More Than Colleagues: Understanding International Higher Education Partnerships During Crisis

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More than Colleagues: Understanding International Higher Education Partnerships During Crisis

A Dissertation

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By

Christina Kinney

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Dedication

I dedicate this dissertation to my husband, Nathan, who has been incredibly supportive through the completion of this doctoral program. He raised my confidence when I felt discouraged and provided motivation during struggling times. Thank you for supporting me and sacrificing family time so I could focus and write. It has been a blessing to share this journey with you, and I look forward to our next adventure together. I also dedicate this work to my mother, Karen. She provided the loving encouragement and support I needed throughout my life, and instilled in me the confidence to accomplish what I set out to do. Thank you for your lessons of persistence. I am forever grateful to inherit your work ethic and enthusiasm for learning.
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Abstract

Higher education is now globally connected. While a positive development, such connections make international partnerships susceptible to global and regional crises. This study focused on a consortium partnership called the Cooperation on Higher Education and Professional Development (CHEPD) program. This study examined how international colleagues in China and the United States co-manage partnership challenges using a network approach to social capital theory. Such an approach helps to understand how administrators navigate relational resources by describing the consortium’s network composition. This study used a mixed-methods approach with a social network analysis to supplement the qualitative relational data. The literature shows that personal relationships aid partnership sustainability. However, relational importance is difficult to measure, to justify additional partnership resources. The research findings show the benefit of investing in and understanding how to mobilize social relationships as an instrument for partnership sustainability. International partnership administrators with sustainable relationships will be able to endure future crises.

Keywords: international partnerships, crisis, networks, social capital
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Chapter 1: Introduction

It was a week prior to the start of the spring 2020 term. I woke up to a frantic WeChat message from one of my international students. Public transportation in China was beginning to close down, and he was worried he would be caught in the COVID-19 quarantine before he could return to the U.S. for the start of the semester. The rest of his cohort had remained in the U.S. over winter break and were dealing with their own set of worries. Over the first few weeks of the term, I saw their anxiety and stress multiply. As I met with them to discuss their academic plans for that term, they shared their worries about the safety of their family and friends back home. Communicating with their home university in China became erratic as businesses were forced to close and the public were ordered to self-isolate to prevent the spread of the COVID-19 virus.

In late February, I received an email from a partner organization in South Korea. They canceled their study abroad program due to the concern over the spread of COVID-19. My contact informed me I needed to make immediate plans for one of my students to return to the U.S. Over the next three days, I received daily communication from the partner regarding the safety of the student, timelines for move out, and plans for helping the student make up for lost credits and finances. The COVID-19 pandemic continued to worsen over the next month. By the time the U.S. President made the decision to restrict travel, I was already coordinating with our partner universities abroad to bring students back home to the U.S. and to arrange travel plans for international students. There were health, housing, and academic concerns to address with our university partners and emergency procedures and protocols to review.

The COVID-19 pandemic exposed international educators around the world to significant pressures from students, families, and university partners in responding to an unprecedented
global health crisis. While communication with some international partners demonstrated reliable frequency and attention to detail, others were immobile and full of uncertainty. After immediate student safety concerns had been addressed, I needed to focus on designing a plan to respond to future obstacles and partnership weaknesses the pandemic revealed. How could I manage partner coordination through another global crisis? What could I have done better? What resources could I have tapped into that I was not aware of? In seeking answers to these questions, I jumped at opportunities to brainstorm with other colleagues.

In May 2020, I attended the Institute of International Education’s virtual webinar, *Maintaining International Partnerships During Crises*. On this Zoom call with international educators worldwide, we shared our common challenges throughout the early stages of the COVID-19 pandemic. Examples of challenges included health and safety, budget cuts, staff turnover, and government regulations. The presentation and participant discussion revealed how international partnership colleagues could meet existing challenges together and respond to crises with creative solutions. The pandemic will continue to affect international mobility and force educational partners to work collaboratively. International colleagues must work together to respond to emerging threats to sustain their partnership activities.

**Problem Statement**

Faculty and staff previously led the charge for developing international higher education partnerships based on organic personal relationships they formed with international colleagues (Soliman et al., 2018). Over time, university administrations began using international partnerships as a development strategy to build institutional capacity during a time when resources declined (Soliman et al., 2018; Sutton et al., 2012). Colleges and universities could no longer maintain deep personal connections with the evolving aims and interests of various
stakeholders. Despite higher education’s long history of international partnerships, institutions and educators are still looking for better ways to manage these relationships.

International partnerships have diverse needs from the various academic, cultural, and linguistic backgrounds of higher education professionals. There is also a lack of research on comprehensive management systems and processes to evaluate partnership practice (Jinhui & Zhiping, 2009). As a consequence, the quality of partnership administration is difficult to determine. Ineffective partnership management exhibits unclear goals, unequal power dynamics, differences in fundamental beliefs, and inadequate levels and depth of communication between stakeholders (Sutton, 2015). Thus, even existing international partnerships have room for improvement. Sutton (2015) suggests that partnering institutions work together to improve personal relationships. Similarly, Leng (2014) indicates that building strong personal relationships is an important factor for sustainable and mutual partnership management. The efficacy of partner relationships enables international educators to respond to diverse challenges.

Coordination and cooperation are fundamental to lessening the impact of emerging threats to partnership projects and activities, such as world health crises, weather-related natural disasters, social and political unrest, and financial downturns (Abbasi & Kapucu, 2011; Bisri, 2016 Jones & Faas, 2017). An organization’s relationships and social network are essential to disaster response coordination (Gillmann, 2010). Universities are concerned by the increasing complexity of global issues affecting international engagement and partnership sustainability. Unless international educators understand how to utilize their social networks, then international partnerships may deteriorate over time as administrators fail to respond to challenges weakening joint programming. There is a lack of understanding of how administrators collaborate with their international colleagues during crises.
Purpose of Study

The purpose of this study was to better understand the relationship dynamics among members of a consortium partnership between higher education institutions and organizations in the U.S. and China. Specifically, this study examined how international colleagues access and use relational resources to co-manage partnership activities during crisis. The study explored and analyzed administrators’ networks of relationships and their experiences collaborating with their international colleagues. The following question guided the research focus: How does a partnership’s social network structure impact international administrators’ navigation of social capital during crisis?

Definition of Terms

*International partnerships:* Colleges and universities, as well as other organizations and educational institutions, who establish relationships through cooperative agreements, memorandums of understanding, or contracts (Kinser & Green, 2009; Sutton et al., 2012). Common partnership activities include student mobility programs, such as study abroad exchanges, dual-degree programs, and transfer programs (Sutton et al., 2012). Partnerships may provide financial, staffing, and facility resources, and they often have common goals and shared responsibilities (Kinser & Green, 2009; Sutton et al., 2012). This study focused on a large higher education consortium of Chinese and U.S. member organizations with many internal partnerships. In a broad sense, all consortium organizations are partners as they share membership. For the purpose of this study, an international partnership describes a relationship between one Chinese and one U.S. university and their relationship with two oversight organizations. The formal partnership will have a signed cooperative agreement and collaborate on student and faculty mobility activities.
Crisis: In this study, a crisis includes any unexpected event or circumstance with the potential for widespread disruption of operations requiring action or response (QS Unisolution, 2020). These events may pose immediate risks to the safety of stakeholders or the stability of a program or institution. This study focused mainly on the global health crisis caused by the COVID-19 pandemic.

Network: A grouping of socially connected units which connect in various ways (Wasserman & Faust, 1994). There are two possible views of social networks in this study. The first network view would refer to the institutional and organizational connections. The second network view would refer to a collection of individual higher education administrators and their personal relationships with their partner university colleagues. In this study, administrators are representatives of their organization in the network.

Social capital: The resources accessed by and through organized relationships (Bourdieu, 1986). For the purpose of this study, I define social capital as the relational resources, tangible and intangible, accessible through a partner relationship. In addition, I also refer to social capital as an action. Individuals obtain and use relational resources for preferred outcomes.

Methodology and Rationale

A mixed methods approach is best suited to understand the complexity of social relationships. This study used a network approach to social capital as the theoretical framework. Social capital networks are a useful tool for exploring resources embedded in social relationships and how they are mobilized, both in and through a network structure (Lin, 1999). Nahapiet and Ghosal (1998) categorize social capital into three interdependent components: cognitive, relational, and structural. The network approach provided a framework for describing social relationship patterns by focusing on the structural component (Burt, 1982). While social capital
was the basis of the theoretical framework, it also informed the methodological approach. This mixed methods study to understand how educators navigate social capital in their partnership network. I collected quantitative and qualitative data through social network analysis, semi-structured interviews, and document collection.

While the qualitative data focused on the cognitive and relational aspects of social capital, the quantitative data focused on the network structure of the international higher education consortium partnership. Examining interrelationships is ideally suited to network analysis which focuses on the connections and exchanges between organizations and individuals (Froehlich et al., 2020). Social network analysis uses statistics to graph representations of social relationships, which form a network (Froehlich, 2020; Nooraie et al., 2020). This study uses a mixed methods social network analysis methodology to capture the network data. I collected the network data through a survey, participant interviews, and reviewing partnership documents and website texts.

Mixed methods social network analysis designs help researchers study complex social relationships and provide a deeper understanding of social ties. Quantitative studies alone cannot fully answer questions of meaning or significance on human interaction (Lichtman, 2013). Qualitative research can help scholars explore highly complex systems of relationships that connect, develop, build, manage international partnerships. According to Froehlich et al. (2020), qualitative social network analysis studies lack the ability to examine structural characteristics in depth, while quantitative studies lack the context and meaning behind relationships within the network. In contrast, mixed methods social network analysis allows for the examination of the network structure and can help explain the structural and relational data (Edwards, 2010).
Additionally, this design helps enhance the reliability of the data, when a single approach may otherwise miss critical information (Langler et al., 2020).

**Limitations of the Study**

The research design addressed several concerns regarding the social network analysis portion of the study. Limitations included issues of informed consent for recruitment and participant anonymity, the period of the data collection and changing networks, and the concern over the generalizability of this study. The study additionally addressed limitations of potential researcher bias in the data analysis.

When looking at a social network, each individual and their social connections are important. If one person were to be removed from the network, then the researcher would be missing critical information about the overall structure and relational connections. However, one ethical issue to take into consideration is participant consent. In social network analysis research, a participant who has not given explicit consent can be named by other participants in the completion of the survey or interview. Researchers must choose between removing an individual from the network, which can harm the reliability of the data, and allowing the data point to remain in the study without their informed consent. It is critical for researchers to be explicit in the risks to participants who do not provide their consent and how the participant data is stored, in order to mitigate the risk. When focusing on the intent of the research, I chose to keep the data rather than removing individuals from the network. I concluded that removing these individuals would harm the integrity of the overall network data. Therefore, I put protocols and safeguards in place to maintain participant confidentiality.

Another limitation of the study is the short timeframe allowed for data collection, about four months. Social relationships are dynamic; they grow and disappear, people get new titles, or
change organizations. Therefore, social networks often change over periods of time. However, a longitudinal design was not conducive to this study’s data collection timeframe of a few months. Social network analyses provide a quick snapshot of a network at a specific point in time. A longitudinal study would have provided information about network change over time, such as before, during, and after a specific crisis event. This study took place during the COVID-19 pandemic, but participants were encouraged to discuss all types of challenges and issues they have faced with their international partners.

The final design limitation is that the study focused on a single partnership type. The international consortium of universities partners together to manage student and faculty mobility programs. The partnerships also involve a single national pairing, Chinese and U.S. organizations. The initial concern revolved around if results would apply to other partnership types or cultural pairings. Social network analyses are also highly contextualized. No two social networks look precisely alike. This study looked at a dense network of consortium members, while other international partnerships may only include two universities. These few differences could have made it difficult to apply findings to other social networks. However, this study’s findings allow for generalization and reveal information about the nature of partner relationships that can be applied to other contexts.

The final limitation of the study includes my position as both the researcher and a participant in the study. I am the main administrator in the consortium partnership and have been a member since 2015. Since network data is directly linked to the results of network analysis, I completed the survey on behalf of my institution. Furthermore, I have participated in training presentations to share best practices with other participating U.S. administrators. My name and institution were likely known to the participants. My identity as both the researcher and
consortium member may have presented challenges during the data collection and analysis. For example, some members may have been reluctant to participate, knowing that a colleague may learn unfavorable information about their work or institution. Participants also may have provided incomplete surveys or filtered their interview responses for fear of damaging existing or potential partner relationships with my institution or others.

Significance of the Study

International partnerships are increasingly showcasing their usefulness in sharing resources and generating revenue (Asgary & Robbert, 2010; Fong & Postiglione, 2010; Kauppinen, 2012). Research which looks at partner relationships would be advantageous for assessing partnership collaboration and sustainability. Additionally, no significant research currently exists on international higher education partnership management during crisis.

This project contributed to international education scholarship in three ways. First, by expanding the relatively under-studied international perspective in international higher education partnerships, rather than only the U.S. perspective. I contributed to that goal by focusing on the partnership collaboration aspect, rather than only a U.S. or Chinese administrator perspective. Second, by informing partnership practice. Second, a study of international partnerships during crisis will assist university administrators and international educators by providing opportunity for reflection and insight into their own experiences maintaining partner relationships. Finally, this study will help explain how individual administrator relationships contribute to the overall maintenance of a partnership. By understanding the benefits of connection, administrators can refocus their institutional resources to sustaining their partner relationships.
Chapter Summary

The purpose of this chapter was to introduce a general understanding of international higher education partnerships and why institutions are increasingly focusing their attention on their development. I also illustrated the importance of sustaining partnerships through emerging global crises. This study examined the social networks of international partnership administrators and how they communicate information and share resources through challenges that arise. The next chapter will focus on the literature review. The outline includes research on international partnerships and disaster response networks and provides an overview of the theoretical framework.
Chapter 2: Literature Review

The motivation behind developing international higher education partnerships varies across countries, education systems, and institutions. Changes in the economic, political, and sociocultural landscapes force colleges and universities to imitate market behaviors and influence university leaders towards transactional rather than transformational partnerships. How international colleagues access and utilize relational resources during times of global crises has an immense impact on the cultivation of sustainable international higher education partnerships.

This literature review introduces key concepts in the internationalization of higher education in the U.S. and China and examines international partnerships as a tool for internationalization. The chapter reviews the impact of tensions in international higher education partnerships, explores the historical and philosophical differences between transactional and transformative partnerships, and addresses the underlying debate of international partnership mutuality. I provide information on networks in crisis and incorporate the benefits and disadvantages of network typology in disaster response. The concept of mutuality encompasses the needs and obligations that exist between partners and is an aspect of social capital. The review introduces social capital theory as the theoretical framework and defines the network approach to social capital I used in this study.

International Higher Education Partnerships

When communities or nations encounter local and global challenges, society often relies on the education system to help respond to these challenges (Labaree, 2009). As education becomes more globalized, institutions seek effective ways to actualize their preferred outcomes through strategic internationalization. To fully comprehend international higher education partnerships, it is essential to understand the internationalization of higher education.
Where globalization refers to the flow of people, goods, and services, internationalization is a process that enables globalization through embedding international and comparative perspectives throughout the educational landscape (Hudzik, 2015). Internationalization emphasizes the relationships between people, nations, and systems within them (Knight, 2012). In higher education, internationalization is an intentional action that integrates global themes into the structure of an institution (NAFSA, n.d.). This concept appears within university mission statements, goals, operational practices, teaching curriculum, and campus programming (Hudzik, 2015; Knight, 2012). It also manifests in the international mobility of students and faculty, international research and teaching, branch campuses, and programs (Koehn & Obamba, 2012; Sutton & Obst, 2011).

International higher education partnerships are a strategy of internationalization, designed and influenced by diverse cultures, varying educational structures, differing resources, and competing agendas. Regional and national governments influence internationalization through policy and grant funding. For example, Saudi Arabia’s government scholarship program sponsors student mobility abroad and has financed Saudi undergraduate and graduate students to study in the U.S. since the 1960s (Taylor & Albasri, 2014).

Professional organizations influence internationalization through research and creating standards for practitioners. The American Council on Education’s Center for Internationalization and Global Engagement (CIGE) published a collection of standards of good practice for international higher education partnerships (Helms, 2015). The CIGE partnership standards focus on themes of transparency, engagement, quality assurance, strategic planning, cultural awareness, access and equity, capacity building, and ethical practices in partnership management (Helms, 2015).
Finally, colleges and universities promote internationalization through their institutional strategic planning. In the 1990s, international partnerships emerged as an essential tool and driving philosophy of internationalization at the institutional level (Koehn & Obamba, 2012; Sutton & Obst, 2011). While various actors influence the development of partnerships, international offices are primarily responsible for partnership maintenance by managing the daily partnership activities, such as dual-degree programs or study abroad opportunities (Knight, 2012). The American Council on Education’s 2012 and 2017 reports on Mapping Internationalization on U.S. Campuses indicated only 40% of respondents had a formal institutional strategy or plan for international partnerships or were in the progress of developing one (ACE, 2017; ACE, 2012). The report also categorized internationalization as an administrative-driven endeavor, often coordinated by individuals or campus offices (ACE, 2017).

**Responding to Local and Global Challenges**

Higher education systems have rapidly changed to confront diverse global challenges and improve local economic growth and social stability (Deardorff et al., 2012; Knight, 2012; Mwangi, 2017). Governments, organizations, and institutions use international resources to meet these challenges and respond to localized concerns. Educators cannot understand the growth of international partnerships as a tool for change unless they consider the interconnecting political, economic, and social agendas within particular communities. The following section provides an overview of higher education in the U.S. and Chinese contexts and then describes how these contexts use international partnerships as a political tool, a means for economic development, and as a sociocultural agent.
**Higher Education Context in the U.S.** The education system in the U.S. is greatly influenced by the market economy (Labaree, 2007; Salberg, 2006). The U.S. system is based on formalism, which describes education as a commodity (Labaree, 2007). Formalism leads to a credential-driven system where students and families become educational consumers (Labaree, 2007). At the same time, the U.S. higher education system is decentralized, leading to a situation where the market-driven economy provides the greatest influence and pressure for change (Sahlberg, 2006).

Public funding for higher education has decreased, with a shift towards accountability and intensified calls for higher achievement with fewer resources (Koehn & Obamba, 2012). From 2005 to 2015, federal and state spending on higher education overall decreased by 7%, while averaging 34% of college and university budgets (The PEW Charitable Trusts, 2019). Data records show decreases in spending during and after economic downturns; therefore, global crises are likely to impact the U.S. higher education system (The PEW Charitable Trusts, 2019). Additionally, the decline in college and university enrollment hinders the sustainability of a tuition funded revenue model. Global competition, along with declining enrollments and funding, contributed to the increase in private sector management behavior in higher education (Sahlberg, 2006).

**Internationalization in U.S. Higher Education.** The market-driven system forced institutions to seek new streams of revenue by accessing new markets for international student recruitment, transfer, and dual-degree programs through utilizing international agents, organizations, and university partners (Asgary & Robbert, 2010; Fong & Postiglione, 2010; Kauppinen, 2012). For the past five years, the U.S. has seen a yearly decline in enrollment at higher education institutions. (National Student Clearinghouse Research Center, 2019). Between
fall 2017 and fall 2019 there was a 3% decline in enrollment nationwide, with 6.4% and 4.4% decline in higher-education-saturated states such as Pennsylvania and New York respectively. (National Student Clearinghouse Research Center, 2019). From fall 2005 to fall 2019, total international students in the U.S. increased by 80.9%, from approximately 560,000 students to approximately 1,075,000 (Institute of International Education, 2019). International higher education partnerships provide benefits for U.S. institutions, including increased international student recruitment from student mobility programs and capacity building through shared financial and human resources (Asgary & Robbert, 2010; Fong & Postiglione, 2010; Kauppinen, 2012).

**U.S. Higher Education Reacts to Crisis.** Given the U.S. higher education system’s fragile financial structure and overreliance on tuition and fee revenue from student and scholar mobility, global crises which affect international collaboration will hurt the U.S. economy. For example, in the years following the 9/11 terrorist attacks in New York City, enrollment in the U.S. went from having an annual growth of 6.4% to 0.6% and -2.4% in 2002 and 2003 respectively (Institute of International Education, 2019). The COVID-19 pandemic, in combination with the state of the U.S. government’s restrictive immigration policies stemming from the Trump administration, is expected to decrease international student enrollment in the U.S. with a potential revenue loss and financial impact of at least $3 billion (NAFSA, 2020). However, the COVID-19 pandemic affected more than just international student enrollment. Canceled study abroad programming in the U.S. saw losses up to an estimated $1 billion, and institutions reported losses of international grants and contracts (NAFSA, 2020). U.S. higher education is questioning how to endure global crises to mitigate the loss and interruption of
international revenue-generating programs. Many institutions are looking at improving international partnership development and management as a sustainable solution.

**Higher Education Context in China.** Western nations like the U.S. began reforming their education systems due to global and local financial market pressure. Chinese society feared lagging in innovation and turned to their political superstructure to regulate and guide reform in the Chinese higher education system (Law, 2014). Beginning in the 1980s, the Communist Party of China (CPC) led large-scale education reforms (Cui et al., 2018). Early reforms were designed to modernize the education system in addition to expanding access to education. Reforms included mandating nine years of compulsory education and standardizing Mandarin as the official language of instruction in rural provinces (Dello-Iacovo, 2008). Higher education reforms included overhauling the college admissions system and increasing admissions quotas for students from minority-dense and rural western and central provinces (Zhao, 2018). Gross enrollment in higher education went from 9.8% in 1998 to 24.2% in 2009, to about 50% in 2016 (Wang & Liu, 2011; National Bureau of Statistics of China, 2016).

Additional economic pressures came at the height of the education reforms influencing the Chinese education system to follow trends seen in market-driven education systems. With the introduction to compulsory education and increased enrollment in higher education, the growing educated population induced pressure in the labor market (Wan, 2006; Wang & Liu, 2011). In response, the CPC encouraged higher education institutions to increase student capacity to temporarily relieve the labor market burden (Wan, 2006; Wang & Liu, 2011; Zhao, 2006). The higher enrollment led to an increased need for additional schools, teachers, administrators, and new infrastructure, producing a demand for and increased consumption of educational resources (Wang & Liu, 2011; Law, 2014).
Internationalization in Chinese Higher Education. The Chinese government needed to look elsewhere to meet the local demand for higher education’s resource shortage, and the CPC focused on an internationalization strategy (Tan, 2013). The CPC increased funding for students and scholars studying and working abroad and implemented two initiatives intended to create top-tier universities that could compete globally: the 1995, 211 Project and the 1998, 985 Project (Wang & Liu, 2011). The reforms of this era led to increased participation and cooperation with international education institutions and organizations (Tan, 2013). In 1980, China sent an estimated 2,124 students to study abroad (National Bureau of Statistics of China, 2017). By 2017, the new international focus saw 608,400 Chinese students studying abroad around the world (National Bureau of Statistics of China, 2017). Over half of that population, 363,341 students, studied in the U.S. (Institute of International Education, 2019). In addition to Chinese students studying abroad, enrollment of international students in China increased (Chen & Huang, 2013). 489,200 international students studied abroad in China in 2017, and 49% were degree-seeking international students (National Bureau of Statistics of China, 2017). The data shows that the CPC and Chinese institutions encouraged student mobility programs.

The first international joint programs in higher education were developed in the late 1980s, and by early 2007, there were around 1,400 official registered collaborations with many international partners in the U.S., Australia, Japan, and Canada (Jinhui & Zhiping, 2009; Wei & Liu, 2015). Other forms of global cooperation included international exchanges of scholars and industry experts, scientific research collaboration, Chinese-foreign joint universities or programs, international branch campuses, and university collaboration with foreign governments and international organizations (Chen & Huang, 2013). These international partnerships provided financial and human capital for resource-limited Chinese institutions (Asgary & Robbert, 2010).
International partnerships strengthened capacity in teaching and research, extended political and ideological influences, provided additional revenue, and allowed the Chinese economy to tap into new markets (Fong & Postiglione, 2010).

**Partnerships as a Political Tool.** Expanding global pressures and competing national and international interests have challenged political regimes to respond. Policymakers frequently turn to international partnerships as a tool to respond to political, economic, and social needs (de Wit et al., 2017; Leng & Pan, 2013). Government officials utilize international partnerships for their development goals and as a form of soft power (Knight, 2015; Koehn & Obamba, 2012). Soft power allows governments to influence international stakeholders through persuasion rather than force (Knight, 2015). For example, the Chinese government views investments in faculty mobility and Chinese language programs as a means to cultivate positive global reception (Luqiu & McCarthy, 2019).

External pressures from global organizations can also trigger policy changes. In 1998, the World Conference on Higher Education (WCHE) called for educational institutions to engage in partnerships for international sociocultural and economic development (UNESCO WCHE, 1998). Many colleges and universities supported national and international development goals through international partnerships (Sutton & Obst, 2011). To ensure success, regional and national governments and other nongovernmental organizations have provided funding to ensure that higher education institutions can collaborate in international development initiatives (Koehn, 2012). In one example, the U.S. Department of State, non-profit organizations Partners of the Americas and NAFSA Association of International Educators, along with industry partners, offer the 100,000 Strong in the Americas Innovation Fund. This fund seeks to increase international
higher education partnerships between the U.S. and other countries in the Americas (100,000 Strong in the Americas, n.d).

**Partnerships for Economic Development.** In the era of academic capitalism where education has turned into a commodity, international higher education partnerships play a role in economic development. In the U.S., institutions sometimes utilized international partnerships to enhance institutional capacity-building as their operational revenue decreased (Koehn & Obamba, 2012). The *Open Doors* report by the Institute of International Education (2019) showed that in 2018, international students contributed $41 billion to the U.S. economy and supported 485,290 jobs.

Financial organizations understand that partnerships are a key economic contributor. International partnerships provide access to new markets and encourage the mobility of students on study exchanges, dual degrees, and other revenue generating programs (Koehn & Obamba, 2012; Sutton et al., 2013). One example of this realization is that the U.S. Department of Commercial Service’s International Trade Administration manages an initiative called the Strategic Partnership Program. This service connects organizations in the U.S. to those abroad and targets higher education institutional partnerships (Strategic Partnership Program, n.d.).

**Partnerships as a Sociocultural Agent.** According to Labaree (2009), society often utilizes the education system to counter social issues of race, class, and gender inequality, reduce crime, and promote health education. However, educationalizing social problems is not unique to American culture and society as Labaree (2009) suggests, but a global phenomenon which manifests differently around the world. In a study looking at Canada-China university partnerships, Leng and Pan (2013) surmised that the role of universities included reproducing social and cultural values. Study participants, which included academics and community
members in both countries, indicated the university partnerships were successful because they respected and took the time to learn and understand each partner’s culture, values, and academic norms (Leng & Pan, 2013).

Social constructs of education have institutional and regional influence (Hamdullahpur, 2019). World organizations acknowledged educational institutions as durable social structures, and international partnerships have emerged as a crucial strategy for development (Knight, 2015; Wei & Liu, 2015). Transnational cooperation between institutions develops alternative forms of capital (Bamberger, et al. 2019). One example is the international export of culture and ideology through student and scholar mobility programs, such as the U.S. Fulbright Program and China Confucius Institutes (Luqiu & McCarthy, 2019). Partnerships can be more important for the relationships they facilitate and the values they exemplify than for any short-term measurable outcomes.

**Ethical Tensions in International Partnerships**

Internationalization has increasingly been characterized by capacity-building through academic commercialization and economic self-interest (Knight, 2015; Ma & Montgomery, 2019; de Wit et al., 2017). However, scholars recognize shared and conflicting areas of interest in international higher education partnerships (Casey & Delaney, 2019; Sutton, 2015). Educators must implement internationalization goals with proper consideration of ethical concerns. Scholars have examined the fundamental question regarding whether the development of international higher education partnerships is a one-sided or reciprocal approach (Mwangi, 2017).

Internationalization in higher education is a hegemonic agent, leading some institutions to influence and have authority over their partners (Knight, 2012; Bamberger et al., 2019). This can
be seen in how western educational institutions followed a development-focused relationship model in postcolonial engagement in educational partnerships (Leng & Pan, 2013). However, western dominance threatens the sustainability and mutuality of international partnerships (de Wit et al., 2017). One example in action is the strong western focus of relevant research in major education journals. The U.S., Canada, Europe, Australia, and New Zealand perspectives dominate international higher education partnership research (Mwangi et al., 2018).

Another indication of inequitable relationships includes the terminology scholars use to label partnering countries. Some literature uses economic terminology such as “importing and exporting countries” to explain the mobility of students (de Wit et al., 2017). Another study uses the term “resource-rich partners” and lists North America, Australia, and parts of Europe, while the term “resource-limited partners” includes South America, Africa, and parts of Asia and the Middle East (Umoren et al., 2012). These countries can also be defined by the phrases “global north” and the “global south” (Mwangi et al., 2018; Umoren et al., 2012). Finally, some scholars use the terminology “majority world,” where most of the population live with limited resources, and the “minority world,” where a smaller economically privileged population resides (Mwangi, 2017). These terms perpetuate the imbalanced postcolonial relationship dynamics between institutions in transnational partnerships by highlighting financial positions of power.

International higher education partnerships should aim to dismantle rather than reinforce existing power systems, processes, and dynamics. Knight (2015) calls for the use of knowledge diplomacy that recognizes the mutuality of interests and benefits. The concept of mutuality, based on work by Johan Galtung, includes four aspects: equity, autonomy, solidarity, and participation (Leng & Pan, 2013; Leng, 2016; Mwangi, 2017; Wei & Liu, 2015). Mutuality is built on human relationships and is critical to sustainable partnerships (Leng, 2014; Sutton, 2010;
Sutton 2015). Additionally, reciprocity in partner relationships includes actions that promote mutual respect and benefit all partners (Umoren et al., 2012).

All international partners can incorporate characteristics of mutuality and reciprocity in their relationships. Mutuality revolves around the perception and understanding of social obligations. According to Mwangi (2017), communication, support, and relationship-building are important factors for mutuality. Partners also develop equity when engaging in project development collaboratively, rather than individually or through one-sided methods (Wei & Liu, 2015). Partnerships based on unequal power dynamics are difficult to sustain (Casey & Delaney, 2019). In contrast, mutual relationships help produce partnerships that can endure (Leng, 2014; Sutton, 2010; Sutton 2015).

Mutual partnerships exemplify characteristics of patience, respect, trust, and openness in their engagement to address challenges (Casey & Delaney, 2019). These characteristics are tied to relational values found in a partnership’s social network (Burt, 1992; Steinmo & Rasmussen, 2018). These characteristics also describe social capital resources which are crucial to sustaining partnerships (Dhillon, 2006). The ethical debate of mutuality in international partnerships materializes through two types of partnerships: transactional and transformational.

**Transactional Partnerships.** Transactional partnerships are often the first level of international partnership engagement (Center for Internationalization and Global Engagement, 2015). They include a wide range of activities and involvement by participants. According to Sutton (2010), partnerships that focus on student mobility and exchange lie at the transactional end of the spectrum of partnership collaborations. Transaction partnerships have three main characteristics. First, they focus on exchange activities and benefits (de Wit et al., 2017; Sutton, 2010, Sutton et al., 2012). Second, they work within existing institutional, regional, and national
systems (Leng, 2014). Finally, there exists an underlying power imbalance between those partners receiving and those providing resources (Mwangi, 2017; Sutton et al., 2012).

The primary objective of transactional partnerships is the exchange of resources and people towards quantitative aims (de Wit et al., 2017; Sutton, 2010; Sutton & Obst, 2011). Quantitative aims often focus on capacity-building at the programmatic rather than the institutional level and receive less stakeholder buy-in (Sutton & Obst, 2011). Finally, transactional relationships between international institutions promote the homogenization of partnership practices and strategies towards the dominant partner (de Wit et al., 2017).

**Transformational Partnerships.** Transformational partnerships combine resources and focus on mutual development of programs and projects (Sutton, 2010; Sutton et al., 2012). With time, these agreements can go beyond the mere exchange of students, services, and resources and can transform into more dynamic collaborations (Sutton et al., 2012). These partnerships have three main characteristics. First, their goal is to seek a comprehensive exchange of activities and resources (Sutton, 2010; Sutton et al., 2012). They also examine and alter existing institutional and local systems (Sutton & Obst, 2011). Finally, transformational partnerships also promote mutual and reciprocal relationships (Casey & Delaney, 2019; Leng, 2014).

The objectives of transformational partnerships are to stimulate institutional advancement and sustain the partnership through the evolving needs of all stakeholders (Sutton & Obst, 2011). These partners often adjust operational structures to meet their collective goals (Casey & Delaney, 2019; Sutton, 2015). Mutuality is a main characteristic of transformational partnerships as it promotes equal distribution of investments and gains (Casey & Delaney, 2019).
Networks in Crisis

Global crises, like the 2020 COVID-19 pandemic, test the reactiveness of university systems and their capacity to collaborate with their international partners. Getting international colleagues to work together by jointly creating and implementing response plans goes beyond mere logistics. It requires a shared approach, an understanding of the available resources, and the ability to access those resources to effectively mitigate negative impacts on partnership programming and the institutions.

An increasing amount of dynamic challenges threaten inter-organizational collaboration and partnerships. Most organizations are unprepared to respond to regional and complex global threats (Abbasi & Kapucu, 2011). International partnerships are susceptible to risks from political instability, regional conflicts, and natural disasters (QS Unisolution, 2020). The COVID-19 pandemic has increased the scope of challenges that international higher education partnerships face (Sutton, et al., 2020; QS Unisolution, 2020). COVID-19 health concerns and travel restrictions led to immediate crisis response by assisting stranded students and scholars and mitigating program disruption (Sutton, et al., 2020). Additionally, long-term impacts included the loss of revenue, large reductions in staffing, budget cuts, and mergers (Sutton, et al., 2020).

Disaster research points to poor coordination before, during, and after a crisis as the main challenge to an effective response (Abbasi & Kapucu, 2011; Jones & Faas, 2017). A lack of updated information, as well as reliable and accurate data, is crucial for key players to know where to distribute resources (Abbasi & Kapucu, 2011; Li & Goodchild, 2010). Additionally, many stakeholders have insufficient access to valuable resources and inadequate action response plans, which lead to fear, stress, and anxiety (Abbasi & Kapucu, 2011; Li & Goodchild, 2010).
Coordination and cooperation can mitigate communication challenges and they are essential for efficiently responding to disasters (Abbasi & Kapucu, 2011; Bisri, 2016; Jones & Faas, 2017). Social networks play a major role in coordinating communication during crisis (Kapucu & Demiroz, 2017; Krakovsky, 2010; Li & Goodchild, 2010). There are four typologies for inter-organization disaster response coordination, seen in Figure 1. The typologies listed in order from informal to structured include loose alliance, orchestrated alliance, lead partnership, and lead agency (Gillmann, 2010). A loose alliance has no formal structure and coordination is based on consensus, as opposed to the orchestrated alliance where a mediator exists to form consensus (Bisri, 2016; Gillmann, 2010). A lead partnership has a small group which makes strategic decisions for the entire network (Bisri, 2016; Gillmann, 2010). Gillmann (2010) argued that the lead agency typology is the best network structure for inter-organizational cooperation. The lead agency has a single defined decision-making entity which additionally controls the flow of and access to resources (Gillmann, 2010).

**Figure 1**

*Inter-Agency Coordination Typologies*

*Note.* The figure above is based on the work by Gillmann (2010) and Bisri (2016).
Network Benefits

Social networks provide several benefits for crisis management as they facilitate and mobilize resource exchange, including goods, money, people, and information (Krakovksy, 2010; Li & Goodchild, 2010). Partnerships also engage with their networks during crisis response to show solidarity, find creative solutions, coordinate a shared response, and learn from each other by leveling existing expertise (Sutton, et al., 2020). Both formal and informal partnerships can help manage disaster response if they have established shared goals and responsibilities beforehand (Bisri, 2016). Other facilitating factors for effective use of networks in crisis management include trust between network members, shared language and understanding, the ability for continued learning, capacity and resources of members, pre-existing relationships, and boundary spanners (Kapucu & Demiroz, 2017). Boundary spanners are individuals that have the ability to connect different groups of a social network or connect multiple networks (Kapucu & Demiroz, 2017). An individual’s social network is fixed within larger societal networks, including transportation and information networks, which help to bridge resources and information gaps between individuals and organizations (Li & Goodchild, 2010).

Network Disadvantages

While networks provide many benefits for disaster management, social interactions can also exacerbate existing pressures (Jones & Faas, 2017). Ineffective networks include those with power differentials, competing missions, cultural conflicts, the ambiguity of roles, lack of communication, and disagreements in response strategies (Kapucu & Demiroz, 2017). Combined with a lack of other facilitative factors such as finances, staffing, and expertise, partners will have different perceptions or expectations on how to respond and engage with their international colleagues during global crises. Transformational partners may implement collaboratively
designed approaches to their conflicts while transactional partners generally may respond independently (Sutton & Obst, 2011). Alternatively, in transactional partnerships the dominant partner may push their needs and ambitions and overlook local contexts and their partner’s capacity to assist.

Partnerships engaged in mutual relationships are key to overcoming the impact of ongoing global crises affecting international education. However, institutions may overlook the importance of interpersonal relationships in sustaining partnerships (Montgomery, 2020). Educators must understand the underlying relationship dynamics within international higher education partnerships to effectively mobilize partnership resources.

**Theoretical Framework**

Interpersonal relationships strengthen and reinforce international higher education partnerships against the threats of natural, political, and economic disasters (Montgomery, 2020). It is important to acknowledge the systems and structures behind partner relationships to understand how to address dynamic challenges that threaten their long-term success (Leng & Pan, 2013). In this study, I use social capital theory to examine the complex nature of social relationships. Social capital theory is a useful tool for exploring intricate social relationships (Lin, 1999). The following section introduces the historical foundation, key aspects, and criticisms of the theoretical framework. Social capital resources are embedded in partner relationships, and individuals mobilize those resources for gain (Burt, 1992; Lin, 1999).

**Historical Foundation**

The groundwork for social capital emerged from Marx’s alternative description of capital derived from unequal social relationships between capitalists and laborers (Häuberer, 2011; Lin, 1999; Lin, 2001). Since Marx’s work, many scholars have recognized additional forms of
capital. One founding author, Pierre Bourdieu, articulated two new distinct types of capital: cultural and social capital (Bourdieu, 1986; Lin, 2001; Häuberer, 2011). Bourdieu defined social capital as the sum of resources accessed by and through institutionalized relationships (Bourdieu, 1986). James Coleman expanded this definition of social capital. Coleman based his definition on rational choice theory, which argued that social connections form to access resources in others, to benefit themselves (Coleman, 1990; Häuberer, 2011). According to Coleman (1990), social capital consists of a social structure that provides individuals the means to access resources.

Scholars compiled the various functions and resources of social capital to help differentiate it from other forms of capital. Social capital resources may include economic, political, and social assets (Lin, 1999). These resources are accessed for specific outcomes, such as gathering and legitimizing information (Burt, 1997). Both the resources and the outcomes are viewed as social capital. Bourdieu surmised that social capital provides social credentials, legitimacy, and recognition between members in a social network (1986).

**Dimensions of Social Capital**

Another term for social capital is a relational resource. Social capital resources are a product of a relational connection and are embedded in the structure of a social relationship (Burt, 1992; Granovetter, 1982; Lin, 2001). Nahapiet and Ghoshal (1998) define social capital as three interconnected dimensions where relational resources are developed: a structural, cognitive, and relational dimension. Seen in Figure 2, the components can facilitate or hinder the access and mobilization of social capital within the structure for outcomes (Lin, 1999; Nahapiet & Ghoshal, 1998).
**Structural.** The structural dimension includes the observable connections between members of a social network (Burt, 1992; Nahapiet & Ghosal, 1998). Structural features include the number of connections and the configuration of those connections (Nahapiet & Ghosal, 1998). A network’s structure, or typology, can provide both advantages and constraints for resource mobilization (Burt (1982).

**Figure 2**

*Social Capital in Action*

![Social Capital in Action](image)

*Note.* The figure above reflects the capitalization of the embedded resources.

**Cognitive.** The cognitive dimension includes intangible factors such as how people think and feel (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018). Cognitive social capital includes shared goals and shared culture among members (Steinmo & Rasmussen, 2018). Shared culture includes shared language, codes, shared narratives, and common systems and rules (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018). Additionally, there is shared meaning, interpretation, understanding, and shared approaches to problems (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018).
Relational. Similarly to the cognitive dimension, the relational dimension also includes intangible factors. The relational component distinguishes itself from the cognitive, as they are created from and move through social relationships (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018). This dimension describes the mutual trust, respect, expectations, and reputations that manifest in social relationships (Burt, 1992; Steinmo & Rasmussen, 2018). Other factors include identity, roles, and social norms that influence relational behaviors (Burt, 1992; Coleman, 1990; Häuberer, 2011; Nahapiet & Ghosal, 1998).

Network Approach to Social Capital

Social capital theory is comprised of various perspectives that help scholars understand relationships. This study employed the network approach to social capital. The network approach provides a framework for describing social relationship patterns and primarily focuses on social capital’s structural dimension (Burt, 1982). There are three main contributions to the network approach: Mark Granovetter’s strength of ties, Ronald Burt’s structural holes, and Nan Lin’s investment and mobilization. The following section includes an overview of the three main additions to the network approach.

Strength of Ties. In Mark Granovetter’s key work, he focused on the strength of ties and the existence of bridges between individuals (Granovetter, 1973; Granovetter, 1982). Granovetter defined the strength of social ties or connections as the amount of time, emotional intensity, mutual confiding, and reciprocal services between network members (Granovetter, 1973). Granovetter asked a set of participants who found a job through social connections, on the frequency of their communication with those contacts. The results showed that a higher percent of participants found jobs through those maintaining less frequent communication, or had weaker ties (1973). In his work, Granovetter summarized that weak social ties provide individuals an
avenue for influence and new information from outside their close social circle (1973). Weak social connections connect individuals to novel information and are key to integrating separate groups or individuals (Granovetter, 1982).

Granovetter contributed to the development of social capital theory by focusing on structural and relational embeddedness. He argued that personal relationships and their structure generate the opportunity for investment (Granovetter, 1982). More bridge members will be present in a low-density network with weak ties compared to a high-density network with stronger and increased connections (Granovetter, 1982). If social relationships between networks are more important than within networks, then members with weak ties that connect groups are significant (Granovetter, 1985).

**Structural Holes.** Ronald Burt expanded on Granovetter’s work on bridge members by focusing on network structure. Burt’s significant contribution to the network approach to social capital is the concept of structural holes. Structural holes are when disconnected groups exist in a network (Burt, 1992; Burt, 2000). These holes provide opportunities for the creation and use of social capital (Burt, 1997). Bridge members connect groups and broker resources. They are important members within the network structure as they help to transfer information within and between groups (Burt, 1992; Burt, 1997; Burt, 2000). While a highly connected network can help to manage risk, enhance communication, and facilitate action, bridges of structural holes provide access to information and other resources (Burt, 2000).

Through his work, Burt created a structural theory of action that describes how social structure position provides access to social capital advantages and limitations (Burt, 1982; Häuberer, 2011). A social structure captures members’ position in a network, the position in the social structure facilitates or hinders their actions, and their actions in turn influence their
position in the social (Burt, 1982). Burt summarized his definition of structural holes as the opportunity to use and access social capital resources in relationships (Burt, 1992).

**Investment and Mobilization.** Nan Lin took a resource investment perspective of social capital. Lin defined social capital as resources embedded in social relationships (Lin, 1999; Lin, 2001). Social networks provide the conditions in which people can access and use social capital (Granovetter, 1982; Lin, 2001; Lin, 2008). In Lin’s network approach, the structural position of members, network features such as closure and connection ties, and the purpose of action influence individual and social resources (Lin, 1999; Lin, 2001; Lin, 2008). Individuals can access and mobilize these resources and can invest in their social connections to increase and appropriate social capital (Lin, 1999; Lin, 2001; Lin, 2008). Figure 2 demonstrates social capital in action by showing the three dimensions of social capital where resources are invested and how network members capitalize resources for desired outcomes (Lin, 1999).

**Levels of a Social Network.** There are three observable levels of social capital, including a micro, meso, and macro view (Häuberer, 2011). Network scholars favor the micro level, focusing on individual actors and their resources (Lin, 2001). The meso level focuses on groups and organizations, and the macro level focuses on the wider community or society (Lin, 2008). The network approach to social capital allows scholars to understand the movement between the micro, meso, and macro levels. Burt and Lin take a micro level view and believe social capital is a private good and accessible by individuals for personal benefit (Burt, 1992; Burt, 1997; Lin, 1999; Lin, 2008, Häuberer, 2011). Overall, social capital is relational resources that are embedded in multiple levels of a social structure which may affect the ability of members to mobilize individual and collective resources.
Criticisms of Social Capital

Major criticisms of social capital theory show scholars’ competing and contradictory views on various aspects of the theory and its practicality. First, social capital is ambiguous and difficult to define, as it closely resembles other forms of capital and it has a tangible and intangible nature. Second, there are benefits and disadvantages to closed and open social networks. Finally, little research focuses on the hidden flaws of social capital and recognizes that social resources create both positive and negative conditions and outcomes.

**Ambiguity.** Many disciplines use social capital theory, including economics, business, sociology, political science, psychology, and geography (Burt, 2000; Field, 2017; Lin, 2001). Each discipline provides a unique understanding of the concept, including various definitions and terminology. Confusing terminology between disciplines can affect the ability to define measure social capital. Furthermore, social capital can be tangible or intangible. Bourdieu (1986) describes the capital accessed through social relationships as economic, cultural, or symbolic. However, Coleman, Burt, and Lin explain that social capital is also the access to, the opportunity for, and the use of social resources (Burt, 1982; Burt, 1992; Coleman, 1990; Lin, 1999). Lin (2008), explains that social capital can be measured based on potential capacity or its actual use. Sociology research often uses social capital as a metaphor for advantages due to position within a social structure as opposed to economic research, which uses it for its monetary value (Burt, 2000). Additional criticism increases the complexity of this theory. Some scholars point out that when social relationships are reduced to economic rationality, social capital ceases to be social (Claridge, 2018). Its potential, opportunity, and metaphors make social capital difficult to define.

**Closed and Open Networks.** Another conflict in social capital literature is the proponents of closed versus open networks. Networks can be closed, meaning there are
connections among network members, or open, indicating some members have connections to other social networks (Häuberer, 2011). Bourdieu’s (1986) view of social capital developed from an understanding of the hierarchy of dominant social classes and their desire to limit social access to their group and its power structure. In this view, the closed social structure maintains a high density of connections and produces advantages for its members (Lin, 1999). In contrast, scholars like Ronald Burt have stressed the importance of open and less dense social network, for example, his work on structural holes (Burt, 1992; Burt, 2000; Granovetter, 1982). However, Lin (1999) argues that it is also the purpose of mobilizing social capital and its outcomes that provide different benefits to network members. A closed network is more conducive to maintaining current resources, while an open network benefits those attempting to seek and obtain new resources (Lin, 1999).

**Hidden Flaws.** Social capital’s negative aspects are the lesser explored criticisms of social capital. Early research focused on the unequal access to resources and power maintenance within social relationships (Bourdieu, 1986; Field, 2017). Bourdieu argued that dominant groups or members impose their culture, such as symbols and meaning, through social reproduction (Bourdieu, 1986; Lin, 2001). In contrast, Coleman argued that social capital was not limited only to powerful members and explained how people cooperate and share resources for the public good (Field, 2017). Therefore, depending on the context of a situation, social capital may appear as a benefit or disadvantage to different network members.

Negative aspects of social capital can include perverse goals and unintended consequences (Field, 2017). Social capital enables social restrictions and obligations that hinder member action and goal attainment (Lin, 1999). Additionally, mobilization of social capital resources could lead to exploitation and betrayal of trust (Field, 2017; Lin, 1999). Inequality
exists in social networks because access to relational capital is unequally distributed and can constrain the ability to mobilize existing resources (Field, 2017; Häuberer, 2011; Lin, 1999). Social capital structure can also preserve dominant groups' privilege (Field, 2017).

**Guanxi.** There are also different cultural understandings of social capital. In China, *guanxi* refers to the Confucian concept of relational interdependence and is often used for close business relationships (Buckley et al., 2006). These relationships are based on preferential treatment, reciprocal exchange of favors, and mutual obligations (Lee et al., 2001). While guanxi shares many broad characteristics with social capital, such as providing relational resources, there are slight differences that are important to acknowledge (Buckley et al., 2006). These differences are important to recognize since the concept of relational resources will be interpreted differently across multiple cultural groups. First, while Western cultures prefer explicit role expectations and boundaries, *guanxi* recognizes the unstated implicit expectations that go beyond existing roles (Lee et al., 2001). Second, relational behaviors in Western cultures are more cooperative, while *guanxi* relationships are based on care and favor (Lee et al., 2001). Finally, motives for reciprocal actions in Western cultures centers on mutuality, while *guanxi* focuses on the need for saving face, or one’s standing and prestige (Buckley et al., 2006; Lee et al., 2001). It is important for universities engaging in international cooperation with Chinese businesses to be aware of the cultural differences in recognizing and utilizing social capital.

**Using Social Capital Theory**

Social capital theory is an appropriate framework for studying social dynamics in international higher education partnerships and crisis management as it explores social connections and relational resources. This study uses a network approach to social capital by looking at individuals within a network structure. Social capital theory influenced the chosen
methodological design, and it is the lens through which the data was analyzed and explained. I utilized the cognitive and relational dimensions of social capital to explore network members’ experiences working with their international partners and towards understanding how members mobilize resources during times of crisis. I used the structural dimension of social capital to look at the typology of the network to understand factors enabling or constraining member’s access to social capital.

The partnership network in this study has both characteristics of closed and open networks. The network is closed because belonging to the organization requires approval. The consortium maintains a definitive membership list, but international higher education partnerships are not insular. The network in this study is also open because members can obtain resources outside of the network structure for use within the partnership. In this case, the network structure acts as a means for the transportation of resources among members.

Finally, this study focuses on the interplay between the micro and meso levels of a social network by looking at how individuals access resources from members and their institutions. In this network, individual administrators represent their organization. This study will seek to describe the structural composition of the networks. Their network locations, in combination with listening to their experiences, will show how participants access social capital.

Chapter Summary

International higher education partnerships have evolved as an institutional strategy for responding to the changing economic, political, and social needs in the U.S. and China. Transactional and transformational partnerships exemplify the core goals and intentions of institutions engaging in international higher education partnerships. However, educators need to strive for mutual relationships to help preserve and sustain partnerships. Research shows that
sustainable partner relationships can help lessen the impact of global crises and provide partners with needed resources and support. Educators must recognize and understand how to access social resources to improve their ability to endure future challenges.

Social capital provides a theoretical understanding of how and why relationships are valuable resources in the context of international higher education partnerships. The network approach to social capital demonstrates how resources are ingrained in social relationships and how the structure of the relationships can facilitate or hinder access and mobilization of those resources. This research study examines the capitalization of resources by members of an international higher education partnership during a time of increased hardship and adversity.
Chapter 3: Methodology

The purpose of this chapter is to outline the mixed methods research design used in this study to examine the relationship dynamics of international partners. The first section will present the research question, followed by an overview of the research design. The second section provides a description of the setting and sample population included in the study. The following sections describe the data collection and data analysis procedures. Next, I provide a review of the reliability and validity of the methods used. Finally, I conclude with considerations on the limitations of the methodology.

Research Design

The primary research question of this study was: How does a partnership’s social network structure impact international administrators’ navigation of social capital during crisis? This study used a convergent mixed methods design. A mixed approach enabled a comprehensive understanding of how administrators in a consortium partnership mobilize relational resources. A convergent design enabled the integration of qualitative and quantitative data (Creswell & Plano Clark, 2017). In a convergent design, the quantitative and qualitative data are collected simultaneously and analyzed separately before merging the results (Creswell & Plano Clark, 2017; Nooraie et al., 2020).

Qualitative data was collected through semi-structured interviews and document and website text collection to look at the experiences of partnership administrators. The study also used social network analysis to produce quantitative data. A study of interrelationships is ideally suited to network analysis, which focuses on the connections and exchanges between organizations and individuals (Froehlich et al., 2020). Social network analyses plot representations of social relationships in a network diagram to mathematically determine
network characteristics (Edwards, 2010; Froehlich et al., 2020; Nooraie et al., 2020). Social network analysis describes connection patterns and positions within a network (Nooraie et al., 2020).

Traditional data collection for network analyses uses name generator surveys (Froehlich et al., 2020). This study used a mixed methods approach to the network analysis by collecting network data from a survey, the semi-structured interviews, and the document and website text collection. A mixed methods social network analysis allows for more elaborate network data and is effective for understanding the complexities of social networks, like international higher education partnerships (Froehlich et al., 2020).

**Social Network Analysis Terms**

*Network:* A group of socially connected predetermined units (Wasserman & Faust, 1994).

*Network diagram:* A sociogram or a graphical representation of the relationships between members in a social network (Perry et al., 2018).

*Nodes:* Units, actors, or members in a network. They may represent individuals, groups of people, or organizations (Perry et al., 2018). In this study, a node is represented by a circle and depicts a university or organization within the consortium.

*Whole network:* A network that represents a defined population (Wasserman & Faust, 1994).

*Ego:* A central or focal node in a network (Perry et al., 2018)

*Ego network:* A network viewed from a focal node, called the ego, and the nodes to which the ego is directly connected (Perry et al., 2018; Wasserman & Faust, 1994).

*Alters:* Nodes to which the ego is directly connected (Perry et al., 2018; Wasserman & Faust, 1994).
**Edges**: Ties or links that represent social connections between nodes. Examples include an organizational membership, behavioral interactions such as email, a formal relationship such as that between an employee and supervisor, or a biological relationship (Wasserman & Faust, 1994). Edges can be directed, meaning each node views the connection with different importance, strength, or weight, or viewed as undirected, meaning the nodes view the connection equally (Perry et al., 2018). In this study, an edge is represented by a line and depicts an undirected link to show a partner relationship between two nodes.

**Degree**: In an ego network, the degree is the total number of alters (Jackson, 2008).

**Density**: The number of edges between nodes compared to the total possible edges (Perry et al., 2018). A

**Path length**: The length of a path of edges between pairs of nodes (Jackson, 2008; Perry et al., 2018).

**Diameter**: The length of the longest of all the shortest paths of edges between all pairs of nodes (Jackson, 2008).

**Effective size**: Determines the amount of nonredundant ties between alters in an ego network. The effective size is the number of alters minus the average number of ties each alter has to other alters (Burt, 1992; Perry et al., 2018).

**Efficiency**: Shows what proportion of an ego’s connections are nonredundant and normalizes the effective size of an ego’s network by its actual size (Burt, 1992; Perry et al., 2018).

**Bridge**: Describes a node’s ability to connect pairs of other nodes (Burt, 1992; Burt, 1997; Burt, 2000). In an egocentric network, the ego is connected to every other node. If the
alters are not connected to each other, the ego is the bridge or broker between the other nodes (Perry et al., 2018).

**Setting**

The social network in this study is a collection of international higher education institutions who are members of a consortium called the Sino-American Cooperation on Higher Education and Professional Development (CHEPD) 1+2+1 Program. The consortium includes public 4-year universities from the US and China. Shown in Figures 3 and 4, the consortium has a fluctuating institutional membership of approximately 35 U.S. universities and 125 Chinese universities representing various regions across each country (CCIEE, n.d.).

The consortium is managed and advised by two education organizations: the American Association of State Colleges and Universities (AASCU) and the China Center for International Educational Exchanges (CCIEE). AASCU is a nonprofit organization that supports educational innovation and advocacy and connects its U.S. members with regional and international partners (AASCU, n.d.). CCIEE is a nonprofit think tank that promotes international initiatives in various industries (CCIEE, 2013).

In the CHEPD consortium, Chinese and U.S. universities collaborate on various partner activities but focus on managing a student mobility program, a dual-degree pathway for Chinese students to study in the US. The 1+2+1 format refers to the number of years the students study in China and the U.S. The students spend their first year at their home university in China, transfer to the US for the next two years, and return to China for their final year of study (CCIEE, 2013). One Chinese university and one U.S. university partner to administer this program. International partnership administrators offer in-person orientations for incoming students each summer in
China, and U.S. universities also send faculty to teach or lecture at their Chinese partner institution (CCIEE, 2013).

**Figure 3**

*CHEPD Institutional Members Map for the US*

![Map of CHEPD Institutional Members in the US](image1)

*Note.* Chart retrieved from the CHEPD program website (CCIEE, n.d.).

**Figure 4**

*CHEPD Institutional Members Map for China*

![Map of CHEPD Institutional Members in China](image2)

*Note.* Chart retrieved from the CHEPD program website (CCIEE, n.d.).
For this study, consortium members have several types of connections. First, all members have a relationship with the two oversight organizations, CCIEE and AASCU. Second, an informal umbrella relationship exists because the institutions are all members of the consortium. Members attend yearly training meetings together and communicate with each other. The final type of collaboration is the formal partnerships that allow for the mobility of students and other specific projects requiring additional support. Students from any Chinese institution can select a U.S. institution to apply to, and the two universities then sign an agreement outlining obligations. U.S. and Chinese universities can also preemptively sign a memorandum of agreement to create an International Cohort Program (ICP). The ICP allows cohorts of Chinese students, rather than individuals, to apply to attend a specific U.S. school. Not all consortium members are collaborating for formal ICP recruitment. In this study, the network data captured the formal university partnerships between U.S. universities, Chinese universities, CCIEE and AASCU.

**Population and Sample**

This study aimed to examine the relationships between the administrators who manage these partnerships. Each consortium member is required to have at least one dedicated partner administrator. At a minimum, the population of administrators in the consortium is 162, though members can have multiple staff members involved in partnership management. Administrators are employees of a member institution or one of the advisory organization, and include coordinators, directors, vice presidents, and other support staff like immigration specialists or admissions officers. They may have varying levels of English and Chinese language proficiency. The sample of administrators included those who have more than one year of experience in the program and whose member institution has at least one formal partnership. Furthermore, the
group included those with direct contact with international partners in the program, such as those directly responsible for communication, management, development, or program support.

The first sampling factor to consider was the procedure of determining the sample. This study used a combination of convenience and snowball sampling but ultimately aimed for interview participants to be representative of the entire population. Convenience sampling involves gathering participants who are available and interested in participating in the study (Creswell, 2015). Snowball sampling involves asking participants to identify others who fit the study criteria and who may be interested (Creswell, 2015).

The second factor to consider was the sample size recruitment. The CHEPD program website publicly listed all member institutions which provided a full membership list. However, the initial recruitment list of institutions and administrators was obtained via the two oversight organizations. CCIEE and AASCU each provided a list and contact information for active U.S. or Chinese universities and their main contact administrator. The list included 56 universities with known active student mobility. The number of active institutions expanded as the study continued over several months, to include universities with current signed agreements and active mobility. The initial recruitment email was sent out on CCIEE and AASCU’s Chinese and U.S. member listservs. Participants were additionally asked to recommend and identify other administrators or institutions who may be interested in and eligible to take part in the study. The recruitment email included a description of the study and instructions on the various ways to participate.

**Data Collection**

The study examined three primary data sources, including semi-structured interviews, program documents and website text, and a social network survey. All data types contributed to
building the network diagram for the collection of quantitative data. The qualitative data contributed to a comprehensive understanding of the participants’ experiences. Data collection occurred concurrently over several months. Figure 5 displays the procedural diagram used in this study, including the agenda for data collection and analysis.

**Figure 5**

*Procedural Diagram*

*Note.* The procedural diagram showcases how data are analyzed and integrated.

**Semi-structured Interviews**

This study’s primary qualitative data source was semi-structured interviews with CHEPD consortium administrators involved in partner management and program maintenance. The interviews occurred virtually using the Zoom platform and lasted 40–65 minutes. I arranged the interviews to match each participant’s time zones and schedule needs. Interviews allowed participants to share personalized and detailed information on their partner relationships and were thus best suited to understanding partnership collaboration (Creswell, 2015).

The semi-structured interviews served two main purposes in this study. First the semi-structured interview approach aimed to allow participants to share their experiences of working
with their partners and international colleagues in the consortium network. The interview strategy began with broad questions on their work with international partnerships, roles, and responsibilities. Subsequent questions used social capital characteristics to ask participants about expectations they feel or have for others, challenges they have faced, and how they responded to those challenges. The interview protocol allowed participants to discuss examples and share stories they considered relevant to the discussion and research topic.

The secondary purpose of the interviews was to collect data for the network diagram. The interviews supplemented other data collection methods by providing information on participants’ partnerships and connections. During the interview, the researcher asked participants to provide examples of informal groups, describe their relationships with other network members, and who they go to for support or advice. These questions provided additional contacts within their network.

Two common challenges conducting the interviews involve participants who are reluctant to explain or provide context for their responses and those who have a different understanding of the question being asked (Creswell, 2015). The study participants had different linguistic and cultural backgrounds, so it was important to ensure they understood the questions. I used a semi-structured interview script to guide the conversation. The interview protocol prompted participants to discuss their responsibilities in the program, expectations among members, how they seek help or support from others, and how they respond to challenges. Several native-Chinese speaking participants received the general interview topics in advance since the interview was held entirely in English. This aimed to make nonnative English-speaking participants more comfortable.
Interview participants were recruited through recruitment emails sent through a CHEPD listserv, the social media platform, WeChat, messages in the member group chats, and through recommendations from other participants. The recruitment email and messages included three pathways to participate in the study. A link was provided to the interview interest form through Qualtrics. Also the end of the social network survey, participants had an opportunity to express their interest in participating in the interview. The interview interest form checked for exclusion criteria. Respondents who met the participant criteria were then scheduled for an interview.

**Documents and Website Text**

The secondary qualitative data source included the collection of program documents and website text. According to Creswell (2015), documents provide a valuable information source to understand the main research topic in context and the participants’ own words. The main artifacts comprise of the CHEPD program handbook and ICP handbook written by CCIEE and AASCU, listserv emails to the CHEPD administrators, and template memorandums of agreement. Additional documents include group meeting agendas, meeting PowerPoints, and participant submitted partnership marketing materials. Publicly available information was also gathered from various member institutions’ websites and the CHEPD program website. Similar to the interviews, collected texts supplemented both the qualitative data and provided additional network information regarding member’s international partnerships with other network members.

The recruitment email notified network members there were three ways to participate in the study. In addition to the interviews, members could share documents for the study. The email provided instructions for submitting documents. Additionally, the survey and interview follow-up communication included reminders on how to submit documents for interested participants. I
also used my position as a consortium member to access listserv emails, meeting agendas, and meeting presentations to include in the study. Finally, I reviewed and included publicly available documents and website information. These texts, coupled with the intense interview process, provided me with a deep understanding of the program constraints and administrator expectations influencing partner relationships.

A negative aspect of documents and artifacts as a data source is that they may provide an incomplete or inaccurate understanding (Creswell, 2015). Moreover, documents may be difficult to obtain if they are not publicly available (Creswell, 2015). It is also possible that during crises, incomplete information and instructions may be shared by stakeholders, and additional instructions may be sent to correct and update past communication. Meeting minutes could also be inaccurate, as discussions may occur too quickly to record. Therefore, this study specifically used document and website information to supplement other data sources.

**Social Network Survey**

There are several ways to collect network data in social network analyses. Name generator surveys are a common method to identify network members and their connections (Perry et al., 2018). A name generator survey elicits information required to build a social network diagram, including information on all nodes and edge connections.

I created a name generator survey instrument using Qualtrics. The survey had 21 questions divided into two parts. The first part of the survey focused on collecting information about the participant’s partner institutions and international partner colleagues. The survey asked respondents to list the universities with which their institution has a networking relationship, those with which they have a general partner agreement, and those with which they have specific program agreements with. It asked respondents about their frequency of communication, the
frequency of problem-solving, and support with each partner. This first part also helped check for inclusion criteria. This data gave node and edge attribute information, though not all data was used in the final analysis. The second part of the survey elicited demographic details of the respondent. It included questions about how long they have been in the CHEPD consortium, their native language, their work title, and other identifying information. The survey took 10–20 minutes to complete.

I tested the survey on a small, diverse group of higher education colleagues who knowledgeable about international partnerships but did not directly work with the CHEPD consortium or international partnerships. In the test, at least one of the participants was a nonnative English speaker. This test resulted in the removal of questions that were interpreted differently by the respondents. I determined that including these questions risked confusing the participants and would provide minimal benefit if retained. I reworded other questions and provided definitions to terms to clarify the instructions for the test participants. The recruitment emails included a link to the Qualtrics survey. Follow-up communication with interview participants also shared the survey link. Additionally, in the WeChat member groups, I posted the recruitment email text and survey link.

**Issues During Data Collection**

Several issues occurred during the data collection phase. First, recruitment was delayed, as CCIEE and AASCU required additional permissions before allowing the recruitment notifications to be shared with members of their respective listservs. The original research timeline did not anticipate the additional time required, which shortened the timeframe for data collection.
Furthermore, it took several months to connect with a methodology expert for the social network analysis portion of the research design. Initially working without the subject expert, I designed a longer network survey than was necessary as it collected data on certain network measurements that I later chose not to pursue. In the end, I continued using the longer survey and collected additional information. Having more data would provide increased flexibility in case I needed to make adjustments later on. I recruited and met with the volunteer consultant at the beginning of the data collection phase, prior to the start of data analysis. This meeting provided encouragement to continue the study and provided suggested areas to adjust in relation to the participation rate.

Finally, I did not foresee the low level of participation in the network survey. I assumed that most individuals in the consortium would participate in the study because the study had a well-defined participant group, and I was a known member of the entire study population. I sent the recruitment email every 2–3 weeks and five times in total. After discussing the low participation with my methodology consultant, I readjusted to collect additional network data from publicly available website text and documents. This step was not in the original design of the study but provided significant network data. Finally, I modified and refocused the network analysis on describing the network composition rather than focusing on the more complex network measurements.

**Data Analysis**

In a convergent design, the researcher analyzes qualitative and quantitative data separately and then merges the results (Creswell & Plano Clark, 2017). The procedural diagram in Figure 5 outlines how the three data sources are analyzed. The qualitative data supplemented the network data to complete a social network analysis. The study analyzed the interview and
collective document data through descriptive, process, and thematic coding. The final step included the integration of the quantitative and qualitative data findings.

**Quantitative Data**

Interview, document, and survey response data were used to determine the nodes and edges needed to construct the social network diagram. I input the node and edge information into the network tool, Gephi, which is a visualization and measuring tool for social network analysis (Bastian et al., 2009). Gephi then assisted in calculating several network properties to describe the network composition. The following section provides the steps and formulas for calculating the network measurements used in this study: average degree, graph density, average path length, network diameter, degree, effective size, and efficiency.

**Average Degree.** To calculate the average degree, take the total number of edges and divide by the total number of nodes (Jackson, 2008). Equation (1) lists the formula for average degree, where \( m \) is the number of edges and \( n \) is the number of nodes.

\[
x = \frac{m}{n}
\]  

(1)

**Graph Density.** To calculate graph density in an undirected network take the total number of edges and divide by the total possible number of edges (Jackson, 2008). Equation (2) lists the formula to calculate graph density, where \( m \) is the number of edges and \( n \) is the number of nodes. Since the edge connection is mutual, the number of possible edges should be reduced by half. This step is unnecessary in directed networks.

\[
x = \frac{m}{n(n-1)/2}
\]  

(2)

**Average Path Length.** This measurement is the average of the shortest path lengths. An example of a path is shown in Figure 6, where the shortest path between node B and node D in sample A is 2, while in sample B the shortest path is 1. Equation (3) is the formula for
calculating the average path length, where \( n \) is the number of nodes and \( v_{ij} \) is the length of the shortest path between nodes \( i \) and \( j \). The sum of the shortest paths is divided by the number of all possible paths.

\[
l = \frac{1}{n(n-1)} \sum_{i \neq j} v_{ij}
\]  

(3)

**Figure 6**

*Sample Ego Network*

Note. For both samples, node A is the ego.

**Network Diameter.** Similar to the average path length, the first step to the equation is to determine the shortest paths between all pairs of nodes. The next step is to add all the paths and then divide by the total number of pairs. Due to the size of the network in this study, Gephi was used to calculate the network diameter.

**Degree.** There are three parts to measuring efficiency of an ego network. The first part is to determine the degree or the number of alters the ego has (Jackson, 2008). The degree describes the size of the ego network. In Figure 6, Node A is the ego, and nodes B, C, and D, are alters. The degree of both sample A and B is 3, because there are 3 alters.
**Effective Size.** The second measurement necessary for measuring efficiency is the effective size, which measures the redundancy of connections in the network (Burt, 1992; Perry et al., 2018). To measure redundancy, take the average number of edges each alter has to other alters. Then, to measure effective size, take the number of alters and subtract the redundancy. In Figure 6, sample A has a degree and network size of 3, none of the alters are connected, therefore the effective size is $3-0=3$. Equation (4) shows the formula for calculating effective size (Jackson, 2008). Where $n$ is the degree, $d_j$ is the number of edges that alter $j$ has within the ego network and $\bar{d}$ is the redundancy or the average of $d_j$ across all alters.

$$n - \bar{d} = n - \frac{\sum d_j}{n}$$  \hspace{1cm} (4)

**Efficiency.** The efficiency of the network can be calculated once the degree and effective size are determined. To calculate efficiency, divide the effective size by the degree and multiple by 100 to get a percentage. The efficiency of Figure 6’s sample A, is calculated by dividing the degree of 3 and the effective size of 3, for an efficiency of 1. By multiplying by 100 sample A gets an efficiency percentage of 100%. There is no redundancy in the sample A network. In sample B, each alter shows that they have 2 edge connections to other alters. The redundancy of sample B is the average of the sum of the connections, shown as $(2+2+2)/3=2$. Subtracting the redundancy of 2 from the degree of 3 or total number of alters, gives 1 as the effective size of Ego B’s network. To calculate the efficiency for Sample B, divide the effective size 1 by the actual size 3 $= .33$. The effective size of 1 represents 33% efficiency. The higher redundancy in sample B leads to a lower efficiency percentage. Equation (5) shows the formula for calculating efficiency, where $m$ is the effective size, $n$ is the degree.

$$\left(\frac{m}{n}\right) \times 100 = e$$  \hspace{1cm} (5)
**Qualitative Data**

Interviews were digitally recorded and saved on a password-protected computer. I then manually transcribed each interview to ensure the accuracy of the unique program names and terminology used in the consortium partnership. Selected pages on various member websites were saved as PDF printouts. Along with the interview transcripts and website text, additional documents were then uploaded to Dedoose. I used the Dedoose software to complete two coding phases.

All qualitative data media, including the transcribed interviews and partnership documents, were coded using an open coding process. First, I used descriptive and process coding. Descriptive coding helps categorize important words, phrases, or themes, while process coding focuses on action words or phrases (Miles et al., 2014). The first coding process produced initial subcodes. The final step included a thematic coding phase where I grouped similar codes into larger themes. The second coding process produced a set of parent codes. These coding strategies aligned with the research question, which focused on how partners collaborate and utilize their connections to respond and manage crises.

**Data Merging**

In a convergent design, qualitative and quantitative data are generally considered to have equal importance (Creswell & Plano Clark, 2017). Separately analyzing data can produce new information, while merging results can show interactions and the similarities and differences between the data (Creswell & Plano Clark, 2017). Overall, the merged results help explain if and how the data findings connect. During this phase, I looked at how findings from the qualitative and quantitative data sets supported or opposed findings in the other, and I linked the results back to the research question and theoretical framework.
Reliability and Validity

The following section reviews the reliability and validity concerns regarding the research design, including qualitative data gathering and the social network analysis. Specifically, I discuss the problems of recall and recognition in name generator survey methods. I examine informant biases in network perceptions and researcher bias. Finally, I describe the steps to check internal validity and explain the advantages and disadvantages of snowball and convenience sampling.

Reliability

Reliability of data refers to the potential of subject and observer error and bias (Shipman, 1988). Subject error indicates that results could differ over time (Shipman, 1988). For example, data collection took place between September and December 2020. During this time, participants experienced fluctuating COVID-19 news, which may have impacted partnership communication, planning, and response. By September, the immediate crisis response was complete, and participants were planning the beginning of the fall academic term. Later in the semester may have provided additional opportunity to reflect and improve practices. The different stages of crisis response and future planning could have produced different results on different days. In this section, I will share two examples that could affect data reliability in this study. The first topic is data recall and recognition in both the survey and interviews, which helps describes informant biases in network perceptions. The second section includes researcher bias when the researcher is a member of the network.

Informant Biases in Recall and Recognition. I created and used a name generator survey to illicit network information in this study. Name generators allow respondents to identify the participants’ international partners by listing the name of the university or organization.
Participants needed to recall names rather than selecting from a presented list. While some participants may have pulled up records to complete the survey, others may have responded from memory. Free recall may provide incomplete network information. Freeman (1992), for example, claimed that subjects in unbalanced relationships had difficulty remembering key network information. A participant may also choose not to reveal all of their connections and may purposefully omit information on other network members (Heath et al., 2009).

**Researcher Status.** Finally, my relation to the participants and the setting could affect the reliability of the data through observer error and bias. This study focused on administrator relationships in the CHEPD consortium, of which I have been a member since 2015. I became the main coordinator for the program at my current institution and have participated in training presentations to share best practices with other participating U.S. administrators over several years. My name, status, and institution are known to all participants. As a member of the consortium, I have insider knowledge that a lead researcher would typically not have access to. My membership may have hindered data collection and data analysis. Subject bias can indicate participants are trying to please the researcher (Shipman, 1988).

Examples of information that I have access to as a member include knowing who to connect with to ask certain questions, having informal conversations about the research topic with non-participants, and having first-hand experience with managing my partnerships through crisis. These experiences can lead to me anticipating and expecting certain behaviors and reactions rather than taking in the data presented to me by the participants. This bias may lead participants to share incorrect information or embellish stories. Alternatively, my status as a known network member may have made participants uncomfortable with sharing information about their connections due to the risks of damaging existing or potential partnerships.
Participants may assume that I know details about a story, so they may withhold information rather than expanding upon or providing context for certain topics. Additionally, as the researcher, I may unconsciously decide not to press for more information on topics where I think I already know the terms, protocols, and stakeholders involved in a situation.

I took two steps to mitigate these risks. Before each interview, I reviewed key information about the study and how it could assist CHEPD member institutions in improving how members collaborate. Sharing how the study could benefit all members gave participants less incentive to withhold information. I also had a prepared set of topics and questions that I focused on throughout the interviews. Rather than assuming, I purposefully prompted participants even when I already knew of the information. For example, I understood the terminology participants used, but I continued to ask each to describe what the term meant to them. The definition was just as important as understanding any differences in understanding the participants had.

**Internal Validity**

Internal validity refers to whether the results reflect reality (Shipman, 1988). In this study, I specifically looked at partnerships in crisis. Rather than immediately define crisis for participants as the COVID-19 pandemic, I left it open to interpretation so participants could share about various situations needing support. Crises describe a different reality than the norm when viewed broadly, but participants may also think of specific situations. The nuance in understanding between participants can affect the data. Participants may imagine communication and cooperation during crises increasing drastically.

**Terminology.** One challenge of network analyses, is the issue of recognizing different interpretations and understanding of terminology that a researcher uses in the survey or the
interview guide. For example, an interview question that asks participants to define a successful partnership will have different understandings of success. The question’s purpose may be to hear in the participant’s works how they define success. A survey question in a name generator survey may ask participants to list the names of their partners. It is important that the respondents have a similar understanding of what a partner is so that the network can be compiled correctly. For example, is a partner someone with whom participants have a specific kind of relationship? In this study, I provided flexibility during the interview and prompted occasionally for more information. I also explained certain terms or concepts before I asked questions using the specific term. I included term definitions in the survey instructions. Additionally, I provided translations of the interview and survey questions in both English and Chinese.

**Testing.** The next step I took towards internal validity was testing the survey instrument and the interview protocol on other international higher education administrators. I tested the survey on a small, diverse group of higher education colleagues with an understanding of international partnerships but who did not work directly with partnerships. At least one of the participants was a non-native English speaker and a native Chinese speaker. This test resulted in the removal of certain questions that testers interpreted differently. I also determined that the inclusion of some questions risked confusing the participants and would provide little benefit if kept. Other questions were reworded to be more specific or to add clarity. I interviewed two test participants with the interview guide, and this resulted in a reorganization of questions and the inclusion of section introductions to clarify terminology or topics.

The survey asked for respondents to list their partnerships and certain attributes but did little to have them reflect on their partnerships. Therefore there was no anticipated or perceived concern about the order of participation between the survey, interview, and document collection.
However, one area that may have contributed to different results was the sharing of interview topics before the interview. Since half of the interview participants were not fluent in English, I provided some with a list of general topics that I covered during the interview to make them more comfortable. This allowed the non-native English speakers additional time to prepare their responses but may have contributed to some participants providing more information than others.

**Data Triangulation.** This study used two sets of qualitative data to increase validity. Additional strategies that improved validity included manually transcribing the interviews, connecting interview data with handwritten notes, and connecting interview data with other submitted documents and survey data. The semi-structured interviews and program document collection combined with the quantitative data assisted in triangulating the overall data. Data triangulation mitigates the weaknesses of a single data set by complementing it with other data sources (Creswell, 2015). I combined interview data with interviewer notes, documents, and social network data in my analysis to achieve data triangulation.

**External Validity**

External validity explains how close the participation and data results represent the total population (Shipman, 1988). The sampling methods are important to consider for external validity. Participant selection must allow for a representative sample of the whole population. The setting is the second construct of importance. If the setting or case is too narrow, then the results may not be generalizable.

**Validity of Sampling Methods.** This study used snowball and convenience sampling, which are likely to elicit participants who may already be highly involved and interactive with improving partnership practice. Additionally, a sufficient sample size is required for making assumptions and conclusions about the experiences of participants. There are two ways to view
the ideal participation rates. The first focuses on the partnerships within the consortium. Each formal partnership in the program comprises one U.S. and one Chinese university; therefore, a minimum ratio of participants to ensure a representative sample would be approximately 50% Chinese and 50% U.S. administrators. A second view would look at the population of the consortium as a whole. The Chinese member institutions in the consortium outnumber the U.S. institutions by approximately 3.5 to 1. The ideal participant ratio would thus be approximately 70% to 30%. However, if the sample does not represent the population the results will not generalize.

This study focuses on partnership relationships. While multiple Chinese universities can partner with the same U.S. university and vice versa, a formal partnership with a signed memorandum of understanding is defined as one U.S. and Chinese pairing. Additionally, the original list of 56 active members provided by the China Center for International Economic Exchanges (CCIEE) and the American Association of State Colleges and Universities (AASCU) reduced the total population from all 162 members. By only looking at the breakdown of the initial active member list, the sample is more balanced with about 50% U.S. and 50% Chinese universities. However, the list of active members fluctuated throughout the study.

This study sought to maximize the interview participation until saturation was reached while striving to get a representative sample. Saturation is the term used to identify when no new information is being presented and data collection can end (Creswell, 2015). To have a representative sample, I sought to have one interviewer from each advisory organizations and at least one participant from a U.S. and Chinese university. Even using snowball and convenience sampling, this study received a representative sample. I interviewed one program manager from
AASCU and one from CCIEE, and interviewed two U.S. and two Chinese university administrators.

Networks can be viewed in a completed state or by their smaller subsets. A completed network is viewed through a whole network and the subsets can be viewed through an ego network. Whole networks and ego networks are complementary data on the same relational connections (Marsden, 2005). Participant demographics should be representative of the whole consortium to increase the validity of the data (Perry et al., 2018). In the initial study design, the majority of the network data in this study was received through the network survey. There was low survey participation compared to the number of network members, so I modified the study to collect network information from the interview and document collection. In some network analysis studies, problems of low participation can be countered through the use of probability or scale up calculations (Frank, 2005). However, I replaced scaling calculations with modifying the study to include additional data collection points.

**Setting Comparison of Partnerships.** The study focused on a single partnership type and a single cultural pairing. The whole network in this study is a consortium program where all partnerships manage a dual-degree program. While other activities exist between members, main partner relationships are formed to create a student mobility program. Since each partnership has a Chinese and a U.S. university, the multiple partnerships within the consortium have similar characteristics and can be compared with each other. The results of this study are able to be compared with other similar partnership types and other U.S. and Chinese cultural partnerships.

Social network analysis research is highly contextualized because it is based on relational connections. The main characteristic that sets the CHEPD consortium apart from other Sino-U.S. partnerships is the inclusion of the two advisory organizations. There may be certain
characteristics or phenomena specific to managing student mobility partnerships. Moreover, the history of the CHEPD program is unique to this consortium. The CHEPD program and the advisory organizations have 20 years of experience in this specific partnership network and assist new consortium members in learning program expectations. Universities would rarely have that length of historical and practical knowledge and assistance when creating a new partnership. While some findings may hinder the application of the findings to other social networks, the broad findings about relational interaction and support are applicable to other relationships. Despite the downsides, this study’s design can still provide the opportunity for reflecting on and improving international education practice.

**Limitations of the Methodology**

On its own, a social network analysis cannot help to distinguish nuances in participant experiences. A mixed-methods design allows for a comprehensive understanding of the research question. However, there are some limitations to the research design and methodology that should be noted. First, the time period of data collection did not allow for a longitudinal study of the CHEPD consortium network. Second, the data collection protocols needed to account for the informed consent for non-participants and non-English speakers.

**Networks Over Time**

Social networks are ever evolving and changing. Therefore, social network analyses can only show snapshots in time. The timeframe for the dissertation limited the ability to do a longitudinal network analysis study. A longitudinal study would enable the researcher to view network changes throughout timed intervals. Comparing a pre, during, and post-crisis network review is likely to highlight information from the networks that may not be apparent to participants during regular partnership maintenance. This study focused on partnerships during
the COVID-19 global health crisis, but did not take a longitudinal approach. By collecting network data months after the initial shock to international mobility, allowed most participants to have tested operational practices, communication plans, and emergency protocols and would be able to reflect on the initial crisis response.

**Participant Consent**

One ethical issue to consider while designing the methodology is participant consent. Researchers must clarify the risks to participants and others who may not be able to provide their consent. It is important to clarify how the types of data are stored and used and how I mitigate the risks to the participants. In this study, the recruitment email included an informed consent form explaining the risks and benefits of the study. Participants initially read a statement explaining, by taking the survey, respondents gave their consent to participate. All interview participants signed the informed consent form seen in Appendix F, and were given time before each interview for questions, clarification, or had an opportunity to request translated questions. Most documents in this study, such as website text, were publicly available on the program website or provided by interview participants who signed the consent form. I also accessed additional program documents through my position and membership in the network, including listserv emails sent to all members and meeting agendas.

**Unofficial Participants.** Studies involving social network analyses can potentially increase the risk of losing anonymity to participants and nonparticipants. In this network analysis, a participant may the list names of individuals and their university, providing information to create the network diagram. These nonparticipants became data points but did not give explicit consent to be part of the study. They may be unaware that participants provided their names in the survey or that their name or employer were mentioned during the interviews.
Informed consent was waived for nonparticipants named or listed in the survey and during participant interviews.

In social network analysis, researchers must choose between removing that information from the network, which can harm the reliability of the data, and allowing the nonparticipant data points to remain in the study without their informed consent. If these individuals are removed from the study, the validity of the network data analysis may be compromised. Thus, the research could not practically be conducted. To mitigate these risks nonparticipant information was protected to the same standards as all other participants. I redacted names and provided all individuals and their specific university a code for identification. Additionally, nonparticipants can benefit from the research findings as redacted data will be shared with all CHEPD consortium members.

**Non-English Speakers.** The greatest barrier to recruitment and consent was how to include and account for non-English speaking members. At least half the population of the consortium included Chinese administrators with varying levels of English proficiency. I considered the non-English-speaking population in the creation and implementation of the informed consent process. I provided certified translated versions of all recruitment materials, including emails, the consent form, the survey instrument, and the interview question guide. I used RushTranslate to order the certified translations. The documents were written in English and translated to simplified Mandarin.

The recruitment plan limited participation for the semi-structured interviews to administrators who were comfortable with answering questions in English. The study did not require any specific level of proficiency and allowed the decision on language comfort to remain with the candidates. Non-native English participants received the interview topics in advance to
allow them to be comfortable with the topic before the full English interviews. Fully translated questions were available upon request.

**Chapter Summary**

The goal of this chapter was to outline the research methods used to answer the overall research question. I introduced the mixed-methods design and described the qualitative and quantitative components. I then defined important social network terms. Next, I introduced the setting and the participations, which provide crucial information on the context of this study. I outlined the data collection and analysis procedures while also providing information on data reliability and validity. I concluded with an overview of the limitations of the methodology.
Chapter 4: Findings

In this chapter, I present the key findings of my mixed methods inquiry on international partner relationships. I collected data from semi-structured interviews, document and website text collection, and a name generator survey. Using all data points, I analyzed the social network structure to quantitatively describe the composition of the consortium network. I analyzed the qualitative data by completing two levels of coding. First, I used descriptive and process coding to record an initial set of codes. Then I used thematic coding on the initial data codes to construct broader parent themes.

The findings of this study are organized into three main sections. First, I introduce the interview participants, the collected artifacts, and the survey responders. Then I provide an overview of the network composition to provide a foundational understanding of the consortium structure. This section defines the structural dimension of social capital within university partnerships in the Cooperation on Higher Education and Professional Development (CHEPD) program. I conclude by presenting the qualitative data findings, which illustrate the cognitive and relational dimensions of social capital.

Participants

In this section, I describe the study participants and collected data. First, I share the demographics of the interview participants. Second, I describe the types and features of the collected documents. Finally, I share information on the survey responses and the overall data used to create the network diagram.

Semi-Structured Interviews

Six participants were interviewed for this study. Four of the participants represented member institutions and two of the participants represented the two oversight organizations. 50%
of the participants represented a U.S. organization and 50% represented a Chinese organization. Five participants were bilingual in Chinese and English. One participant had 1-2 years’ experience in the program, two participants had 3-5 years’ experience, and one participant had 12-14 years’ experience. Two participants had 20 or more years’ experience in the CHEPD program. Table 1 summarizes the interview participant demographics. Participants held a wide range of position titles including faculty, directors or managers, student advisors, and coordinators. Participants also represented a variety of position levels including working in direct service in student advising or immigration, some in management, and some in higher level strategy and development.

**Table 1**

*Interview Participant Demographics*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Country of Organization</th>
<th>Bilingual</th>
<th>Years’ Experience in CHEPD Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant 1</td>
<td>U.S.</td>
<td>No</td>
<td>1-2 years</td>
</tr>
<tr>
<td>Participant 2</td>
<td>China</td>
<td>Yes</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Participant 3</td>
<td>China</td>
<td>Yes</td>
<td>20 or more years</td>
</tr>
<tr>
<td>Participant 4</td>
<td>China</td>
<td>Yes</td>
<td>12-14 years</td>
</tr>
<tr>
<td>Participant 5</td>
<td>U.S.</td>
<td>Yes</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Participant 6</td>
<td>U.S.</td>
<td>Yes</td>
<td>20 or more years</td>
</tr>
</tbody>
</table>

**Documents and Texts**

Several key documents and web texts from various member organization’s websites were collected for this study. Two key documents included the CHEPD program handbook and the International Cohort Program (ICP) handbook. These guides were significant in length and included consortium requirements, practices, timelines, sample forms, and information on the practical side of partnership management. Other documents included the CHEPD agreement templates and addendums. These documents defined partnership roles and listed purposes for
collaboration and major responsibilities of the U.S. and Chinese partners. Miscellaneous documents included listserv emails, meeting agendas, and meeting PowerPoints from communication and meetings throughout the months after the onset of the COVID-19 pandemic. These documents showed the important discussion topics and challenges which consortium members wanted to discuss as a group. I collected website text from the CHEPD consortium website. This website hosts information on the consortium members, the program handbook, template and sample program forms, and news story highlights from years past. I also visited member organization’s websites to gather public information on their international partnerships. If available, I included this network data to supplement the survey.

**Network Survey**

The China Center of International Educational Exchange (CCIEE) and the American Association of State Colleges and Universities (AASCU) are two organizations that oversee the network and the CHEPD consortium. CCIEE and AASCU identified an initial list of 59 institutions they confirmed were active in the CHEPD program, with signed cooperative agreements with other members. From the initial list, 10 consortium members completed the social network survey, including 3 Chinese and 7 U.S. organizations. I collected 8 additional members’ data through the interviews, member submitted agreement documents, and by separately gathering member website text and from institutional members.

The number of active institutions increased throughout data collection due to the timeline of data collection. Since not all consortium members were included due to their active status, the collected data represents an incomplete or partial CHEPD network. The data established a total of 109 nodes and included 33 U.S. organizations and 76 Chinese organizations. Network nodes, shown as circles in Figure 7, represent member universities and organizations in the CHEPD
consortium. Nodes connect to other nodes with lines, called edges, which represent a partner relationship. I completed the network diagram by adding edges for CCIEE and AASCU to all other consortium members. In this network, all organizations connect to CCIEE and AASCU as they oversee the program for all members. The data formed a total of 333 edges between members in the network.

**Figure 7**

*Whole Network Diagram*

*Note.* Yellow represents U.S. organizations and green represents Chinese organizations.

**Overview of Quantitative Data**

This study analyzed the composition of the network using social network analysis in two ways. The first view of the CHEPD consortium is from a macro lens that described the whole network’s general characteristics and unique features. The second view of the network is from a micro lens and focused on ego networks which form together to make the whole network. Ego
networks provide insight on Sino-U.S. university partnerships within the consortium from the perspective of a single member institution.

**Whole Network Composition**

I constructed the whole network diagram, seen in Figure 7, by inputting 109 nodes and 333 edges into the network visualization tool Gephi. Figure 7 presents the view of the whole network diagram. I used Gephi’s Yifan Hu algorithm to adjust the geographic spaces between nodes (Bastian et al., 2009). This layout feature provided a clear diagram and helped reduce the visual complexity. This model displayed nodes with fewer edges push to the outer boundary while those with a higher number of edges push closer to the center. Institutions with multiple partners have additional edge lines that cross the diagram.

The CHEPD partnership has two unique characteristics compared to other international higher education partnerships. First, the network is a consortium of many members. Within the larger network there are additional subnetworks between the U.S. and Chinese universities. Another defining characteristic is the presence of two oversight organizations, CCIEE and AASCU. These two organizations hold a unique place in the network diagram. A longtime consortium member, Participant 4, described the four sides of a partnership and the various roles CCIEE and AASCU play in the relationship.

We have four different sides who are involved in this program. First Sino-American universities, CCIEE, and AASCU administrators, they are like the guardians and the policy support. So for CCIEE and AASCU, they will build the platform for American and Chinese universities to work together, to share some resources, as well as to enhance or to promote some two-way faculty or student exchanges. (Participant 4)
The two center nodes in Figure 7 have the largest number of edges and connect all other nodes. The two center nodes represent CCIEE and AASCU. In the whole network, CCIEE and AASCU hold prominent positions in the center of the network because of their connection to all members.

Figure 8 represents an alternate view of the whole network. To create this figure, I removed the two oversight organizations, CCIEE and AASCU. By removing the two organizations, it is easier to examine the structure of the rest of the network. I compared the two diagrams to analyze the importance of the two nodes in the whole network and identify other important nodes and features.

**Figure 8**

*Network Diagram Without CCIEE and AASCU*

Note. Yellow represents U.S. organizations and green represents Chinese organizations.

It is easier to see several highly connected clusters without CCIEE and AASCU present in the network. These clusters are mostly comprised of a single U.S. university connected to several Chinese universities. Since the network is about two-thirds of Chinese universities and
one-third U.S. universities, it follows that the U.S. universities would have more connected
nodes than Chinese nodes as there are fewer U.S. nodes to partner with. Second, a few of the
clusters share multiple connections. Additional research could identify why the clusters share
connections and generate information about whether they share background features, if the
institutions share common interests or goals, or if they share connections due to the availability
of academic programs at certain universities.

The third visible characteristic is the border or outlier partnerships that are not connected
to many other nodes. For example, Figure 8 shows a pair of nodes, one U.S. and one Chinese
university, that are not connected to any other nodes in the rest of the network in this diagram.
Without CCIEE and AASCU, they have no connection to other nodes. This could indicate these
universities are newer members of the consortium and have yet to establish other partnerships.
Without CCIEE and AASCU, it would be more difficult for this pair to establish connections
with other nodes or access information or assistance from other nodes.

**Whole Network Data.** The following section looks at the mathematical composition of
the whole CHEPD network. I compared two versions of the network, one with CCIEE and
AASCU and one without. I analyzed four network measurements: the average degree, graph
density, network diameter, and average path length. Table 2 lists a summary of the whole
network calculations.

**Table 2**

*Whole Network Measurements*

<table>
<thead>
<tr>
<th>Network</th>
<th>Total Nodes</th>
<th>Total Edges</th>
<th>Average Degree</th>
<th>Graph Density</th>
<th>Average Path Length</th>
<th>Network Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 7 Network</td>
<td>109</td>
<td>333</td>
<td>6.11</td>
<td>.057</td>
<td>1.946</td>
<td>2</td>
</tr>
<tr>
<td>Figure 8 Network</td>
<td>107</td>
<td>102</td>
<td>1.91</td>
<td>.018</td>
<td>3.504</td>
<td>8</td>
</tr>
</tbody>
</table>
**Average Degree.** The average degree measurement refers to the average number of connections in the network and is one way to look at how connected a member is to other members (Jackson, 2008; Perry et al., 2018). To calculate the whole network average degree, divide the total number of edges by the total number of nodes (Jackson, 2008). This network is comprised of undirected edges. In an undirected network, the 333 edges must double because they represent a reciprocal relationship. Thus, the average degree of the whole network is 6.11, or 666 divided by 109.

If CCIEE and AASCU were not in this consortium of universities, then the network has only 107 nodes and 102 edges. The edge number doubles to 204 because they are undirected. Thus, the average degree of the network without CCIEE and AASCU is 1.91, or 204 divided by 107. While Figure 8 shows that there are several highly connected clusters, the average degree data for Figure 8 establishes that the typical CHEPD member has few partnerships with other members. By comparing the measures of Figures 7 and 8, the average number of connections decreases when CCIEE and AASCU are removed.

**Graph Density.** Graph density allows researchers to analyze the connectedness of the network by comparing current connections with potential connections. Graph density measures the number of edges between nodes and the total possible edges (Perry et al., 2018). To determine the total possible number of edges I first multiply the total number of nodes, 109 by 108, or one less than the total number of nodes. This allows us to see the amount of all nodes connected to all other nodes. To calculate density in a network with undirected edges, the total should be divided by 2. Figure 7 has 5,886 total possible edges. The density of the whole network is .057, or 333 total edges divided by 5,886 possible edges.
To calculate the density for the Figure 8 network, I multiply the total number of nodes, 107 by 106, then divide by 2. There are 5,671 total possible edges. The density of the Figure 8 network is .018, or 102 total edges divided by 5,671 possible edges. A dense social network describes a network with many connections between the nodes. The data comparison of Figures 7 and 8 determined that the Figure 7 network is denser than the Figure 8 network. Removing the CCIEE and AASCU nodes decreased the network density.

**Average Path Length.** This measurement averages the length of all paths of edges between all pairs of nodes (Jackson, 2008; Perry et al., 2018). The measurement provides information for the average distance of how far nodes need to travel to all other points in the network. When comparing the score of two networks, a lower score indicates that the average node passes through a smaller number of nodes before connecting with the farthest node.

The first step is to take the sum of all of the shortest paths between all nodes, then divide by the number of all possible paths. I calculated the average path length using Gephi. The average path length for the Figure 7 network is 1.946. The average path length for the Figure 8 network is 3.504. The removal of CCIEE and AASCU from the network increases the average path length between members. This data supports the findings of the other measurements taken. Without CCIEE and AASCU, the average distance between nodes increases.

**Network Diameter.** The final characteristic I used to compare the two networks is the network diameter. The network diameter is the longest path out of all of the shortest paths of edges between all pairs of nodes (Jackson, 2008). It can also be described as the shortest distance between the two farthest nodes in the network (Perry et al., 2018). This calculation is similar to average path length but focuses on the periphery nodes. This calculation provides context for how far something needs to travel to get across the farthest parts of the network. A network with
a higher score indicates that periphery network nodes need to pass through more nodes before connecting with other periphery nodes. Because of the large network size, I calculated the network diameter using Gephi. The diameter of the Figure 7 network is 2. This calculation supports the inclusion of CCIEE and AASCU in the network. All members can connect with other members through either CCIEE or AASCU. The diameter of the Figure 8 network is 8. The presence of CCIEE and AASCU in the network significantly reduce the distance between periphery members. The data shows that without CCIEE and AASCU in the network, there is four times the distance between periphery members.

**Ego Network Composition**

The CHEPD consortium is comprised of many smaller partnership networks that overlap. By examining the consortium from an ego-centric perspective or the point of view of one node, we can contribute to the overall description of the network composition and better understand an administrator’s perspective of the consortium. Combined with the whole network characteristics, this data will help answer the research question by viewing the network on a micro level.

I used the same whole network data entered into Gephi to construct an ego network. Random nodes were selected to represent a range of degree measurements. There are two sets of data needed to create a complete ego network. First, I needed a list of the selected ego’s alters, or nodes that are directed connected to the ego (Perry et al., 2018; Wasserman & Faust, 1994). The second step included determining any connections the alters had to each other. This data already included information about the connections between alters, as the whole network data included all connections between network members. I did not require additional data collection. To create an ego network diagram, I altered the typology output in Gephi to filter by selected ego nodes. I
repeated this process to create several ego networks to compare. Figure 9 shows the ego network for Node 70. All other nodes in Figure 9 are alters.

**Figure 9**

*Node 70’s Ego Network Diagram*

![Node 70’s Ego Network Diagram](image)

*Note.* Yellow represents U.S. organizations and green represents Chinese organizations.

Node 70 is a Chinese university. In this network, Node 70 is connected to one Chinese organization and four U.S. organizations. Node 70 has a relationship with 5 alters, nodes 13, 14, 25, 30, and 31. Node 30 represents AASCU and node 31 represents CCIEE. The structure of each CHEPD partnership, includes CCIEE and AASCU because they are connected to all CHEPD members. Each Sino-U.S. university partnership pair in the CHEPD consortium also include the two organizations. Four nodes make up a tetrad network. There are three overlapping tetrad networks in node 70’s network. Figure 10 shows an example of one of Node 70’s tetrad networks with Node 25.
Figure 10

*Tetrad Network Diagram*

Note. Yellow represents U.S. organizations and green represents Chinese organizations.

**Ego Network Data.** The following section looks at the mathematical composition of several ego networks in the CHEPD consortium. I calculated three network measurements: the degree, effective size, and efficiency. Table 3 lists the measurement summary of nine selected ego networks. I then compared various ego networks and their measurements to understand the structural characteristics of ego networks in the consortium.

**Table 3**

*Ego Network Measurements*

<table>
<thead>
<tr>
<th>Ego</th>
<th>Descriptor</th>
<th>Degree</th>
<th>Effective Size</th>
<th>Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Node 4</td>
<td>U.S.</td>
<td>3</td>
<td>1.00</td>
<td>.333</td>
</tr>
<tr>
<td>Node 67</td>
<td>China</td>
<td>4</td>
<td>1.50</td>
<td>.375</td>
</tr>
<tr>
<td>Node 27</td>
<td>U.S.</td>
<td>5</td>
<td>2.20</td>
<td>.440</td>
</tr>
<tr>
<td>Node 70</td>
<td>China</td>
<td>5</td>
<td>2.20</td>
<td>.440</td>
</tr>
<tr>
<td>Node 41</td>
<td>China</td>
<td>6</td>
<td>3.00</td>
<td>.500</td>
</tr>
<tr>
<td>Node 16</td>
<td>U.S.</td>
<td>7</td>
<td>3.86</td>
<td>.551</td>
</tr>
<tr>
<td>Node 44</td>
<td>China</td>
<td>11</td>
<td>7.55</td>
<td>.686</td>
</tr>
<tr>
<td>Node 13</td>
<td>U.S.</td>
<td>13</td>
<td>9.46</td>
<td>.727</td>
</tr>
<tr>
<td>Node 34</td>
<td>China</td>
<td>14</td>
<td>10.43</td>
<td>.745</td>
</tr>
</tbody>
</table>
**Degree.** In ego network measurements, the total number of alters is also called the degree. For example, Node 70 has 5 alters, therefore its degree is 5. Table 2 lists the degrees of each selected ego network. They range in size from 3 to 14. Node 34, a Chinese university, has the greatest number of alters. This university likely sends its students to study abroad at various U.S. universities rather than a select few. In contrast, Node 4 has the smallest number of alters, two of which include CCIEE and AASCU. Node 4 partners with just Chinese university and their other two connections are with CCIEE and AASCU.

**Effective Size.** When looking at an ego network, it is important to know if the alters are connected to each other. Connected alters produce redundancy in the network, meaning alters can be reached through multiple pathways (Perry et al., 2018). Effective size measures the redundancy of alter connections (Burt, 1992; Perry et al., 2018). For example, to determine the effective size of Node 70, I first calculated the redundancy by averaging the number of edges that each alter has to other alters. Two of the five alters are CCIEE and AASCU. They are connected to all other alters, so they each have a total of 4 connected alters. The remaining three nodes have 2 alter connections to CCIEE and AASCU. Taking the sum of connections and dividing by the total number of alters provided a redundancy score of 2.8, or 14 divided by 5. Then I subtracted the redundancy from the degree to receive an effective size for Node 70 of 2.20, or 2.8 minus 5. I repeated this process for all other nodes.

**Efficiency.** The efficiency of a network shows what percentage of the ego’s connections are nonredundant. (Burt, 1992; Perry et al., 2018). It also provides information on how much social capital the ego is getting for its investment in each social connection. Members with higher efficiency maximize their social ties relative to their effort (Perry et al., 2018). To calculate the efficiency, I took the effective size and divided by the degree or actual size. For
example, for Node 70’s efficiency calculation, I took the effective size of 2.20, divided by the
degree of 5, and then multiplied by 100 to get an efficiency of 44%. By repeating the calculation
for the rest of the nodes, I determined that in the CHEPD consortium structure, the efficiency
percentage increases the higher the number of connections a member has.

**Overview of Qualitative Data**

I completed several analysis steps to produce the qualitative data. First, I uploaded the
complete interview transcripts, consortium and partnership documents, and selected website text
to the Dedoose application. I manually coded each media type using descriptive and process
coding methods. As I read and reviewed the material, I created a new code or added a code to
sections, lines, or words within the text. In the second coding phase, I compared the data across
the different participants and various media. I looked at the frequency the codes appeared,
determined which codes often grouped together, and what context the participants or media
referenced a code. If there was a link or tie between the codes, I grouped them under a broader
parent code or created a new parent code. I identified a total of 43 codes which I categorized into
broader parent codes to group similar ideas and topics. The results presented below focus on the
interview responses and media exerts to provide insight on some of the broader codes.

I organized the findings by the three-part outline of the interview to provide a
comprehensive picture of the participants’ experiences. The first part focuses on the respondents’
relationships with their international partners, other higher education administrators in the
CHEPD consortium. The second section shares the respondents’ and their partners’ expectations
and responsibilities of their partnership. The final section describes how partners responded to
challenges.
Relationships with CHEPD Coordinators

The interviews revealed stories and experiences of consortium members’ relationship dynamics with other administrators in the U.S. and China. Participants used various methods to form relationships, such as program-related travel and organized meetings. They also shared how they formed new relationships through faculty mobility experiences and through connecting existing relationships. Finally, participants described the formal and informal groups that exist in the consortium.

Program Travel. One respondent shared their story of the intense group travel aspect of the CHEPD program. Each year in June, the U.S coordinators travel to China to provide an on-site orientation for students, attend a consortium conference, and participate in the on-site student graduation ceremony. During this major program event, structured time is set aside for the U.S. and Chinese universities to mingle, conduct business, or meet new partners. However, as the following participant described, there remains some downtime during the travel where relationships can form among all the coordinators.

The first time I did the June visa orientation trip, that involves a good amount of travel, and it's a cluster travel, right? So you're a team of people, you all get on the same flights, you all get on the same bus, you're all at the same events, you're all at the same hotel, which means you're hanging out. So there was a lot of casual relationships that were built that way. (Participant 1)

Participant 1 created an image of the intentional grouping of the U.S. coordinators being shuffled around as a group. The intensive travel schedule and the organized program meetings throughout the year offered the respondent the opportunity to connect with other U.S. administrators.
Faculty Mobility. Some respondents described how they used faculty mobility between the CHEPD member institutions as a method to build relationships. In the CHEPD program, faculty mobility occurs when a faculty or administrative scholar in China or the U.S., travels to a university abroad to teach, conduct research, or develop other partnership activities. This mobility program type allowed faculty to make genuine connections during their time living and working abroad. Participant 5 described how a new partnership was formed through a visiting scholar program.

The department chair recently visited our university for one semester. It just came naturally, after we had meetings with students, we arranged class visits for this department chair, and she's also very open minded. She was willing to visit various places in the university nearby to see what the students experience and what our department can offer. And she built relationships with our professors, the department chair here…I don't know how to describe it we started having that trust. (Participant 5)

The Chinese university department chair traveling to the U.S. campus allowed the administrator to meet with key individuals and live the campus experience in person. In this case, it led to building trust between the two schools and to the development of a new partnership. Faculty mobility is a relationship-building strategy used by both U.S. and Chinese administrators in the consortium. Participant 4, a Deputy Director and Dean at a Chinese university, shared their experience as a visiting scholar in the U.S. They described, “I have been the visiting scholar in [name redacted]…I had been there for half a year, and since then, I know the chancellor and their deans.” Participant 4’s university used the time to build their institutional relationship with the U.S. university. They explained, “In this, they worked with our own local colleagues, as well as the American colleagues, to figure out the course mapping and the agreements.”
Making Connections. The final way CHEPD coordinators have been able to build relationships with each other is through utilizing current relationships through CCIEE and AASCU. CCIEE recruits, trains, and manages the team of Chinese administrators, and AASCU recruits, trains, and manages the team of U.S. administrators. Several participants shared how they utilize the organizations for help connecting with other universities. Participant 2, who has been in the CHEPD consortium between 3 and 5 years, described CCIEE and AASCU, “They are a mediator, to help us, to help our Chinese University to contact with the American University… That is different. In our other international partnership, we directly contact with the foreign university.” For partnerships they develop outside of the CHEPD consortium program they are contacting the universities directly, while within the consortium they have CCIEE and AASCU to assist in making those initial connections and their help in managing current partnerships.

Worker Bees. During the interview, I asked participants about terminology they use with their partners or other program coordinators in the consortium. Throughout the interviews, participants used the term [W]orker [B]ees, to describe the teams of U.S. and Chinese administrators. It is in these teams that they meet separately and together at various times throughout the year for program training and events. The term also indicates the administrator’s designated role as the university’s main contact for their institution within the consortium partnership. One participant described the different institutional status of some of the administrators.

If you want to join the program, you have to have a designated campus coordinator, the [W]orker [B]ee, I call it, as a center point person for that university. I work with a team,
which some universities have the Associate Provost, Associate VP, or Director of international office, or designated China CHEPD coordinator on this team. (Participant 6) Members use this term to refer to the partnership administrators and use the term on official documentation such as the internal program handbook and meeting agendas. For example, the yearly training meeting for the coordinators is called a [W]orker [B]ee meeting. It is at [W]orker [B]ee meetings where main coordinators gather to discuss student mobility program information, challenges, and connect with their peers.

Within the [W]orker [B]ee teams, there are naturally forming divisions of members based on the length of membership in the program or the success of their student mobility programs. There is a distinction between newer administrators and newer institutional members and, as Participant 1 explained, those institutions with “multiple partnerships, high enrollments, and long-standing relationships.” Participant 1 became their university’s main coordinator for the consortium in the last two years. They described the informal group as having “a substantial number of partnerships or… relationships that they're managing. And they have a lot that results naturally that coincides with a lot of enrollments.” The senior consortium members, and those representing universities with more success in recruiting higher numbers of international students, are often called upon by CCIEE, AASCU, and other members for support and advice. Participant 3 shared an example of a group of senior members which assembled an “informal committee to attract some coordinators to discuss the core issues, the critical issues, during the pandemic crisis.” These formal and informal teams are a key component to understand relationships among the CHEPD consortium members.


**Expectations and Responsibilities**

The second set of interview questions revolved around expectations and responsibilities between partners. First, I review the consortium members’ partnership expectations and shared understanding and goals. Next, I review participants’ experiences collaborating on program logistics for the student mobility program. Finally, I touch on how consortium members describe a successful partnership.

**Shared Understanding.** Participants observed the importance of shared understanding and common goals. This includes the ability understand the needs and capacity of their partners as well as ensuring mutual effort and attention by both institutions. Participant 1 described a situation where they declined a partner’s request to increase the number of program activities. Participant 1 felt they did not have the capacity for additional programs, which caused a difference in priorities. They said the partner “wanted a lot more visits, a lot more hands on and we couldn't maintain it. And so we kind of said like, hey, let's stay friends. Let's do it what we can.” Meanwhile, Participant 4 shared their new partner expectations,

> We should work for the same goals. We should work for the same program and we should have the same efforts. Same concerns on the students, on the faculty. So in this way I think for the two sides we should have the same or quite similar qualification or the common evaluation. (Participant 4)

Multiple stakeholders and universities mean that there are two ways of thinking, separate goals, resources, and abilities. Participant 1’s and 4’s description demonstrates that for some participants, mutual understanding and managing expectations is an important feature of partnership management.
Contrary to Participant 4’s specific expectations, Participant 5 took a broader view of partnership responsibilities. Participant 5 explained, “out of professionalism, we never said anything in an agreement or anything that we must do that, we must have this expectation. Both sides are pretty professional. I think it's been very fortunate that we have that understanding.” Without recording expectations in an agreement or contract, Participant 5 only expects collegial professionalism. Participant 6 also took a broader understanding of partnership work. They expressed, “I never set…the expectation that high to the coordinators, I think it's the team. We come together to understand what we are supposed to do.” Participant 6 later provided an example, “I can send an email to anybody say, I need your help to help me to do this. And it's always good to help. And they understand I'm here to help them also.” Whether the administrators were documenting their expectations in formal documents like an agreement or handbook or they were maintaining broad expectations, all participants knew that a shared understanding was necessary between partners.

**Program Logistics.** Student mobility programs are the CHEPD program’s main partner activity. The dual-degree program sees Chinese students spending their first year at their Chinese university, then attending their U.S. university for two years, and returning to their Chinese university for their fourth year. Chinese and U.S. coordinators have similar daily program logistics and responsibilities. Chinese administrators may hold the position as head teacher or advisor and are involved in recruiting students to the CHEPD program and advising on their academic plan. Participant 2, who has been the student coordinator for almost six years, shared their work responsibilities in managing the students, “I need to help them to, to apply the university to prepare the materials like high school diploma, high school certificate, and so on and the transcript. And also I do a lot of translation works.” In addition to helping the students,
participants 2’s bilingual and translation skills were useful in engaging and working with their U.S. colleagues. They shared, “I need to talk with US university, I need to contact with them and say what kind of courses can be transferred, and what are the activities we can do.” Participant 2 is both the student advisor and the partnership collaborator.

Managing the CHEPD program includes supporting the international partner in addition to direct service for students and faculty. For example, program and immigration support. U.S. administrators perform similar processes as their China counterparts. Participant 5 is an international student advisor at a U.S. university, and their work mirrors that of Participant 2. Participant 5 shared that they “coordinate students’ application visa interview and update the agreements… I do advise on their visa status.” Participant 1 is a professor and administrator and later became a Director for their institution’s international office. Participant 1’s main responsibility for students included, “taking care of them, supporting them involves relational commitment, involves interactions, you know, that are of the affective domain. Making sure that they’re having a good and positive developmental experience.” No matter the title or length of time in the program, there were similarities between the daily work of two groups of coordinators.

**Successful Partnership.** During the interview I asked participants how they would describe a successful CHEPD partnership. The candidates acknowledged that communication was one of the most important indicators for success. Participant 3 responded, “we are hoping all the coordinators can communicate with a partner university regularly.” Administrators found consistent communication important to manage the program logistics. Participants used intentional communication to build rapport and consensus. Participant 5 described it as “active and protractive communication.” Additionally, Participant 6 shared, “to understand their issues,
what they're looking for and what they need, and how we can explore from our resources to provide the help.” Open communication would allow the space to understand the needs of the students and faculty in their joint programs and support their international partners where necessary.

I also asked the candidates how they demonstrate and show trust and how they support their partners to show mutual benefit. Participant 6, who has been in the consortium for at least 20 years, concentrated their response on providing accurate information to understand the true needs of the partner.

Through the Worker Bee teams and through our different campuses, [name redacted] tries to help each side to understand the issues, the real issues. What's behind the sentences when they receive the emails from the partners, when we come across some problems. So it requires [name redacted] to directly get the real stories behind the scene and then to explain to the other partner, and then try to provide some solutions, and suggestions or recommendations that would be acceptable for both. (Participant 6)

Participant 6 described the importance of obtaining correct information and having a shared understanding of the situation. Chinese administrator, Participant 4, added that the quality of information was as important as the frequency of communication. Participant 4 explained, “We do hope that we can get detailed information from our American colleagues and we do hope that we can get positive information from them.” They hoped their U.S. partners sincerely review their suggested ideas and requests and respond with optimism.

**Responding to Partnership Challenges**

The final section of the interview focused on the participant’s experiences with their CHPED partners during various types of challenges. Local incidents can cause tension when
international partners seek information that local responders cannot access yet. Immigration and the U.S. political and racial climate also caused anxiety for consortium members. It is difficult for administrators to respond quickly to rapidly changing policies. Finally, global health and safety conditions disrupted partnership activity plans for student, faculty, and staff travel and engagement and caused educators to rethink how to engage with their international partnerships.

**Local Incidents.** I asked each participant about the top challenges they face working with their partners on the CHEPD programs. Participant 1 described an emergency situation that happened nearby their U.S. campus and how initial communication with their consortium partners began.

> There was a shooting near my university campus, and I got a text message from the Chinese side and the Americans and AASCU. Hey, we heard there's a shooting. They knew before I knew. They're shooting, there's headlines of [name redacted]. Were any students involved? What's the situation? How's it going? What's going on? Respond really quickly. (Participant 1)

Participant 1’s story described an incident that affected the safety and security of the students studying in their dual-degree program. The challenge involved the initial lack of information of the incident as the U.S. administrator was catching up with the news while their Chinese partner and AASCU had been requesting immediate information and updates.

**Immigration Policy.** The Trump administration’s immigration policies contributed to challenges recruiting and retaining international students studying in the U.S. Participant 4 shared, “maybe some policies of visas and some policies from the Trump government... maybe they do not welcome Chinese faculty or Chinese students to study or to be visiting scholars in your country. Yeah. So we worry about it.” Participant 4 was concerned that the Trump
administration’s immigration policies and rhetoric would hurt the partnership by preventing or influencing Chinese students and scholars against studying and visiting the U.S.

The interview questions asked participants about situations when they had sought help from other CHEPD coordinators with whom they do not formally partner. Participant 5, who is an international student advisor at a U.S. university, shared their experience with seeking advice from other U.S. consortium members on U.S. immigration regulations and protocols.

Most recently we talked about health insurance for international students who study from overseas. Is it okay to waive their health insurance while keeping their status active?

We've heard different opinions…And so it's really helpful to talk to each other even though we may end up making different decisions. (Participant 5)

Maintaining immigration status in the U.S. involves following specific regulations. Regulations that are ambiguous or broad can cause challenges for U.S. coordinators in how they interpret them at an institutional level. If U.S. institutions in the CHEPD consortium interpret the regulations differently, then that can add to the confusion for students and Chinese partner organizations. Participant 5 shared how they connected with other CHEPD coordinators to see how they interpreted the regulation.

COVID-19 Pandemic. I concluded the interview with a section focusing on the global health crisis, the COVID-19 pandemic. COVID-19 brought immense challenges to the CHEPD consortium members, their institutions and organizations, and the students and faculty participating on international mobility activities through their international partnerships. Some respondents described the emerging health scare and students trapped in the U.S. unable to return home to China.
I want them to protect my student I don't want my student to become sick, go to the hospital… some of them do not live the live in the school dormitory and they live outside by themselves. I don't want them to get stuck in the U.S. I want them safe. And I hope the U.S. partners can protect them. (Participant 2)

Other participants, exasperated by the rapidly changing policies and regulations from multiple governments, shared how it was hard to keep up with the constantly changing information. Participant 1 described the kind of communication they experienced with their Chinese partner university.

Right now, it's all crisis oriented. It's this is going wrong; we need to fix it now...we haven't heard from our university. Our students are delayed, can't get them here. They don't have the English proficiency to do distance courses. So they can't enroll. They can't place...So that kind of gap gets bigger, and we don't know what to do. (Participant 1)

The pandemic caused significant changes in the partnership program logistics. While many partnerships focused on managing the immediate crisis, their delay in proactive planning and communication caused the issues to compound later on.

In response to the challenges facing the consortium members, several universities, CCIEE, and AASCU organized webinars and virtual meetings to help share information and ideas. Participant 3 explained, “Parents and the Chinese university worry about the safety of the students so, we organized several zoom meetings during the pandemic. Several coordinators from the United States and also from Chinese universities, they were involved in the activities.”

Participant 4 desired their U.S. partners to provide regular updates on various policy information. There was an increase in communication between partnership stakeholders during this time. Participant 5 shared, “Our communication has had a much higher demand since the pandemic
started, for example, we started getting involved with communication with parents together as a team.”

Chapter Summary

When engaging with their international partners in the CHEPD consortium, the partnership structure provides important context for understanding the impact of the two oversight organizations and how easily resources might travel throughout the network. The presence of CCIEE and AASCU in the whole network allows for seemingly unconnected partnerships to overlap. They also provide greater access to all network members. Looking at the structure of several CHEPD consortium ego networks aided the discovery of the overlapping tetrad networks. Additionally, by comparing the efficiency scores, I determined that the network efficiency increased as the number of connections increased.

Interview participants shared their experiences working with their consortium partners and colleagues. They described the expectations they had for their partners, the obligations they needed to match, and the partnership responsibilities they managed. Participants also expressed the anxiety and collaboration they experienced working with their partners during ongoing program challenges and recent global health emergencies. By examining the parent codes created from the participants’ interviews, I extrapolated four themes: (a) communication, (b) a team approach, (c) authentic relationships, and (d) a high level of care. Together these themes represent how the international administrators in the CHEPD consortium navigate social capital during crisis.
Chapter 5: Discussion

The global COVID-19 pandemic caused international higher education partnership administrators to re-examine how they collaborate to face challenges. Throughout the 2020–2021 academic year, physical health and safety concerns and pressure from anxious partner universities, colleagues, students, and parents forced educators to seek new ways to collaborate. International partnerships will continue to be affected by various challenges, from local emergencies to global disasters. With reduced financial support and increased focus on international partnerships, navigating social capital has become an important process to understand for educators to advocate for additional partnership resources. Educators’ capacity to recognize social resources, knowledge of how to use the relational resources, and their ability to capitalize on social resources indicate how sustainable a partnership could be through challenges. Educators with the ability to mobilize social capital provide the foundation for sustainable and mutual partnerships.

Summary of Study

This study aimed to understand the relationship dynamics of international higher education partnerships within a consortium social network. Specifically, it analyzed how administrators navigated their partner relationships and expectations for crisis management. This study answers the research question: How does a partnership’s social network structure impact international administrators’ navigation of social capital during crisis? Overall, it aimed to contribute to the literature on international partnership management and provide recommendations for improving partnership practice.

This mixed-methods study included a social network survey, document and website text collection, and semi-structured interviews. Data from all phases contributed to forming the
network structure for the Cooperation on Higher Education and Professional Development (CHEPD) consortium. Additional qualitative data contributed to understanding administrators’ relationships with their international colleagues. Interview participants described their experiences of working and communicating with their partner universities. The structure of the interview questions enabled respondents to share stories of collaborating during various emergencies.

The quantitative data highlighted characteristics of the CHEPD consortium network. The data allowed a deeper understanding of the nature of the network structure and key members and their roles. The quantitative data supplemented the qualitative relational data, which allowed for a deeper insight into the relationship dynamics of international partners. Interview participants shared various aspects of their partner relationships and discussed responsibilities and expectations regarding managing and collaborating with their partnerships. The findings of this study indicated that understanding one’s partnership network is important for effectively communicating and approaching challenges as a team. The results also showed that international administrators value their personal connections and relationships during challenging situations.

This chapter discusses applying a theoretical framework to the study design and provides examples of the theory in the findings. It analyzes major findings by addressing the main aspects of the research question, including network structure, navigating social capital, and crisis management. It provides an overview of the limitations of this study’s methodology, analysis, and generalizability. It concludes by considering the implications for international education partnership practice and future research.
Social Capital in the Network

This study used the network approach to social capital theory to analyze the structure of the social network of the CHEPD consortium. Social capital theory comprises three interdependent dimensions: cognitive, relational, and structural (Nahapiet & Ghosal, 1998). In this study, social capital includes the resources network members can access from other members, the capitalization of the resources, and their intended outcomes. Social capital is embedded in the research design and findings. The quantitative network data demonstrated the structural social capital dimension. Data correlated with the structural dimension provided a detailed view of the typology of the CHEPD consortium network. The social network analysis produced tangible information on people connected via the network and the key network members. The qualitative data provided clear examples for the cognitive and relational social capital dimensions. Data correlating with the cognitive and relational categories showed abstract information on why social network members connect, how they interact, and what connects them. The document analysis and semi-structured interviews produced several code groupings corresponding to the three dimensions of social capital.

Cognitive Social Capital

Cognitive social capital is the shared narrative within a collective or group (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018). The shared characteristics I discovered in the analysis included a shared history, goals, understanding among network members, and group terminology. A sampling of codes from the qualitative data included culture, experience, language, and goals. One term with a shared understanding among the CHEPD coordinators is [W]orker [B]ee. This term describes the main coordinator population and is accompanied by an
expectation of responsibilities. The names of several annual training sessions and meetings use the term.

**Relational Social Capital**

Similar to the cognitive dimension, the relational dimension describes abstract components of social capital. However, unlike the cognitive dimension, relational social capital only exists in combination with a social connection (Nahapiet & Ghosal, 1998; Steinmo & Rasmussen, 2018). A sample of codes from the qualitative data from this category included expectations, mutuality, relationships, and trust. For example, respondents described the trust and expectations they have in their partner relationships. Participant 6 stated, “I never set the expectations that high on the coordinators. I think it's the team. When we come together, we understand what we are supposed to do.” This participant described their partnership as a team with a collective understanding of what was expected of them.

**Structural Social Capital**

Structural social capital illustrates the tangible and observable connections between network members in a partnership (Burt, 1992; Nahapiet & Ghosal, 1998). While relational social capital includes roles related to partnership responsibilities, the structural dimension includes roles relating to members’ space in a network. The social network analysis evaluated a unique characteristic of the CHEPD consortium, the presence of two administrative organizations: The China Center for International Educational Exchanges (CCIEE) and the American Association of State Colleges and Universities (AASCU). The two organizations connect to all member institutions in the consortium due to their status in the group. Through social network analysis, I additionally investigated the subpartnerships in the consortium network. A CHEPD partnership may be viewed as a dyad or pair between a U.S. and a Chinese
university from outside the network. However, the presence of CCIEE and AASCU create a tetrad network. The tetrad network includes the U.S. and Chinese universities, CCIEE, and AASCU.

Summary and Discussion of Findings

This section describes and interprets the qualitative and quantitative data to examine international higher education partner relationships. I analyzed the qualitative data parent codes and network information to frame an understanding of how the coordinators navigate their relational resources. Four themes emerged from the data: (a) intentional communication, (b) a team approach, (c) authentic relationships, and (d) a high level of care. Each theme encompasses an important aspect of navigating social capital in partnership relationships. The first theme introduces how administrators and their partners communicate. The second describes the team approach CHEPD member institutions use in their partnership management and crisis response. The first two themes focus on member strategies and strongly depend on network structure. The third theme shares the participants’ experiences with and desires for authentic relationships with their partners. Finally, the fourth theme outlines expectations of the level of care from their partners. The remaining two themes describe quality characteristics of partner relationships. Together, these themes represent how administrators in the CHEPD consortium navigate social capital during crises.

Intentional Communication

Interview respondents shared their means of communication and interaction with their partners. Traveling to the U.S. and China allows administrators to interact and communicate in person with their partners and colleagues. A wide variety of methods is used for distance
communication, including email and virtual meetings. However, the participants differ in their preferred communication methods and challenges.

**In-Person Interaction.** Several of the respondents discussed the travel aspect of the program for the coordinators. Several travel opportunities exist between the annual meeting in China and the individual in-country training for the U.S. and Chinese coordinators. New and returning coordinators find the travel and in-person meetings useful for managing partnerships. Participant 1, who had been in the CHEPD consortium for only a few years, shared the importance they placed on the travel and in-person meeting opportunities, stating, “If I was able to travel, I would be traveling more. I'd be visiting. I would be doing more in a way that I didn't understand in 2019 when I came into the position.”

While Participant 1 desired to visit the partner universities directly, Participants 3 and 2 spoke about the importance of the annual meeting and graduation ceremony in China. Participant 3 uses the opportunity to meet with their partners in person. Participant 2 explained that the annual meeting was a time to obtain new colleagues’ contact details and discuss general partnership updates. Meeting in-person is important to the main coordinators and other stakeholders to travel. For example, Participant 2 stated, “the annual meeting, our chancellor, our president, will meet the US university leaders and they can talk about things much higher level, like the cooperation strategy.” For these coordinators, the annual meeting was important for connecting with new colleagues and current partners on various administrative levels. This in-person gathering allows the daily coordinators and upper administration, including university presidents, to network and conduct business. In-person interaction helps consortium members form new relationships and strengthen existing connections. These opportunities facilitate member access to relational resources.
Methods of Communication. In addition to in-person meeting opportunities, coordinators use various technology services and applications to communicate with their international partners. Among partners in the same country, Participant 6 mentioned that AASCU might phone consortium members to collect information about emergencies and share program advice. When Chinese member, Participant 2, contacts other coordinators in China, they also contact them by phone. Participant 2 stated, “If I face some difficulties in my work, I will call the coordinator in another Chinese university and ask them, if you are in the same circumstance, what would you do?” Real-time phone calls allowed members to contact other nearby educators.

Zoom was a newer method of communication that increased in use over the last year. CCIEE, AASCU, and individual universities hosted webinars and information meetings during the COVID-19 pandemic using Zoom and other virtual meeting platforms. CCIEE and AASCU hosted the CHEPD 2020 annual meeting and graduation ceremony virtually using such platforms. This allowed previous in-person meetings to be moved online and the U.S. and Chinese coordinators to attend the same informational meetings.

Another common communication method is email. For some participants, email was not only a means to share work-related information; it was also a way to connect socially. For Participant 1, email was a key component in partner communication and obtaining updates about students or situations. Participant 1 listed examples:

Email is the real crux of communication with those folks. It’s a whole bunch of, Hello, I hope you're well. I wanted to touch base on this issue. Have you found a resolution to this? And so I heard from this student and they said that they have this kind of problem.
Can you reach out to them like that and vice versa? Hey, this student says that they're having a bad time. What do you recommend? (Participant 1)

The final method of communication includes the social media chat and social network application, WeChat. In the CHEPD program, participants, CCIEE, and AASCU use WeChat in various ways. Several chat groups exist. The group chat organized by AASCU for the U.S. coordinators is intended for sharing important news articles that may impact the students, the partner, immigration, or general information that may be important to the consortium. Coordinators ask for tips and advice from other coordinators and celebrate holidays and personal achievements. U.S. and Chinese coordinators use other chat groups to talk directly with their international university partners. WeChat is a large communication application in China with many users. For U.S. coordinators, it may be difficult to communicate by email if the email services are blocked in China. Many coordinators use WeChat to ensure that they can communicate with their Chinese partners. For similar reasons, some U.S. coordinators use WeChat to communicate with students. Another aspect of the social network application is the personal use of WeChat to share information about coordinators’ personal lives. Like Instagram, WeChat allows users to post photos, clips, and information about their personal lives.

Consortium members access social capital resources through intentional communication. Participants could express their ability to recognize relational resources in others. Requesting others’ advice shows that members acknowledge their partners have access to novel information that can assist them.

**Communication Challenges.** Communication platforms, such as WeChat and email, enable coordinators to access social capital. However, differences in preferred communication methods exist among the participants. Coordinators in the U.S. and China each have
communication preferences. Exclusively communicating on one platform may inhibit their ability to access social capital effectively.

Participant 3, who is Chinese, shared their insight into the preferences of U.S. partners: “I think when we have any issues, I contact the coordinators. American coordinators, they prefer the email. An email is also my primary way to communicate with American coordinators, and sometimes we also communicate through the WeChat.” Participant 3 uses email and WeChat; however, they also understood that many of their U.S. colleagues prefer email.

For some, such as Participant 2, email is not an important communication method. They use Chinese messaging services. Participant 2 explained, “I rarely send emails. If the coordinator is Chinese, I will ask, you have a WeChat or QQ? We use WeChat, and most of them will say yes.” Participant 2 is more comfortable using WeChat. Conversely, Participant 4, also a coordinator for a university in China, stated, “almost every day, I contact with our partners by email.”

Bilingual U.S. coordinators use various communication methods. Participant 5, a bilingual U.S. coordinator, stated, “We started using Zoom a lot. We use emails. We use WeChat a lot. We're all in the same WeChat group.” While Participant 6 usually communicates through emails, they also call and use other platforms to ask questions or provide information.

**Communication in the Network Structure.** CCIEE and AASCU are integral to partner communication and connection within the CHEPD consortium network. The average degree and graph density of the network comparisons with and without CCIEE and AASCU show that more relational effort and output would be required for network members to establish connections with others in the network and access network resources without CCIEE and AASCU. Without CCIEE and AASCU, institutions have few ties. Members could only leverage existing personal
connections or partnerships with other universities to make new connections with other network members. However, CCIEE and AASCU coordinate in-person program meetings, annual travel opportunities, and online webinars for members to meet. They facilitate virtual group chats and email chains. They also broker partnership relations between the members by matching existing U.S. member academic abilities and offerings with Chinese member needs and goals.

**Team Approach**

Teamwork and coordination were important aspects of the relationship dynamics in the CHEPD consortium. These teams may be internal or external to their organization. Each respondent described the structure of their partnership teams and their team approach toward their partnership management. CCIEE and AASCU are other important components of the team approach. These bridge organizations connect members and resources. The team approach also contributes to accessing relational resources and enables members without resources to connect with those with resources. The network data support the qualitative findings for this theme.

**Internal Teams.** Each team and team member serves a different purpose for partnership administration and management. Participant 3 described how a good quality internal team has multiple coordinators collaborating with specific work areas. For example, Participant 3 stated, “One is for the life, accommodation, and they have the special advisor for academics, and one person is just to manage the students funding, and also one of the members is responsible for the promotion of information.”

Participant 6 shared a different view of a successful partnership team. For example, they stated, “The way I see this is the more you have the help, support from senior leadership, to the W]orker [B]ees, through a healthy, constant, continuous communication with the partners, then you will be more successful.” A successful partnership should focus on gathering institutional
support. The [W]orker [B]ees may include coordinators, assistant directors, and directors. Other important internal team members are the academic deans, provosts, and university presidents. These administrators attend the annual meeting and graduation ceremony and are typically involved in higher-level discussions on partner relationships.

**External Teams.** While internal organization team members may be present in the network, the external teams fully appear in the network. External teams include members from the consortium and their international partners. For a university member, this includes CCIEE, AASCU, their university partner(s), and in some cases, non-CHEPD network members, such as students participating in the student mobility programs and their parents or family members. Coordinating with international partners and outside network members enables more comprehensive support during challenging times. Participant 6 forms a care team with CCIEE and AASCU and their university partners when responding to emergencies. Participants 6 and 5 involve parents in their emergency communication plans.

**Dysfunctional Teams.** Internal and external teams coordinate to solve various crises. A team approach can benefit partners that lack the social capital resources required to respond to a situation effectively. However, the network is dysfunctional when the team is not transparent concerning roles and responsibilities, and other stakeholders and partners are not communicating effectively. This can hinder members’ ability to mobilize resources for crisis management. For example, Participant 1 shared an example of poor coordination between partners.

I'll say to the group of students when they arrive, hey, come to bring your problems to our office, come talk to us, come tell us what you're struggling with. Sometimes, students will report an issue on the other side of the world so that it can be emailed to me here.

(Participant 1)
In this example, students were unsure who to contact when they had concerns or issues. They communicated with those familiar to them in their home universities. The Chinese partner then relayed the information to the U.S. host university’s administrator to resolve the student concerns.

**Bridge Organizations.** Team roles provide a good representation of structural social capital. CCIEE and AASCU act as team leaders for their respective country members and monitor overall consortium partnerships and interactions. These two organizations connect all CHEPD member institutions and their main partner administrators. They mediate and assist with issues and challenges between partners and disseminate important information to all members. Participant 6 stated that they “Monitor the progress, the development of the program and solve the issues on site and work with the [W]orker [B]ee teams to communicate, to learn from each other, to discuss the issues and come up with decisions.” Finally, they establish and monitor best practices for partnerships between their members.

For the CHEPD program and smaller teams and partnerships, CCIEE and AASCU function as leaders or guides within the network. During the COVID-19 pandemic, CCIEE and AASCU coordinated the U.S. partners to provide student updates to the Chinese partners. They organized virtual meetings to share information, arranged for masks to be sent to the U.S. partners for the students and scholars, and shared information on international flights to the member institutions to coordinate travel for students and scholars. For example, Participant 2 described, “At the beginning of COVID-19, contact with our students in the US is very hard and you know, the time difference, and I don't know the what the situations is … AASCU and CCIEE are like a bridge. They can help us.” The participant described the difficulty of obtaining updated and accurate information at the onset of the COVID-19 pandemic. Participant 2 also
stated, “We have a lot of online meetings with CCIEE and AASCU, and also CCIEE mailed our students in the US some masks.” Participant 5 described how due to the time zone differences, CCIEE had meetings and webinars during the night where parents could raise questions. They also stated, “I remember we used to receive information from our AASCU coordinator on what kind of tips we should share with students how to find reasonable flights to leave.” The organizations shared information throughout the network of administrators, coordinated other members to share information, and mailed personal protective equipment to schools lacking tangible resources.

CCIEE and AASCU are bridge nodes in the network diagram. They connect all sub partnerships and nodes. These bridge nodes have advantages and disadvantages in the consortium network. With the organizations in the network, the network diameter showed a reduced distance between periphery members, and the average path length between members decreased. A higher score on these two measurements would indicate slower communication and resource-sharing across the network. The lower score with CCIEE and AASCU included in the network indicates that the whole network is more centralized. These categories are measures of efficiency. Efficiency in a consortium network considers the total value of work a member contributes to the partnership compared to the output of social capital resources that members use. Members can access resources more quickly with CCIEE and AASCU present; therefore, they are more efficient.

Overall, the data show that AASCU and CCIEE contribute to the consortium partnerships by connecting periphery members and increasing the connectedness among all members. These network structure measurements provide an understanding of resource and information transport efficiency within the entire network consortium. However, a network structure cannot express
the situation holistically. While the team approach and bridge members can provide other members with additional support and resources during emergencies, highly connected bridge nodes in a network have disadvantages. For example, Participant 1 described a situation where they relied on CCIEE to communicate with their international partner rather than communicating directly with their colleagues at their partner university.

I should've reached out more. Everybody was trying to. I've had a lot more with CCIEE, but I haven't had it with my campus partners. It's tempting to view CCIEE as your through point. Oh if we're talking to CCIEE, we should be fine. In one sense, that's true. If I was better at what I'm supposed to be doing, it would be communicating directly with those universities. But those are relationships that I kind of came into. (Participant 1)

Participant 1 inherited the partner relationship from a previous colleague at their institution. In the staff turnover, Participant 1 relied on CCIEE to broker communication with their Chinese partner. While CCIEE acted as a network bridge as intended, it may not have facilitated the necessary relationship-building between the two universities.

**Authentic Relationships**

While network structure characteristics provide information on areas that can hinder or encourage resource-sharing during crises, the network structure fails to analyze relational intimacy. For CHEPD administrators, authentic relationships expressed partnership quality and described the expectations and obligations between partners. These are features of relational social capital. Several study participants discussed the genuine relationships they had with their partners. Others expressed their desire for more intentional meeting times for relationship-building among network members.
**More Than Colleagues.** Respondents described the duality of their partner relationships similarly by labeling them as colleagues and friends. Participant 3 stated, “first, we are partners, partners for the international education exchange. And my relationship with other university CHEPD coordinators, sometimes I call them my colleague and sometimes we are friends.” Participant 4 has a similar understanding of this type of relationship. They stated,

I trust my American colleagues very much, and they trust me very well. So we always work together. Sometimes, we feel like we are not only colleagues but also friends and so, when we face hard times, we work together, and we trust each other … We comfort each other. (Participant 4)

The dual role that administrators serve as colleagues and friends is not measurable by considering the network structure. It is only visible when understanding experiences shared by the participants. For Participant 4, trust is present in closer relationships, and this allows the partners to work more easily as a team to overcome their challenges. Trust is one aspect of relational social capital.

**Chasing Personal Connections.** Creating and maintaining personal relationships can be difficult for international educators. Participants described actions they have taken to maintain relationships with other CHEPD coordinators. Several coordinators cited communication via personal social media accounts such as WeChat as an important condition of relationships with Chinese educators. WeChat has a feature called moments, which is similar to an Instagram feed or Facebook timeline. Participant 2 explained, “We share our WeChat moments, and then we can see their private life not only during work, and we are really good friends.” The WeChat group chats provide a space to ask questions, share documents, and make calls. WeChat moments provide a window into administrators’ lives outside work.
The COVID-19 pandemic forced administrators to move their work collaborations to a virtual space. Coordinators needed to adapt to the new working conditions while still working with their partners to respond to the developing health and safety situation. Participants expressed the importance of authentic connections even in this new virtual space. Travel was no longer an option, so minimal downtime was available for coordinators to meet with their in-country or international colleagues. U.S. Participant 1 shared their desire to “communicate more, meet more, video meetings. I wish there was a way to have incidental personal communication with these people. Even in a way that is on the WeChat group with the American side.” Participant 1 attempted to adapt to the new environment to build genuine connections.

Conversely, other participants lamented the difficulty of building and maintaining authentic relationships through the increased use of virtual communication and meeting tools. Participant 5 stated, “the internet can't replace everything. For example, our relationship with this department chair from our partner university is so strong, so trustworthy, so much that just internet couldn't replace otherwise.” Participant 5 could not imagine how the same level of relationship could be built or maintained online. They continued, “even though we could talk to each other on WeChat every day, we cannot build a similar relationship as if we can meet in person. It's more genuine.” While Participants 1 and 5 had different views of virtual connections, they both emphasized the desire for more personal connection.

**Level of Care**

Authentic relationships produce obligations and expectations for higher levels of care and attention between partners. These expectations describe relational social capital and the similar Chinese concept of *guanxi*, or reciprocal and interdependent relationships (Buckley et al., 2006; Lee et al., 2001). The final theme describes the quality of social resources members can access.
Interview participants described the extraordinary commitments they made to respond to the COVID-19 pandemic and other challenges. Their actions went beyond the scope of their partnership expectations. This is an example of relational social capital. The type and strength of relationships can increase commitment between individuals and organizations.

In this study, respondents described how the level of care provided by their partners profoundly impacted the partnership. It affected how they interacted and communicated, especially during unforeseen challenges and crises. This was the case for Participants 1 and 3, who each described a mental health crisis and the responses from various stakeholders. One shared a story about a hospitalized student and coordinating with their international partner. Participant 1 explained, “I ended up having to coordinate during COVID. How can they stay? Where can they stay? What’s happening? That ended up being a lot of conversations with [name redacted]. Building that kind of relational connection and trust.” In these situations, the coordinators acted as the point person on behalf of the student, managing the communication and logistics between universities, parents, students, and medical resources.

The CHEPD administrators manage student and faculty mobility program logistics, including credit transfer, course arrangements, housing, and finances. However, coordinators have accepted additional roles and responsibilities during crises. Rather than allowing designated campus authorities to coordinate the student support, the CHEPD administrator assumed this role and facilitated communication between the stakeholders. Participant 3 shared that in addition to providing updates to their partners during COVID-19, coordinators arranged alternative emergency housing, provided personal transportation for grocery shopping, and helped students book return flights and airport transport. These additional actions were not mentioned in any
partnership agreement. However, the coordinators considered it their duty to provide a higher level of service.

**Familial Duty.** The participants described their concern for their student charges when discussing the COVID-19 pandemic. Chinese and U.S. respondents shared similar sentiments about safety and comfort. Notably, some respondents elevated their concern to a level comparable to familial responsibility. For example, Participant 3 stated, “Some of the coordinators, they told me, I would like to have those students as my child and my children to come to my house.” Similarly, Participant 5 stated, “My supervisor has always been reaching beyond and above, and also as a Chinese parent myself, I felt like I should do that, do more to comfort students.” In describing their role during the pandemic, Participant 5 described,

> Under this pandemic, I had not thought that I would go beyond so much what I normally would do, including adding communication with students, parents, or even to the point, since our office is small, even to the point that we would help sometimes order food and deliver for them to help them celebrate at certain points when they finish the semester. That kind of activity, I had never imagined that I would need to do, or I never thought that would be part of my job. (Participant 5)

Participant 5 expressed surprise at the additional work activities they undertook when their work responsibilities originally focused on immigration advice. When responding to crises, administrators often needed to accept additional roles to respond to evolving situations.

Participant 6 stated, “It's not written anywhere saying you must do this, but automatically, I think we are doing it.” Nothing is written in guides, handbooks, or agreements outlining expectations for responding to challenges at the level of the COVID-19 pandemic. However, due to the genuine connection and care coordinators felt toward their partners, many of
them provided a deeper level of care. Participant 6 also described how they believed this unique to the CHEPD consortium. They stated, “I think we are doing more, we provide more care, and more support, and more personal individual attention to our CHEPD program students. Because I work with other groups and universities, I heard of how they handle their students.”

Participants 2 and 3 also discussed student housing issues during the pandemic. They were concerned about students’ living arrangements and the spread of the virus. Participant 3 shared their thoughts on their U.S. partner: “From my experience, they try their best to provide a service to students. And some of them said, I hope to pick them up, bring to my house, and let them stay with me and to keep them safe.” This example expresses how concerned the coordinators were for their students and how they expressed this concern to their partners. These CHEPD administrators exceed the basic program requirements and act on a sense of obligation and duty toward their partner.

**Relational Sustainability.** While consortium members provided high-quality care to the students and scholars during the global pandemic, the intensity of their effort may be unsustainable in the long term. For example, Participant 5 stated, “I certainly don't think I would continue to sustain like that. But this is a once-in-a-lifetime pandemic, I hope. I think I need to do it again.” Educator burnout is not conducive to productive partner relationships.

Additionally, not all consortium members have the resources to respond to situations equally. Partners have responded differently to the extraordinary COVID-19 pandemic. Participant 4 stated, “For some partner universities, they do not have so much concern on our students. Sometimes I email them to coordinate with something, but they replied a little slowly.” While some partners surpassed their duties, others were less responsive to their international colleagues.
However, *guanxi* describes the moral obligation to support relationships (Lee et al., 2001). In Chinese business relationships, the concept of *guanxi* describes reciprocal and interdependent relationships (Buckley et al., 2006; Lee et al., 2001). Relational obligations and expectations describe the relational dimension of social capital. By providing a higher level of care and attention, members invest in the relationship to acquire future social capital resources from their partnerships. This concept also relates to network efficiency, which considers relational effort versus outcome.

**Discussion of Findings**

This chapter provides a summary of the theoretical framework and examples of social capital throughout the research findings. Social capital is relational resources and a process for using those resources. I focused on three areas to describe how international higher education administrators navigate social capital. First, the recognition of available social resources. Second, the knowledge of how to access social resources. Finally, the ability to access the resources when needed during times of crisis. When consortium members approached their colleagues for support and assistance during the COVID-19 pandemic and other challenges, they capitalized on their relational resources and navigated their social capital.

**Network Structure.** The network structure can influence how members build, access, and use social resources. In Gillmann’s (2010) four typologies for disaster response coordination, the researcher argued that the lead-agency typology is the best network structure for inter-organizational cooperation. The lead agent holds all authority to make decisions, allowing them to control emergency response. However, the CHEPD consortium network is designed as an orchestrated alliance. The two organizations, CCIEE and AASCU, act as mediators and bridges between the members, and they provide program and relational parameters. CCIEE and AASCU
are brokers or bridge nodes that span structural holes in the network by connecting distinct
groups (Burt, 1992). Bridge members can connect otherwise unrelated entities; however, they do
not have power or authority over the members. Since each institution has its governing policies
and practices, CCIEE and AASCU can only collect and distribute information and guidance
among network members. According to McMillan and Felmlee (2020), tetrad networks are more
likely to focus on group consensus than hierarchy, status, or power. The tetrad subnetworks
indicate that even at the university-to-university partnership level, the CHEPD network does not
have a single decision-maker for the partnership or consortium as a whole. Therefore, according
to Gillmann’s research, the CHEPD consortium network is not an ideal structure for inter-
organizational coordination of large-scale emergency management.

However, the consortium structure may be suitable for smaller-scale regional or
institution-specific challenges that affect fewer members. Lin (1999) stated that closed networks
are better for maintaining current resources while open networks allow access to new resources.
This study provides evidence that mobilizing social capital would help sustain partnerships
through challenges. The network provides an incomplete understanding of partner relationships,
and it does not provide information on the quality of partnership collaboration. The mixed-
methods approach in this study sought additional qualitative data to provide a complete
description of the CHEPD consortium network. Members collaborate, guide, and support each
other, and they can access two organizations that facilitate their navigation of social resources.

**Navigation of Social Capital.** This study’s findings indicated four themes related to
navigating partnership social capital: (a) intentional communication, (b) a team approach, (c)
authentic relationships, and (d) a high level of care. These findings were consistent with the
literature on partnership sustainability and the concept of mutuality. Sincere connections and
their higher level of care benefit partners and affect the quality of social resources. Building genuine relationships between administrators in international higher education partnerships requires time and mutual effort. The connection must be built on teamwork, trust, and commitment to achieve a genuinely reciprocal relationship. These themes support the concept of mutuality, which describes equity, autonomy, solidarity, and participation (Leng & Pan, 2013; Leng, 2016; Mwangi, 2017; Wei & Liu, 2015). However, authenticity is difficult to quantify, and higher education administrators struggle to quantify social capital to university administration. Social network analyses combined with more qualitative findings provide an avenue for advocating for additional resources to invest in partner relationships.

**Limitations of the Study**

It is important to review potential limitations that may have impacted the research findings. The following section reviews the limitations of the methodology, the data analysis, and its generalizability. It describes the limitations, their potential influence on the study, and how I aimed to mitigate each of the conditions.

**Limitations of Methodology**

This study used a mixed-methods design that included social network analysis to build a network diagram and understand the relationship connections within the selected population group. Network analysis designs have several limitations, which I addressed. First, I focused on improving the informed consent process for nonparticipants and nonnative English-speaking participants. I needed to account for the consent of participants and the other individuals that participants discussed during the interviews and survey. Social network research depends on complete and correct information of the network. Missing network nodes, represented as individuals and their university in this study, could severely impact the analysis results. By de-
identifying all administrator names and universities, I maintained network anonymity for those who did not submit informed consent forms.

The second limitation of the methodology also relates to the network analysis portion of the design. Social network analyses consider networks during a specific point in time and do not show the constant flow of relational change. Over time, members build new relationships while other relationships deteriorate and dwindle. These changes could impact how the coordinators access resources from other network members. This study only considered the CHEPD consortium network over a short time. I collected the network data from September to December 2020. This period was months after the initial threat of the COVID-19 pandemic but still when the universities needed to collaborate to solve many academic and logistic concerns.

Limitations of Analysis

Two limitations of the data analysis phase could have impacted the research findings. First, the number of participants was low compared to the overall network size. Second, I needed to address researcher bias during data collection and analysis.

In social network analysis research, it is important to have as much network data as possible to ensure accurate analysis. I designed the study to collect network data in various ways to reduce reliance on full survey participation. Survey participants represented only about 5.5% of the total consortium population. I supplemented the survey data with interview data and information collected through documents and website text. The supplementary information allowed the network to display about 67% of the total population. Some consortium members without partnerships would not have been valuable to this study if they were included. Nevertheless, a 100% network representation would have been the most accurate depiction of the CHEPD consortium.
In 2015, I was assigned as an institutional representative of the CHEPD consortium. I led my university through membership, preparing the foundation on campus for dual-degree programs and the building of the first international partnership strategic management plan. From the beginning, I have been involved in building the institutional capacity for international higher education partnerships, and specifically the CHEPD consortium, at my university. I have attended the training meetings, annual meetings, and graduation ceremonies, where I have met many other U.S. and Chinese administrators. As a network member, I could easily access information and other network members to promote the study and recruit participants. However, my member status may have made some participants uncomfortable with sharing information about their partnerships with other member universities since I may have known them or had a personal relationship with them. In the data analysis phase, coding may have been impacted by my previous knowledge about the program. For example, if a participant mentioned written guidance, I could have assumed that the guidance was from the CHEPD program handbook rather than a personal email conversation. To help manage my biases, I used an open coding method and completed multiple rounds of coding to focus on the participants’ words and the document and website text.

Limitations in Generalizability

International higher education partnerships adopt various compositions in the field. They can include two or more universities or two or more countries or regional groups. They can focus on various partnership activities, such as student mobility programs or faculty research collaboration. The third limitation of this study relates to its focus on a particular type of partnership. This study analyzed a Chinese and U.S. consortium partnership. The CHEPD consortium has approximately 160 university members. This consortium also has two oversight
organizations, CCIEE and AASCU, which is an uncommon feature for international higher education partnerships.

Generalizability relates to the relevance of the results of the study beyond the specific phenomena or population. This study focused on a particular type of partnership. However, while the study examined an atypical partnership structure, the administrators’ relational experiences are typical across partnership types. The findings provide relevant information about the nature of international partner relationships during crises. Educators can access relational resources differently to solve problems, by using authentic personal relationships with higher expectations and mutual effort.

Implications for Educational Practice

This study’s findings indicate that personal relationships are a key component in successful partnerships and accessing necessary support and resources during crises. However, administrators may struggle to advocate for additional institutional resources to improve partner relationships because relationships are difficult to quantify. This study’s combination of social network analysis and qualitative inquiry showed one method universities could use to look more in-depth at their partnerships. However, when lacking institutional support, additional solutions include focusing on improving programmatic, procedural, and protocols to enhance partner relationships. Three strategies emerged from the participant data and research findings. The strategies involve having clear expectations of roles and responsibilities, improving communication between partners, and enhancing opportunities to engage with partners organically.

Since many partnerships are designed for different purposes with different academic backgrounds and cultures, having clear expectations and understanding all stakeholder roles is
essential. The CHEPD consortium has a program handbook that describes important timelines and requirements of members. Yearly meetings discuss ongoing issues and concerns and share best practices. Educators should also focus on partnership onboarding of new staff at their institution or office, and for those taking over partnership management. New partners in the CHEPD consortium require specific training and guidance as they prepare to engage with consortium members. The other area that partners should focus on is understanding their partner’s institutional policies. Whether a partnership has only two members or is a consortium partnership, it is important to communicate barriers to cooperation and understand the capabilities of all stakeholders.

Partnership administrators should research new methods to enhance communication between partners. For the CHEPD consortium, no central database or communication hub exists to enable all members to access contact information for other member institutions or their representatives. Information is shared ad hoc, upon request, or annually in program booklets. WeChat group memberships are not regularly updated, and members use personal handles rather than their names. This situation makes it difficult to tell who individuals are and what institution they work for without already having that information. It is also cumbersome to individually maintain contact details with the high staff turnover in international education. A staff member someone speaks to one month may have moved on to another position by the next semester. Without updated contact information, it is difficult to onboard new colleagues to a partnership and maintain the institutional relationship. Additionally, for student and faculty mobility management, member institutions all have various ways to track information. However, the COVID-19 pandemic showed study participants that sharing accurate information was an important factor for crisis management. It would benefit members if a centralized partner contact
or student management database or hub were available, for example, through a centralized
customer relationship management software. This could be implemented at the consortium or
individual partnership level.

Finally, international educators should find opportunities to engage with their partners
outside the main partner activities. Faculty and staff mobility programs are one method of
allowing unstructured time for personal connections to develop. These programs enable
partnership colleagues and faculty to spend time working or conducting research at their partner
university. However, they also allow time for colleagues to go out to dinner and share quality
time. International travel to visit partner universities provides opportunities to build personal
relationships. However, a lack of financial resources may hinder international travel. Many
virtual platforms allow a degree of connection. However, it is important to do more than contact
a partner. It is essential to focus on the quality of the connection. Spending time with colleagues,
enjoying a meal, engaging in meaningful conversation, sharing vulnerabilities, and
understanding their lives outside work all contribute to building strong relationships. Infrequent,
work-focused meetings do not contribute to a deeper level of relationship-building. Practitioners
should find ways to authentically engage with their partners.

**Implications of Future Research**

The recommendations for future research are based on existing research on international
higher education partnerships. The gap in research requires more studies on administrator
experiences. This study focuses equally on the U.S. and Chinese experiences, allowing equal
importance to all partners rather than adopting a U.S. perspective. The findings also contribute to
the research gap by focusing on the relational aspect of management rather than the practical and
logistical aspects of partnership management. However, further research on administrators’
individual experiences in various partnership structures and cultural contexts would provide value to new and seasoned practitioners.

This study did not address all possible perspectives and approaches. Additional research should focus on longitudinal studies on partner relationships and other partnership structures and include further social network analysis. Universities manage partnerships during resource-rich times and during high-turnover and resource-scarce times. Partnership projects, programs, initiatives, and relationships can develop and wither quickly due to global catastrophes and regional or institutional challenges. Future research on international partnership networks should take a longitudinal approach and measure network structure at timed intervals. These intervals would allow a researcher to analyze changes to partnership structure over time to determine how relationships develop and change. Future research on partnership networks should also examine additional network features, such as Burt’s (1992) structural holes, by measuring the strength of relational ties between network members. This study described the network composition, which is a superficial level of social network analysis. Future research could examine a partnership network in more depth.

Conclusion

This study aimed to allow participants to share their experiences of navigating social capital during crises. The function of social capital is to provide tangible and intangible resources that are embedded in personal relationships. This study’s findings indicated that four themes emerged, which showed how international partnership administrators mobilized social capital to respond to challenges: intentional communication, a team approach, authentic relationships, and a higher level of care.
Intentional communication allows administrators to access and share important information. The participants expressed the advantage of frequent communication and opportunities to communicate in person. However, they also showed preferences for certain communication methods. Not understanding the preferences of the international partner could inhibit successful communication. A team approach allows those with resources to support those without resources. CCIEE and AASCU play a critical role in the partnership and are a defining feature of the CHEPD consortium compared to other international higher education partnerships. CCIEE and AASCU significantly reduce the workload for members when making new contacts and collaborating across the consortium. However, overreliance on CCIEE and AASCU can lead to dysfunctional partnerships if communication and collaboration always pass through them. Authentic relationships are accompanied by an inherent level of trust and deeper connection, allowing increased access to and sharing of resources. Participants valued their personal connections with their colleagues. Partner relationships have an expected level of care, which relates to the quality of resources. Partners made particular efforts to respond to crises and partnership challenges exceeding the scope of their employment or contractual responsibilities.

Although the findings focused on a particular moment in time and did not consider administrators’ experiences through the long-term impacts of crises, they provide insight into characteristics of collaborative partnership management. The findings show the benefit of supporting and developing personal relationships to promote partnership sustainability. Higher education has become connected globally, and international partnerships are susceptible to global and regional emergencies. Partnership administrators with the skills to recognize and mobilize relational resources will endure these challenges.
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Appendix A
Semi-Structured Interview Guide

Introduction:
Hello, thank you for meeting with me today. My name is Christina Kinney, and I am the Assistant Director of International Partnerships at Millersville University. I am also the principal investigator in this study which seeks to understand international partner relationships during crisis. So I’d like to ask you about your experience working with your international partners and international colleagues in the CHEPD program.

To make my note-taking process more efficient, I would like to audio record our conversation today. First, I’m going to review some important information. This information was covered in the consent form that you signed. I wanted to remind you that all information discussed in this interview will be kept confidential, and your participation is voluntary. You have the right not to answer any question that makes you feel uncomfortable and you may stop your participation in this interview at any time. This Zoom interview will take approximately 40 to 60 minutes.

Today’s date is [DATE] and it is currently [TIME]. The interview audio is being recorded through Zoom. Following the interview, the audio will be automatically saved on a password protected computer.

1. Can you state your name for me please?
2. Do I have your permission to audio record this interview?
3. Do you give your consent to participate in this study?

First Section:
1. What experience do you have working with international partnerships?
2. How were you first introduced to the CHEPD program?
3. What was different with the CHEPD partnership compared to other partnerships you’ve experienced?
4. How would you describe your primary work responsibilities for the CHEPD program?

Second Section:
This next set of questions will focus on individual administrators in the CHEPD program. I may use the terms coordinator and administrator interchangeably. You may discuss coordinators and administrators of all levels who work on the CHEPD program in the U.S. and China, and at AASCU and CCIEE.

1. Describe how relationships are formed among the CHEPD coordinators?
   a. You can discuss any members among U.S., China, AASCU, and CCIEE.
2. Describe any formal or informal groups among the coordinators.
   a. How did you learn about these groups?
   b. Are you a member of any of these groups?
   c. Who are the key members of these groups?
   d. How influential are these groups?
3. How would you describe your relationship with the administrators you specifically work with?
4. Describe a time when you sought help from another CHEPD coordinator.
   a. How did you know they could help you?
   b. What kinds of assistance did they provide?
5. Describe any special terminology used among CHEPD coordinators.
a. How and when are these terms used?
b. Are these terms necessary to communicate with other CHEPD coordinators?

6. What expectations exist for CHEPD coordinators?
   a. How are coordinators informed and trained on these expectations?

7. Describe any informal expectations that you have heard from other coordinators or AASCU/CCIEE staff.

**Third Section:**
This next set of questions will be about your experiences with CHEPD partnerships, including the specific international universities and international colleagues that you work with.

1. How would you describe a successful CHEPD partnership?
2. What expectations do you have of your international partners?
   a. How do you communicate these expectations?
3. How would you build and show trust within your international partnership?
4. What type of support from your international colleagues is required in an international partnership?
5. How would you build and show mutual support within your international partnership?
6. Describe how you communicate with your current CHEPD partners.
   a. What strategies do you use to engage with your international colleagues?
7. Generally, what do you perceive are the top challenges you face working with international colleagues in the CHEPD program?
   a. What strategies have you found effective to help overcome these challenges?

**Final Section:**
The next set of questions will mention the COVID-19 outbreak. COVID-19 is also referred to as the Coronavirus. According to the World Health Organization, COVID-19 is an infectious disease caused by a recently discovered coronavirus. The disease, which began in late 2019, was labeled as a pandemic after affecting many countries globally.

1. Since the start of COVID-19 outbreak, describe the type and amount of cooperation you have had with your
   a. International CHEPD partners?
   b. International colleagues who are not partners?
   c. Fellow CHEPD coordinators?
2. Describe any partnership challenges you have faced since the start of the outbreak.
3. In response to the COVID-19 outbreak, what actions have you taken to maintain your international CHEPD partnerships?
   a. Who was involved in these actions? What was their role?
   b. Describe how you decided to take these actions.
4. What expectations do you have of your international CHEPD partners during the COVID-19 outbreak?
   a. How do you communicate these expectations?
5. How can your international CHEPD colleagues and partners help you manage crisis response?
6. Do you have anything else you would like to share regarding your experience working with international colleagues through a global crisis?
## Appendix B
### Survey Instrument

### Part 1: The Social Network Analysis

The answers to questions in this part of the survey will allow me to visually map the communication network of the CHEPD program.

<table>
<thead>
<tr>
<th>Question</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is your full name?</td>
<td>Open-ended</td>
</tr>
<tr>
<td>What is the full name of the organization you work for?</td>
<td>Open-ended</td>
</tr>
<tr>
<td>Where is this organization located?</td>
<td>U.S., China, Other:</td>
</tr>
<tr>
<td>Identify the full name of up to 15 universities in the CHEPD program that your organization has a partnership or relationship with.</td>
<td>Open-ended form (15 slots) Partner 1: Partner 2: Partner 3: Partner 4: ...</td>
</tr>
<tr>
<td>The following set of questions will be based off your response.</td>
<td></td>
</tr>
<tr>
<td>For each partnership you identified, indicate the level of partnership based on the following description:</td>
<td>Level 1 Community Level 2 Intensive Level 3 Strategic Agreement American Association of State Colleges and Universities (AASCU) China Center for International Economic Exchanges (CCIEE) <em>Carry forward statements from provided list</em></td>
</tr>
<tr>
<td>Level 1: Informal Partnership: This is a member of the CHEPD program, but you do not have a signed agreement or contract. The partnership may be in the beginning stages of development and no activities are taking place.</td>
<td></td>
</tr>
<tr>
<td>Level 2: Formal Partnership: Partnership has a signed agreement or contract that allows for general activities.</td>
<td></td>
</tr>
<tr>
<td>Level 3: Formal Partnership: Partnership has a signed agreement or contract that involves a deeper commitment from stakeholders including academic departments and service offices.</td>
<td></td>
</tr>
<tr>
<td>According to the World Health Organization, COVID-19 is an infectious disease caused by a recently discovered coronavirus. The disease, which began in 2019, was labeled as a pandemic after affecting many countries globally.</td>
<td>No Awareness Communication Coordination Collaboration American Association of State Colleges and Universities (AASCU)</td>
</tr>
<tr>
<td>Which type of cooperation best represents the impact COVID-19 has on your CHEPD partnerships?</td>
<td></td>
</tr>
<tr>
<td>No Awareness: We are not aware of approaches taken by the other organization.</td>
<td></td>
</tr>
<tr>
<td>Awareness: We are aware of approaches taken by the other organization but organize our activities solely on the basis of our own objectives, materials, and resources.</td>
<td></td>
</tr>
<tr>
<td>Communication: We actively share information (formally or informally) with the other organization.</td>
<td></td>
</tr>
<tr>
<td>Coordination: We work together by modifying program planning and delivery of the methods, materials and timing of the other organization.</td>
<td></td>
</tr>
<tr>
<td>Collaboration: We jointly plan and deliver key aspects of our program with the other organization with the aim of an integrated approach.</td>
<td></td>
</tr>
<tr>
<td>China Center for International Economic Exchanges (CCIEE) <em>Carry forward statements from provided list</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How frequently do you communicate with these partners?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Once a year or less</td>
</tr>
<tr>
<td>Once a semester</td>
</tr>
<tr>
<td>2-3 times per semester</td>
</tr>
<tr>
<td>Once a month</td>
</tr>
<tr>
<td>2-3 times per month</td>
</tr>
<tr>
<td>Once a week</td>
</tr>
<tr>
<td>2-3 time per week</td>
</tr>
<tr>
<td>Daily</td>
</tr>
</tbody>
</table>

American Association of State Colleges and Universities (AASCU)  
China Center for International Economic Exchanges (CCIEE)  
*Carry forward statements from provided list* |

| Identify the full name of up to 15 people from any member university or organization in the CHEPD program, whom you work closely with.  
Provide at least three responses.  
| Open-ended form (15 slots)  
Person 1:  
Person 2:  
Person 3:  
Person 4:  
... |

| For each person you identified, indicate the name of the university or organization where they work. Reply with “unknown” if you do not know.  
| Open-ended form (15 slots)  
Person 1:  
Person 2:  
Person 3:  
Person 4:  
... |

*Carry forward statements from provided list* |
## Part 2: Demographic Details
The second part of the survey will ask you demographic information.

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
</table>
| Indicate your gender.                                                   | Male  
                                        Female  
                                        Other                     |
| Indicate your age range.                                                | 18-24 years old  
                                        25-34 years old  
                                        35-44 years old  
                                        45-54 years old  
                                        55-64 years old  
                                        65-74 years old  
                                        Other:                     |
| What is your primary language?                                          | English  
                                        Chinese  
                                        Other                     |
| Do you consider yourself to have a working proficiency level of both English and Chinese? | Yes  
                                        Maybe  
                                        No                     |
| What is the highest level of education have you completed?              | High school diploma / Secondary education certificate  
                                        Associates degree / Zhuanke certificate / Vocational Certificate  
                                        Bachelor’s degree / Benke certificate  
                                        Master’s degree  
                                        Professional degree  
                                        Doctoral degree  
                                        Other:                     |
| How long have you worked in international education?                   | Less than 1 year  
                                        1-2 years  
                                        3-5 years  
                                        6-8 years  
                                        9-11 years  
                                        12-14 years  
                                        15-17 years  
                                        17-19 years  
                                        20 or more years                     |
| How long have you (not your university or organization) participated in the CHEPD program? | Less than 1 year  
                                        1-2 years  
                                        3-5 years  
                                        6-8 years  
                                        9-11 years  
                                        12-14 years  
                                        15-17 years  
                                        17-19 years   |
Which of the following best reflects your primary function as an international education professional?  
*Select one of the options below.*

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Service</td>
<td>Provide service directly to students or scholars.</td>
</tr>
<tr>
<td>Management</td>
<td>Oversee the operation of an office, unit, or department, or provides programmatic development.</td>
</tr>
<tr>
<td>Strategy and Policy</td>
<td>Establish policies and strategies for achieving goals and missions of the partnership.</td>
</tr>
</tbody>
</table>

**What is your job title?**  
Open-ended

**What is the name of the office, division, unit, or department where you work?**  
Open-ended

**Which of the following best describes your organization’s management of international partnerships?**

<table>
<thead>
<tr>
<th>Management Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal plan exists at the government, community, or system level</td>
</tr>
<tr>
<td>Formal plan exists at the organizational level</td>
</tr>
<tr>
<td>Formal plan exists at the department level</td>
</tr>
<tr>
<td>No formal plan and is actively developing one</td>
</tr>
<tr>
<td>No formal plan and is not actively developing one</td>
</tr>
<tr>
<td>Other: Unknown</td>
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Appendix C
Approval Letter from AASCU

June 16, 2020

To Whom It May Concern:

This letter is to notify members of West Chester University’s Institutional Review Board and all other relevant parties that I consent to Christina Kinney’s study, “Understanding partners relationships during crisis: A mixed methods social network analysis of international higher education partnerships.”

I am the Manager of International Programs for the American Association of State Colleges and Universities (AASCU). I manage the CHEPD 1+2+1 Program at AASCU and work closely with partner organization in China. I also provide guidance to all the campus coordinators in the US participating institutions and oversee the member institutions in the Cooperation on Higher Education and Professional Development (CHEPD) program, with whom Christina will conduct her study.

I also consent to assist Christina in connecting with the CHEPD program’s US and China member institutions and their coordinators for her research project.

Please contact me with any further assistance I might provide to help Christina receive approval.

Sincerely,

Suefei Li
Manager of International Programs
American Association of State Colleges and Universities
Ph: 202-478-7823
E-mail: Lis@aascu.org
Appendix D
Approval Letter from CCIEE

June 16, 2020

To Whom It May Concern:

This letter is to notify members of West Chester University’s Institutional Review Board and all other relevant parties that I consent to Christina Kinney’s study, “Understanding partners relationships during crisis: A mixed methods social network analysis of international higher education partnerships.”

I am the Director for Sino-American CHEPD 1+2+1 Program under China Center for International Educational Exchange (CCIEE) and I have been working over ten years on the program. I connect both with Chinese and US partner universities for the collaboration and operation of the Cooperation on Higher Education and Professional Development (CHEPD) program, with whom Christina will conduct her study.

I consent to assist Christina in connecting with part of the CHEPD program’s China member institutions and their coordinators who work with me on CHEPD Program.

Please contact me with any further assistance I might provide to help Christina receive approval.

Sincerely,

[Signature]

WU, QIN
Director
Sino-American CHEPD 1+2+1 Program
China Center for International Educational Exchange (CCIEE)
Tel: 86-10-58782831
Email: wuqin@cciee.cn
Appendix E
IRB Approval

TO: Christina Kinney & David Backer
FROM: Nicole M. Cattano, Ph.D.
       Co-Chair, WCU Institutional Review Board (IRB)
DATE: 9/4/2020

Project Title: Understanding partner relationships during crisis: A mixed methods social network analysis of international higher education partnerships
Date of Approval: 9/4/2020

☑ Expedited Approval
This protocol has been approved under the new updated 45 CFR 46 common rule that went into effect January 21, 2019. As a result, this project will not require continuing review. Any revisions to this protocol that are needed will require approval by the WCU IRB. Upon completion of the project, you are expected to submit appropriate closure documentation. Please see www.wcupa.edu/research/irb.aspx for more information.

Any adverse reaction by a research subject is to be reported immediately through the Office of Research and Sponsored Programs via email at irb@wcupa.edu.

Signature:

Nicole Cattano
Co-Chair of WCU IRB

---

Protocol ID # 20100908C
This Protocol ID number must be used in all communications about this project with the IRB.

WCU Institutional Review Board (IRB)
IORG#: IORG0082424
IRB#: IRB00005030
FWA#: FWA00014155
TO: Christina Kinney and David Backer
FROM: Nicole M. Cattano, Ph.D.
Co-Chair, WCU Institutional Review Board (IRB)
DATE: 12/21/2020

Project Title: Understanding partner relationships during crisis: A mixed methods social network analysis of international higher education partnerships.
Date of Approval for Revision**: 12/21/2020

Expeditied Approval

This protocol has been approved under the new updated 45 CFR 46 common rule that went in to effect January 21, 2019. As a result, this project will not require continuing review. Any revisions to this protocol that are needed will require approval by the WCU IRB. Upon completion of the project, you are expected to submit appropriate closure documentation. Please see www.wcupa.edu/research/irb.aspx for more information.

Any adverse reaction by a research subject is to be reported immediately through the Office of Research and Sponsored Programs via email at irb@wcupa.edu.

Signature:

[Signature]

Co-Chair of WCU IRB

WCU Institutional Review Board (IRB)
IORG#: IORG0004242
IRB#: IRB00005030
FWA#: FWA00014155

West Chester University is a member of the State System of Higher Education
Appendix F
Informed Consent Form

Project Title: Understanding partners relationships during crisis: A mixed methods social network analysis of international higher education partnerships.

Investigator(s): Christina Kinney; David Backer

Project Overview: Participation in this research project is voluntary. Christina Kinney is completing this study as part of her Doctoral Dissertation. The purpose of this study is to better understand the relationships of higher education administrators in international partnerships during crisis. The study will explore your social relationships in the CHEPD program and your experiences collaborating with international colleagues. It will take between 20 – 80 minutes to participate in one or more of the following: online survey, virtual interview in English, document submission. There is minimal risk. There may be some discomfort answering questions in English or for questions you may not have answers for. There may be discomfort in talking about yourself, colleagues, or employers.

This study may provide opportunities for personal and professional reflection and development. The study findings may assist the participants in learning more effective ways of using their social relationships during crises. The study will contribute to the field of international education in both the U.S. and China. The study will contribute to the research literature on international partnerships.

If you would like to take part, West Chester University requires that you agree and sign this consent form. You may ask Christina Kinney any questions to help you understand this study. If you choose to be a part of this study, you have the right to change your mind and stop being a part of the study at any time.

1. **What is the purpose of this study?**
   - The purpose of this study is to better understand the relationships of higher education administrators in international partnerships during crisis.

2. **If you decide to be a part of this study, you will be asked to take part at least one of the following:**
   - Online survey (20 minutes)
   - Virtual interview in English (40-60 minutes)
   - Sharing international partnership documents

3. **Are there any experimental medical treatments?**
   - No

4. **Is there any risk to me?**
   - Possible risks or sources of discomfort include: There may be some discomfort answering questions in English or for questions you may not have answers for. There may be discomfort in talking about yourself, colleagues, or employers.
   - If you become upset and wish to speak with someone, you may speak with Christina Kinney.
   - If you experience discomfort, you have the right to withdraw at any time.
5. **Is there any benefit to me?**
   - This research is not designed to provide any personal benefits.
   - Participants may benefit from learning about their international colleagues.
   - There is an opportunity for personal and professional reflection and development.
   - The study findings may assist the participants in learning more effective ways of using their social networks during emergencies.
   - The study will contribute to the field of international education in both the U.S. and China.
   - The study will contribute to the research literature on international partnerships.

6. **How will you protect my privacy?**
   - The interview audio will be recorded through Zoom and stored on a password protected computer.
   - The survey responses will be stored on a password protected Qualtrics account and on a password protected computer.
   - Your records will be private. Only Christina Kinney and David Backer will have access to your name and responses.
   - Your name will **not** be used in any reports or publicly shared.
   - Records will be stored:
     - Password Protected File/Computer
   - Records will be destroyed 5 years after study completion.

7. **Do I get paid to take part in this study?**
   - No

8. **Who do I contact in case of research related injury?**
   For any questions with this study, contact:
   - **Primary Investigator:** Christina Kinney at 301-910-5284 or CK914381@wcupa.edu.
   - **Faculty Sponsor:** David Backer at 203-917-7416 or dbacker@wcupa.edu

9. **Statement about future use:**
   - The data will be used in future research articles for publication. All identifying information will be removed to protect confidentiality.

For any questions about your rights in this research study, contact the ORSP at 610-436-3557.

I, (Participant name), have read this form and I understand the statements in this form. I know that if I am uncomfortable with this study, I can stop at any time. I know that it is not possible to know all possible risks in a study, and I think that reasonable safety measures have been taken to decrease any risk.

Participant Signature  Date
Witness Signature  Date
Appendix G
Recruitment Email

CHEPD Research Participants Needed

Dear CHEPD Coordinators,

My name is Christina Kinney and I am the CHEPD Coordinator at Millersville University and doctoral candidate at West Chester University. I am conducting a study to understand international higher education partner relationships during crisis. This study is supported by the American Association of State Colleges and Universities (AASCU), China Center for International Economic Exchanges (CCIEE), and Millersville University. Additionally, this study has been approved through West Chester University’s Institutional Review Board. Participation in this study will benefit the field of international education in the U.S. and China!

Participation in this study involves one or more of the following:
1. Complete an online survey (10-20 minutes)
2. Participate in a virtual interview held in English (40-60 minutes)

Please take some time to read the attached consent form.
1. If you are interested in participating in the survey, click the following link to begin: (link). Completion of the survey serves as your consent to participate in this study.
2. If you are interested in participating in the interview held in English, click the following link to complete the interview recruitment form: (link). If you are selected to participate in the interview you will be asked to sign the attached consent form.
3. You may share any partnership documents, such as guides, protocols, practices, communication plans, or others to CK914381@wcupa.edu. If you provide any partnership documents, you will be asked to sign the attached consent form.

Finally, if there are other CHEPD Coordinators or colleagues at your organization that work on the CHEPD program, please forward this email to them so that they can also participate in this study.

Sincerely,

Christina Kinney,
Assistant Director of International Partnerships
Millersville University
Appendix H
Proof of Certified Translation

Translated documents are available upon request.

Certification of Translation Accuracy
Translation of Survey Instrument from English to Chinese (Simplified)

As an authorized representative of RushTranslate, a professional translation services agency, I hereby certify that the above-mentioned document has been translated by an experienced, qualified and competent professional translator, fluent in the above-mentioned language pair and that, in my best judgment, the translated text truly reflects the content, meaning, and style of the original text and constitutes in every respect a complete and accurate translation of the original document. This document has not been translated for a family member, friend, or business associate.

This is to certify the correctness of the translation only. I do not make any claims or guarantees about the authenticity or content of the original document. Further, RushTranslate assumes no liability for the way in which the translation is used by the customer or any third party, including end-users of the translation.

A copy of the translation is attached to this certification.

Mike Bontchev
Authorized Representative
Order Date: August 5, 2020

RushTranslate
640 South Fourth St
Suite 300
Louisville, KY 40202
United States