitioners. It is framed within Wenger's communities of practice theory and focuses on the concept of 'boundary work,' which is pivotal in understanding the collaboration and knowledge exchange in these partnerships. The study is titled "A Tale of Two Brokers" reflecting the critical role of individuals who bridge the divide between academic and practical spheres. It argues that the concept of boundary work is critical in understanding and improving the functioning of RPPs, suggesting that more attention should be paid to the role of brokers in facilitating these partnerships.

Key findings reveal that effective boundary work in RPPs is contingent on mutual respect, shared goals, and a deep understanding of each community's values and practices. The study highlights that while researchers and practitioners often have different priorities and approaches, successful brokers can harmonize these differences to create a productive partnership. These brokers often possess qualities such as flexibility, strong communication skills, and a deep understanding of academic and practical contexts.

In conclusion, this study contributes to the broader understanding of how university researchers and K-12 practitioners can effectively collaborate. It underscores the importance of recognizing and nurturing the role of brokers in RPPs, providing valuable lessons for future collaborations between academic researchers and practitioners in various fields.

DEDICATION

Dad, I miss you so much.
You live in me through this…

継続は力なり
keizoku wa chikara nari

Persistence is power
Perseverance leads to success

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This incredible journey would not have been possible without those who surrounded me with care and love, always knowing what I needed. I give my heartfelt appreciation and deepest gratitude to the following.

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"As we express our gratitude, we must never forget that the highest appreciation is not to utter words, but to live by them." ~ John F. Kennedy

TABLE OF CONTENTS

Page

LIST OF TABLES viii

LIST OF FIGURES ix

CHAPTER

1 INTRODUCTION 1

Situated Context 7

Problem of Practice and Purpose of the Study 13

2 THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE STUDY 14

Research-Practice Partnerships 14

Community of Practice Theory 16

Work at Boundaries 21

Implications for the Profession and This Study 24

3 METHODOLOGY 26

Introduction 26

Methods and Design 28

Methods 28

Design 29

Setting 30

Participants 31

Role of the Researcher 32

Instrumentation and Protocol for Data Collection 33

CHAPTER Page

Data Collection 34

Documentation 34

Researcher-Participant Observations 35

Interviews 36

Data Analysis 40

Validity and Credibility 43

Ethical Assurances 44

Summary 45

4 FINDINGS 47

Organization of the Chapter 47

Within Case Findings 48

Case Study #01: Nora 49

Background of Case #01 49

Theme 01: Joint Work at Boundaries—Forging New Relationships 50

Theme 02: Identity and Belonging Within and Across CoPs 57

Case Study #02: Shea 62

Background of Case #02 62

Theme 01: Negotiating Meaning in the Boundary-Crossing Space 64

Theme 02: Broker Identity as a Multifaceted Role 71

Cross Case Findings 80

Relationship Building and Trust 81

Broker Identity and Positionality 82

CHAPTER Page

Power Dynamics and Hierarchical Structures 83

Negotiating Meaning and Partnership Practices 84

Strategies for Engagement and Boundary Crossing 85

Cross Case Analysis in Relation to the Research Questions 86

Conclusion 88

5 DISCUSSION 90

Summary of Findings 91

Relationship Building and Trust as a First Step to the Work at Boundaries 91

Broker Identity Development and Navigating the Unique Local Context 95

Reification as a Stategy for RPP Continuous Improvement 99

Limitations 101

Implications for Further Research 102

Implications for RPP Practices 103

For the Broader RPP Community 104

For the Local RPLP 105

Closing Thoughts and Recommendations 105

REFERENCES 110

APPENDIX

A PARTICIPANT JOURNALS 118

B INTERVIEW QUESTIONS 120

C IRB APPROVAL 122

LIST OF TABLES

Table Page

1. Data Collection Timeline and Procedures 39

2. Case 01 Findings: Themes, Subthemes, and Assertions 50

3. Case 02 Findings: Themes, Subthemes, and Assertions 64

LIST OF FIGURES

Figure Page

1. Wenger's Community of Practice as a Social Theory of Learning 17

2. Cross Case Themes Derived from Within Case Themes and Subthemes 81

CHAPTER 1

INTRODUCTION

"Research is formalized curiosity. It is poking and prying with a purpose."

- Zora Neale Hurston

Educational research has become increasingly more important as the public school system in the United States faces more social and economic inequalities and a growing mistrust that the system can provide solutions that will meet the needs of all students (Welsh, 2021). The purpose of educational research, since its inception in the 1800s, has been to close the gap between research and practice. Dewey's efforts in the 1930s to promote the scientific method as a process for approaching educational research attempted to bring more objectivity to the research (Mertler & Charles, 2010). Fast-forward to 2001 with the federal government's involvement in promoting educational research with the No Child Left Behind Act (NCLB), which required the use of scientific research results in just about all decision-making (Whitehurst, 2010). In addition, in 2002, the Institute of Education Science (IES) was established, whose responsibility it was to provide the research findings through the What Works Clearinghouse (Whitehurst, 2010). Following in the footsteps of NCLB, the Every Student Succeeds Act (ESSA) continued the focus on evidenced-based interventions (United States Department of Education, 2016). Despite these federal policy efforts to mandate research use, utilizing research findings to inform decision-making remains an inconsistent practice, fueling the concern that the gap between research and practice still exists (Farley-Ripple et al., 2018). Why is this the case? Farley-Ripple and colleagues (2018) posited there often

exists a dissonance regarding the differences in cultures, contexts, and system goals and explanations between the research and the practice communities. In his study on the disconnect between research, policy, and practice, Berliner (2009) described this dissonance as a disconnect in which “the abstract and simplified research from educational scientists does not easily cross over to the concrete and complex world of practice” (p. 312). Despite the dissonance, the need for valid and reliable answers to educational issues remains, and researchers and practitioners continue to come together to address this need (Biag & Sanchez, 2016; McLaughlin & Black-Hawkins, 2004; Mutch et al., 2015).

Educational research can be addressed in different research structures as a way to bridge the gap between research and practice. Here, I will discuss two distinct structures that have occurred most frequently in my 30 years of experience in a prekindergarten (PK)–12 public school district: practitioner-designed action research and university researcher-designed studies. Action research as a way to study a practitioner’s own classroom or school environment has become a common expectation for teachers in higher education degree programs. In the 1940s, the social psychologist Kurt Lewin introduced the term action research to promote social action and active participation of practitioners in the research process (Noakes, 2021). Since Lewin’s early influence, action research has flourished and is mostly described as emphasizing the close relationship between research and practice and clarifying that it is done by those in the field to change or improve practice (Noakes, 2021). With the influences and enhancements of theorists such as Stenhouse and Kemmis, action research has emerged as a model of educational research often used by practitioners (Knox, 1971; Noakes,

2021; Plano Clark & Creswell, 2020). There are several models of action research, some with a cyclical nature, others with a spiraling process, and others with flow diagrams, yet each model starts with identifying a central problem or topic that is actionable, a problem of practice. Each model also includes monitoring of current practice, data collection, and an action or intervention (Mertler, 2019). According to a literature review spanning 15 years, action research has also evolved as a theoretical and practical approach to research in graduate-level teacher education programs (Vaughan & Burnaford, 2016). Action research aims to close the gap between research and practice and promote the use of research results to improve student outcomes (Mertler, 2019).

One of the shortcomings of action research lies in the fact that there is a local emphasis that sometimes does not stretch beyond the participating classroom and teachers (Knox, 1971). In addition, critics of action research have questioned the validity and objectivity of action research since it is conducted within the practitioner's own context. The practitioner's knowledge level in conducting scientific research has also been questioned. As a teacher, there may be a lack of familiarity with basic scientific research techniques and statistical knowledge (Hodgkinson, 1957; Mertler, 2019). The second research structure that occurs in the K–12 school environment is that which is designed and prepared by university researchers based on their area of research and interest to inform the broader field of study (Creswell & Poth, 2016; Mertler & Charles, 2010). The research projects are transactional, where the researchers pursue their goals absent a shared purpose (Ralston et al., 2016). As producers of high-quality research, the university researcher will choose the methodology and design that best fits and makes sense for the research question (Plano Clark & Creswell, 2020). Once the research study

has been defined, researchers will look for participants that align with the study's purpose. They will reach out to school districts, sites, or individuals to generate interest, determine access and build rapport, and complete the institutional review board (IRB) process and any other ethical and legal agreements that need to be addressed (Creswell & Poth, 2016). Once the research study is finalized, the transaction is complete, and the partnership ends.

These two structures, practitioner-designed action research and university-designed research, intend to bring research into the classroom to solve problems facing education. However, as previously articulated, each has characteristics that can be limiting. Action research is contained to the specific classrooms limiting impact on the field, can be weak in validity and objectivity, and may lack scientific methodology, all positive characteristics for university-designed research. In contrast, university-designed research is focused on the larger field of study, not taking into account the specific problems localized in classrooms, a predetermined purpose, methodology, and design that may or may not fit the local environment, and is transactional, all challenges that can be resolved by practitioner-designed action research.

In looking at educational research through the lens of a larger-than-local scale to ensure that research plays a significant role in educational improvement beyond one teacher or one classroom, new ways are being created by policymakers, funders, and researchers that bring researchers and practitioners together as partners to codesign studies that address problems of practice. As part of the renewed interest in engaging researchers and practitioners together, research-practice partnerships (RPPs) are gaining attention (Coburn & Penuel, 2016). RPPs are defined as researchers and district leaders

working together in the following ways: (a) long-term, (b) focused on problems of practice, (c) committed to mutualism, (d) using intentional strategies to foster partnerships, and (e) producing original analyses (Penuel et al., 2015). RPPs can provide the structure necessary for schools, universities, or other organizations to sustain collaboration to improve student learning opportunities (Henrick et al., 2017). According to the National Center for Research in Policy and Practice's Technical Report No. 4, RPPs can influence not only policies and practice but also the design of professional development and the thinking practices and decisions of teachers and teacher leaders (Penuel et al., 2020).

RPPs are a strategic way to pursue collaborative approaches between researchers and practitioners to face the challenges together (Coburn & Penuel, 2016; Farrell et al., 2021). As Farrell and colleagues (2021) posited in the recent report on RPPs in education, research needs to engage now more than ever to address the persistent challenges that local educational communities face. However, RPPs are not without partner challenges (Coburn & Penuel, 2016; Henrick et al., 2017). There are challenges to organizational infrastructure in promoting collaboration, challenges with building shared meaning, challenges in building trusting relationships, and challenges to evaluation, scale, and sustainability (Phelps, 2019). This is the nature of RPPs, and Penuel et al. (2015) frame this work as "joint work at boundaries" (p. 184), where participants will encounter boundaries that separate the worlds of each organization and boundaries within each complex organization (Penuel et al., 2015). The distinct institutional cultures create the boundaries that exist for each partner organization, and each has clear distinguishing characteristics (Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2015). The practices

that intentionally focus on the relational, operational, and sustainability challenges are considered boundary practices and will play a role in the success of the partnership in order for the work to be meaningful for both partners (Penuel et al., 2015; Wenger, 1998). When engaging in an RPP, there are essentially overlapping boundaries between two communities of practice (CoP), which can be successful as long as each does not become completely self-motivated (Wenger, 1998).

So, what does it take to establish a successful RPP? In a social policy report, Tseng and colleagues (2017) outlined the complex elements that come together and evolve over time. Structuring the partnership, developing shared commitments, building capacity, and establishing funding are all factors in the partnership identity (Tseng et al., 2017). Three key principles set RPPs apart from other research endeavors: mutualism, commitment to long-term collaboration, and continually fostering trusting relationships (Coburn & Penuel, 2016; Tseng et al., 2017). RPPs bring together a diverse set of expertise from the partnership entities and are intentionally organized in that manner to allow the participants to bring their perspectives and experiences to the problem of practice (Farrell et al., 2021). “The focus in RPPs is on building two-way streets of engagement” (Tseng et al., 2017, p. 3).

In order to assist in setting the context and purpose of this study, it is important to identify existing research regarding RPPs and where questions may still exist. Research on the impact of RPPs in education is sparse and tends to focus on the challenges they face, not necessarily on the partnership designs and strategies. Studies are also limited about the partnerships’ value beyond the particular innovations they may produce or whether participants’ beliefs and practices are impacted. Research also exists regarding

partnership dynamics in which organizational strategies that partnerships employ to help them connect and learn from one another are explored and described. However, more focus on this area is needed in the field (Coburn & Penuel, 2016).

In order to establish the RPP, specific relational and organizational strategies must occur as the joint work at boundaries of the communities. Bringing together the two communities' diverse backgrounds and knowledge bases to build relationships and define the partnership with intentionality are the first boundary practices to be addressed. Boundaries are used not only to define a group or organization's identity but also to be a place to make connections to others (Edwards, 2011; Wenger, 1998). Wenger (1998) described two types of connections through which practices influence one another: boundary objects and brokering. Boundary objects are documents, forms, or instruments that help communities of practice organize their work together. Brokering is done by the people, the brokers, who help bridge the communities by introducing elements of each community's practice (Hartmann & Decristan, 2018; Wenger, 1998). With respect to RPPs and two CoPs that meet at their boundaries to forge a partnership, I am interested in exploring more deeply these two types of connections, boundary objects, and brokering to understand better how RPPs establish and maintain a long-term, mutually beneficial partnership built on trusting relationships.

Situated Context

Santa Clara Unified School District is located in Northern California in the heart of Silicon Valley and serves prekindergarten through 12th grade (PK–12) students in 31 schools. The district is ethnically diverse, with the three largest groups being Hispanic/Latinx (37%), Asian (29%), and White (18%), and linguistically diverse, with

over 50 different languages spoken. Thirty percent of the students are socioeconomically disadvantaged, and 14% have Individualized Education Plans (IEPs) requiring special education services. The district is located within an hour's drive of 10 major research universities and sits among some of the world's largest and most influential technology and innovation companies. The student demographics and location of the district cause the organization to be known for having desirable environments for conducting educational research.

In my role as the assistant superintendent, I approve research study requests across all schools, programs, and classrooms. Over the course of several years of experience, two main structures of research requests have come my way. The first structure is individual action research projects by staff enrolled in postgraduate degree programs or continuing education programs in their occupational field. Generally, these practitioner scholars study a problem of practice within their own environment, classroom, or school and contribute to a cycle of continuous improvement in their practice or structures. From these action research projects, there have been direct and sometimes immediate benefits of improved student outcomes through an innovation that refines a program or instructional framework and also benefits to the teacher through experiential knowledge building that improves practice. I have seen this type of action research bring change to instructional practices and improved programming due to the increase in knowledge and the deliberate connection to research as a component of a continuous improvement cycle. I have conversely experienced some of the limitations of action research. Since action research is limited to the particular research environment and participants, it tends to stay localized and does not spread to other areas of the school

or organization. I have witnessed the struggle to ensure a high level of objectivity and validity of the action research due to the practitioner's inexperience as a researcher. Action research has also led to high bias levels due to the practitioner's situated context within the environment.

Another type of educational research request that comes my way is research studies proposed by a university or government agency. Typically, in these requests, university or government researchers are looking for participating schools or classrooms for broad studies funded by a third party, such as the National Science Foundation, the U.S. Department of Education, or a research and development agency. The researchers approach us with a developed plan, and if the study's scope overlaps with our interest, we have participated. These experimental research requests come regularly, and participation has resulted in varying outcomes for the district and researchers. At first glance, these experimental research requests sound intriguing to the district and can be enticing as they sometimes offer additional support through teacher professional development, classroom support, or funding. The researchers are often eager as they secure an environment that will allow them to study a topic of interest for which they have received funding and support and afford them the opportunity to add to the research literature base in their specific field of education. As the research studies begin, the expectations are filled with the hope of new relationships, new learning, and promising outcomes. In my experience, these experimental research studies have brought some benefits and signs of success, especially in the short term, to both the practitioners and the researchers, and have also brought challenges that sometimes cannot be overcome.

During the years of involvement in research studies, there have been benefits for the district and our university research partners. For example, as part of a study conducted by the U.S. Department of Education on Positive Behavior Interventions and Supports (PBIS), seven of our elementary schools were selected to participate in extensive professional development and coaching to implement PBIS fully at their school. The research study made a long-lasting impact on student behavior and school climate at those seven schools, and the participating schools continue to have a very strong PBIS system in place 5 years beyond the scope of the research study. The researchers successfully completed their study, building on the evidence of the impact of PBIS on school-wide culture and behavior (Condliffe et al., 2022).

Another example of a beneficial research partnership was a research and development study conducted by a neuroscientist and her research team. This research team intentionally made an effort to build strong, trusting relationships that allowed the team to conduct research by meeting with the school teams to learn about the school culture and community, providing lessons in the classroom, and delivering a keynote on executive functioning brain development to the entire organization. The study led to additional research literature on design considerations for using innovative technologies to enhance executive functioning (Uncapher, 2019), and our students and staff benefited through the increased knowledge about brain development and learning. These examples were beneficial in ways to both the study participants and the researchers.

In contrast, there have been other experiences where partnership research studies have not fulfilled the expectations of the practitioners or the researchers. During a research study, teachers were expected to implement an intervention with fidelity in

regard to minutes per week and keep a tracking document provided by the researchers every week. In the first week, teachers were not able to meet the number of minutes or keep up the log. The researchers prompted and reminded the teachers in the following weeks, and even with incentives, the teachers could not find time to complete the requirements of the intervention as outlined by the study. According to teacher feedback, this challenge was mainly due to a lack of time on the teacher's part to complete the particular tasks that were required for the intervention. This made it very difficult for the researchers who were expected to complete the research in a specific way and time based on their funded study proposal. In another instance, while in the midst of the pandemic and school closures, a research study came to a halt, not allowing for either the participants or the researchers to realize the study outcomes. The study included videotaping lessons in classrooms, and though the researchers and participants thought of multiple solutions, the lack of inability to find a mutually beneficial solution caused the study to be shut down and the funding to be returned.

The realities of PK–12 districts partnering with researchers bring both benefits and challenges, and the predictability of mutually beneficial partnering has eluded us. From the PK–12 practitioner perspective, educators lack the commitment, time, and space to be devoted to the research and are often involved in multiple research projects or initiatives, generally with no connection to each other. Even when a school has the time and bandwidth to commit, the unintended consequences of the human environment suggest the need for an iterative research process in which parameters can be flexible and methodological processes can pivot when necessary. Unless certain flexibilities are built into the research plan from the beginning, the researcher is limited in the ability to make

significant changes because of funding structures and IRB approvals. As the person responsible for approving research studies for the district, I have been challenged with finding a way to bring research closer to our practice in a predictably mutually beneficial way to us and the partnering researchers.

As was previously stated, the teaching and learning environment of Santa Clara Unified has been of interest to many local universities. In a current, long-standing partnership with Stanford University's Graduate School of Education (GSE), teacher candidates who are working toward a teaching credential are placed with resident teachers in our schools. Though the partnership is not one in which research studies are conducted, the existing relationship with the GSE laid the foundation for a new partnership opportunity. In 2019, the codirector of the Learning Differences Initiative, a GSE faculty member, proposed a partnership with the district on behalf of the GSE. The partnership is specifically structured as an RPP, and its intent is to align with the characteristics of RPPs: long-term, mutualistic, and codesigned (Coburn & Penuel, 2016; Coburn et al., 2013). When the partnership was proposed, I was unfamiliar with and had no understanding of what an RPP was and how it differed from the research studies educators had experienced. As part of an initial research cycle, I investigated RPPs through a literature review and interviews with RPP participants from PK–12 organizations and research organizations. Upon learning the benefits that this type of partnership can bring to our staff and students and the larger field of education, I conducted a second cycle of research to increase my team's knowledge of RPPs and readiness for entering into an RPP through literature review and discussion sessions. After 2.5 years and through several leadership changes in the district, a partnership was

formalized between the GSE and Santa Clara Unified School District in late 2022. Because the focus is on learning together in a collaborative way, the partnership has been named our Research-Practice Learning Partnership, or RPLP. The addition of the word "learning" into our RPP's title was deliberate in calling attention to the mutual learning across organizations that we will intentionally foster.

Problem of Practice and Purpose of the Study

A challenge of existing RPPs that can make or break them is forming a new CoP from two well-established CoPs (Wenger, 1998). As the RPP began, it was important to take time to cocreate an environment that allowed us to explore the space where the two CoPs meet, the work at boundaries of each organization. Therefore, the intent of this qualitative research was to conduct a case study on the work at boundaries of these two communities of practice, the PK–12 practitioners and the university researchers, by examining boundary objects and brokering, the two types of connections that create continuity between the CoPs (Wenger, 1998). This case study builds upon previous research cycles as previously described and will inform later research cycles.

Through this case study, the intent was to answer the following two research questions and the subquestion:

RQ1: How do brokers navigate the joint work at boundaries between two communities of practice? **SQ1:** What boundary objects do the brokers use to connect the two communities of practice?

RQ2: In what ways do boundary objects and brokering impact continuities across boundaries?

CHAPTER 2

THEORETICAL PERSPECTIVES AND RESEARCH GUIDING THE STUDY

"In theory, theory and practice are the same.

In practice, they are not."

- Albert Einstein

RPPs involve the participants, university researchers and classroom teachers, co-constructing learning to build a long-term, lasting partnership that is mutually beneficial to all. RPPs also involve deeply connecting participants from two institutions with unique and different structures and cultures (Tseng et al., 2017). The theoretical perspectives and research guiding this project are presented in four sections. The first section presents a deeper dive into the literature and theoretical perspectives related to RPPs. In the second section, information related to CoP theory and its connection to RPPs is provided, and in the third section, a more specific examination of work at boundaries of organizations is presented. In the concluding section, implications from these three theoretical perspectives on the current study of boundary work across two CoPs in a new RPP will be explored.

Research-Practice Partnerships

RPPs can be a promising approach to connecting theory and practice by formally bringing practitioners and researchers together under specific arrangements (Coburn & Penuel, 2016). The formality of naming RPPs in literature is relatively new. Through a literature search, beginning in the late 1990s and mid-2000s, the phrase 'research-practice partnership' begins to appear as a way to describe relationships between practitioners and researchers. Some examples of studies in which the phrase begins to appear include a

study of guiding principles of practice in partnerships in the medical field (Baker et al., 1999), collaborative partnerships in the field of mental health (Garland et al., 2006), and improving teaching practices in the field of education (McNaughton et al., 2004). However, the earliest indication of an attempt to provide a specific description and definition of an RPP did not emerge until the 2013 article "Research-Practice Partnerships: A Strategy for Leveraging Research for Educational Improvement in School Districts" (Coburn et al., 2013). In this article, Coburn and colleagues (2013) defined RPPs as "long-term, mutualistic collaborations between practitioners and researchers that are intentionally organized to investigate problems of practice and solutions for improving district outcomes" (p. 2). The definition includes a description of the five distinct principles that set RPPs apart from other research partnerships: long-term, focused on a problem of practice, committed to mutualism, intentional strategies to foster partnerships, and production of original analyses (Coburn et al., 2013).

Since that time, other types of RPPs have continued to emerge in education and other fields, such as mental health, welfare, and criminal justice, including partnerships with government agencies, healthcare systems, and community organizations (Farrell et al., 2021; Tseng et al., 2017). With the expansion of RPPs, the principles that define them have also shifted. According to Tseng and colleagues (2017), the three most important key principles are mutualism, commitment to long-term collaboration, and trusting relationships. With the intent of broadening the description and principles beyond the field of education, Farrell and colleagues (2021) have evolved their five principles to include long-term collaborations, work toward educational improvement or equitable transformation, research as a leading activity, intentionally organizing to include a

diversity of expertise, and strategies to shift power relations so that all participants have a voice. Though the defining characteristics have evolved over the last decade, both the original and the more recent versions continue to set RPPs apart from other types of partnerships by all of the previously named characteristics (Coburn & Penuel, 2016; Coburn et al., 2013; Farrell et al., 2021; Henrick et al., 2017; Penuel et al., 2020; Tseng et al., 2017).

Community of Practice Theory

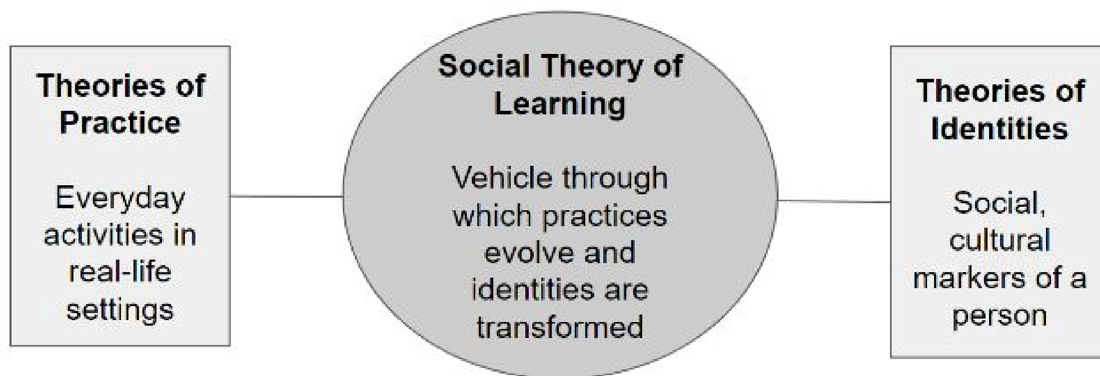
CoP was first proposed as a concept by Jean Lave and Etienne Wenger in 1991 in their book *Situated Learning* (Lave & Wenger, 1991). The authors introduce situated learning as a social process in which learners participate in communities of practitioners. As newcomers join the community, they learn from and with other members, moving them to full participation in the sociocultural practices of the community (Lave & Wenger, 1991). This early work set the foundation for Wenger to further develop and expand the theoretical perspective of the social learning theory (Wenger, 1998).

A CoP can be described as individuals who share a common concern, passion, or goal and learn individually and as a community when they interact with each other (Wenger, 1998; Wenger et al., 2002; Wenger-Trayner & Wenger-Trayner, 2015). Members also have shared histories of learning. CoPs can be through families, work, school, or hobbies and are more than just a group of individuals who “know” each other. They are formed when there is mutual engagement and relationships and where the meaning of the practice is continually negotiated (Wenger, 1998; Wenger-Trayner & Wenger-Trayner, 2015). CoPs have a jointly understood and negotiated enterprise where the members have concerns or responses in common, even though the responses or

actions still vary from person to person. Wenger (1998) offers the example of the unit supervisors for claims processors who have a unique identity that informs their responses and actions as they rise through the ranks and step into new roles. Another characteristic of a CoP is a shared repertoire, which exists and involves a shared pursuit and shared behaviors or activities that are sometimes reified through forms, documents, or other artifacts (Wenger, 1998; Wenger et al., 2002; see Figure 1).

Figure 1

Wenger's Community of Practice as a Social Theory of Learning



Note. Adapted from *Communities of Practice: Learning, Meaning, and Identity (Learning in Doing: Social, Cognitive and Computational Perspectives*; 1st ed.), by E. Wenger, 1998, Cambridge University Press. Copyright 1998 by Cambridge University Press.

As shown in Figure 1, Wenger's CoP theory is a social theory of learning, which he situates in the middle of theories of social practice and theories of identity. Theories of social practice emphasize the social systems in which groups coordinate their activities, relationships, and interpretations. Aspects of practice include how CoPs use practice to negotiate and participate in meaning-making, build communities around mutual

engagement, develop as a structure over time, and create boundaries that are part of a larger social construct (Wenger, 1998). Theories of identity focus on the individual from a social perspective and use markers of membership to understand the individual and the mutual constitution between the individual and the group. Attention to the individual in relation to the collective, participation and nonparticipation, belonging, and the identification and negotiability within CoPs drive the focus of identity (Wenger, 1998). Learning falls in the middle as a vehicle for both the evolution of practices and the development of individuals (Wenger, 1998). In Wenger-Trayner and Wenger-Trayner's (2015) more recent work, they name three crucial characteristics of CoPs: the domain of knowledge, the community, and the practice. A CoP has an identity defined by a shared domain of interest, and members are committed to the domain and their shared competence. Community characteristics are described as members pursuing an interest in the domain, engaging in activities and discussions together, and building relationships that foster learning between the members. The third characteristic, practice, is that members of a community of practice are practitioners who share experiences, tools, and ways of addressing challenges. When the elements of a domain of knowledge, community, and practice are nurtured and developed concurrently, CoPs are strengthened (Wenger et al., 2002; Wenger-Trayner & Wenger-Trayner, 2015).

"Organizations are social designs directed at practice" (Wenger, 1998, p. 241), and therefore, CoPs are key to organizations because they drive the evolution of competence. CoPs are different from organizations themselves because they negotiate their own enterprise, evolve, and change based on their own learning and shape their own boundaries that are not necessarily the same boundaries as the organization (Wenger,

1998; Wenger et al., 2002). Take, for example, the multiple CoPs that an educational organization may have, including students as a whole or in a particular field of study, instructors as a whole or in a particular field of study or department, those that support the operational aspects of the organization, such as the groundskeepers or the admissions officers, etc. The educational institution sets expectations for the organization as a whole, but the CoPs give the institution life by focusing on learning together to evolve their specific area of practice (Wenger, 1998; Wenger et al., 2002).

In a qualitative explanatory case study focused on social learning and the effects on CoPs within a multi-level charitable organization, Chung (2019) studied the CoPs within the organization, each with the same domain of interest (sustainability). The study focused on the actions of the lead members of the CoP to explain the social learning that took place and its effects on the CoP, both individually and collectively. Twenty-two interviews were conducted over 3 months with CoP leads and subgroup members to find out how the CoP lead members source and apply knowledge, negotiate community identity, and create community effectiveness toward CoP goals (Chung, 2019). The research findings added to the field of knowledge about CoPs by concluding that social learning is dynamic and nonlinear, requiring group and subgroup interactions. The flow of knowledge is not limited to circular, and in this study, it was spiral creating and reinforcing CoP identity, allowing lead members to negotiate the group identity over time. This research provided insight into the current study as the actions of the leads are much like brokers across the organization, negotiating knowledge about sustainability. Social learning leads to CoP and organizational sustainability by focusing on its most valuable asset, social knowledge (Chung, 2019).

In the current study of a newly formed RPP, two CoPs with very different cultures and organizational structures came together: the university researchers from the Stanford GSE and the PK–12 practitioners from the district. Awareness of the differences in what drives each of these two unique CoPs led to insight into establishing the partnership. In a study to evaluate the partnership relations and activities between university researchers and K–12 school practitioners, Yamagata-Lynch and Smaldino (2007) posited that the members of the practitioner CoP focus their learning on practice and minimally on theory, whereas members of the researcher CoP tend to value theory over practice. Another difference is in the literature that the CoPs find useful, with researchers continually immersed in scientific publication, while PK–12 practitioners tend to be limited to popular literature (Day, 1998). The organizational oversight of each CoP also plays a part in where members focus their attention. While both CoPs may have an interest in best practices in the field of education, securing research funds and timeframe constraints are at the top of the list for researchers, and adjusting and improving day-to-day instructional practices must be a focus for PK–12 CoP members (Martinovic et al., 2012). PK–12 districts and schools have very different norms, values, and outcomes from those of universities, and the infrastructure that supports the ways of working tends to be different as well (Firestone & Fisler, 2002; López Turley & Stevens, 2015). PK–12 practitioners see research as an additional activity outside their time educating students due to their contractually structured workdays, and educational researchers find that research is their main priority and includes securing funding and pressure to publish over taking steps to make sure their work is applied. The way the findings of a study are presented also has a different value placed on them, with researchers presenting in overly

technical ways that can be a challenge for PK–12 staff to understand and connect to their practice (Baumfield & Butterworth, 2007; Biag & Sanchez, 2016). All of these differences affect the identity and practice of each CoP, which leads to the need to look closely at the work at boundaries when forming an RPP.

CoP theory is foundational for this current research study. Koliba and Gajda (2009) believed that "the operationalization of the CoP as an empirical construct will provide researchers in public administration and policy studies with a useful framework through which to describe and evaluate organizational and interorganizational dynamics" (Koliba & Gajda, 2009, p. 98). In their literature review, Koliba and Gajda (2009) concluded that each CoP exists within a complex network of CoPs and that an examination of the relational dynamics and of collaboration laterally across CoPs is an area for further study.

Work at Boundaries

Boundaries refer to the edges of a CoP in relation to the rest of the world, the distinction between members and nonmembers based on the CoP's domain of interest. Boundaries are formed by the nature of forming a CoP and can cause continuities and discontinuities when crossing of boundaries as CoPs develop ways of staying connected to other CoPs and the rest of the world (Wenger, 1998). In this study of a new partnership, the differing aspects of the CoP identities (focus on research vs. practice, differing use of literature, etc.) can cause discontinuities when crossing boundaries, and at the same time, the continuity of a focus on improving educational outcomes connects the two CoPs, the university researchers and PK–12 practitioners. The work at boundaries refers to two CoPs working at the edge of their practices where they negotiate meaning

together and share practice (Baker et al., 1999; Farrell et al., 2022; Wenger, 1998). Wenger (1998) posited two types of connections that help create continuity across boundaries: boundary objects and brokering.

Boundary objects include artifacts in the form of documents, terms, or concepts that help CoPs organize interconnections and coordinate perspectives across boundaries. They are used to mediate joint activity between groups and are meant to maintain coherence across the CoPs (Akkerman & Bakker, 2011; Farrell et al., 2022). When it is truly a boundary object, each constituent can interpret the object differently and thus has only partial control over it. Wenger (1998) gave the analogy of the author and the readers: the author has control over what is written, and the readers have control over what it means to them; each has partial control over the boundary object. Ultimately, boundary objects are a nexus of perspectives across two CoPs and can make aspects of the practices visible in the work at boundaries (Farrell et al., 2022).

Brokering, the second type of connection, is provided by individuals who will introduce and foster elements of one practice into another practice (Wenger, 1998). Brokers can make new connections between CoPs, enable coordination, facilitate knowledge transfer, and open new possibilities for meaning through practice-based connections (Koliba & Gajda, 2009; Wenger, 1998). In the work at boundaries, brokers can explore and pay particular attention to identity development and learning as they face tensions and contradictions caused by the two CoPs bringing their practices together (Waitoller & Kozleski, 2013). Boundary practices emerge as an ongoing forum for mutual engagement and sustain a connection by addressing conflicts, reconciling perspectives, and finding resolutions (Akkerman & Bakker, 2011; Wenger, 1998).

Boundary objects and brokering and the duality between the two can provide a better understanding of knowledge transfer between two CoPs (Nordholm, 2016; Wenger, 1998).

With regard to CoP boundary practices and brokering, a research study on inclusive educational partnerships reveals the importance of partnerships as a valuable setting for learning and identity development as professionals work across institutional boundaries (Waitoller & Kozleski, 2013). In this study, a designated university professor acted as a boundary broker and visited the school site once a week to observe the classrooms of resident teachers. The visiting professors then gained access to actual teaching practices without having to become full members of the practitioner CoP. In addition, they fostered boundary practices and helped by giving feedback and support to the resident teachers (Waitoller & Kozleski, 2013). Wenger (1998) reminds us that the work of brokers is complex as they try to align and coordinate perspectives between two different CoPs. To understand better how partnerships evolve and prosper and face challenges, boundary practices between CoPs can provide new information about individual and group learning. Waitoller and Kozleski's (2013) recommendations included implementing a boundary zone, a third space that can generate dialog between individuals and groups that may have conflicting understandings, which has the potential to result in expanded learning.

Though boundary practices can be a place for the potential of expanded learning and shared practices, there is also a risk of the two CoPs becoming one new CoP. Becoming a new CoP may be a barrier when trying to create connections and bridge practices (Wenger, 1998). If the intent is to create a new CoP, then the purposeful

creation of a CoP potentially loses sight of the investment of identity in the social context and the spontaneous nature of CoPs (Pyrko et al., 2017). The literature about the tensions, learning, and identities that develop when two CoPs come together in partnership is relatively new and ripe to explore. This is the nature of RPPs, and Penuel and colleagues (2015) framed this work as "joint work at boundaries," where boundary practices play a role in the success of the partnership in order for the work to be meaningful for both partners. Working at boundaries creates opportunities for mutuality to exist between the two CoPs (Calabrese, 2006; Wenger, 1998). The institutional boundaries that exist in each partner organization have clear distinguishing characteristics, and when engaging in an RPP, there are essentially overlapping boundaries between two CoPs, which can be successful as long as each does not become completely self-motivated (Wenger, 1998).

Implications for the Profession and This Study

How connections, both boundary objects and brokering, play a role in two CoPs working at boundaries in a newly formed RPP form the basis for this study and for furthering research in the area of RPPs. RPPs are distinct partnerships whose intent is to bring researchers and practitioners together in a mutually beneficial, long-lasting way, which at face value may seem a logical, uncomplicated way of addressing problems of practice and adding to existing research. On the contrary, bringing two CoPs with different cultures, norms, and practices can expose challenges, including the perspectives of the purpose of research, the unique work environments, and the organizational dynamics (Hartman, 2017). Addressing the work at and across the boundaries of CoPs (Penuel et al., 2015; Waitoller & Kozleski, 2013; Wenger, 1998) can lay a strong foundation for building a functioning partnership. Understanding how the brokers

intentionally use their relational expertise and agency to build shared meaning (Hartmann & Decristan, 2018; Phelps, 2019) in the boundary space of a newly formed RPP informed this study.

Finally, this study, focused on two types of CoP connections: brokering and boundary objects (Wenger, 1998), also informed the greater research on boundary work and RPPs. Current research literature calls for further studies to examine the connection and collaboration among CoPs, as portrayed by the following quotes: “One way to better understand how partnerships evolve and experience the inherent tensions is to examine the boundary practices that occur when various professionals from different communities come together” (Waitoller & Kozleski, 2013, p. 43) and “The systematic examination of collaboration among CoPs within (inter) and across (intra) organizations and the effects of collaboration on intended outcomes is an imperative for the field” (Koliba & Gajda, 2009, p. 114). This study will add to current research by addressing the needs called out in the previously discussed literature.

CHAPTER 3

METHODOLOGY

"Learning is a process where knowledge is presented to us, then shaped through understanding, discussion and reflection."

- Paulo Freire

The problem addressed in this qualitative research study was how to bring researchers and practitioners together in a mutually beneficial, long-term relationship to collectively focus on challenges that face PK–12 educational systems. In Chapter 1, I introduced the importance and need to connect research and practice more deeply to provide solutions to ever-growing challenges in schools today. Chapter 2 focused on the theoretical perspectives and research that guided this study. In this chapter, I will explain the methodological and design foundations. I will begin by situating this study within the action research context of the Educational Leadership Doctorate program through the Mary Lou Fulton Teachers College at Arizona State University. I will then introduce the purpose of the study, including the research questions being addressed. A discussion of the rationale for selecting a qualitative methodology and the appropriateness of the descriptive multiple-case study design will follow. I will also discuss the local setting, participants, my role as a researcher, data collection instruments, and data analysis protocols. Finally, ethical considerations will be presented, followed by a summary.

Introduction

Action research formalizes an inquiry process for societal issues that are situated within a professional's scope of work. It is interactive and balances problem-solving actions with data-driven analysis to understand underlying challenges and ultimately

enable personal or organizational change (Mertler, 2019; Plano Clark & Creswell, 2020). The newly formed RPP is the innovation being implemented in response to the problem of practice—bringing research and practice together to improve outcomes. The purpose of this qualitative multiple-case study was to hone in on the beginning stages of the RPP, concentrating on how brokers and boundary artifacts impact the coming together of two CoPs.

This type of partnership, an RPP, is defined as mutualistic and long-term and is created to collaboratively investigate problems and provide solutions for improving outcomes (Coburn et al., 2013). As stated earlier, this RPP brings together university researchers from the Stanford University GSE and classroom practitioners in a PK–12 public school district to focus the learning on inclusive environments and practices. University researchers and PK–12 educators can each be defined as a community of practice, people who come together with a common passion around a topic, or in this case, a profession, and deepen their knowledge and expertise by interacting with each other on a regular basis (Lave & Wenger, 1991; Wenger et al., 2002; Wenger-Trayner & Wenger-Trayner, 2015). As outlined in the theoretical perspectives in Chapter 2, bringing two CoPs requires work at boundaries of the two CoPs. These types of connections include brokering and boundary objects (Wenger, 1998) and formed the basis of this study. The research questions addressed are as follows:

RQ1: How do brokers navigate the joint work at boundaries between two communities of practice? SQ1: What boundary objects do the brokers use to connect the two communities of practice?

RQ2: In what ways do boundary objects and brokering impact continuities across boundaries?

Methods and Design

This research utilized a qualitative methodology and a multiple-case study design. Research is a process of collecting and analyzing information systematically to increase knowledge (Merriam & Tisdell, 2015; Plano Clark & Creswell, 2020). A research method is "the specific procedures used to collect and analyze data" (Mertler, 2019, p. 9) to accomplish a goal or purpose, and a research design is the logical set of procedures that connect the study's purpose to its methods (Plano Clark & Creswell, 2020) or to put it simply, the design is the plan for how the study is conducted (Creswell & Poth, 2016, p. 49). In this section, I will explain the appropriateness of the method and design chosen for this study.

Methods

Qualitative research is conducted to describe, interpret, or understand a central phenomenon (Merriam & Tisdell, 2015; Plano Clark & Creswell, 2020). The researcher is trying to understand the meaning people have constructed and how they make sense of the world through their experiences (Merriam & Tisdell, 2015; Yazan, 2015). The primary data collection instrument is the researcher who investigates from the participants' perspectives and spends significant amounts of time in the study environment (Hancock et al., 2021; Merriam & Tisdell, 2015). Qualitative research can be defined by the following characteristics: inductive logic is used by the researcher, the phenomenon has multiple realities, and there is a descriptive process for understanding the meaning (Creswell & Poth, 2016; Merriam & Tisdell, 2015; Mertler, 2019). A

quantitative research method was considered. However, quantitative research calls for an explanation of the relationship between variables using numerical values and statistical analysis and is often used with larger sample sizes (Mertler, 2019; Plano Clark & Creswell, 2020). This study was designed to interpret the perspectives of the two brokers to better understand the phenomenon of boundary work, making qualitative methods a more appropriate fit. As the researcher, I was a participant and immersed in the environment, also making this a match for qualitative methods.

Design

The research design selected for this study was a multiple-case study with two cases. The two cases were the two brokers, one from each CoP. The case study explored the practices of each case, giving two perspectives on one phenomenon, the boundary work. As presented in the participant section, the two cases were also the two participants. Case studies differ from other types of qualitative research in that they investigate a single unit or system in depth, within its real-world context and bounded by space and time (Hancock et al., 2021; Yin, 2017). Case studies answer the questions, 'how?' and 'why?' and use the research to describe what happened in the case (Baxter & Jack, 2008; Plano Clark & Creswell, 2020; Yin, 2017). Other research designs were explored, such as grounded theory, where the central phenomenon is a process or action and the intent of the study is to generate a theory (Plano Clark & Creswell, 2020), and ethnography, which focuses on patterns of behavior, beliefs, and language of a group of people with the intent of describing the cultural characteristics of a group (Creswell & Poth, 2016; Plano Clark & Creswell, 2020). Because of its focus on an in-depth look at

cases in their real-world context, multiple-case study design was the most appropriate research design for exploring boundary work from the perspectives of the two brokers.

Setting

Santa Clara Unified School District is located in Northern California's Silicon Valley and serves approximately 14,000 PK–12 grade students. The district is ethnically and linguistically diverse, and approximately 30% of our students are economically disadvantaged, and 14% have specialized services through an IEP. This study took place in three of the 31 schools with a grade level span of PK–12. These three schools are newly constructed, began opening in the 2021–2022 school year, and are state-of-the-art facilities imagined and designed with inclusivity, collaboration and competency-based instruction in mind. A 55-acre piece of property houses a PK–5 grade elementary school, a 6–8 grade middle school, and a 9–12 grade high school. One grade level will be added each year at each school until they have full grade level spans in the 2025–2026 school year. Due to the areas of school focus mentioned, the school environments look definitively different from other district schools built in the 1950s and 1960s. Some features include collaborative spaces adjacent to every classroom that are also connected to other classrooms, the absence of pullout and self-contained classrooms where students with IEPs are separated for their instruction, outdoor learning spaces, design labs, and spaces for teacher collaboration.

The Stanford University GSE was an additional setting for this research study. Situated in the center of the Stanford University campus, the GSE is approximately 25 miles from the Santa Clara Unified School District. The mission of the GSE is "to produce groundbreaking research, model programs, and exceptional leaders in education

to achieve equitable, accessible and effective learning for all" (Stanford University Graduate School of Education, n.d.-a), and through their strategic learning initiative, Learning Differences and the Future of Special Education (Stanford University Graduate School of Education, n.d.-b), this partnership is possible. During the research study, some of the RPP events and data collection took place at the GSE.

This set the stage for the descriptive case study that involved two CoPs and a focus on the work at boundaries of those communities through two types of connections: brokering and boundary objects (Wenger, 1998). Within the partnership agreement, Stanford GSE and the district committed to hiring liaisons, which I will call brokers from this point forward, to facilitate the work at boundaries. The GSE broker was housed at the elementary school half of the week and at the GSE half of the week. The district broker was housed full-time at the high school, and both brokers worked with all three schools.

Participants

There were two participants in this study, and each was selected purposely. Purposive sampling allows researchers to explore a phenomenon by selecting the individual whose perspectives can best help the researcher understand the phenomenon being studied (Merriam & Tisdell, 2015; Plano Clark & Creswell, 2020). The research design must be considered when deciding on the sample size, which, in this instance, is a case study design. Case study design sample size depends on the nature of the case and can be as few as one to as many as 30, which is relatively small compared to other research designs (Plano Clark & Creswell, 2020; Schoch, 2020).

The participants in this qualitative study were two brokers: the Stanford GSE broker and the district broker. The broker from the university was a clinical associate

professor for Stanford GSE's teacher education program with expertise in learning differences. She was also the Learning Differences Initiative's project leader. The broker from the school district was a teacher on special assignment, brought expertise in instructional coaching, and had participated in RPPs in previous settings. Both of these participants were credentialed educators with classroom experience.

Role of the Researcher

The role of the researcher in a qualitative descriptive case study is to attempt to tap into the study participants' thoughts and feelings and understand the meaning they have constructed (Merriam & Tisdell, 2015; Sutton & Austin, 2015). The focus of qualitative research is on meaning and understanding, and the researcher acts as the instrument for data collection and analysis (Merriam & Tisdell, 2015; Simon, 2006). As a human instrument, the researcher has the ability to be immediately responsive to the data and to collect data using verbal and nonverbal communication (Merriam & Tisdell, 2015).

In this case study, I was a researcher–participant and assumed a variety of roles within the study, including actually participating in the phenomenon being studied (Plano Clark & Creswell, 2020; Yin, 2017). As a researcher–participant, I took on a more active role within the setting, observing and taking field notes at events and journaling on what was observed while also interacting with other participants (Merriam & Tisdell, 2015; Mertler, 2019; Plano Clark & Creswell, 2020). In her literature on measuring the quality of qualitative research, Tracy (2010) includes sincerity as one of the eight "Big-Tent" criteria for quality in qualitative research. Sincerity includes both self-reflexivity and transparency (Tracy, 2010). Throughout the study, I was self-reflexive and examined the

way that others reacted to my opinions and presence, and I encouraged feedback from other participants. For example, as I navigated the spaces of the RPLP, I intentionally debriefed with other participants and asked for feedback on my participation, my opinions, and the way I would offer them, and asked open-ended questions to find out if there were any concerns, comments, or ideas for improvement about my role as the researcher and as a participant. From this feedback, I took note in my field notes journal and checked my subjectivity as a researcher–participant. As a researcher, I also valued transparency throughout the study. Transparency equates to honesty and is evidenced by this study's clear, detailed, and authentic reporting in all chapters written here.

Instrumentation and Protocol for Data Collection

As the researcher–participant, I was the primary source of instrumentation. In this qualitative multiple-case study, the data collected consisted of multiple forms of evidence, including narrative accounts of the cases through documentation, researcher–participant observations, and interviews. Case study design requires extensive data collection drawing from multiple data sources (Creswell & Poth, 2016; Stake, 2005; Yin, 2017). Data collection methods for each case were similar to provide opportunities for comparison between the two cases and were also flexible enough to accommodate late-emerging challenges (Stake, 2005). Data collection took place in late spring 2023 and concluded in fall 2023. I will provide details for each of the three sources of evidence collected in this multiple-case study, including the frequency and timing of the data collected.

Data Collection

Documentation

Documentation and content artifacts can contain meaningful information as they expose the communication between the creators, the readers, and even future editors of the documents (Prior, 2008). As I studied the boundary work of two CoPs through the perspectives of the two brokers coming together in an RPP, boundary objects helped me understand how brokers influenced the boundary work through these documents. Archived documents were the first documentation to be collected and sorted as soon as the research study was approved. These archived documents included such evidence as the partnership agreement and initial planning documents for the partnership providing data on structures and initial design elements. Throughout the study, during relevant partnership events, other documentation was collected, including meeting agendas, meeting notes and minutes, photographs, and process documents, such as charts and slide decks. Finally, electronic journals from each broker, a researcher–participant journal, and researcher field notes were collected. Participants were asked to record in the journals three times throughout the study, and the journals were collected after each time. The participant journals were positioned at the start, the approximate midway point, and the study's conclusion. The journals were structured with specific prompts (see Appendix A) aligned with the study's research questions. The broker journals had consistent prompts between the two, focusing on their individual perspectives as an individual case. The researcher–participant journal also had similar prompts that focused on reflections and observations across both cases.

These documents provided insight into the ways in which the brokers of each CoP engaged in building relationships and connections in their boundary work as they facilitated sharing practices and meaning-making. Collecting multiple sources of documentation and using them in conjunction with each other allows for a powerful means of addressing the research questions and augments the evidence from the researcher–participant observations and interviews (Hancock et al., 2021; Yin, 2017).

Researcher–Participant Observations

Observations in a case study design can provide meaningful information about the case(s) that can complement the other forms of evidence collection and is a key data collection tool for qualitative research (Creswell & Poth, 2016; Hancock et al., 2021; Yin, 2017). Observations allow for the researcher to use all five senses to explore the focus of the research. Hancock and colleagues (2021) suggested five factors to consider when conducting observations and include the following: identify what is to be observed based on the research questions, create an observation guide that lists features to be addressed during the observation, gain access to the setting, recognize his or her personal role and biases related to the research, and follow all ethical and legal requirements. As a researcher–participant, I had opportunities to observe the real-world environment firsthand and, at the same time, was presented with significant challenges (Yin, 2017). As an example, as a participant, I had easy access to the setting; however, I also needed to anticipate and recognize my biases continuously.

As a researcher–participant, I attended meetings with the district broker, the GSE broker, and other members of the communities of practice from both the district and the university. I attended most RPP events that were scheduled during the time of the

research study. My observation notes were collected as field notes, with my three research questions binding the entries, focused on brokering practices and the use of boundary objects. Entries were dated and titled with the event or meeting name to allow for sorting during the data analysis. Field notes during an event took the form of jottings and then were rewritten more formally as soon as was possible following the event during which they were taken. Both the jottings and the rewritten notes became part of the evidence database (Yin, 2017). In the next section, I will explain an additional type of observation about interviews since there was a crossover between the two.

Interviews

Interviews are social interactions that have structure and the purpose of producing knowledge (Brinkmann & Kvale, 2014; Creswell & Poth, 2016). In case study research, interviews are essential because the phenomenon that is the study's focus is mostly about human events or actions (Yin, 2017). The case is the focal point of an interview from the interviewee's perspective (Stake, 2005), and semistructured interviews are well-suited for case study research (Hancock et al., 2021). Semistructured interviews start with predetermined, open-ended questions, and during the interview, follow-up or clarifying questions can be asked to probe more deeply into a response (Brinkmann & Kvale, 2014; Hancock et al., 2021; Mertler, 2019).

I conducted one-on-one interviews with each of the two brokers using a semistructured interview process. The interview questions (see Appendix B) were preplanned and closely aligned with the research study questions. Two interviews were held with each of the brokers and occurred at the beginning and toward the end of the study. The interviews were conducted over Zoom™ to preserve a recording for later data

analysis. I used my Arizona State University-provided Zoom™ account, which is HIPAA/FERPA compliant with encrypted and password-protected cloud recordings. The interviews were 45–60 minutes in length, and an interview protocol was developed and used. Another form of interview, which could also be considered an observation, is the qualitative shadowing method of data collection. Shadowing is when a researcher closely follows a participant over a period of time during everyday activities and interacts with them, asking questions periodically throughout the shadowing (Gill et al., 2014; McDonald & Simpson, 2014). This observation and interview method allows for a broader data collection beyond the participant's perspective (McDonald & Simpson, 2014). In this particular multiple-case study, I conducted one shadowing interview, close to the study's midpoint, with each of the brokers in their respective community of practice environments. The shadowing interviews were conducted for approximately 3 hours. Interview questions (see Appendix B) during this time also aligned to the study's research questions and their role as brokers in the boundary work between the two CoPs. All data collected was stored on an external hard drive that was password-protected and encrypted, and a backup copy was stored on my assigned Arizona State University Google Drive, which encrypts files using 256-bit Advanced Encryption Standard (AES) for data protection. As data was collected, it was organized in files on the external hard drive, first by collection date. The files were then saved and uploaded to an external hard drive. As the data analysis process began, I also organized the files by case and by collection date.

As with all qualitative data collection methods, there are cautions that researchers must keep at the forefront, and each type of source evidence has identified weaknesses

(Yin, 2017). Documentation brings unavoidable bias from the authors of each document and may not produce a wide range of perspectives. Another consideration is that the accessibility of documents may be limited due to confidentiality or ownership (Hancock et al., 2021; Mertler, 2019; Yin, 2017). Observations also bring unavoidable bias from the observer due to manipulating the events (Yin, 2017) and relying heavily on detailed, concrete, and timely notes (Creswell & Poth, 2016; Hancock et al., 2021). Finally, conducting a meaningful interview relies on the ability to design questions and structure interview protocols that will address the focus of the research, avoiding reflexivity, and navigating the asymmetry of power that comes with the interview method of data collection (Brinkmann & Kvale, 2014; McDonald & Simpson, 2014; Yin, 2017). Though there are cautions, the strength of qualitative data is in the multiple sources of evidence that can then be organized, coded, and themed during the data analysis process (Yin, 2017), shared in the next section.

Table 1 outlines the data collection timeline.

Table 1

Data Collection Timeline and Procedures

Timeframe	Data Type	Actions	Procedures
April 2023	IRB forms	Prepare for data collection	Submit IRB paperwork
May 2023	Interviews	First interview	Conduct interview #1 with each participant
June 2023	Interviews	Document review	Collect and file any new documents
	Documents	Participant and researcher journal	Collect and file first journal entries
	Observations	Field notes	Collect and file field notes
August 2023	Documents	Document review	Collect and file any new documents
	Observations	Participant and researcher journal	Collect and file second journal entries
		Field notes	Collect and file field notes
	Interviews	Shadow interviews	Conduct shadow interviews with each broker
September 2023	Documents	Document review	Collect and file any new documents
	Observations	Participant and researcher journals	Collect and file third journal entries
		Field notes	Collect and file field notes
	Interviews	Second interview	Conduct interview #2 with each participant

Data Analysis

As was outlined and common in qualitative research, there was a substantial volume of data to be analyzed. In order to interpret the data, it must be identified and organized in a way that allows the researcher to make sense of the data in a way that helps to answer research questions and tell a story about the phenomenon that is being studied (Braun & Clarke, 2012; Creswell & Poth, 2016; LeCompte, 2000). Therefore, I used a process of analysis through which I was able to reduce the volume of information by identifying and organizing the data into patterns and themes through a cyclical process of coding (Creswell & Poth, 2016; Hancock et al., 2021; Julien, 2008; Mertler, 2019). In current literature, researchers have suggested structures that formalize the process into steps for analyzing qualitative data, which include identification, organization, grouping into patterns and themes, and interpreting large amounts of data (Braun & Clarke, 2012; LeCompte, 2000; Mertler, 2019; Morgan & Nica, 2020). As I analyzed the data, I followed the six phases outlined by Braun and Clarke (2012) in the thematic analysis process, which is a method for systematically analyzing a data set by focusing on meaning across the data. Thematic analysis is known for its flexibility and allowed me to use both inductive and deductive approaches to coding the data. Due to the multiple-case study design, I also made adjustments to the six phases by including a cross-case analysis as part of the process. Braun and Clarke's (2012) six phases include the following: Phase 1: Familiarizing Yourself with the Data; Phase 2: Generating Initial Codes; Phase 3: Searching for Themes; Phase 4: Reviewing Potential Themes; Phase 5: Defining and Renaming Themes; and Phase 6: Producing the Report.

After transcribing the Zoom™ audio files of the interviews, I started the process of thematic analysis. The first phase was focused on becoming familiar with the data by reading and rereading textual data and listening and viewing audio and video data repeatedly (Braun & Clarke, 2012). I immersed myself in the data by reading and rereading each piece one case at a time. I took notes and used a highlighter to mark phrases and words that jumped out at me while keeping my research questions in mind. This helped me to get to know each case's data set inside and out. As part of this first phase, I also reorganized the data files by sorting them in different ways. In addition to sorting by case, I used a new labeling protocol that included identifying the data by the date it was collected (LeCompte, 2000). In the second phase, I created initial codes starting with an inductive approach, letting the codes be derived from the content. As codes developed, I also used a deductive approach by considering the constructs of Wenger's CoP theory (Wenger, 1998) and my research questions. Codes were both descriptive and interpretive and were not fully developed in this phase but were relevant to my research questions as outlined in phase 2 of thematic analysis (Braun & Clarke, 2012). The third phase of the process was shifting from codes to themes, where I looked for patterns or meanings within the data. Coherent patterns began to emerge as I looked for areas of similarity among the codes and clustered them together. I also considered how the themes were related or overlapped, which helped to provide unity among the themes. By the end of this phase, I drafted a table to outline the themes so that I was ready to review them in phase 4 (Braun & Clarke, 2012). The table also included a notation for each of the two cases as to which themes identify with each case for later consideration in the cross-case analysis (Stake, 2005). The fourth phase was meant as a

quality check on the developing themes. The themes were checked against the collated data to see if the themes still worked. At this point, some codes were moved to other themes or discarded (Braun & Clarke, 2012). A thorough description and the final table of themes will be presented and discussed in Chapter 4. During the fifth phase, I began by defining and naming my themes. According to Braun and Clarke (2012), themes should have a singular focus, be related to each other but not repetitive, and directly address the research questions. Theme definitions are descriptive in nature and written in a narrative form, which blurs the lines between phases 5 and 6 since writing occurs in both. Naming the themes is also a part of the fifth phase. The theme names should be "informative, concise and catchy" (Braun & Clarke, 2012, pp. 67–69) to ensure that the name signals the clear focus of the theme. Finally, in the sixth and final phase, I wrote up the analysis results, which you will see in Chapter 5. I reported on each case separately, attempting to provide a clear and compelling story about the data in direct response to my research questions (Braun & Clarke, 2012). As an additional part of phase 6, I compared the reports for each case through a cross-case analysis focused on my research questions, identified similarities and differences, and triangulated the themes of the two cases to inform the final report (Stake, 2005). Even though phase 6 of thematic analysis is the final phase, writing actually begins when analysis begins, starting with informal notes and progressing to the more formal report writing (Braun & Clarke, 2012).

Two additional sources discovered in the research literature significantly aided my data analysis process. First, Hancock and colleagues (2021) identified guidelines for case study researchers as data is to be simultaneously summarized and interpreted throughout the case study. These guidelines were a helpful resource to me throughout the

data analysis process. The guidelines suggest an ongoing review and refinement of the research questions, a constant focus on the research questions, staying with only the data that are meaningful to the research, developing a strong labeling and storage system, and using all available resources such as computer software that can assist in processing large amounts of data (Hancock et al., 2021). The guidelines reminded me to stay focused on the research questions and that some data collected would be outside of the data needed for my analysis, allowing me to keep the scope of the study narrowly focused. In addition to getting familiar with the data by manually reading, taking notes, and highlighting the data documents, the guidelines also led me to consider and then use Atlas.ti (ATLAS.ti Scientific Software Development GmbH, 2023), a data analysis software to assist me in the coding process. Yin (2017) suggested that case study analysis should include "playing with your data" (p. 167) by putting information into different themes and subthemes, making a matrix of different categories and placing the data in the matrix or creating visual displays (Yin, 2017), which I included in phase 3 of thematic analysis (Braun & Clarke, 2012) using Atlas.ti (ATLAS.ti Scientific Software Development GmbH, 2023).

Validity and Credibility

In conducting qualitative case study research, the quality of the research design must be measured by its validity, trustworthiness, and credibility. Yin (2017) outlined construct validity as a test for research design validity. For construct validity, it is important to use multiple data sources and have others review the draft case study report to ensure that the correct measures are being used for the concepts being studied (Mertler, 2019; Yin, 2017). In this study, multiple types of data were collected, including interviews, shadow interviews, archival documents, journals, and field notes. In Chapter

4, some of the data sources arrived at similar findings, increasing the validity of the results. In her work on criteria for the quality of qualitative research, Tracy (2010) calls this crystallization. Crystallization, along with the triangulation of data in this study, adds to the study's credibility. Reliability is demonstrated through a strong protocol and study database (Yin, 2017). In this multiple-case study, reliability was addressed through the study protocol and by maintaining a chain of evidence throughout the study.

Ethical Assurances

Ethics is one of eight criteria identified by researcher Tracy (2010) to assess the quality of qualitative research. According to Tracy's "Big Tent" criteria, ethics can be described by four practices that the researcher must consider: procedural (human subjects), situational and culturally specific, relational, and exiting (leaving the scene and sharing the research; Tracy, 2010). I have used these criteria for quality ethical standards to assess the level of ethics in this study. I will start with procedural ethics. The protection of participant rights, including confidentiality and privacy, accuracy of the study, and security of the data, are some of the things included in procedural ethics, and in large organizations, the IRB process encompasses most procedural ethics. Participation in this study was voluntary, and confidentiality was upheld with regard to both of the participants and through the IRB process, permission was obtained from participants. Situational ethics refers to ethical practices that emerge from the local context, such as organizational beliefs to which the study must also adhere (Tracy, 2010). In the case of this study, approvals to conduct research from the local school district and the GSE were obtained and also included in the IRB process (see Appendix C). Relational ethics is the mindfulness of the researcher on the impact that his or her character, actions, and

consequences have on the participants (Tracy, 2010). As a participant researcher in this multiple-case study, it was important to identify and name my biases and my positionality and to minimize their effect on the study outcomes. In my leadership role in the district, I carry power and positionality due to the hierarchical nature of my organization. My words and actions inevitably hold more weight in conversations, especially with the broker participants and other members of the home CoP. In every step of the study, from data collection to analysis to results, I scrutinized each step by identifying my biases and positionality, and used the process of self-reflexivity, including feedback from colleagues, to maintain a high relational ethical standard. Tracy's (2010) fourth area of ethics is exiting ethics. Exiting ethics refers to the consideration by the researcher in how the results are shared. This is evidenced by understanding and divulging any known limitations to my work, which will be presented in Chapter 5. This multiple-case study was done with the highest ethical standards in mind.

Summary

This qualitative multiple-case study focused on the boundary work of two CoPs coming together to form an RPP. There were two cases bound by time and space and focused on the perspectives of each broker and the boundary objects such as documentation, interviews, and observations that the brokers used as they navigated the work at boundaries of the two CoPs. As a research participant and the sole source of data collection instrumentation, I held a high level of ethical research procedure at all times, especially during the data analysis phase. As an outcome of this study, I expected to add to the field of knowledge of how brokers and boundary objects affected the building of a

mutually beneficial, long-lasting relationship in a newly formed RPP. Chapter 5 is evidence of this study's impact.

CHAPTER 4

FINDINGS

"There are things known and there are things unknown,

and in between are the doors of perception."

Aldous Huxley

Organization of the Chapter

This dissertation was centered on a qualitative multiple-case method to explore the work at boundaries of two CoPs, university researchers and K–12 practitioners, as they form a new RPP. The first three chapters of this dissertation offered an introduction to the local and situated context of the RPP, the theoretical frameworks and perspectives, and the method and design of the study. Chapter 4 presents the findings that emerged from the data collected and analyzed through thematic analysis (Braun & Clarke, 2012). Following the findings, the validity and trustworthiness of the study findings will be discussed, and finally, the findings concerning the research questions will be presented.

This qualitative multiple-case study was conducted by collecting data from interview transcriptions, participant journals, and researcher notes. Pseudonyms for each of the two participants were created to ensure anonymity. The findings for each case will be presented separately, starting with background information on the case and then by themes, subthemes, and assertions identified during the six-phase thematic analysis process (Braun & Clarke, 2012). A cross-case analysis will be presented following the presentation of findings for each of the two cases. This multiple-case study was conducted to answer the following two research questions and subquestion:

RQ1: How do brokers navigate the joint work at boundaries between two communities of practice? **SQ1:** What boundary objects do the brokers use to connect the two communities of practice?

RQ2: In what ways do boundary objects and brokering impact continuities across boundaries?

Within Case Findings

Each case was analyzed separately and resulted in themes and subthemes that emerged independently of each other. The phases of thematic analysis (Braun & Clarke, 2012) were followed individually for each of the two cases. I began by reading and rereading the data to become intimately familiar with each case, taking notes and highlighting passages along the way. Then, I generated the first round of codes with the help of Altas.ti CAQDAS software's AI coding feature (ATLAS.ti Scientific Software Development GmbH, 2023). A second round of manual coding consisted of reviewing and refining the AI codes, which resulted in a narrowing of the initial codes. Both of these initial rounds were inductive, letting the data speak to me without predetermined codes. In phase 3, Searching for Themes (Braun & Clarke, 2012), a deductive approach was used by applying the constructs of Wenger's CoP theory (Wenger, 1998) and also considering my research questions. Codes were clustered together where there were patterns of similarity to form the major themes and subthemes. Each case will now be presented separately.

Case Study #01: Nora

Background of Case #01

Case 01 is the broker Nora, who is employed by Stanford GSE as the broker for the RPP. She is also a Stanford Teacher Education Program (STEP) clinician. Nora is new to the GSE and was hired in October 2022, specifically to fill the role of the RPP broker and to teach in the teacher education program. Her background as a special education teacher and a participant in an RPP in her previous district gave her an additional perspective as she navigated the role of the broker representing the GSE. Nora spent half of her time each week at the GSE, where she taught in the teacher education program and met to collaborate with the teacher education program staff and the Learning Differences Initiative staff. Nora used her time in the GSE collaborative settings to introduce the partnership and help connect faculty to the partnership opportunities. She spent the other half of her time at the school sites building connections with staff and meeting with the broker from the school district to plan and discuss the work at boundaries of the partnership.

Two themes and four subthemes emerged through the data analysis for Case 01. The themes and subthemes, along with my assertions, are presented in Table 2, and a detailed analysis of each follows.

Table 2

Case 01 Findings: Themes, Subthemes, and Assertions

Themes	Subthemes	Assertions
Joint Work at Boundaries–Forging New Relationships	Connections–Formal and Informal Opportunities	Taking every opportunity to build relationships, the broker utilizes both formal and informal spaces to begin to establish rapport and trust.
	Boundary Crossings and Boundary Objects	Creating space and time for the two CoPs to come together and the reification of those encounters through written documents that are accessible across the CoPs legitimized the new relationships.
Identity and Belonging–Within and Across CoPs	Navigating Broker Identity and Helping to Create Community Identity	The broker's identity is unique to the individual based on background experience and knowledge and emerges over time. The role of the broker is to help the CoP evolve their identity to include broadening perspectives with regard to the benefit of collaboration and partnerships.
	Positionality and Power Dynamics	The broker's individual perspective on their own positionality within a CoP may have dissonance with the CoP members' perspective of the broker's positionality and is navigated as the broker identity evolves. Power dynamics impact the broker's identity and interactions based on the hierarchical structures of the home and partner CoPs.

Theme 01: Joint Work at Boundaries—Forging New Relationships

In exploring joint work at boundaries from the perspective of this first case study, the importance of building relationships, opportunities for connecting across CoPs, and the tools used to reify the new connections and relationships emerged from the analysis. Throughout the study, Nora used informal and formal ways of building relationships both

as a new member of her own CoP and in her role as a broker with the partner CoP. Over time, this allowed for understanding and trust to be established and, eventually, for broader conversations about the partnerships to become more frequent and more public in the partnership space. This seemed to be a slow process because Nora had been trying to cultivate relationships from the beginning through the end of the study. She navigated it carefully to allow for authentic relationships and trust-building.

Subtheme 01: Connections—Informal and Formal Opportunities. Nora coteaches with faculty members and other clinicians within the Stanford GSE's teacher education program. In my shadow interview, I observed Nora teaching with a fellow clinician, which gave me some insight into how she forged new relationships within the CoP more formally. I observed that Nora and the coteacher's shared teaching time was fluid, each switching from presenter to assisting without losing the flow or intent of the lesson. I also noticed that the students responded and interacted with both instructors evenly, which led me to believe that the students did not see a hierarchical relationship between the two coteachers. In my debrief with Nora, I asked how long she had been teaching with the coteacher, and she shared that this was their second time teaching the course together. She stated:

> The first time we taught the course, we received the assignment shortly before the course began, and we had to use the curriculum from the previous instructors who were no longer with the program, so we were just thrown in. We learned a lot about what worked and what didn't work for us and how we do best together, so it has become much more fluid this time around.

During my shadow interview with Nora, I also learned that she meets regularly with faculty in a supervisor planning meeting and provides professional development to the supervisors to connect them to what is being taught in the teacher education courses.

This allowed Nora to connect and build rapport and relationships with faculty in the context of their work together. In the shadow interview, she shared her ability to align the work of the supervisors with what students are learning and how she sees herself as central to bringing people together. She said, “I’m right in the center of that, trying to figure out how do all of these entities come together for supporting teacher development?”

Within Nora’s home context, she saw herself in a position to help faculty make connections with each other. As she had informal conversations with researchers, she saw the connections and thought about making space for cross-disciplinary conversations and sharing both within her home context and for the partnership. Her work within the Stanford GSE had her wondering about sharing practice or providing space for people to ask clarifying questions. In her interview at the beginning of the study, Nora shared her thoughts about this practice. She commented:

> So, for example, the faculty might take time and intentionally make space to share their work across their disciplines. And I think that’s something that’s very unique, as it relates to the partnership work because there’s also this space where we’re trying to create and bring interdisciplinary faculty to support what’s happening in education. So people in the school of medicine are not necessarily thinking about what people in the school of law are doing, but bringing them together in a space where they can share projects that relate to supporting students, I think just that space of sharing what’s happening is another practice.

In the context of her home CoP, Nora utilizes the previously mentioned informal and formal spaces to help bridge connections within her CoP and also to help her colleagues see connections to the RPP work. Navigating and forging new relationships in her boundary work also happened in formal and informal spaces.

During her time on the school campuses, Nora focused her time on learning about the environment and culture and began building relationships. During her first interview at the beginning of the study, Nora explained that the best way to initiate connections was to be in classrooms and a part of the everyday activities at the sites. She expressed that teachers were a bit tentative about having researchers in their classrooms formally, so, at first, finding more informal ways of being visible around campus allowed her to build relationships and connections. She said:

> I just want to be at your campus and look in classrooms and build relationships because I think that would give more of a comfort level to the presence that I have as a representative of Stanford and allow teachers to feel more comfortable. But I understand the tension, right? I think what the highlight is that by the end of the school year, especially at the elementary site, I had students inviting me in. So, I spent some time in the spring supporting in the lunchroom. I talked with teachers about possibly doing some lunch bunches, but then they were like, "Are we gonna have to get parents' permission because you work for Stanford?" and things like that. So I said, "Why don't I just spend time in the cafeteria?" and I might focus on little pods as they are sitting together. But ultimately, what happened is that after lunch, students would say, "Miss Nora, can you come to our class?

After a few weeks, these informal encounters led to less hesitation about researchers visiting, and interest grew about the possibilities. Nora explained in her journals that as she was more visible, teachers began to show trust in her by having her in their classrooms and discussing support that she could provide. They stopped worrying about her being in the classroom for evaluative purposes. In her journal entries, she shared how she would create these encounters to build relationships. Nora commented:

> And I had to get really creative. I think at one point at the elementary level, I picked up the schedule of a teacher who didn't have a sub for the day, which allowed me to get in classrooms and give teachers an opportunity to invite me back where I had been, and I think that didn't happen until after the winter break where I had been trying all of the fall. It wasn't until I was like, Hey, I just noticed that there's no sub for this class. Would it be helpful? I'm here to support [you] in this way, and that was what it was. Just in time. What allowed me to fill a

> just in time need for a teacher but also provided an opportunity for them to invite me in. That didn't feel like you're coming in to observe me and to look at me and to evaluate me.

In her final interview and journal entry, Nora expressed how teachers were now inviting her to classrooms. Within just a few months, Nora was able to interact with teachers at the sites, moving from informal to invitation, and meet with them informally and formally about the possibilities of cocreating research inquiries with Stanford faculty. She shared that teachers began opening up to her about their challenges and became curious about how researchers could support them in exploring new practices to address their challenges. Nora shared, "You know. I think I'm in a space now where it's like there's been a lot more invitations to engage, which is really exciting."

Subtheme 02: Boundary Crossings and Boundary Objects. Finding opportunities for faculty and staff to cross paths and learn about each other's work and potential work together meant that Nora had to create the time and space for these connections. In her journal entries, Nora explained the importance of the scheduled time for GSE faculty and school staff to come together and how sometimes these meetings just needed to be informal humanizing events where GSE faculty and school staff are in the same room with the goal of getting to know each other's work. Sometimes, encounters needed to be more deliberately planned, and as time progressed, opportunities for co-creating and collaborating became more public conversations, often happening during planned monthly gatherings where discussions and prototyping of potential research studies were designed, shared, and iterated. These boundary-crossing opportunities are evidenced in the boundary objects, specifically meeting agendas and minutes, and in Nora's journal entries. Nora reported:

> To be able to have both formalized and more informal touch points for people to just get to know each other across the partnership work. And I think that on both sides, our faculty are curious about it. Well, what do they want support in? And our educators are well, what can they support us in?

Deliberately scheduling meetings and visitations where both partners could engage with each other caused relationships to strengthen and curiosity about the partnership possibilities to emerge. During her shadow interview, Nora shared that she used her time with the GSE faculty to talk about the schools and invite faculty to visit the school campus. She scheduled some of the monthly meetings at Stanford in order to have school staff experience the university campus and learn about the research work of GSE faculty. Nora commented:

> Well, there's space created at all of our Learning Differences Initiative (LDI) faculty meetings for me to give a report out or for me to share out. I can be the connector, and so I think that piece of monthly information was an opportunity for me to share out. I think there are opportunities for me to connect directly; for example, a faculty member came by the Agnew campus, and even though it was after school, we just toured the campus and had a great conversation [about] what his work was and for me that was an opportunity for him to just be in the space.

By the end of the study, there had been three formal meetings at each partner location, the GSE and the schools, and many informal encounters. During her final interview and also expressed in her journal entries, Nora was asked about boundary-crossing experiences that she felt led to forging and strengthening relationships. She shared that these were events that came to mind: a partnership meeting with Stanford CLAVES Reading Program Group, a meeting with high school admin and Stanford CSET rep for the Family Linkages Project and IRB discussions, RPLP Steering Committee meetings, which reconnected and introduced the RPLP to the partnership community, and the high school welcome day and back to school night working at an

RPLP information table. With each boundary-crossing event, both formal and informal, Nora expressed that GSE faculty and school staff became more engaged in and excited about the possibilities of researching and learning together and also remained cautious about what a full commitment to the partnership might entail.

Nora referred to how some of the boundary objects also helped to build structures that helped to forge relationships and supported connections in the joint work at boundaries. In her first journal entry, when asked specifically about what boundary objects she found useful, Nora shared that initially setting up a Google folder where all of the collective documents reside and that is accessible to all members of the partnership, helped to organize the partnership work. It also allowed for continuity between conversations, meetings, or other partnership events. Nora explained that the cocreated agendas, both for the core team and the steering committee, helped to keep the work on track, provided structure, and reified the work. In her mid-study journal entry and supported by the artifacts collected for this study, she shared specifically about the agendas and meeting structure. Nora stated:

> I think the core team agendas, all of the agendas that we're creating, I think, are essential for us to both give input into and then figure out how to prioritize. Because I know that there's been times where we've thought that things were important to discuss but not in the same priority. So we've differed in when we should be discussing this or when we should be engaging in this type of information sharing versus something else. But I do think the agendas at all levels are important for us to cocreate.
>
> At the steering committee level, we established a meeting structure that most felt to be very beneficial in furthering the partnership work; this structure consisted of sharing updates and examples of partnership work, followed by facilitated small and large group discussions that provided opportunities for collaborative discussion on potential areas of interest and or questions.

In her journal entries and through the interviews, a few other boundary objects created by the brokers were mentioned as having been instrumental in continuing to build relationships. The original partnership agreement that outlines the purpose of the partnership, a one-page summary describing the partnership and a frequently asked questions document that the two brokers created to answer common questions about the RPLP were helpful to both of the CoPs. Nora explained that they also had plans to share through newsletters and internal websites from the GSE faculty as a touch point for school staff to connect with the researchers.

Theme 02: Identity and Belonging Within and Across CoPs

In the case of Nora, her identity as a broker emerged as she started the work. In her interviews and journal entries, she shared that establishing her own identity as a broker in this new space meant taking time to observe both her new home at the GSE and her space at the school sites through her new lens as a representative of Stanford and the GSE. Her identity as a broker was, of course, influenced by her previous role as a classroom teacher and her knowledge of RPPs as a participant. She was simultaneously shaping her new membership in the GSE and taking on the role of broker to the school sites and district. Nora shared her perspective on the individual identities of the two communities, the GSE and the district.

Subtheme 01: Navigating Broker Identity and Helping to Create Community Identity. Nora shared, “It’s like me sitting in the middle of a Venn diagram of all these different circles. STEP, Santa Clara Unified, and the Learning Differences Initiative.”

This quote, shared by Nora in her shadow interview, shows how she perceives herself about both her home CoP and partner CoP. As she navigated this space as a

broker, Nora's identity evolved over time through experiences within her home CoP and during boundary crossings. Through her practices and experiences, Nora also helped to create a collective community identity within the Stanford GSE and used those practices and experiences to influence the partnership.

When I interviewed Nora at the beginning of the study, she shared that she was just a year out of the classroom when she joined the GSE and felt that her identity was situated and more aligned with classroom teachers. As a new member of the GSE, she explained how she was negotiating meaning within her new community of practice by listening to and observing the interactions and work of the staff. She said:

> I think in terms of my home space, thinking about various cycles of inquiry, and being very new to Stanford, I'm still also learning how different groups are coming up with essential questions that they then puzzle over as a collective community. But what I have seen in various spaces, whether that's in the faculty-specific side of the initiative that's kind of focused on this work or the Teacher Ed Prep side, is really collectively thinking about questions and inquiry that we can puzzle together.

During the shadowing interview at the GSE, as I observed Nora interacting with faculty and coteaching a class with a fellow clinician, she appeared to be confident and comfortable in that space and shared with me that her colleagues at the GSE were beginning to ask her about the partnership, looking to her for information. She reported:

> I feel as though within the Stanford space, my home, my colleagues are looking to me as to what's happening with this work. How are you leading it? How are you thinking about designing it? And how can I support you?

By the middle of the study, her identity as the broker for the GSE was becoming more evident. During the shadow interview, Nora explained that her identity and experience as a clinician in the teacher education program caused her to wonder how her work teaching preservice teachers could connect to the in-service teachers she was

interacting with in the partnership. Nora communicated that she felt right at the center of everything, trying to figure out how all the entities would come together both now and in the future. By the end of the study, in her final interview, when asked if she would like to share any final thoughts, Nora said that she thought about the multitude of identities of the diverse CoP members and the varied and common interests of this work, and how her own identity had evolved and how individual perspectives, assumptions, and biases might impact the work of a new and developing partnership to flourish or not.

The identity of Nora's home CoP was also impacted by her work. As a new member of the Stanford GSE, Nora's perspective on her community of practice is that it is very complex. Through all three of her interviews and supported by her journal entries, Nora describes her experiences within different groups and spaces at Stanford, including faculty-specific initiatives and the teacher education preparation program. These different spaces represent distinct communities of practice with their own identities, goals, and inquiries. However, Nora expressed that she observes a common strategy emerging across these spaces: the collective generation of questions and inquiries to foster collaboration and shared learning.

Nora also explained that faculty could be very focused and do not always connect with the opportunities outside of their content and research area of focus. Nora said:

> I mean, I think that it's interesting, right? Because in my position, I've been able to talk to faculty in the law school, for example, and then faculty and the RILE program, or faculty that are focusing on the connections between education and the school-to-prison pipeline, and I see the connections between those two faculty members where they don't.

By mid-study, from the journal entries, Nora shared that the GSE faculty was curious about the partnership with the intention of supporting Nora in her work. They did

not seem to think about how their content or clinical research connected as much as how Nora might think about and design the work. When the faculty asked Nora how they might support her, her response directed the faculty back to the collective work. She commented:

> My response is, how are we thinking about this together? Because you have an expertise in clinical work, for example, where you've been doing this for over 20 years, and this is your process. But is there a specific iteration that we might want to consider as it relates to the model of the RPLP?

Throughout the study, through her interviews and journal entries, Nora expressed the sense of the GSE's identity as having set ways of participating with others about research and a rigid structure when thinking about time and space, which created a challenge in sparking faculty attention on the RPLP. Another challenge that Nora identified in her journal entries was that Stanford is a brand with internal and external expectations that impacted the work and caused Nora to think about positionality and power dynamics.

Subtheme 02: Positionality and Power Dynamics. Throughout this case study, the focus on the RPLP and the potential opportunities to promote improved practice and outcomes seemed to be overshadowed at times by the beliefs that some hold more power or a higher position and thus more input into decision-making over others. From Nora's perspective, there were power dynamics at many levels of the partnership, from the brokers to the school staff to the GSE faculty. School staff shared the notion that researchers are the experts there to research the staff and students and that teachers and students were there as the study subjects. Nora also expressed how the university's name carried its own power and positionality as a well-known brand and prestigious level of

education that she felt clouded the work in the partnership. These hierarchical beliefs had to be considered to get to the heart of the work by breaking through the beliefs to get to the learning.

As Nora began her work as the broker for the GSE, in her first interview, when asked about how her brokering was going, she shared that she was surprised that the first thing teachers connected her with was that she worked for Stanford, even though from her perspective, she was positioned much more closely to them as classroom teachers. They saw the Stanford brand before they saw Nora as a classroom teacher. This was also the case with how classroom teachers saw the GSE faculty—most of whom have classroom experience, but it was their connection to Stanford that teachers would see first. She said:

> I was a year out of the classroom and so my identity and lens was definitely situated and more aligned with classroom teachers. But I think I was surprised coming into this in the position that I have now as a project lead that classroom teachers didn't see me in that light like I was surprised at that kind of attention. What might have been a little bit of tension for me is the distinction between the Stanford partner and the proximity that folks felt that that was to their actual experience of a classroom teacher. And I think that's generally my surprise because the colleagues at Stanford that are on the learning differences initiative, most of them, if not many of them, and I would have to just double-check my facts have had classroom experience. But there's this hierarchy associated with a university like Stanford that separates practitioners currently in the field. When you say you want to partner with an institution like this, and that was very like I was not expecting that at all. And then surprised that it became a barrier.

The hierarchical structures of each organization also created power dynamics that Nora noticed. At Stanford, she reported to the director of the Learning Differences Initiative and the district broker reported to a district administrator. When Nora was asked about how she was navigating the boundary work, she shared that as the two of them navigated the work at boundaries, they would sometimes get stalled because of the

perceived need to check in with their supervisor prior to making any decision, especially early on in the study. Nora commented:

> I was discussing the work between the two brokers, and one of the challenges was being able to make decisions, to move the work forward, and being competent in the decisions between the two of us without necessarily the need to have to check in with our supervisors. I think I had more comfortability to say let's move forward with the decision. Where at times the other broker was wanting to definitely check with the supervisors first.

In her journal entries, Nora also reported the strong hierarchical structures of the GSE when it came to the different learning initiatives, the teacher education program staff, and the individual research teams. Each had their place in the GSE, and Nora noticed that they sometimes did not see where collaborative opportunities existed within and outside the GSE. For example, Nora had opportunities to connect with the faculty from the medical school and talked with them about their work, and Nora shared her work in the Learning Differences Initiative. The faculty members did not see connections to interdisciplinary research in schools until she shared the possibility. From her perspective, they are in a structure that keeps them focused solely on their area of focus.

Case Study #02 Shea

Background of Case #02

Case 02 is the broker, Shea, who is employed by the Santa Clara Unified School District (SCUSD) as a broker for the RPLP and as an instructional coach focused on inclusivity, specifically on the three campuses involved in the partnership. Shea is new to the district and was hired in March 2023 to fill the role of the broker for the RPLP. Her background as an elementary classroom teacher, instructional coach, and most recently as a county office of education unaffiliated broker between school districts and university

researchers provided unique perspectives for navigating the role of the SCUSD broker. Shea's office is on the high school campus, and she supports the elementary, middle, and high school staff in focusing on inclusivity as a core value of the three schools. She also attends the monthly district-wide professional learning and collaboration meetings for the instructional coaches. As the broker for the partnership, she meets with the GSE broker to plan and discuss the work at boundaries.

Two themes and four subthemes emerged through the analysis of the data for Case 02. The themes and subthemes, along with my assertions, are presented in Table 3, and a detailed analysis of each follows.

Table 3

Case 02 Findings: Themes, Subthemes, and Assertions

Themes	Subthemes	Assertions
Negotiating Meaning in the Boundary Crossing Space	Clarity and Cross-Cultural Communication	Clarity is key in negotiating meaning and includes clarity of roles, purpose, goals, and objectives. In addition, understanding the culture of partnering CoPs impacts how both CoPs receive the communication of the negotiated meaning.
	Emerging Partnership Practices	As meaning is negotiated, partnership practices begin to emerge, such as regularly scheduled boundary crossings and reification of the work.
Broker Identity–A Multifaceted Role	Relationships First–The Importance of Trust and Respect	In all spaces of the partnership work, the broker worked first at building relationships to strengthen trust and respect.
	Broker Positionality Within and Across CoPs	Positionality has an impact on the work of the broker, and navigating the hierarchical power dynamics helps to define the broker's identity.

Theme 01: Negotiating Meaning in the Boundary-Crossing Space

Negotiating meaning in RPP happens in the boundary-crossing space between the two CoPs. In Case 02, Shea elaborated on what she felt was essential to meaning-making in the partnership. Two areas of importance surfaced in the data: clarity and communication and emerging partnership practices. The importance of clarity of purpose, outcomes, and participant roles that both CoPs can understand was a priority and yet a great struggle for Shea. Clarity and understanding of the cultural characteristics of each CoP is also highlighted. Having clarity is not enough, though. Shea also stressed the need

for cross-cultural communication both within and between CoPs. In the boundary work, there is a need to understand the cultures of each CoP to allow for communication to have a cohesive meaning for all. From Shea's perspective, as the partnership progressed, practices that gave more structure to meaning-making began to emerge. Meeting structures were established and regularly scheduled, and practices for reifying the work at boundaries were also established, helping to negotiate and create meaning in the boundary-crossing spaces.

Subtheme 01: Clarity and Cross-Cultural Communication. Throughout the data collected for Case 02, the need for clarity was evident. Shea pointed out three areas where the lack of clarity was apparent to her—goals and objectives, purpose of the partnership, and role of the broker. A few weeks into the study, in Shea's journal entry, when prompted about the partnership's progress, she shared her thoughts about the importance of having clear goals and objectives and a timeline to meet them. Shea said:

> As we continue to dive deeper into this journey, the necessity for well-defined and quantifiable objectives is evident. It's pivotal for us to delineate the milestones we wish to attain by this school year's conclusion. Crafting periodic goals, perhaps on a quarterly basis, might offer us a roadmap to keep us focused and gauge our progress systematically. Additionally, utilizing a tool such as the National Network of Education Research-Practice Partnership (NNERP) framework seems advisable. It can guide us in pinpointing areas that need attention, and in turn, we can configure measurable targets that align with our overarching mission. Having such clarity will not only bolster our team's motivation but will also keep us connected to the purpose that guides our collaboration.

In addition, in her first interview, Shea continued to express the need for clarity not only in the goals and objectives but also in the purpose of the partnership. She articulated that both teachers and site administrators want to have clarity of purpose. She reported:

> I believe some of the questions that I'm still getting is, what Santa Clara teachers want to know is, what's in it for Stanford, and why do they want to do this partnership? Teachers want to know their why. They just want those clear goals. And I think there's also a desire for practitioners to understand why this is important to them, why is this important for them to engage with this community of practice in a Research-Practice Learning Partnership, and what is in it for them or for their teaching and for their students. How does this benefit them in the short and long term?
>
> The recurring question from administrators—"Why are we engaging in this partnership, and what value does Stanford bring?"—highlights the necessity for more transparent communication and clarified objectives. Addressing this question is crucial, not only for my advocacy efforts but also for the overall success of a co-construction partnership.

Additionally, Shea expressed the need for clarity in the roles and responsibilities of the broker. She shared that she is unclear as to her role; the Stanford broker is unsure of her role, and participants are also unsure of the role of the brokers. This creates a challenge in establishing a strong partnership. She commented:

> The role I stepped into remains ambiguously defined by the collective team, which has given rise to several challenges. Much of the confusion seems rooted in varied interpretations of what a liaison or broker's function should be in this partnership and, consequently, the collective expectations for our work.

Not only does Shea think that clarity is important, bus she also sees communication as a priority in her boundary work, and it seems to be lacking from her perspective. In all three interviews and several times in her journals, Shea expressed the need for communication that is framed on cross-cultural understandings. The culture of each CoP is built on common language and practices and understanding the partner CoP's culture can promote meaning-making together. Cross-cultural understandings come from boundary encounters where members can learn about each other to build relationships. At the beginning of the study, communication was a struggle, according to Shea. In her first interview, when asked about the challenges she was facing as a broker,

Shea responded:

> Communication plays a role in bringing two communities of practice together. I'd say one of the bigger challenges right now is facilitating communications and that there's definitely a communication gap of how we communicate, how we manage the levels of the organization. So I think just communicating schedules, communication of what we're doing and having that deep understanding of what that is is still a challenge.

As the study progressed, Shea reflected more deeply on why communication seemed to be ineffective and, as she stated, it is important to understand the culture in the partner organization. Included in an organization's culture is the vernacular or jargon language that is used within the organization. These terms are used to streamline communication within the organization but can sometimes be confusing or alienating to those not familiar with the specific jargon of that organization. In addition to the vernacular, the different perspectives that each partner organization brings to the boundary space caused a struggle in communication when the perspectives were not addressed. In her first interview at the beginning of the study, Shea shared how the different perspectives and vernaculars created the communication challenges she was trying to navigate. She said:

> I just think that it's important to honor the teacher perspective. And it's important to support. I think that language differences that can sometimes happen between academia and K–12 space to ensure that we're elevating the great practices and the things that the teachers are currently doing and that it's being articulated and conveyed in meaningful ways that support researchers or that might connect to what researchers are doing even if the language used is slightly different.

Shea raised this struggle again in her journal, reestablishing the importance of understanding perspectives when working in the boundary space. She commented:

> A recurring challenge with university faculty and staff is bridging the gap between academic perspectives and the ground realities of our schools. The Stanford partner priorities sometimes diverge from those of the schools, making it hard to harmonize objectives. While they assert their role as academic resources, a

> clear protocol or practice on how educators and staff interface with them is still missing, and I continue to be challenged when I bring this to the attention of the core team.

In her third journal entry at the close of the study, when asked about the progress of the boundary work, Shea's response indicated that there had been movement in the area of communication and clarity, and she shared how that has resulted in meaning-making and the building of relationships. Shea said:

> Establishing set schedules has been a significant milestone in our collective journey. While it's still a work in progress, fine-tuning our long-term and short-term planning strategies, the clarity that a defined schedule provides foundation for transparent communication. It not only establishes a routine but also lays the groundwork for open dialogue, thus reinforcing one of our core objectives—fostering meaningful relationships.

Subtheme 02: Emerging Partnership Practices. Throughout the study, seen through the data collected, partnership practices began to emerge in the boundary space. Throughout Shea's journal entries and interviews, she expressed how boundary-crossing events were being planned and how certain boundary objects were formalized and guided the boundary work. Shea also described some of the challenges along the way.

Intentionally setting opportunities for boundary work by forming the core team, the steering committee, and meetings within the home CoP, and regularly scheduled times for each of these gave some structure to the work. Shea said:

> Over the past months, the team invested significant effort toward developing a common vision. We've convened as a Core Team, Steering Committee, and Site Teams in multiple brainstorming and listening sessions, where each member was encouraged to voice their perspective on what the partnership should embody. These sessions, though sometimes long and exhaustive, have been rich with insights and have highlighted the diverse viewpoints within our team. It's evident that everyone on the Core Team is deeply invested in the partnership's success and we are working toward developing a solid Steering Committee that believes in this work.

However, it did not start out smoothly, as shared in Shea's first journal when asked about her challenges concerning her boundary work. She named the absence of key steering committee members, which translated to her as a lack of commitment to the RPLP. She said:

> Our first on-site Steering Committee meeting for the school year took place on August 28th. Topics like the partnership's history, preparation for the SSCRPLP Meet & Greet (which got canceled due to faculty commitment issues), RPLP messaging, and project summaries were covered. The noticeable absence of faculty from Stanford and teachers from SCUSD was a drawback we've been addressing.

However, by the end of the study, in her final journal entry, Shea acknowledged the RPLP's progress through the established partnership practice of regular, scheduled meetings. Shea reported:

> One notable achievement was our Stanford Steering Committee meeting, where we spent time focusing on aligning our goals. We went through exercises that allowed us to delve into our understanding and aspirations for the RPLP, as well as our apprehensions. The vulnerability shared during these sessions has started to pave the way for mutual understanding. We charted out our elevator pitch, where there was a noticeable sense of unity and excitement. The goal is for the collective vision to be more than a statement—but a commitment that resonates with each of us.

The exercises that Shea mentioned started with revisiting the purpose and goals of the RPLP, and then, in mixed small groups of GSE faculty and school practitioners, participants shared their aspirations and apprehensions with each other. After each group shared with the whole group, the elevator pitch was collectively created. Another practice that Shea expressed as contributing to improved boundary work was her regular meetings with the district's partnership lead. Meeting with the lead enabled her to understand the district's needs better to represent the district in the boundary work better. This was

mentioned not only in her journal entry but also in her interview when asked about her noticing any new practices. She said:

> A significant practice that continues to develop is the open and regular dialogue between the assistant superintendent and me. Our frequent interactions provide a platform to align our focus, prioritize tasks, and streamline our efforts more effectively. Additionally, it builds the confidence and trust that underscores our distinct partnership within our district.

Shea and the assistant superintendent met every other week, at first, to get to know each other and discuss the details of the RPLP boundary work. As time went on and a trusting relationship developed, Shea could share more openly about the challenges she was having and was more comfortable asking for support in interacting with GSE faculty.

Reifying the practices through boundary objects was also an important practice in negotiating meaning for the RPLP. Shea mentioned the Google folder that was set up to collect all the partnership documents and the partnership agreement between the GSE and the school district. She also relied on the NNERPP framework for RPPs and other resources she gathered, as she explained in her mid-study journal entry. She stated:

> As I navigate this landscape, I have leaned heavily on the guiding principles provided by the RPP framework. Its structure offers a blueprint that ensures both SCUSD and Stanford partners can collaborate effectively, centering our work on shared objectives and mutual respect. Additionally, I have gathered and shared resources with some of the SCUSD team on how to effectively launch, manage, and implement RPPs. As we continue further into our collaboration, I anticipate that this framework will continue to serve as a roadmap, guiding decision-making and grounding our aspirations in a structured, community-centric approach.

By the end of the study and conveyed in Shea's final interview, she shared that the RPLP was progressing toward shared practices, allowing for better partnership communication. Shea said:

> I think, with shared practices, we’re getting into a sync. I would say more as far as meeting schedules, and I think the flow of meetings, or just how we interact. I feel like there’s a better flow. And I don’t know if I think it’s because there’s a certain level of commitment to the work. But I feel like there’s a level of agreement on the commitment to the work, and that then allows for the practice to be more fluid.

With regularly scheduled meetings, coplanned agendas, and minutes taken at each meeting, Shea expressed a sense of synchrony that she equated to making progress. Relationships were strengthened with the regularly scheduled meetings, and a consistent flow to those meetings gave her the sense that members were more committed to the RPLP.

Theme 02: Broker Identity as a Multifaceted Role

By the end of the study, in her last journal entry, Shea was able to articulate her purpose as a broker in this RPLP. She said:

> My role fundamentally centers on merging academic research with practical application. I believe deeply in the mutual benefit these two worlds can offer each other. By encouraging their collaboration, we hope to let academic findings shed light on real-world practices while practical challenges provide direction to relevant research.

This seems so clear and straightforward, but her experiences throughout the study show how multifaceted the broker role can be and how she found herself being one person working with many different people and facing the challenges that come with building relationships and establishing her identity as the RPLP broker. From the beginning of the study, Shea found herself in many different settings, attempting to build relationships with many other people at both the district and the GSE. Shea gave attention to relationships in a way that illuminated the importance of trust and respect and the challenges that confronted her when considering positionality.

Subtheme 01: Relationships First and the Importance of Trust and Respect. Before Shea's official start date in her role as a broker, she began attending some of the gatherings for the RPLP. Shea took it upon herself to attend on her own time and, through those experiences, demonstrated her awareness of the importance of building relationships. Shea said:

> Prior to my initial start date, I attended a learning walk in southern California. During this visit, I was introduced to our Stanford partners and the SCUSD leadership team. While I didn't have a role in facilitating this learning walk, I felt like it was an important first step to develop relationships and build foundational knowledge to the RPLP's mission, climate, and needs.

As she stepped into the broker role, building relationships became the primary focus of her work. She had to build relationships with the GSE team, the administration from each site, the teachers from each site, and the leadership teams from both CoPs. In each space, she found herself having to navigate relationships in slightly different ways. In her first journal entry, when asked about her brokering experiences since she began, she expressed how navigating an organization's nuances and characteristics had been a priority to her. She commented:

> I started my brokering experience at SCUSD mid-year with the goal of "building relationships." Being new to the district, I prioritized understanding its existing culture; I immersed myself in the district's existing culture, gauging both its current state [and] its aspirations and navigating the nuances that define its character. I adopted a tiered strategy for cultivating relationships, with the intent to thoroughly grasp the diverse layers of the system I would be championing on behalf of SCUSD.

As a follow-up question in her first journal entry, when Shea was prompted to share anything else of importance about her boundary work, she shared her hopes for the future of the RPLP. She said:

> My passion for the potential transformative impact of an RPP remains undiminished. As we move forward, it is imperative to establish a culture grounded in mutual respect and understanding, where every individual's worth is acknowledged and where collaborative synergy is not at the expense of personal well-being.

From these two entries, Shea seemed to have a clear idea of her objectives and broker role early in the study and how important a culture of mutual respect would be to the success of the RPLP. As a part of her role as broker, Shea interacted with the teachers and administrators at the school sites, the faculty at the GSE, and the district office administrator. Shea had varying degrees of success over the course of the study in cultivating relationships to build trust.

Concerning the school campuses, Shea found that each campus was entering into the RPLP space at different places on their journey. At the start of the study, they were all new schools at different stages of opening and had been through different experiences in their founding years. The high school teachers had reservations stemming from the initial encounters they had with the GSE faculty during the opening phase of the RPLP; the middle school campus was focused solely on opening their school and building school culture and did not appear to have the capacity to venture into the RPLP, and the elementary teachers had just gotten an interim principal for the remainder of the year and knew that they were losing about half of their staff in the coming year. In order to build relationships in these environments, Shea utilized avenues that would allow her to gain the trust and respect of the staff, as she shared in her first journal entry and as I observed in her shadow interview. Shea said:

> My interactions with teachers have predominantly occurred during staff meetings and professional learning events. To foster deeper connections and gain insights into their teaching methodologies, I participated in teacher collaboration sessions

> to learn more about teachers and pedagogical practices. Visits to classrooms and my occasional presence during recess and lunch have been further efforts to integrate into the school environment.

Mid-study, when the new school year started, Shea was able to continue to build relationships with the advantage of new staff at the schools as they continued to add grade levels each year. In her second journal entry, Shea shared her perspective of this particular time and space in the study. She said:

> I'm more consistent with meeting with teachers, I'm going into classrooms a couple [of] times a week, and I think that is a direct result of the relationships that I was able to build with the administrative leadership and with the teachers themselves, having new teachers and being here at the beginning of the school year also made a huge difference. Again, 50% of the staff is new, so having the opportunity to speak with them in the beginning, without other things getting in the way, is really helpful.

From the start of the study, Shea focused on building relationships with the three site administrators, who were also in different places. Shea's office was located on the high school campus, and the proximity to the high school principal made it more conducive to informal encounters to build relationships, and they found much in common personally. Shea shared that her relationship and rapport building with the middle school principal was a work in progress and that she was just getting to know the new principal at the elementary school. In her first journal entry, when asked about her brokering experiences so far, Shea shared her plan to continue building relationships with the school administrators through a weekly check-in. She said, "One of my objectives has been to maintain weekly check-ins with the principals of Agnew, Huerta, and MacDonald (MHS). My close proximity to MHS has been instrumental in forging strong ties with its leadership."

Shea has also tried to build relationships with the GSE faculty. She has reached out through scheduled visits to the GSE and tried connecting the site admin with the GSE faculty members to forge new relationships. This boundary space seemed to be one of the most difficult, especially about building trust and respect. Shea shared this in her mid-study journal entry:

> I have scheduled visits to Stanford to connect in their space both individually and with the MHS principal. These visits were to establish new relationships and introduce faculty to the principal based on the identified goals. Additionally, I try to attend talks that are offered by faculty that I don't have an established relationship with and leverage my current relationships to establish new ones.

However, the relationship building with the GSE seems to be a pain point for Shea regarding respect and trust. In her final journal entry, when asked about the challenges she was experiencing, she shared the following:

> Trust has been a recurring issue. Instances where I've felt patronized by our Stanford partners, only for them to later echo my ideas without acknowledgment, have been challenging. Their sometimes contradictory actions, like initially rejecting my proposals and later adopting them, have been confusing and draining. The passive and overly used apology without a change in behavior also strains the trust in the relationship.

For example, in the final interview, Shea shared that she had asked to attend GSE faculty meetings and was told it could not happen, only to be invited shortly after. From Shea's perspective, such occurrences undermined her sense of trust.

During the study, Shea met with the assistant superintendent, who is the partnership lead for the district. During these meetings, Shea learned more about the district's culture and climate, received direction for her brokering work, and also continued to build on her skills as a broker for the RPLP. Shea wrote in her journal that

her time with the assistant superintendent helped her to build her own skills and impacted her identity as a broker. Shea said:

> I do watch closely how the AS [assistant superintendent] interacts with others. Her open approach to hearing others out and her adeptness in diplomatically maneuvering through the multifaceted political landscapes prevalent in different educational spheres is a source of inspiration, encouraging me to develop a similar level of proficiency in navigating such spaces. I harbor a deep respect for her capacity to balance assertiveness with understanding, blending strategic insight with compassionate leadership.

In Shea's final journal entry, when asked to share any other noteworthy reflections about the RPLP, she explained how she sees her role as a broker and the skills and dispositions she needs to serve successfully as a broker. Shea also expressed her beliefs in the impact that an RPP can have on educational outcomes. Being a strong and accurate communicator, a deep listener, and how respect and relationships are key. Shea commented:

> One of the facets of my role as a broker that perhaps wasn't elaborated upon earlier is the intricate blend of skills it demands. Relentless communication is paramount to successful brokering. It's about more than just conveying messages; it's about ensuring clarity, consistency, and understanding, especially when navigating the intricacies of our partnership. This isn't limited to frequent dialogue; it involves an astute ability to understand both the explicit and implicit messages from researchers and practitioners. Being attuned to what is said, and perhaps more crucially, what isn't, forms a foundation for effective brokering.

In the brief 9 weeks of the study, Shea's experiences cultivating relationships to build trust and mutual respect had varying degrees of success. A broker's positionality may also impact building relationships. Next, Shea's perspective on broker positionality will be examined.

Subtheme 02: Broker Positionality Within and Across CoPs. As a part of Shea's broker identity, she faced hierarchical dynamics in multiple situations, both within

her own CoP and in boundary crossings. Finding her place of belonging within the dynamics was a challenge at times because of her role as the RPLP broker. As Shea navigated the space at the three schools, she found herself in places of positionality depending on who she was interacting with at the time. With teachers, Shea reflected that she had more opportunities than classroom teachers, specifically with time flexibility. She also noted that she had much more direct access to the assistant superintendent with different resources available than the classroom teachers. This put her in a position of power compared to the teachers, and she was aware that she had to understand that to gain the teachers' trust and respect. Shea explained her thoughts when asked about relationships in her first interview and said:

> And it's not equitable for all because not all teachers have the opportunity, because I have positionality that's close to an assistant superintendent and have a different budget than maybe principals do, so that creates an inequality of opportunity for me. And I'm aware of that. And it's, I'm trying to figure that puzzle out because it does push me into a different category. I think that this is also a challenge. How I'm seen by my peers because of my positionality and working with you as an assistant superintendent, and I need to work really hard on building trust with people because they're not sure what my intent is because I came here from another district, and they feel like I have this other agenda, which I'm not really sure what that is. So, I think these are all nuanced, and I think holistically, I'm speaking about our relationships, which are very challenging.

Working directly with the assistant superintendent also puts Shea in a position to navigate her relationships with site administrators. She expressed that this puts her in a position where principals may not trust her enough to speak truthfully, knowing she regularly talks with the assistant superintendent. Shea shared that she needed to be very aware and intent on keeping her focus on the shared purpose and goals of the RPLP. In her first journal entry, she shared her caution about her challenges. She said:

> Navigating my relationship with the AS has been both a challenge and a journey. While she assures open communication, I’m often caught in the intricate dynamics of interfacing with principals in management roles. Balancing the trust I’ve built with them and the inherent positional disparity has been challenging. As I tread this delicate path, it’s not just about relaying information but the ethical implications tied to each interaction. I’m hopeful that with time and effort, I can strengthen mutual trust and understanding.

In her first interview, Shea elaborated on the ethical dilemmas she faced and how she tried to navigate them. She meets regularly with site administrators, teachers, and the assistant superintendent. The site staff share things about their challenges and struggles that they feel come from pressures from the district office. When she meets with the assistant superintendent, she has to really consider what she shares and what she does not to continue to build trust with the site folks. She also has to consider what to share with the staff when she might have information from the superintendent that has not yet been communicated. Shea is put in a unique position between the site and the district.

Shea also had a perspective on the responsibilities of the partner leadership from each CoP, the faculty lead from the GSE and the assistant superintendent of the district. Shea expressed that her expectations of the two leaders were to play a pivotal role in guiding their teams, reinforcing consistent involvement and commitment to the shared goals of the partnership, and at the same time, being careful not to assert themselves into a role that diminishes the role of the steering committee, but instead, promote the RPLP alongside their staff. When the partnership lead from the GSE articulated her perspective in a steering committee meeting focused on collaborative efforts and individual strengths, Shea seemed to feel dissonance over the faculty member’s reflection, as she reported in her final journal entry when asked about how the team worked toward a common vision. She shared:

> A reflective exercise by the Core Team, which centered on articulating our individual strengths and collaboration efforts, was illuminating. It wasn't just about what was spoken, but the unspoken sentiments that were equally telling. Rebecca's self-identification as the "vision holder" intrigued me, as I believe that responsibility ideally lies with the entire Steering Committee.

Shea's perspective about the lead GSE faculty for the RPLP is that she is using her positional power to control the narrative about who holds the vision of the partnership, which goes against the idea of cocreation and codesign of the partnership itself. This is additional evidence that supports Shea's previous description of the patronizing behavior of the GSE about building trust.

Shea further articulated how she sees that positionality impacts the building of trust within and across the CoPs. She considered this an ongoing challenge as a broker. In her debrief after the shadow interview, Shea was asked to go into detail about the challenges she was facing as a broker. She said:

> Another big challenge is the hierarchy or the positionality of the various folks involved. You, as assistant superintendent and then the lead faculty director, who are both the management of both the administrators and teachers, create a power dynamic that makes trust really hard. I think, on both sides. So what are the impacts of speaking freely, or what are the impacts that it might have for a teacher or administrator to challenge an idea is definitely, I think, an existing challenge. And I think it will be ongoing throughout because of the positionality of an influence that these people have in decision-making for the entire district or, in Stanford's case, for the university. So recognizing and addressing those power dynamics, being able to effectively mitigate those is something that I think I'm currently working on, and it's ebbs and flows. And being able to support teachers and clearly say that you know, I'm here to advocate on behalf of them. It challenges the idea of it.

In her final journal entry at the end of the study, Shea again reflected on the power dynamics and positionality that affect her as a broker. She expressed the severity of facing these challenges over the course of the study and how she wrestled with her own commitment to her work as a broker. Shea commented:

> Power dynamics have increasingly surfaced as a profound challenge in my interactions with our Stanford partners. My role, which is primarily consultative and advisory, has been repeatedly met with resistance and skepticism. There's a noticeable disregard for my professional recommendations and boundaries. At times, I've encountered aggressive confrontations, including raised voices and an implicit undermining of my expertise and contributions. The line between healthy debate and overt dismissal seems blurred at times. Such power struggles, while perhaps unintentional, are counterproductive, leading to an atmosphere of tension and mistrust. This has often left me at [a] crossroads, weighing my professional commitment against the emotional and mental toll of these ongoing challenges.

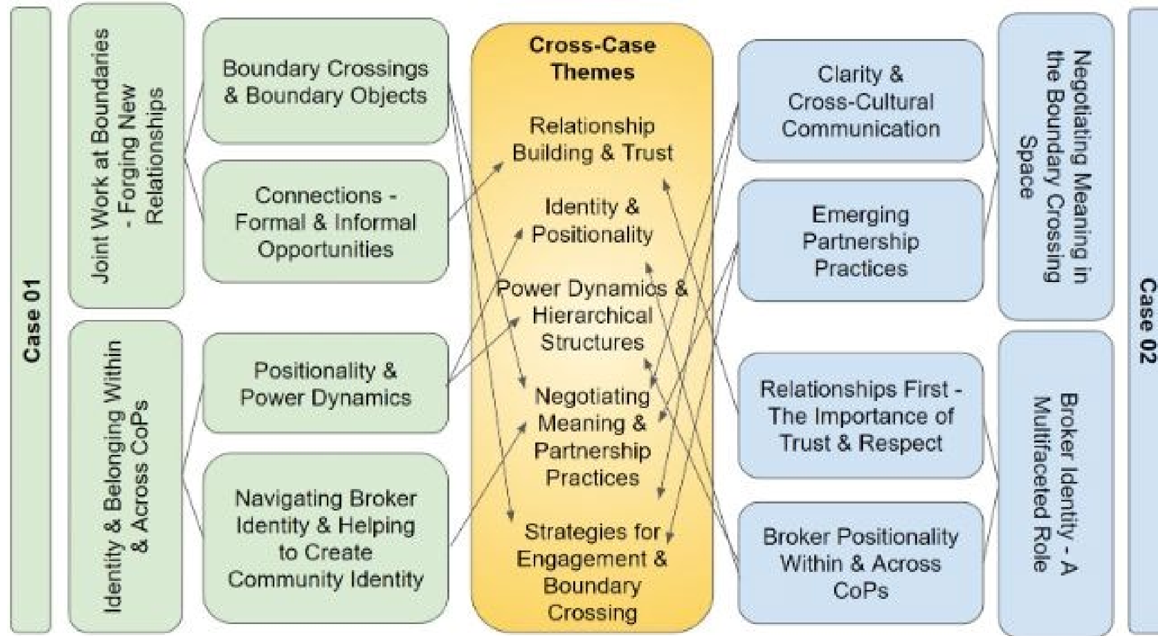
Shea's perspective on positionality and power dynamics gives us insight into her role and identity as a broker. Her journals and interviews show she must navigate this challenge differently depending on the space she is in at the time. Even though the positionality in her home CoP may not be as profound a challenge compared to the power dynamics that members of the GSE display, she still has to navigate them equally. Power dynamics and positionality have greatly impacted Shea's role as a broker, and as her identity evolves, her experiences will help define her work.

Cross Case Findings

This section will expound on what was found across the cases. The goal of a cross-case synthesis is to retain the integrity of each case and then compare any within-case patterns across the cases (Yin, 2017). This cross-case analysis allowed for a comparison of perspectives between Case 01 and Case 02 and identified commonalities and differences between the two cases. Five cross-case themes emerged from the within-case themes and subthemes. Figure 2 shows the five cross-case themes and which subthemes they were derived from, followed by details about the cross-case themes and the similarities and differences from the perspective of each case.

Figure 2

Cross Case Themes Derived From Within Case Themes and Subthemes



Note. Figure created by this dissertation author.

Case 01, Nora, and Case 02, Shea, both serve as brokers in RPPs, bridging the gap between academic research and practical educational settings. While sharing a common role, their experiences, challenges, and strategies reveal varied dynamics in building relationships, negotiating identities, and navigating the complexities of their positions. The five cross-case themes provide a deeper understanding of the complexities and nuances involved in brokering two CoPs in an RPP to bridge academic research with educational practice.

Relationship Building and Trust

Nora's relationship-building strategy was multifaceted, leveraging both formal and informal settings. She skillfully used her time at GSE and schools to foster rapport,

focusing on being present in classrooms and engaging in everyday activities. Her approach was gradual, allowing trust to develop organically. Shea prioritized understanding the culture of her district and invested time in observing teaching methodologies and integrating them into the school environment. She also faced challenges establishing relationships with the GSE faculty, highlighting the struggle to gain respect and trust.

Similarities

Both Nora and Shea were new to their home CoP, and both came with experience as classroom teachers and involvement with an RPP. They both emphasized the importance of building relationships and trust within their respective communities. They recognized the need to be integrated into the everyday activities of the schools and to develop rapport with staff.

Differences

Nora's approach in both CoPs was gradual and organic, allowing trust to build over time through consistent presence and engagement. In contrast, Shea faced more direct challenges in establishing trust, particularly with GSE faculty, highlighting the struggle to be respected in her broker role. Nora had access to both CoPs, whereas Shea had very limited access to the GSE faculty.

Broker Identity and Positionality

Nora's identity as a broker was shaped by her background as a teacher and her new role at the GSE. She navigated her position within this dual identity, contributing to the evolution of the GSE community's identity and the broader partnership. Shea grappled with her positionality, being closely linked to the assistant superintendent yet

needing to build trust among teachers who viewed her with skepticism due to her unique position. Her role required balancing various power dynamics within the district and the partnership.

Similarities

Both brokers navigated unique identities shaped by their backgrounds and current roles. Their positionality within their respective organizations significantly influenced their interactions and effectiveness.

Differences

Nora and Shea are two different people with two different personalities, which impacts how they interact with others based on their strengths and their comfort in different environments. Nora was comfortable with some ambiguity, and Shea worked best with organization and clarity. Nora's identity evolved within the GSE, leveraging her background as a teacher. Shea, however, struggled with her positionality, particularly with respect to power dynamics and skepticism from teachers due to her close association with the district's leadership.

Power Dynamics and Hierarchical Structures

Nora noted the impact of power dynamics on her interactions, influenced by the hierarchical structures within GSE and the partnership communities. This affected how she was perceived and how she engaged with various stakeholders. Shea wrestled with the hierarchical structures of the district as she had to navigate through the district, site administrators, and classroom teachers. Shea encountered challenges with power dynamics, particularly in her interactions with Stanford partners. Her consultative role

was often met with resistance, leading to tensions and a questioning of her professional commitment.

Similarities

Both cases underscored the influence of power dynamics and hierarchical structures in the RPLP, affecting how brokers were perceived and their interactions with various stakeholders.

Differences

Nora observed these dynamics and adapted her approach to mitigate their impact. Shea, on the other hand, faced more direct confrontations, with her role often met with resistance, particularly from Stanford partners. Shea also faced personal ethical dilemmas within her own CoP since she met with the assistant superintendent regularly.

Negotiating Meaning and Partnership Practices

Nora facilitated joint work at boundaries through her ability to create spaces for collaboration and develop meaningful relationships. This included setting up systems for continuous communication and documentation. Shea emphasized the need for clarity in roles, objectives, and the purpose of the partnership. She found that establishing regular communication and understanding the culture of each community was crucial for effective partnership.

Similarities

Both Nora and Shea highlighted the need for a clear understanding of roles, objectives, and the purpose of the partnership. This clarity was crucial for effective communication and alignment of goals.

Differences

Shea particularly emphasized the lack of clarity in her role and the partnership's objectives, which seemed to be a more significant challenge in her experience than Nora's. Nora had more consistent access as a broker with both CoPs than Shea, who did not have access to the GSE CoP.

Strategies for Engagement and Boundary Crossing

Nora used a variety of methods to engage members of both communities. Her techniques ranged from teaching alongside fellow clinicians to participating in planning meetings and professional development. Shea's strategy involved attending professional learning events and meetings with key figures, such as the assistant superintendent, to align her work with the district's needs and priorities.

Similarities

Both brokers employed various strategies to engage members from different communities, recognizing the importance of boundary crossing in fostering collaboration.

Differences

Nora's tactics were diverse, involving teaching, participating in planning meetings, and developing shared documentation. Shea, in contrast, focused more on attending professional learning events and aligning her work with the district's priorities, often navigating through more challenging dynamics. There was an unevenness of engagement opportunities that the two brokers were afforded across CoP boundaries. Nora had even access to both CoPs, whereas Shea had access to her home CoP but not to cross-boundary CoP.

The cross-case analysis of Nora and Shea's experiences as brokers reveals a complex interplay of relationship building, identity navigation, power dynamics, role

clarity, and engagement strategies in fostering effective partnerships between educational institutions and research bodies. While there are similarities in the challenges they faced, the differences in their approaches and the contexts they operated in underscore the unique nature of each broker's unique journey in the RPP landscape. Both cases contribute valuable insights into understanding the multifaceted role of brokers in connecting academic research with educational practice.

Cross Case Analysis in Relation to the Research Questions

The experiences of Nora and Shea as brokers in RPPs provide insights into three research questions: navigating joint work at boundaries, using boundary objects, and the impact of boundary objects and brokering on continuities across boundaries.

How do brokers navigate the joint work at boundaries between two communities of practice? Nora navigated joint work at boundaries through both formal and informal engagements. Her approach was patient and strategic, focusing on building relationships and trust over time. This included her active participation in the teacher education program and introducing partnership opportunities in collaborative settings. Shea's navigation focused on clarity in communication and understanding cultural differences between CoPs. Her work involved attending professional learning events, participating in teacher collaboration sessions, and meeting with leadership to align her efforts with district needs. Both Nora and Shea emphasized relationship building, but Nora's approach was more gradual and integrated within her CoP, while Shea faced initial challenges in defining her role and establishing clear objectives for the partnership.

The positionality of the brokers within and across the CoPs and the power dynamics of the partnership members and the hierarchical nature of the two organizations

created challenges for navigating the joint work at boundaries. Both Shea and Nora reported having to navigate through this regarding decision-making and cultivating trusting and respectful relationships. Shea experienced this in her home CoP as she interacted with the teachers, administrators, and the assistant superintendent, and with the leadership from the GSE, where she expressed frustration at the lack of respect that she felt. Nora also expressed how the power dynamics affected the work of the brokers regarding decision-making.

What boundary objects do the brokers use to connect the two communities of practice? Nora utilized various boundary objects like Google folders for document sharing, cocreated agendas, meeting structures, partnership agreements, and informational summaries. These boundary objects facilitated structured communication and continuity in the partnership. Shea also used tools like the National Network of Education Research-Practice Partnership (NNERP) framework (Wentworth et al., 2023), partnership agreements, and regular meetings with district leadership. These boundary objects helped her align the partnership's goals and improve communication. Both brokers used digital platforms for document sharing and formal agreements to structure the partnership. However, Nora's artifacts seemed more focused on fostering collaborative relationships, whereas Shea's artifacts were more about aligning strategic objectives and clarifying roles.

In what ways do boundary objects and brokering impact continuities across boundaries? Both brokers' use of boundary objects like meeting agendas and partnership summaries helped create a shared understanding and continuity across the boundaries of different CoPs. These tools supported the development of a community identity and

facilitated ongoing collaboration. Shea's emphasis on clear communication and role definition through boundary objects like the NNERPP framework and regular strategic meetings contributed to a more structured approach to continuity across boundaries. Her focus was more on aligning the partnership practices and ensuring mutual understanding. The use of boundary objects created the opportunity for cohesiveness in the work; however, not until later in the study did the use of those boundary objects begin to impact the continuities across the CoPs. Not until regularly scheduled meetings were set and the steering committee had the opportunity to go back to the purpose of the RPLP, share their visions and apprehensions, and co-create an elevator pitch about the partnership did there start to be visible continuities. The impact across the CoPs did not happen with just boundary objects, it happened only in conjunction with brokering.

The experiences of Nora and Shea as brokers in the RPLP highlight the complexities of bridging two distinct CoPs. While both emphasized the importance of building relationships and using boundary objects to facilitate collaboration, their approaches differed in terms of strategy and focus. Nora's integration within her community and gradual building of trust contrast with Shea's strategic alignment of objectives and clear communication. These differences underscore the varied nature of brokering roles in RPPs and the importance of contextual understanding in these partnerships.

Conclusion

The research findings provide a comprehensive understanding of the intricacies involved in brokering and boundary work across two CoPs. The individual case studies of Nora and Shea, analyzed through thematic exploration, reveal the complexities and

challenges inherent in bridging the gap between academic research and educational practice. Five key themes, including relationship building and trust, broker identity and positionality, power dynamics and hierarchical structures, negotiating meaning and partnership practices, and the strategies for engagement and boundary-crossing, emerge as crucial elements in facilitating effective collaboration between university researchers and K–12 practitioners. In the next chapter, I will summarize these findings, discuss the implications for research and practice, and share some next steps.

CHAPTER 5

DISCUSSION

"Practice is, first and foremost, a process by which we can experience the world and our engagement with it as meaningful." ~ Wenger

The initial problem driving this qualitative study was how to bring researchers and practitioners together in a mutually beneficial, long-term relationship to collectively focus on challenges facing PK–12 education systems. Much research supports the structure of an RPP as a promising approach to accomplishing a relationship such as this (Coburn et al., 2013; Farrell et al., 2021; Penuel et al., 2020; Tseng et al., 2017). As an innovation in my local school district, we entered into an RPP with Stanford GSE called the RPLP. The intent of this multiple-case study was to better understand the work at boundaries of this RPLP by closely examining two types of connections that occur during work at boundaries: brokering and boundary objects (Wenger, 1998). These connections were explored through the perspectives of the two brokers, document artifacts and field notes, each as individual cases in the study.

Chapter 5 is divided into five sections. In the first section, I will summarize the findings, including references to related scholarly literature. The second section will address the limitations of this study, including the timeframe within which the study fell, the limited points of view, and my positionality within the study. In section three, the implications for further research will be discussed, followed by section four with a discussion on the implications for practice for both the larger and local context. Finally,

section five will include closing thoughts and recommended next steps for those interested in or embarking on an RPP.

Summary of Findings

In the cross-case analysis of this study, five common themes that emerged from the themes and subthemes of the individual cases were presented. From those themes, I discuss three claims that contribute to the current understanding of the complexities of RPPs, specifically regarding brokering and boundary objects. I begin with two claims addressing brokering: relationship building and trust as a first step to work at boundaries and broker identity development and navigating the uniqueness of the local context. I present the third claim addressing boundary objects: reification as a strategy for continuous improvement and strengthening of RPPs. It is important to point out that the claims are not clearly defined topics, and there is much overlap between the three claims since they are all part of the boundary work.

Relationship Building and Trust as a First Step to the Work at Boundaries

In this claim, I will touch upon four areas of relationship building. First, the significance of relationships; second, the notion of trust, followed by the added findings by this study of formal and informal opportunities; and finally, the concept of time and the amount of time and space needed to build trusting relationships.

Cultivating relationships grounded in trust has been notably one of the key principles that set RPPs apart from other research endeavors (Coburn et al., 2013; Henrick et al., 2017; Tseng et al., 2017). In interviews with RPP leaders, Henrick and colleagues (2017) noted that "without strong relationships and trust, partnerships usually fail" (p. 5). This study's findings support the previous research. In this study, the

attention to building relationships was a significant focus for each broker, especially since the study took place as the RPP was in the beginning phase. In Case 01, Nora shared throughout the study that she continued to look for ways to create opportunities for connection both in her home CoP and across boundaries to the practitioners in their CoP. In Case 02, Shea shared the importance of building relationships as a goal she had set when she began her role as a broker. She worked at connecting regularly with the practitioners in her own CoP but struggled with building relationships with the partner CoP members. There are many reasons why building relationships can be challenging. Coburn and colleagues (2013) found that limited interaction between researchers and practitioners could negatively impact relationship building. This, in fact, was an underlying reason why Shea struggled with building relationships across boundaries. She reported that she had limited access to the GSE faculty, making it difficult to foster connections between the CoPs.

Building trust was a common thread in this study and was seen by Nora and Shea as an important factor in relationship building. In a study of an Australian university-school partnership that came together in a post-disaster setting, researchers found that trust was the strongest dispositional factor that contributed to the partnership's success (Mutch et al., 2015). Though it was a common thread in this study, it presented differently in the two cases. With regard to her home CoP, Shea shared that she had built strong relationships with the administrators, teachers, and the assistant superintendent and that as the study progressed, the trusting relationships got stronger. Shea also expressed frustration with the lack of trust in the GSE faculty and gave examples of having her ideas dismissed and the lack of opportunities to interact with the GSE faculty. She felt it

was difficult to cultivate relationships and build trust. Nora reported that building trust was a focus for her in both CoPs and expressed how finding opportunities to continue to connect over the course of the study and not just at the beginning was a challenge. These findings on the importance of trust building support the previous literature on how to assess RPPs, where one of the five dimensions of effectiveness is building trust and cultivating partnership relationships (Henrick et al., 2017).

Much significant research has guided the importance of building relationships in an RPP (Coburn & Penuel, 2016; Farley-Ripple et al., 2018; Henrick et al., 2017; Tseng et al., 2017). This study's findings add to the previous research on how to actualize relationship building by engaging in everyday informal and formal opportunities. Relationship building was most effective when opportunities happened during the brokers' informal engagement in everyday practices and formal opportunities to build relationships. The engagement in everyday practices was sometimes social in nature and sometimes deliberately planned by the brokers as being opportunities for cocreating and collaborating. For Nora, the informal opportunities looked like subbing in classrooms when a teacher was absent in the partner CoP and during planning time and faculty meetings in her home CoP. For Shea, it meant attending grade level or subject area meetings and district professional development; however, only within her home CoP. Both brokers were present in the lunchroom of their respective CoPs or the faculty room during breaks or before and after school. The formal opportunities that the two brokers planned together not only took on the topics of the partnership but also included time that was social in nature.

Finally, though the brokers were eager to begin to partner researchers with practitioners around problems of practice, building relationships took time and intentionality and required ongoing time and space to continue. This finding concurs with previous research findings. In a study focused on understanding, models, and complexities of a school–university research partnership, researchers found that the resource of time was a necessity. In the partnership, teachers and researchers needed time to meet, negotiate meaning, and discuss the partnership possibilities. In the same study, researchers found that time was needed to continue to build relationships as the partnership evolved (McLaughlin & Black-Hawkins, 2004). In another study exploring the benefits and challenges of an RPP, researchers learned that relationships do not occur naturally or immediately, making the initial phase of the partnership difficult while the relationships are slowly developing (López Turley & Stevens, 2015). The findings of this study concur with the findings of these two studies and with Coburn and colleagues' (2013) findings that time constraints can negatively impact relationship building. By the end of the study, 9 months into the RPP, Nora and Shea were still working on building relationships and trust in and across CoPs. Within the last few weeks of the study, Shea finally set up meetings with GSE faculty members for the first time, this being the initial step toward building relationships across boundaries. In their closing interviews, Nora and Shea noted relationship building as something that they were still focused on and would need to continue.

Brokers are responsible for transferring practices from one CoP to another and making new connections across communities to enable coordination and open new possibilities for shared meaning. In the findings of their case study on an RPP to identify

disengaged students, Biag and Sanchez (2016) advised partners to cultivate the partnership based on trust and respect and asserted that the success of the RPP hinged on sustaining interactions and support. For Nora and Shea, this work started by informally and formally making connections within and across the boundaries of the CoPs. “The job of brokering is complex” (Wenger, 1998, p. 109). The following section discusses the brokers themselves.

Broker Identity Development and Navigating the Unique Local Context

Individuals who act as brokers between communities facilitate the flow and creation of information and practices. This role not only shapes their identity but also affects the identities of the communities they connect, influencing how membership and belonging are negotiated across boundaries. Wenger’s (1998) work illuminated how identity at both individual and collective levels is a dynamic process shaped by participation in social and professional contexts. It highlights how learning, engagement in shared practices, negotiation of meaning, and the management of boundaries contribute to the formation of identity, membership, and a sense of belonging within CoPs. Identity, according to Wenger (1998), “is not an object, but a constant becoming. The work of identity is always going on” (pp. 153–154).

In this claim, I will address the impacts of professional and personal experience, positionality and power dynamics, and the uniqueness of the local context on broker identity. The findings from this case address the challenges of the individual broker’s professional and personal background, including their longevity in the home CoP and positionality within and across the boundaries of the unique CoPs.

Within RPPs, the broker's role is to support collaboration by cultivating relationships and facilitating boundary crossings between research organizations and practice organizations (Sjölund et al., 2023). An effective broker has extensive relationships with the outside organization and strong relationships with people within the organization (Farrell et al., 2022). In Cases 01 and 02, the background and experiences of the brokers were influential in shaping their work at boundaries. The experience of both being new to their organizations meant that they were negotiating membership within their individual CoPs while they were brokering relationships between the two. This presented an additional dynamic that each broker had to navigate as their identity developed over time. Both Shea and Nora were classroom teachers at some point in their past. In the findings of the study by Mutch et al. (2015), brokers engendered trust because of their willingness to listen and their ability to engage in a genuine way. For Nora and Shea, having lived the experience gave them credibility with individual classroom teachers and helped them engage with teachers in this way, especially when connecting with them in informal ways, as previously described. However, in their role as brokers, their identity shifted. In the study by Sjölund and colleagues (2023), researchers found that as RPPs are formed, new identities and roles must be assumed. Key roles for brokers include practical tasks such as managing and coordinating partnership activities, more indistinct tasks such as building interest in partner research possibilities, and at the same time, crucial to the partnership is to make, maintain, and develop relationships and connections within and between partner organizations (McLaughlin & Black-Hawkins, 2004).

Nora's experiences support the research, as she had to navigate her new role differently in both CoPs. Within the GSE, she was now seen as a colleague and clinician in the teacher education program. She was also seen as the broker for the partnership, where her Stanford colleagues had varying degrees of understanding and interest. Though she could connect with practitioners in the schools informally as a fellow teacher, she was surprised by the importance the brand, Stanford, held. Just taking on the role of the broker from Stanford changed her identity. Shea was welcomed into her home CoP as a fellow teacher as long as she stayed in the informal spaces mentioned previously. However, Shea had to navigate a unique culture that the local context held compared to her previous experiences and contexts, and with the GSE, Shea had difficulty even finding ways to connect with faculty. In the study by Waitoller and Kozleski (2013) on identity development and learning in boundary practices, the researchers found that boundaries were fertile ground for identity development and brokers provided insight into the tensions that occurred as identities evolve. According to Waitoller and Kozleski (2013), brokers need to be confident in their identity in politically and culturally challenging environments, bringing us to the impact of positionality and power dynamics on broker identity.

Each organization's positionality and perceived hierarchy played a role in impacting the brokers' identity. In both cases, the positionality of Stanford impacted the work. From Nora's perspective, she was surprised by the brand name that Stanford held, a long-standing hierarchical perspective for most educational practitioners. From Shea's perspective, this hierarchical perception was a barrier to authenticity and created unnecessary power struggles. These findings echo previous research that posits that

careful attention must be given to power dynamics, decision-making, and the underlying tensions that arise from these areas (Farrell et al., 2021; Welsh, 2021). Individuals must have an awareness of the cultural wealth and institutional history of oppression both within and across the CoPs, and when awareness is absent, inequity in the partnership emerges, creating more barriers to the work (Denner et al., 2019). In both cases of this study, the brokers also shared how positionality affected them and how they chose to navigate their role and identity as brokers.

For each broker, the hierarchy of their local context also affected their decision-making power and their interactions with others. In the study by Wegemer and Renick (2021) examining boundary spanning roles and power in educational partnerships, the researchers found that leaders within CoPs may exert relational power over a boundary spanner. They concluded that explicit attention needs to be given to critical reflections on relational power. In addition, Coburn and colleagues (2013) remind us that power imbalances can negatively impact the work at boundaries. The findings of this study reinforce these previous study findings, especially about Case 01. Nora expressed her awareness of the positionality within the GSE, where programs ran concurrently and faculty did not see the possible interdisciplinary opportunities. Nora also noticed her broker positionality compared to Shea's broker positionality and how sometimes work was stalled when they had to wait for a decision from the RPP leaders from each CoP. Shea's position seems more polar—too much power concerning teachers and administrators in her home CoP and too little regarding faculty at the GSE. Her perspective and awareness of positionality and hierarchical structures were acute and at the forefront of her thinking. Perceptions about power dynamics are quite evident and

have a great effect on the positionality and identity of the broker in this study and in findings by previous researchers (Brown & Allen, 2021; Farrell et al., 2021; Waitoller & Kozleski, 2013; Wegemer & Renick, 2021).

Finally, broker identity and its impact on navigating unique local contexts will be addressed. In Biag and Sanchez's (2016) study of an RPP on identifying disengaged students, the researchers posited that brokering requires taking time to learn about the context of their local partnership environment, including its value systems, beliefs, and norms. In this study, Nora and Shea had previous experiences in RPPs, contributing to their broker identity as they entered the RPLP. The research indicates that perhaps Shea did not yet have the time required to learn about the new environment, so her broker identity from her previous role may be influencing her perceptions. This reinforces Mutch et al.'s (2015) study findings where "what worked in one setting might not necessarily translate to another setting— or if it did, it would shape up differently" (p. 94). As the RPLP defines its values, beliefs, norms, and expectations, capturing the negotiated meaning and evolving identities will be important. This leads to the discussion of the third claim, which considers boundary objects and reification as a way to surface and address the challenges to RPP boundary work in varying local contexts.

Reification as a Strategy for RPP Continuous Improvement

Reification is the process or result of considering or representing (something abstract) as a material or concrete thing: to give definite content and form to a concept or idea (Merriam-Webster, n.d.). Wenger (1998) spoke more generally about reification and saw it as a process of giving form to experiences by creating objects that solidify the experiences into a concrete thing, which creates points of focus to organize the

negotiation of meaning. Boundary objects in this study included artifacts such as meeting schedules, agendas and minutes, presentations, and partnership documents defining purpose, terminology, commitments, and roles and responsibilities.

Reified documents are boundary objects, serve a coordination function between groups, and are critical for joint work at boundaries. They build coherence across the CoPs and can ensure within-CoP communication (Farrell et al., 2022). Researchers agree that boundary objects are crucial components that help to foster shared meaning and organize and facilitate communication (Henrick et al., 2017; López Turley & Stevens, 2015; Tseng et al., 2017; Welsh, 2021). The findings of this study support current research about the importance of reifying events and artifacts to bring coherence and clarity to the partnership. In both cases, the brokers mentioned setting up a shared drive that was accessible to all members of the partnership. Shea also elaborated on the importance of scheduled meetings with both the core leadership team and her assistant superintendent. Some additional useful boundary objects that Shea mentioned included the partnership agreement and the RPLP purpose statement. These helped her think about how to continue fostering shared meaning to strengthen the partnership. Nora spoke about the scheduled time for the meetings both within and across the CoPs and how the core planning team meeting agendas helped to keep the boundary work coordinated. In Farrell et al.'s (2022) study on the learning at boundaries of research and practice, the researchers posited that boundary objects were critical for joint activity and served as coordinating functions between groups by mediating activity within each setting in concurrence with this study's findings.

Finally, the idea of communicating in the boundary space was also mentioned in both cases as a challenge. Early in the study, Nora identified that there were language differences between academia and the K–12 space that created a lack of clarity in communication between the two CoPs, which supported the existing research results. The language used by a CoP is generally tied to their practice and what defines them as a CoP (Wenger, 1998). While it is not the goal of boundary work to dismiss the unique language and vocabulary used, it is important to align the understanding between the two CoPs. Boundary objects that define terminology can help with the challenge researchers and practitioners have regarding a lack of common knowledge to discuss problems facing practitioners (Brown & Allen, 2021; Coburn & Penuel, 2016). Nora and Shea facilitated boundary crossings while creating the one-page summary describing the partnership and the frequently asked questions document, which provided a mutual understanding of partnership language across the two CoPs. The acknowledgment and documentation of different professional vocabularies, RPP purpose, roles and responsibilities, and research possibilities also help build trust (Brown & Allen, 2021), supporting the first claim discussed. Having documents that track the meaning-making of the RPP is crucial to continuously improving the process and strengthening the RPP.

Limitations

In academic research, the limitations of a study refer to the potential weaknesses, constraints, or other aspects of the study that may impact the validity and reliability of the findings (Plano Clark & Creswell, 2020). As with any other research, this study had limitations that must be acknowledged to understand the context and scope within which the study findings are valid. The limitations of this study are discussed in this section.

This case study captured the perspectives of the two brokers involved in the RPLP. Qualitative data was not collected from the point of view of other participants, from whom it is highly plausible that different interpretations of brokering and boundary objects would emerge. Data was also not collected from the point of view of an outsider, who also might interpret the work at boundaries differently.

My role as a participant researcher and my positionality as one of the CoPs were also a limitation. In the CoP, as assistant superintendent, I hold positional power, which may have impacted participants from responding to me as the researcher. As a member of the practitioner CoP, I was acutely aware of limiting my personal perspective, not only during boundary encounters, knowing, however, that it is impossible to limit it completely.

Finally, there are limitations due to the time restraints of the study. RPPs have several phases and are, by definition, long-term partnerships. In this study of the work at boundaries of the newly formed RPLP, data was collected for 9 weeks, all within the initial stages of the RPLP implementation. Therefore, I cannot make claims about the boundary work outside the study dates.

Implications for Further Research

Research on RPPs is relatively new (Coburn et al., 2013). Only within the last 10 years have RPPs been defined and explored as a way to bring research and practice together to improve outcomes. The findings of this study were specific to the work at boundaries of an RPP focused on brokers and boundary objects. One implication for future research would be to continue research on the brokers and boundary objects beyond just the beginning phase of an RPP and through full implementation. This study

focused on a newly formed RPP, and due to the brevity of the study, it is of interest to research the work at boundaries as this RPLP moves into the phases of partner research and the impact on student outcomes.

There are many other potential areas for future research on RPPs. Based on the findings of this case, further exploration of the concepts of positionality and hierarchical structures within RPPs is of interest. Digging deeply into the positionality of the brokers and the hierarchical structures within and across the boundaries can shed more light on some of the challenges that the RPLP faces in this area. Another area of interest for further research based on the findings of this study is a continued look at the boundary crossing space, which would focus on shared practices, how they evolve, what they look like, and how they impact the effectiveness of the RPLP. This would give more insight into the concept of shared meaning.

Finally, more study findings continue to support RPPs as an effective way to improve outcomes by bringing researchers together with practitioners. However, most of the research resulted in reports on the challenges that RPPs face as they work together. There is a dearth of research on potential solutions to the challenges of RPPs and a needed area of focus for future research.

Implications for RPP Practices

The purpose of this qualitative multiple-case study was to explore the work at boundaries of two CoPs through two types of connections: brokering and boundary objects through the perspectives of the two brokers of a newly formed RPP. In this section, I offer three implications for RPP practices, one for the broader RPP community

and two for the local RPLP, the context of this study. The implications were derived from my reflection on the successes and challenges faced during the study.

For the Broader RPP Community

The findings of this study shed light on the lack of structure concerning the work at boundaries. In RPP work, prepare for the work at boundaries with intentionality. Set up structures for boundary objects and make sure that the members of the RPP have access. It can be difficult for organizations to provide electronic file and storage access to those outside the organization. The use of a program that allows for cross-organizational access or a data-sharing agreement is a suggested solution. Allow time and space for both formal and informal brokering opportunities, some of which are social encounters and some focused on the work. Purposely schedule time on the broker's calendar to be on site at both CoPs without a formal plan, like a meeting. Let the broker visit the space and be present and active in everyday activities. Intentionally co-create and revisit purpose, roles and responsibilities, and commitments to the RPP and ensure they are reified and accessible. Finally, as part of the preparation for the work at boundaries, plan time to reveal and address power dynamics within and across boundaries. Denner et al. (2019) remind us that in an ongoing process, as partners negotiate meaning, they must consistently reveal and address any cultural dynamics that arise. Begin with individual identity self-reflection, individual hopes for the partnership, and self-perceived individual roles and responsibilities, including decision-making roles. Then, together, confront the actual and perceived power dynamics and have crucial conversations about how they currently affect and should affect the partnership going forward. Have a protocol for addressing when individuals feel the power dynamics negatively impact the partnership.

This cannot be a one-time activity. It must be ongoing to keep the partner relationships healthy.

For the Local RPLP

Though the RPLP is approaching its first full year in partnership, it is not too late to shore up some structures that were lacking initially. Two implications for our RPLP that I offer based on the findings of this study include examining power dynamics and firming up communication structures. As a core leadership team, we need to prioritize time to name and address the power dynamics of the RPLP so that we can begin to understand and navigate the challenges that arise. Specifically, we will schedule a time to follow the suggested protocol outlined, including self-reflection on individual roles, responsibilities, and decision-making structures. We will outline the current, perceived decision-making process and use it to discuss discrepancies in the perceptions and build an RPLP decision-making continuum. We will also create agreements and a process for addressing when power dynamics negatively affect the partnership. There are still challenges with effective communication in the boundary-crossing space that seem to exist at the management and broker level. The core team meetings include the management and brokers from both CoPs. Permanently scheduled time at the end of each meeting to outline a communication plan has worked with other groups in which I participate, and it will help address the lack of effective communication. These two implications will support the RPLP in moving forward.

Closing Thoughts and Recommendations

The imperative to base educational practices on research is paramount as educators continue to face systemic challenges in the public school system (Biag &

Sanchez, 2016; Mutch et al., 2015; Welsh, 2021). When presented with the opportunity to enter into an RPP with a local university, the school district saw a way to close the gap between research and practice and entered into the partnership. Each organization hired a broker to manage the partnership, which was named the RPLP.

The timeliness of the opportunity for me to begin a dissertation in practice could not have been better, and with the intent of learning more about the work that had to be accomplished between the two organizations, the idea of this case study was born. The purpose of this qualitative multiple-case study was to explore the work at boundaries between two CoPs that recently came together in the RPLP to use the details of the findings to inform design and decision-making as the RPLP moves forward. To explore the boundary work, brokering and boundary objects were the focus, as seen through the perspectives of the two brokers, one from each of the two CoPs.

Given what was known about RPPs through the brokers' experiences and participation in other RPPs and the earlier research cycles, with everything in place, the journey and research study began. The study's findings gave insight into the complexity of RPPs and boundary-crossing work. Through the brokers' perspectives, the importance of informal and formal opportunities for relationship and trust building and allocating more time for brokers to build relationships became evident. Learning also included that negotiating clear expectations for and strong commitments to the partnership is crucial, including having a protocol for naming power dynamics and positionality and a practice to address them as they impact the partnership work. Reifying boundary-crossing events and having shared access promotes stronger communication and are necessary to track the meaning-making that is occurring during the work at boundaries.

Also evident was that brokers come to their work with an identity that evolves as they work at boundaries and encounter different structures, cultures, and perspectives that they must navigate to negotiate meaning in the partnership. The insight gained from this study will inform adjustments going forward in the hopes that a system shift occurs where practice is informed by local researchers in collaboration with practitioners. Those systemic shifts will look like strong, trusting partner relationships, research projects based on cocreated studies to inform classroom problems of practice, and an openness by both researchers and practitioners to learn more from each other. With time, as ideas learned from the study are implemented, the RPLP will thrive.

Do you feel passionate about research informing practice? Are you ready to embark on an RPP? Here are some things to consider based on findings from this case study.

1. Hire or select a broker that is relational. Building connections can be a hard skill to teach. Make sure it is part of the broker's disposition and then the broker responsibilities can be taught. In your interview process, look for past experience with partnerships from two different organizations. Ask questions that require the candidate to talk about their past experiences and how they handled struggles. For example, have them describe a time when they worked to bring two groups with differing backgrounds together. Fortunately, in this study, the brokers were very relational. What was missing when the study began was the lack of tools and knowledge provided to work at boundaries. Provide the broker with resources such as the newly published handbook on brokering (Wentworth et al., 2023) and connect them with fellow brokers and

organizations such as the National Network on Educational Research-Practice Partnerships (NNERPP) so they have a CoP of their own to learn from and with. Also, provide them with time. Acknowledge that building partner relationships and trust takes time, so they must be given time to do so.

2. Schedule regular meetings with a core leadership team and a larger steering committee. The core leadership team should consist of at least a point person from each organization and the broker. If there are two brokers, as in our RPLP, one from each CoP, then consider the brokers as the point persons and determine their decision-making responsibilities regarding each organization. They should meet frequently and regularly to plan formal opportunities for interactions. The larger steering committee should include the core team and then some faculty members and practitioners who are champions of the work. This committee sets the purpose, goals, commitments, and roles and responsibilities for the RPP and should meet at least monthly.
3. Set up your document management structure and ensure it is accessible across organizations. Take minutes at every meeting and reify any event that tells a story about the partnership. Reify the vision statements, goals, roles and responsibilities, and communication. Take pictures at events and store iterative documents like posters, graphs, and prototypes that help tell the story of the RPP. The brokers should collaboratively manage all documents from the RPP, including organizing them in an easily navigated structure.
4. Identify and address power dynamics as soon as possible and discuss how positionality will be navigated. This is not easy work, and it begins with

individual identity self-reflection followed by crucial group conversations and commitments as previously outlined. Actual and perceived power dynamics that negatively impact the RPP must be surfaced and confronted as they arise. This must happen as often as necessary to promote trust and keep the partnership healthy.

5. Intentionally provide time and space to check on the wellness of the partnership: the purpose, roles and responsibilities, and expectations, and make adjustments if needed. In order to do this, set standing agenda items where these are reviewed and where any new commitments can be agreed upon. Create a charter document that reifies all of the mentioned items that define the partnership so it is all in one place. Make a habit of how often and where this occurs, such as the first agenda item at each monthly meeting.

Entering into a partnership is easy, maintaining a true RPP that is long-term, mutually beneficial, built on strong relationships, and focused on solving problems of practice through collaborative research is the hard part. These five considerations, learned from this study, will help build a solid foundation for a successful RPP.

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APPENDIX A

PARTICIPANT JOURNALS

Journal Prompts (pre-listed in the Google Doc journal)

In the events of the last ___ weeks (since the last journal entry):

- Share the brokering experiences that you've had.
- Describe some of the challenges you've faced as a broker.
- How has the team worked toward the common vision?
- What practices, processes, or artifacts were created?
- Is there anything you found noteworthy around your RPLP boundary work that the other questions did not cover that you would like to add?

Research Practitioner Journal Prompts (pre-listed in my Google Doc journal)

Describe the RPLP building work over the past 2 weeks.

- How have I seen brokering navigated?
- Are there any similarities and differences between the practices of the two brokers?
- What has been generated in the collaboration that has taken place between the two brokers?

APPENDIX B

INTERVIEW QUESTIONS

Beginning of the Study

Interview Questions:

- In your role as a broker, what home practices do you think will be important to transfer in the RPLP boundary work?
- What common practices do you think will not be relevant to the boundary work?
- What challenges do you see or anticipate as a broker?
- What excites you most about working as a broker?
- What boundary objects would be most important to create in collaboration with the broker from the other community?
- Please share any additional information you'd like me to know about the work at boundaries that you have encountered so far.

End of the Study

Interview Questions:

- In your role as a broker, what new shared practices, if any, have you seen emerge?
    - If so, how was this new practice created?
- What, if any, practices from your community have become practices of the partner community?
- What surprised you about your role as a broker and about boundary work?
- What surprised you about the work of the other broker?
- From your perspective, what works and what doesn't with regard to the boundary work?
- Knowing what you know now about boundary work, what would you have done differently in the beginning?
- Please share any additional information you'd like me to know about the work at boundaries that you have experienced since the beginning of the study.

Shadow Interview: Mid-Study

Interview Questions:

- How does what you do at home in your community of practice help you in your work as a broker in the RPLP?
- What other things come to mind about your work as a broker when you are going about your day-to-day within your home community of practice?

APPENDIX C

IRB APPROVAL

122

EXEMPTION GRANTED

Amanda Boutot
Division of Educational Leadership and Innovation - Tempe
-
amandaboutot@asu.edu

Dear Amanda Boutot:

On 5/10/2023 the ASU IRB reviewed the following protocol:

Type of Review:	Initial Study
Title:	A Research Practice Partnership: Case Study on Boundary Work Across Communities of Practice
Investigator:	Amanda Boutot
IRB ID:	STUDY00017936
Funding:	None
Grant Title:	None
Grant ID:	None
Documents Reviewed:	• consent_09.05.pdf, Category: Consent Form; • IRB_Kanavel_09.05.23, Category: IRB Protocol; • recruitment_email_09.05.pdf, Category: Recruitment Materials; • supporting documents_Kanavel, Category: Measures (Survey questions/Interview questions /interview guides/focus group questions);

The IRB determined that the protocol is considered exempt pursuant to Federal Regulations 45CFR46 (2)(ii) Tests, surveys, interviews, or observation (low risk) on 5/10/2023.

In conducting this protocol you are required to follow the requirements listed in the INVESTIGATOR MANUAL (HRP-103).

If any changes are made to the study, the IRB must be notified at research.integrity@asu.edu to determine if additional reviews/approvals are required.

Changes may include but not limited to revisions to data collection, survey and/or interview questions, and vulnerable populations, etc.

Sincerely,

IRB Administrator

cc: Kathie Kanavel
Kathie Kanavel