ABSTRACT

GREENE, THOMAS JOSEPH. A Case Study of Service-Learning as a Gateway to Constructivist Pedagogy for Asian International Students at a U.S. Institution of Higher Education (Under the direction of Dr. Audrey J. Jaeger).

Service-learning – understood as field-based “experiential learning” with community partners as an instructional strategy — supports higher education’s dual-role as a resource for professional preparation and also the humanistic goals of civic engagement and lifelong learning. Through service-learning students apply what they are learning and reciprocally learn more through the process. Service-learning reflects a campus-community connection and that working with community partners is good preparation for citizenship, career, and life in general. Service-learning is often linked to environments where constructivist pedagogy is practiced due to constructivism’s emphasis on knowledge being created and understood within a social context. Post-secondary constructivist practices in the United States can be viewed as a continuation of normative educational practices at primary and secondary levels, and of the overall cultural values in the U.S. Learning/learner-centered values of education as a means of advancing citizenry, creating new knowledge, and supporting student success are not applied at the primary, secondary, and tertiary levels the world-over. Many international students (if coming from a behaviorist/instructivist pedagogical background) who pursue post-secondary education in the U.S. face challenges that are not necessarily related to time management, academic preparedness, work ethic, or even English-language abilities. Often unexpected challenges are related to the cultural divide between cultural-pedagogical approaches. This study investigates the impact of service-learning on Asian international students’ understanding of and transition to a constructivist (active) learning environment. Under investigation is the efficacy of service-learning as a potential threshold gateway by which Asian students bridge the cultural gap between their prior (generally, behaviorist/instructivist) learning experiences and the
constructivist pedagogies that are generally found at U.S. institutions of higher education. A clearer understanding of service-learning’s possible role in supporting international students’ transition to U.S. higher educational environments stands to benefit, faculty, policy-makers, students, and the learning environments at large.
DEDICATION

For Ashley. When I met her in college, she changed my life with her love of learning and pursuit of good people, experiences, and challenges in life. She helped me learn that where we are from does not have to control where we can go. Ashley has taught me more about love and life than any other person I know. Thank you, Ashley, for believing in me.
BIOGRAPHY

Thomas Greene sometimes suggests that he was feral in his youth, running around in the Green Mountains of Vermont – which is probably somewhat telling for the people who know him. As a first generation college student, he earned a bachelor’s degree in History from Brigham Young University and a master’s degree from the Jackson School of International Studies at the University of Washington.

Thomas spent as much time as possible travelling as cheaply as possible while a student. He travelled domestically and internationally. He spent two extended periods volunteering in Bulgaria and Thailand, where he stayed long enough to experience the difficult process of adjustment to different values, worldviews, and languages. It was these extended periods abroad that most transformed his attitudes and professional trajectory.

Thomas has been an international educator in the non-profit and higher-education sectors since 2001. He is currently the Associate Director in the Office of International Services at North Carolina State University, where he takes particular interest in developing first semester high-impact, integrative programs that support international students and provide opportunities for domestic students who seek cross-cultural opportunities locally.

Thomas is still adventurous and curious and travels whenever and wherever he can with his wife, Ashley, and two children, Henry and Adelaide.
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CHAPTER 1
INTRODUCTION

This study investigated service-learning as a possible means by which Asian students can come to better comprehend and participate in the relatively constructivist pedagogical environment common to U.S. higher education. Service-learning is one of numerous forms of research-based, student engagement that are thought to support overall student success and persistence (Astin, 1984, 1993; Tinto, 1987). Using a multi-day, immersive, domestic service-learning experience offered through a large public research university in the southeastern United States as a case study, I investigated the academic and social changes experienced by Asian students during service-learning. What influences within the service-learning experience affected those changes? Might the service-learning experience serve as a conceptual gateway for Asian students' adaptation to the relatively constructivist pedagogies practiced in U.S. higher education?

Research Problem

Thus far, the 21st century has seen increased diversity in post-secondary student populations and greater institutional efforts to successfully incorporate students of all backgrounds into campus culture (Banks, 2007; Gurin, Dey, Hurtado, & Gurin, 2002). This diversity is not exclusively a matter of domestic ethnic or racial diversity but includes identities connected to veteran status, age, part-time/full-time status, sexual identity, low socio-economic status, first generation students, and international students (Banks, 2007; Bridges, 2000).

Most institutions of higher education express a commitment to provide global education opportunities for diverse domestic students and support for rising numbers of international students coming to the U.S. (Hser, 2005; Institute of International Education, 2016). However,
institutional policy-makers and educators must also reconcile challenges regarding scarcity of resources and pedagogical practices that are associated with sometimes contending topics. Access; affordability; inter-disciplinary curricula; critical-thinking; job-preparedness; web-based and distance education; experiential learning; and, global competencies are just a few of the priorities that institutions must weigh while also considering support for international students coming to study in the U.S. (Bridges, 2000; Garrison & Kanuka, 2004; Higgins, 2014). In addition, the political, financial, and institutional/cultural realities that affect higher education are such that not all articulated commitments receive adequate support and decision-making and institutional changes often come about slowly (Tierney, 2008). Debates over educational priorities -- and the very fact that there are debates over higher education at all -- are reflective of educational goals that are sometimes desultory as well as the cultural values and diversity in the U.S. (Frank & Gabler, 2006).

While many international students experience challenges in their adjustment to U.S. college and university life, Asian students face a unique and heightened challenge in their adaptation to the relatively constructivist pedagogy of the U.S. (Choi & Lee, 2009; Lee and Ciftci, 2014; Nguyen, 2011; Porcaro, 2011). Asian students often struggle to adapt, in part because they are reluctant to participate in engagement activities that might provide social connections, cue and guide Asian student adaptation to a U.S. learning environment, and support their academic persistence in general (Andrade & Evans, 2009; Mamiseishvili, 2011).

In the meantime, the number of international students coming to the U.S. to pursue post-secondary studies continues to increase. According to Open Doors (Institute of International Education, 2016) the number of international students who started their studies in the 2015/16 academic year increased by 7% from the year before; the more than 1,000,000 international
students who study in the U.S. contributed an estimated $35.8 billion to the U.S. economy in 2015. Finally, the Asian international student population has represented a steadily larger portion of the overall international student population. As of the 2015/16, academic year Asian students made up 66% of the international students studying in the U.S.

For Asian international college students who are studying in the U.S. for the first time, the experience of adjusting to a relatively constructivist learning environment where innovation, engagement, pluralistic viewpoints, and critical thinking and dialogue are among the academic expectations can be extremely difficult (Lee & Ciftci, 2014; Porcaro, 2011; Zhang & Goodson, 2011).

“Instructivist” teaching and constructivist learning. Changes are evident at the post-secondary educational level in the U.S. where teaching methods are becoming ever more active, learner-based rather than transmission, and teacher-based (Acedo & Hughes, 2014; Higgins, 2014). These changes represent learning values that are more innovative, participatory, and “constructivist” (Brader-Araje & Jones, 2002; Glaserfeld, 1995). For the purposes of this study, it is not important to fully dissect the ontological and epistemological theories and principles of constructivism. As utilized in this study, constructivism understood to espouse the theory, practice, and organization by which knowledge is constructed socially and collaboratively and occurs both within and outside of the classroom and on- and off-campus (Glaserfeld, 1995, p. 3-4; Porcaro, 2011, p. 41); the teacher tutors and facilitates learning. Constructivism is contrasted with “instructivism” – often referred to as behaviorism. Instructivism is associated with teacher-directed, didactic learning (p. 40) that seeks to transfer knowledge to students as efficiently and effectively as possible (p. 43); in other words, in the form of an instructor or professor.
transmitting information to students primarily through lecture in a highly structured, traditional classroom environment (Higgins, 2014).

The shift toward constructivism represents a shift toward knowledge democracy (Biesta, 2011) within higher education. The concept of knowledge democracy suggests that higher education has a civic role to play. Students’ and teachers’ subjective experiences as well as objective, measureable realities are taken in as a whole to support dialogue and understanding for societal betterment. The dialogue, if not the reality, related to knowledge democracy and engaged learning is found within U.S. higher education (Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005), especially when compared to more instructivist pedagogies. Constructivism is generally more pronounced in more progressive institutions around the globe, and in particular within other advanced democracies (Watson, Hollister, Stroud, & Babcock, 2011).

Conversely, the instructivist model continues to be the norm in less developed countries (Porcaro, p. 40) and it assumes that everyone shares a similar ontology and epistemology (p. 43). Additionally, the instructivist model tends to be highly structured and focus on the transmission of relatively or even highly standardized content delivered to prepare students for high-stakes exams. Such standardized exams typically related to assessment of overall achievement for the purposes of academic advancement (or college and career aptitudes), or used as the principal way to assess knowledge acquisition in a given course (p. 48).

International students from cultures where instructivist practices are the norm at primary, secondary, and tertiary levels are likely to struggle with the pedagogical shift at U.S. institutions of higher education (Zhang & Goodson, 2011). Students from instructivist cultures find constructivist pedagogy, collaboration and engagement, and solving “ill-structured” problems,
requires entirely different skills than those that were developed through prior schooling (Choi & Lee, 2009). Furthermore, students from highly instructivist backgrounds are some described as lacking self-directedness, working only to “make the grade”, and reluctance with regard to engagement and working collaboratively, especially when goals are not aligned with well-structured and obvious academic rewards (Porcaro, p. 45).

U.S. institutions of higher education face difficult decisions with regard to how to prioritize support for admitted students. Most of those same institutions also hold commitments to diversity and global learning that attempts to meet the needs of the 21st century. However, the very students who represent roughly 2/3 of the international post-secondary student population face a difficult transition to the new pedagogical environment. Even if Asian students are able to ultimately succeed academically in the U.S. with passing grades, the goals of constructivism are not limited to individual academic succeed. The progressive, societal goals of constructivism, global learning, and cross-cultural competencies depend on mutual collaboration and participation between students. Are there steps that academic institutions can take to support Asian student integration into the learning community? Are there campus resources and programs in place that might be re-imagined to support Asian student adaptation, which in turn will also enrich domestic student global education opportunities? Support for Asian students is not only important for the individual student’s sake, but also for the benefit of the campus learning networks overall (Acedo and Hughes, 2014).

**Purpose of the Study**

In order for higher education to face and prepare students for the challenges of this particular age, extant high-impact practices (Kuh, 2008) might need to be considered in new ways to integrate diverse populations from around the globe. Using a multi-day, immersive,
domestic service-learning experience offered through a large public research university in the southeastern United States as a case study, I explored how service-learning might support Asian students’ adjustment to a constructivist-learning environment. I investigated the academic and social changes experienced by Asian students during service-learning; what influences within the service-learning experience affected those changes; and whether service-learning experiences might serve as a conceptual gateway for Asian students’ broader transition to a constructivist-learning environment.

Service-learning and other relatively common forms of student engagement are established research-based practices that are generally considered to support overall student success and persistence through engagement in a learning community (Astin, 1984, 1993; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto, 1987). Service-learning is among the more common forms of student engagement (Cole & Zhou, 2014) and considered a high-impact practice (Kuh).

Research generally supports the argument that service-learning advances not only the clear academic goals of retention and persistence (Astin, 1984, 1993; Tinto, 1987), but also softer personal and on-going goals related to hands-on experience, career enhancement, critical thinking and habits of mind that extend outside of and beyond time spent on campus (McLaughlin, 2010). Properly planned and facilitated service-learning is exactly what its hyphenated name suggests and is an ideal method for intra-group learning, inter-group mutuality, delivery of practical outcomes, as well as the development of purposeful, trans-disciplinary civic engagement (Delano-Oriaran, Penick-Parks, & Fondrie, 2015). In short, it embodies many of the virtues of constructivist pedagogy.
Through this study, I explored a multi-day, immersive, domestic service-learning experience offered through a large public research university for its efficacy as an experience through which Asian international students might better comprehend and participate in an active-learning (constructivist) environment typically found at U.S. post-secondary institutions. This study sought to advance the scholarly understanding and qualitative body of research regarding service-learning as a tool not just of campus and community engagement, but as a means by which a growing number of students from around the world might more effectively integrate themselves into the type of learning environment typically found at contemporary U.S. institutions of higher education.

This study also attempted to investigate the overall strength of service-learning as a means with which international students could bridge their own experiences and background to their current learning environment and to practice the types of interactions that typically take place within a U.S. post-secondary classroom. This study will not investigate – nor does it wish to report on -- the relative strengths and weaknesses of either the instructivist or the constructivist learning models. Instead, the purpose is to consider service-learning in a new light – for providing Asian international students with a more natural, interactive gateway to the broader constructivist world of U.S. higher education.

In order to formulate research questions and devise the appropriate methodology for data collection and analysis, I drew heavily on literature related to service-learning, particularly as it related to international students’ experiences with service-learning, and the challenges of (Asian) international students’ adjustment to U.S. higher education learning environments. As stated previously, this case study is not a comparative analysis of constructivism or instructivism, but
rather an investigation into service-learning as a vehicle by which Asian international students might better comprehend and access a holistic, constructivist-learning environment.

In order to investigate service-learning in a re-envisioned way for its potential benefit to Asian international student comprehension and participation in constructivist learning environments, I drew on Vygotsky’s (1978) *Zone of Proximal Development* and Meyer and Land’s (2003, 2005, 2006) *Threshold Concepts* in order to provide a conceptual framework for the study. Zone of Proximal Development provided a lens through which to explore characteristics of the service-learning trip that *influenced* learning and change. Threshold concepts provided a framework to investigate whether service-learning might serve as a gateway by which Asian students progress into a broader constructivist environment.

**Definition of Terms**

Several of the concepts and characteristic utilize uncommon language or the language itself is used in ways connected to psychosocial processes or theoretical constructs.

**Liminality.** Commonly used in association with, in reference to, or as a synonym for Meyer and Land’s (2003, 2005, 2006) *Threshold Concepts*. Derived from the Latin term *limin* or *limen* for “threshold” it relates to a psycho-cognitive process of learning (mastering) a difficult task or concept. The literature and this study occasionally references pre-*liminal*, *liminal*, and post-*liminal* stages of development or learning. Pre-liminal would be before a learner was aware of new knowledge; liminal reflects a learner being on a threshold when he or she is trying to master a new or difficult topic; and post-liminal suggests mastery or relative mastery of new knowledge.
**Threshold Gateway.** An instrument, activity, or practice that facilitates successful learning and ultimate mastery (process from a pre-liminal to a post-liminal state) of troublesome knowledge. It typically will contain up to five threshold concepts that may aid with mastery of key skills that ultimately then open a learner up to a broader field, pedagogy, or epistemology.

**Threshold Concepts.** Meyer and Land’s (2003, 2005, 2006) framework that suggests that many or most disciplines have one or more challenging, important, and “troublesome” concepts that must be mastered in order to become an effective practitioner in said discipline. Such a concept, topic, or skill that opens learners up to broader and further mastery will generally reflect up to five threshold concept characteristics: *Transformative; troublesome; irreversible; integrative;* and *bounded.* Examples: “Opportunity Cost” in the field of Economics; “Laws of Thermodynamics” in the fields of Chemistry and Physics; or, “Depreciation” in the field of Accounting.

**Zone of Proximal Development.** A pedagogical theory closely linked to constructivism that suggests learning is largely from-the-outside-inward process. Learning is facilitated collaboratively and reciprocally between an instructor-facilitator, relative “new-comers”, and relative “old-timers”. Zone of Proximal Development is not a physical zone, but rather a developmental, cognitive zone in which influences act on learners in such a way that they learn more through collaboration with others than what could be learned alone. Zone of Proximal Development is often associated with eight scaffolding influences: *Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard);* and *Contingency Management.*

**Conceptual Frameworks**

Two conceptual frameworks were used to provided structure and a lens to my study.
Zone of Proximal Development (ZPD). For the purposes of this study Zone of Proximal Development (ZPD) (Vygotsky, 1978) was understood and roughly utilized to mean the gap in competencies or skills that exist "between what can be done alone and what can be done with the assistance of others" (Tharp, 2012, p. 27). The “zone” within ZPD (see Appendix K) should not be understand to be common physical space, but rather a zone in which learners are trying to develop skills and understanding within a "specific domain of competence" (p. 27) that is affected by particular relational influences. ZPD can be connected to any aspect of learning through various influences within the learning environment and process.

For students within a ZPD, influence is of central importance. What external influences aid internalization of learning? Tharp (2012) offers eight "means of influence" that are linked to the "scaffolding" commonly associated with ZPD (Wood, Bruner, & Ross, 1976). As taken from Tharp (p. 38-53) scaffolding influences are: Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard); and Contingency Management.

Within this study ZPD was linked to the development of competencies that are important to success within constructivist pedagogical environments (Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Watson, Hollister, Stroud, & Babcock, 2011). Likewise, as it pertains to this study, ZPD was analyzed for the potential development of tacit cultural knowledge and social interactions between "old-timers" and "new-comers" (Lave & Wenger, 1991) within the context of a service-learning experience. I used ZPD to explore how activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment.
**Threshold Concepts.** In tandem with ZPD, *threshold concepts* will be used as a reference point to frame individual Asian students’ particular challenges with accessing constructivist learning. Meyer and Land (2003, 2005, and 2006) posited that within many disciplines and learning activities there are certain concepts central to the mastery of said subject, and which sometimes, or even often, present particular challenges to the learner. These central concepts were identified as “thresholds” because they had certain features in common that need to be specifically addressed in curriculum design in order to facilitate students’ mastery of a subject overall. Five threshold concept characteristics (2003) were originally identified: *Transformative, Irreversible, Integrative, Bounded, and Troublesome.*

These characteristics can be used to identify whether certain topics within a discipline, or within a given learning environment, pose a particular challenge, and whether mastery of those topics provides a potential gateway into broader understanding and success within a given field or learning environment. For this case study, threshold concepts supported my investigation of how an immersive, multi-day domestic service-learning trip might serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment.

**Research Questions**

The following questions represent the overall scope of this study that attempted to address the *what, how, and why* of changes experienced by Asian students during their participation in an immersive service-learning trip.

1. How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?
2. How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3. How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

This investigation reflects a portion of a broad area of inquiry regarding high impact practices and international student adjustment. While many questions still need to be further explored, this study will have potential impact on several aspects of academic activity.

**Significance**

This study largely serves as an exploration of service-learning as something more than a tool for civic engagement and community involvement. Without undermining those qualities and the “traditional” understanding of service-learning, this study sought to add value to the function and conceptualization of service-learning. The overall significance of this study is that it explores changes experienced by Asian students during an immersive service-learning experience; what within the service-learning experience influenced those changes?; and, can the service-learning experience serve as a possible as a conceptual gateway by which Asian students more smoothly transition to the constructivist environments typical of U.S. college and university campuses?

**Significance for practice.** Service-learning and other forms of student engagement are a hallmark of U.S. higher education environments. Whether these activities be largely faculty-run, facilitated by student affairs professionals, or initiated and by student leaders, practitioners can hope to gain valuable insights into the communities of practice that they support. Through this study, I seek to investigate an immersive, domestic service-learning experience and study its merits as a tool to support Asian international student access to U.S. educational environments.
Among my expected results, practitioners will be able to view campus and community service-learning practices in a new light, meeting a practical, social need for the creation of a more integrated campus environment for both domestic and international students.

**Significance for policy.** Campus leaders who are facing difficult resource decisions with regard to global education, access, balancing domestic and global dynamics, and advancing student and academic affairs strategies on campus will be able to draw from this study. Unlike some other 21st century global education topics this study does not advocate for revolutionizing the nature of higher education, or call on administrators to invest scarce resources into high-profile, expensive (yet sometimes unavailing) efforts to compete for and support international students. Policy decision-makers will instead be able to draw on the findings of this study to make informed decisions about the strategic use and previously un-appraised virtues of traditional service-learning experiences in support of international student success. For example, could curricular and/or co-curricular requirements involving service-learning experiences be implemented for incoming international students? Alternatively, implemented for all students in order to foster global connections outside of the classroom? Could existing service-learning units be given additional priority or consideration with regard to resource allocation? As such, service-learning can simultaneously be considered and utilized for its better-known benefits regarding retention and persistence and for its benefits to Asian international student participation in the campus learning community.

**Significance for theory.** This study both supports and adds to a body of theoretical knowledge that spans theories related to cross-cultural competence, student identity, adjustment, as well as the theories that provide this study’s conceptual framework – Threshold Concepts and Zones of Proximal Development. In an effort to expand the dialogue and merge conceptions of
traditional service-learning with 21st century realities of global mobility and U.S. campuses as places of international learning, I have selected to utilize theories that are often not associated with cross-cultural/cultural adjustment dynamics. Likewise, since my particular emphasis is on the Asian student adaptations within a service-learning experience and how service-learning might benefit Asian students’ overall participation in an active-learning environment, I did not use the theoretical underpinnings of service-learning or cultural adjustment in general to frame my study. This study provides what I think is a unique investigation of service-learning as an instrument for Asian student involvement in a pedagogical environment with which they were not previously familiar. As such, it contributes to an evolving body of theoretical work related to how U.S. campuses can best address the needs of today’s college students.

Methods

Unit of analysis and sample. Praxis University was selected from multiple colleges/universities that were identified and evaluated (see Appendix A) by me for their suitability as an institution at which I could conduct this study. Based on engagement criteria, institution-type, overall institution size, and the size of international population, I surveyed (see Appendix B) 14 institutions in order to ascertain suitability. Praxis University, a large public research university in the southeastern United States, was selected because it offered a strong co-curricular immersive service-learning program to Washington, DC at which I had relative assurance of meeting the conditions necessary to conduct my research.

The service-learning program at Praxis University already had a practice of recruiting and subsidizing the trip costs for many international and domestic students for their fall domestic service-learning trips. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the student affairs service-learning unit and/or
the office of international affairs at Praxis University. Program leaders also agreed to accept and
distribute students to the service-learning trip to be evenly divided between domestic and
international students. I recruited a within-case sample that was "nested" within the service-
learning cohort (Miles, Huberman, and Saldaña, p. 33), with a goal of recruiting a sample-size of
8-12 Asian international students.

I recruited 10 Asian students who were selected for participation in the service-learning
trip. Each student was invited to participate by e-mail and asked to complete a questionnaire
administered via Qualtrics (see Appendix C) to collect basic demographic data and primarily to
assure qualifications for participation would be met; students were required to be Asian and at
least 18 years of age. All ten Asian students whom I recruited agreed to participate and all 10
remained in the study through the post-experience interview.

**Data collection.** For this single-case study of an immersive service-learning experience,
data were collected and reported through pre- and post-experience interviews which I conducted
one-on-one with each of the ten research participants. All interviews were completed in-person
within the one week prior to, and the one week after, the service-learning trip. Each pre- and
post-experience interview was semi-structured utilizing two separate, but related interview
protocols (Appendices D and E). All interviews were audio-recorded and transcribed verbatim.

Lastly, I attended the service-learning trip as a participant-observer. Although I did not
engage in formal interviewing of the program participants throughout the period of the trip, I did
observe Asian students at three key points in the immersion. During this time I made a point of
taking careful notes and memoes for future reference both during my coding and data analysis.

**Evidence analysis.** This study explores the research questions:
1. How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2. How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3. How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

To explore research question 1, I identified from the data the ways that Asian students changed or adapted during the service-learning trip, which I did using first-cycle values coding (Saldaña, 2013) and by way of a comparison of pre-and post-interviews (see Appendix H). To explore research question 2, I then connected the findings of my first-cycle values coding to a second-cycle process coding (Miles, Huberman, and Saldaña, 2014) matrix (see Appendix I) based on eight possible ZPD scaffolding influences (Bruner, 2006). For research question 3, I used the same first-cycle values coding the reflected Asian student change and adaptation through the service-learning experience, which I then matched through second-cycle pattern coding (Miles, et. al.), to five possible threshold concept characteristics (Meyers & Land, 2003, 2005, 2006) as they were demonstrated in the data (see Appendix J).

The first and second cycle coding analyses treated process as much as outcome. However, as an exploratory study, and not knowing exactly what I would find, I selected coding options connected that I hoped would connect changes in Asian student values, attitudes, and beliefs to particular aspects of the service-learning experience itself. The goal was to be able to
collect, code, and analyze data that would provide me with a relatively broad, but manageable
view of the impact of service-learning on Asian student participants.

**Trustworthiness**

As a qualitative researcher, I took care to follow every available convention to defend against
self-delusion or the presentation of 'unreliable' or 'invalid' conclusions (Creswell & Miller, 2009;
Miles, 1979; Shenton, 2004). I took great care to construct and adhere to a research protocol,
which guided IRB compliance and provided consistent treatment of data collection, analysis, and
reporting. Through use of bracketing (Creswell, 2007) analytic memoing (Miles, Huberman, and
Saldaña, 2014; Saldaña, 2013), and jottings (Emerson, Fretz, and Shaw, 2011) I identified my
predispositions in advance of my data collection and throughout my analysis. Finally, during my
analysis there were multiple occasions when transcribed dialogue was unclear. Before advancing
with coding, I member-checked (Creswell & Miller, 2009) with participants to clarify language
and intended meaning. On the occasions when participants could not recall or confirm meaning,
dialogue was expunged from coding, analysis, and reporting.

With regard to member-checking and my relationship with informants, consent forms
were collected from each participant after a detailed explanation of how privacy, confidentiality,
and anonymity were to be protected before, during, and after the study (Miles, Huberman, &
Saldaña, 2014).

**Limitations and Delimitations**

The relative scarcity of previous studies related directly to my investigation provided for
a broad area for exploration. While this was an advantage in many ways, it was also a challenge
in that there was little empirical information from which to draw to set the parameters of this
study. It was not possible to make too many assumptions a priori. Instead, considerable attention was given to research design, data collection, and analysis to allow for a level of qualitative inductive investigation of the relationship of service-learning to integration into a constructive learning environment – even while some general assumptions will be deductively analyzed. In simple terms, there was a risk that the study would merely and inductively “skim the surface” of the topic in order to gather data that would serve as a baseline for future qualitative or quantitative studies. I tempered certain anecdotal assumptions in order to avoid potentially untested and perhaps over-eager inclinations that might undermine the merits of the study. Consequently, the questions that appeared in both the study’s pre- and post-experience interviews were of a more general nature than if prior data and studies provided a conclusive baseline from to begin a purely deductive investigation.

Scholars of international education may note that for this study did not use some of the better-known frameworks related to education psychology, cultural adjustment, and cross-cultural communication and competencies. Several of these frameworks and associated studies will be referenced in the literature review and inform some of the decision-making with regard to this study. However, the selection of Zones of Proximal Development and threshold concepts, as well as following a qualitative methodological inquiry, reflect a very deliberate decision on my part. This study sought to re-examine, and potentially add to, the body of knowledge with regard to a common programmatic and curricular feature on U.S. campuses (service-learning). While this study, in a practical sense, will potentially serves to inform how service-learning might support Asian student adjustment to U.S. post-secondary pedagogical environments, it did not delve deeply into the psychological and cognitive processed related to Asian student adjustment.
Anecdotally, I recognize service-learning as offering strong potential to support Asian student adjustment to U.S. pedagogical environments. Framing an immersive service-learning experience as an occasion in which Asian international students and domestic students would potentially and reciprocally interact, engage, and learn, from one another, was not a guarantee that Asian and domestic students would actually reciprocally interact, engage, and learn from one another. Meaning, the service-learning experience did not include interventions that would “force” interactions or “test” the existence of either ZPD scaffolding influences or threshold concept characteristics. The immersive service-learning experience was investigated as a “typical” service-learning experience that happens to include a higher-than-usual proportion of international students.

My study was deliberately limited to an investigation of Asian international students. Selection criteria for the study disqualified any potential participants who were not from an Asian country. Selection criteria also disqualified domestic students – even if they self-categorized as “Asian-American.” This limited the study to students whose prior educational experiences and cultural identities were Asian. As such, it limited the number of potential participants in the study but it allowed me to focus exclusively on Asian students and their adjustment to a constructivist pedagogical environment. Parameters of the study could have been such as to include non-Asian international students, or domestic students who too participated in the immersive service-learning experience.

The topic of constructivism as an epistemology, a learning theory, and a teaching method is an immense subject with a great breadth and depth of worthy contributors. Likewise, service-learning and other high impact practices warrant closer examination than what this study allowed for. A general examination of service-learning as a valuable constructivist activity would be a
relatively unique study that would have been worthy of pursuit. Adding the Asian international student component to the relationship between service-learning and constructivism made for a complicated and layered study. All of this is to say that there were countless opportunities to explore deeper and for every decision made regarding this study, I could have made different decisions that too would shed light on this topic.

Chapter Summary and Organization of the Study

This study explores an immersive, domestic service-learning experience as a vehicle that might support Asian student adaptation to a U.S. post-secondary learning environment. I selected a three-article format for presenting my study. Each of three inter-related research questions are addressed separately in Chapters 5-7.

1. How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2. How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3. How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

Within the broader context of the overall research problem and the purpose of the study, Chapter 2 will present relevant literature connected to the two conceptual frameworks that are used to explore the research questions: *Zone of Proximal Development* (Vygotsky, 1978) and *Threshold Concepts* (Meyer & Land, 2003, 2005, 2006). In order to set up the purposes of this study I also provide considerable attention in Chapter Two to the literature that connected to
Asian student adjustment (especially to constructivist pedagogies) and to service-learning (in particular as it reflects the characteristics of constructivism overall).

To investigate my research questions I selected a qualitative approach to provide "rich descriptions and explanations of human processes" (Miles, Huberman, and Saldaña, 2014, p. 4) connected to Asian student experiences in an immersive service-learning trip. As a researcher, I wanted to know: How did Asian students change because of their service-learning experience? What influenced that change? Did service-learning serve as a conceptual gateway for Asian students’ overall transition to a constructivist environment? Chapter 3 provides the full overview of my methodological considerations. The methods section will also further discuss means by which I as the “primary instrument” (Merriam, 1998, p. 22) safeguarded participant confidentiality and the integrity of my research process.
CHAPTER 2

REVIEW OF THE LITERATURE

The purpose of this study is to explore how service-learning might support Asian students’ adjustment to a constructivist-learning environment. In order to do this I set out to investigate the academic and social changes experienced by Asian students during an immersive, domestic service-learning trip; what influences within the service-learning experience affected those changes?; and whether service-learning experiences might serve as a conceptual gateway for Asian students’ broader transition to a constructivist learning environment?

Psychosocial processes, stages, or outcomes of Asian student adjustment to a U.S. higher educational environment are not the primary emphases of this study. While those factors will be given treatment in the literature review, methodological considerations, and data analysis and reporting, it is important for the reader to constantly bear in mind that this study concentrates on the overall service-learning experience itself. The attention given to the students’ conditions is largely in an effort to explore service-learning for the opportunities that it provides Asian international students in their adaptation to a U.S. higher educational learning environment.

A review of relevant literature will be provided for research that focuses on international students’ (particularly Asian students’) adjustment to post-secondary learning environments in the U.S. (or other cultures in which constructivist pedagogy is widely practiced). Rather than create a study that depends and draws on the expansive literature to explain each aspect of cultural adjustment, I will instead review the literature that emphasizes three particular facets of adjustment, which will also come into play in the data collection, analysis, reporting, and discussion. These three facets of student adjustment are social, academic and linguistic.
The literature review is not exhaustive. It provides the necessary background and foundation for my exploration of international students’ experiences with service-learning as a means of culturally accessing and engaging in a constructivist-learning environment. In the terms of this study, service-learning will be investigated in connection to ZPD scaffolding influence and as a potential threshold gateway utilizing the following research questions:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

Conceptual Frameworks

This study will utilize two conceptual frameworks in order to investigate the merits of service-learning as a support for Asian international students’ adjustment to a constructivist learning environment: 1) Vygotsky’s (1978) *Zone of Proximal Development* framework; and 2) Meyer and Land’s (2003, 2005, 2006) *Threshold Concepts* framework. These frameworks will contextualize service-learning not just as a tool for engagement and active learning as it is known for – but also as a vehicle through which international students might access a much broader world of constructivist pedagogy, active learning, and the higher education community in the U.S.
Zone of Proximal Development. Zone of Proximal Development (ZPD) is understood and utilized in this study to mean the gap in competencies or skills that exist "between what can be done alone and what can be done with the assistance of others" (Tharp, 2012, p. 27). The “zone” within ZPD (see Figure 1) should not be interpreted as common physical space, but rather a cognitive zone in which learners are trying to develop skills and understanding within a "specific domain of competence" (p. 27). When students are in a ZPD learning is affected by particular relational influences and ZPD can potentially be connected to any aspect of learning (Tharp).

For students within a ZPD, influence is of central importance. What external influences aid internalization of learning? Tharp (2012) offers eight "means of influence" that can be linked to the "scaffolding" commonly associated with ZPD (Wood, Bruner, & Ross, 1976).

Figure 1. Progressions through the zone of proximal development and beyond from Tharp & Gallimore, 1989, p. 35.
According to Wass and Golding (2014), scaffolding influences are best used to assist learners with the mastery of the most difficult concepts when those concepts are too difficult or impossible to grasp by an individual learner. Some scaffolding influences are based on oratory or linguistic cues and interactions, while some others are based on behavioral interactions. As taken from Tharp (p. 38-53) scaffolding influences are listed and briefly defined as follows:

**Task Structuring.** The overall structuring and restructuring of activities in a learning situation that incorporates other behavioral and linguistic influences. This influence can be thought of as the "curriculum" or lesson plan of the overall learning situation.

**Propping/Nudging.** A behavioral influence that refers to the physical placement of a learner to perform the next desired learning behavior or activity.

**Modeling.** Influencing a learner's behavior by offering a model for imitation. Modeling is a behavioral influence that would ideally be provided by a more experienced peer.

**Instructing.** A linguistic influence that calls for a clear and specific action on the part of the learner. This is not to be confused with lecturing; it instead refers to instructing (telling) a learner to carry out an action.

**Cognitive Structuring (Explaining).** Explaining in order to help connect other aspects of behavioral and linguistic scaffolding around learning. This linguistic influence explains ideas and context associated with broad worldviews, theories, philosophies, or ethical systems.

**Questioning.** Asks the subject to demonstrate learning, or to demonstrate attempts at mastery of content. Questioning is a linguistic influence that differs from instructing because it does not instruct or present a hard expectation for action but is rather utilized to help learners be influenced primarily through questions of "why?"
**Feeding Back (Against a Standard).** Feedback connects an assessment of learning to other ZPD influences within the scaffolding in an effort to aid improvement on the next attempt.

**Contingency Management (Interventions to "Correct" Behavior).** Influences learners through a system of rewards and/or punishments.

According to Bruner (2006), ZPD is a process by which the learner finds a new, higher order of meaning through particular experiences and under certain learning influences. This higher order of meaning is reached through language and the process of understanding new skills and cultural contexts. New meaning might "incorporate or even displace what existed before" (p. 191). As represented in the theoretical foundations of ZPD, mental life and consciousness first express themselves as interactions with others (Vygotsky, 1978). Making its way from a social, outward experience, learning starts and is internalized as part of a process of managing culture's symbolic tools and is done so through social interaction (Bruner, p. 191).

The literature suggests three interpretations or modes of ZPD:

1- The difference in **problem-solving** abilities when a "new-comer" is working alone versus when working collaboratively with "old-timers" (Greenfield, 1984; Lave & Wenger, 1991; Wood, Bruner, & Ross, 1976).

2- A **cultural** interpretation, which suggests a ZPD is the gap between a theoretical socio-historical context and the learner’s everyday experience between the cultural knowledge provided by the socio-historical context and everyday experiences (Lave & Wenger, 1991) – or the distance between understood content as provided by instruction, and active knowledge, as owned and performed by individuals (Hedegaard, 1988).
3- A collectivist or *societal* perspective that highlights the distance between individual actions and what can be collectively generated. Connected to this final interpretation of ZPD – societal – is a capacity to influence *social transformation* (Engestřfim, 1987; Lave & Wenger, 1991).

ZPD is often represented in the literature in matters associated with language study (Compernolle and Williams, 2012; Poehner, 2012). Poehner for example, uses ZPD in his analysis of non-native speaking learners (L2) of French as they advance beyond assessment of language development within a group to one of self-assessment. These studies are illustrative of the value of ZPD to language acquisition and practice. While my study was not directly related to English-language proficiency, language cannot be ignored as an important factor that affects L2 learners of English.

Roth and Radford (2010) offer a critical analysis of ZPD simply as a means of knowledge transmission and acquisition. Their work adopts the perspective of ZPD as it might be used in language instruction or apprenticing (both of which inherently emphasize asymmetry) and suggests that these take an overly individualistic perspective. Roth and Radford suggest that ZPD can be misused and -- if not fully comprehended -- misleading. They argue that users of and participants in a group-learning situation must recognize that all engaged participants play the role of both teachers and learners. The group creates shared meaning and mutuality that extends beyond a simple binary of knowledge transmission and instead rests on the “inter-subjectivity that is grounded in a common world” (p. 304).

According to Kuusisaari (2014), ZPD has its limitations in certain collaborative situations. In her study of ZPD as a tool for collaboration between teachers, she found that within groups of “symmetrical” learners (with relatively advanced skills) collaboration improved when
learners/collaborators were able to synthesize and revise constructions, rather than accept them as they are.

Within this study ZPD is being linked to the development of competencies that are important to success within constructivist pedagogical environments (Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Watson, Hollister, Stroud, & Babcock, 2011). Likewise, as it pertains to this study, ZPD will be analyzed for the potential development of tacit cultural knowledge and social interactions between "old-timers" and "new-comers" (Lave & Wenger, 1991) within the context of a service-learning experience.

**Threshold Concepts and Liminality.** Threshold concepts (Meyer & Land, 2003, 2005, 2006) are associated with the idea of liminality, liminal space, liminal states, and threshold knowledge, which are terms used within the literature in tandem with threshold concepts. According to Merriam-Webster, *liminal* is derived from the Latin *limin* or *limen* for threshold and means: 1) of or relating to a sensory threshold; 2) barely perceptible; 3) of, or relating to, or being an intermediate state, phase, or condition. The idea of liminal space and the prefixes of pre and post help to illustrate points within a learning and developmental arc at which the learner is faced with challenging, conceptual material.

Meyer, Land, and Baillie (2010) refer to liminality as a “suspended state of partial understanding” or a “stuck place” (p. x). Accordingly, in the absence of actual learner development the best that can be accomplished is a form of “mimicry” that lacks authenticity (p. x). The purpose of identifying threshold concepts and their associated characteristics is to aid learners in the necessary development through threshold gateways to advance from a pre-liminal to a post-liminal state. The arrival at a post-liminal state reflects mastery of troublesome
knowledge, or at least achievement that grants a “changed use of discourse” through the crossing of conceptual boundaries (p. x).

Threshold concepts are a relatively new way of discussing old challenges. The idea emerged in an effort to identify strong teaching and learning environments in support of undergraduate education. Meyer and Land posited that within many, if not all, disciplines there are certain concepts central to the mastery of said subject. These central concepts were identified as “thresholds” because they had certain features in common that need to be specifically addressed in curriculum design in order to facilitate students’ mastery of a subject overall.

While a total of seven (Barradell, 2012) threshold concept characteristics have emerged in the years since the concept was first introduced, for the purpose and centrality of this study, it is appropriate to rely on the original five threshold concept characteristics.

The five threshold concepts (Meyer & Land, 2003, p. 4-9) are as follows:

1. (Likely to be) **Transformative** – “… potential effect on student learning and behavior is to occasion a significant shift in the perception of subject…”

2. (Probably) **Irreversible** – “change in perspective… is unlikely to be forgotten, or will be unlearned only by considerable effort.”

3. (Contains the capacity to be) **Integrative** – “exposes the previously hidden interrelatedness of something.”

4. (Contains the capacity to be) **Bounded** – “conceptual space will have terminal frontiers, bordering with thresholds into new conceptual areas.”

5. (Potentially and possibly inherently) **Troublesome** – due to socio-historical experiences or inexperience with “ritual knowledge”, “inert knowledge”,


“conceptually difficulty knowledge”, “alien knowledge”, “tacit knowledge”, and “troublesome language.”

A threshold or liminal gateway suggests that there is a piece of learning that creates a “disorienting dilemma” that must be overcome “in order for transformation to occur” (Meyer, Land, and Baillie, 2010, p. 9-10). Once that disorientation or troublesome piece of knowledge is mastered, learners open up to a broader set of skills and aptitudes; learners advance from a pre-liminal state to a post-liminal state by successfully passing the threshold. Threshold concept characteristics help to both instigate disorientation through the introduction of new concepts (troublesome knowledge), while also attempting to limit (bounded frontiers) that disorientation within a specific conceptual space (Mead & Gray, 2010). Perry (as cited in Timmermans, 2010) suggested that the goal of threshold concepts is to create questioning and even doubt on the part of the learner in order to facilitate development, but not to instigate an extreme level of self-doubt. While epistemological beliefs should be questioned, extreme doubt without sufficient positive support might cause the learner to "deflect from growth" and defensively experience apathy, anxiety, depression, and even educational cynicism (p. 10).

Conceptual gateways and threshold concepts are best approached from an educational psychology perspective as a means of "opening up" to a "new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1). However, one criticism of threshold concepts as a pedagogical tool is that the modality that it provides is potentially weak; the five characteristics are each qualified and tentative and they may or may not be present (Rowbottom, 2007; O'Donnell, 2010). When applied to a specific discipline, critics suggest that disciplines would have to be reduced to an essential set of tenets of unchanging beliefs (O'Donnell) in order to apply the five threshold concepts to learners – who may or may not be equal in skill. Finally
and as potentially applied to the acquisition of specific information, Rowbottom also argues that the evidence of one or more of the threshold concepts does not demonstrate the learner's ability or mastery over an item of troublesome knowledge.

In the context of this study, an immersive service-learning environment is not being investigated in connection to one specific discipline or even mastery of prescribed interdisciplinary skills. Instead, service-learning is investigated for its efficacy as a threshold, or liminal gateway, through which Asian students might progress toward greater and general integration into constructivist learning practices within higher education.

**Overview of Behaviorist and Constructivist Epistemologies**

On a relative scale, education in the U.S. is considered “constructivist” – which is relatively active, engaged, and learner-based (Bruner, 1996; Jones & Brader-Araje, 2002; Meiklejohn, 2005). Constructivism can be contrasted with behaviorism (“instructivism”), which is on a relative scale is more didactic and teacher-based (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). Constructivism espouses the theory, practice, and organization by which knowledge is *constructed* socially and collaboratively (Porcaro, 2011, p. 41); the teacher tutors and facilitates learning. Instructivism seeks to transfer information to students as efficiently and effectively as possible (p. 43); in other words, in the form of an instructor or professor transmitting information to students primarily through lecture.

In a constructivist-learning environment the role of the leader-educator is to be actively involved as a facilitator in aiding students through the complexities of engaged learning and personal reflection. As is effective and practical considering the students’ characteristics, an appropriate mixture of both instructivist and constructivist methods should be used in order to assuage the transition between pedagogical cultures (Porcaro, p. 49). The role of faculty and
administrators within such an environment reflects an individual paradigm shift as well as an organizational learning process, which according to Moore and Mendez (2014) is aided when transformative change is framed and treated by senior campus leadership as a “scholarly act” (p.37). Meaning, educators anticipate and embrace the notion of transformation not just as a possibility, but also as an aspirational outcome. In such a case, transformation could be taken to stand alone, but in the context of this study, it is part of the broader processes and changes associated with mastery of troublesome knowledge.

From Mezirow’s body of work related to transformative learning his emphasis on discourse, such as that which takes place within service-learning activities, relates most closely to the parameters of this study, the threshold concepts of liminal space, and to the notion of service-learning serving as both a ZPD and a threshold gateway. Mezirow suggests discourse to mean a “dialogue involving the assessment of beliefs, feelings, and values” and that it “involves topics referred to from the point of view of a particular frame of reference” (2003, p. 59). Mezirow suggests that as individuals within a group dynamic such as service-learning, adult learners can enter a critical-dialectical discourse in which individual skills, sensitivities, and insights are all relevant in working toward critical self-reflection and emotional intelligence.

As part of such a discourse, it is the role of the adult educator to foster appropriate conditions, participate, facilitate reasoning, and be a “cultural activist” (p. 62-63). The notion of discourse is at the heart of Constructivist pedagogy and ZPD and ultimately requires mutuality between all participants – international and domestic. It is in this sense that service-learning might serve as a community of practice or a ZPD in which new-comers and old-timers engage together in a crucial threshold gateway and access point for Asian international students’ adjustment to a Constructivist learning environments at U.S. colleges and universities.
Asian Student Transitions to U.S. Post-Secondary Environments

Populations throughout the world embrace pedagogical and epistemological practices consistent with their cultural values and traditions (Bruner, 1996; Elder-Vass, 2010) and most international students attending university in the U.S. have to reconcile their held beliefs and skills with their new environment (Smith and Khawaja, 2011). Through their study of “place attachment” Terrazas-Carrillo, Hong, & Pace (2014) illustrate a process through which newcomers go through a renegotiation of meanings in order to fulfill specific needs – such as “desire for social interaction, and opportunity for self-expression, and the expression of their own emotional experience” (p. 693). Challenges adapting to U.S. higher educational environments are not the exclusive domain of Asian students. However, the large number of Asian students coming to the U.S. for post-secondary education (Institute of International Education, 2015) warrants an investigation into the challenges they face and what steps might assuage their difficulties.

Porcaro cites Catterick (2007) when he provides China as an example of a culture that is particularly challenged with regard to accessing constructivist pedagogical practices: “Constructivist pedagogy works poorly in Chinese culture, where many students struggle to reconcile their long held pedagogical beliefs and habits with collaborative learning, the diminished authority of the teacher, and autonomous learning” (p. 47). While my study did not limit itself to Chinese students, Catterick’s findings strongly support the rationale behind my investigation; transitioning to a new pedagogical environment is indeed one aspect of transition, but by nature constructivist learning environments tend to be inclusive and focused on the learner in ways not previously experienced by Chinese (and other Asian) students.
Another investigation of Chinese student adjustment suggests that Asian students in general might experience greater challenges than domestic students regarding psychosocial adjustment (Zhang and Goodson, 2011). Zhang and Goodson did not investigate the connection between pedagogical factors and Chinese students’ educational experiences. Among their findings was that Asian students might experience greater levels of sociocultural difficulties than international students from other parts of the world who are also studying in the U.S. (p. 614-615). However, the authors hypothesized and ultimately found that social interaction and connectedness with Americans mediated the depression associated with the adjustment to a new culture.

The challenges of adjusting to the new pedagogical environment were also investigated in Lee’s (2007) quantitative research of East Asian students studying in the U.S. Lee’s analysis identified a clear overlap between language and academic challenges, but she identified issues of “power distance” and individual identity as the primary hurdles regarding student performance and adaptation. Her research included students from Mainland China, Hong Kong, Taiwan, Japan, and Korea and concluded that these students’ cultural backgrounds with “vertical” (hierarchical and collectivist) social relationships made it extremely difficult to perform in the U.S.’ more “horizontal” (greater equality and individualistic) academic environments (p. 29). The communication, vocalization of critical, sometimes even argumentative opinions, and fear of negative evaluations or responses from instructors and classmates results in Asian students’ heightened anxiety regarding language proficiency and speaking up in class.

In another study of Southeast Asian (Indonesian, Thai, and Vietnamese) students studying at an English-language school in Australia, Nguyen (2011) drew similar conclusions regarding the role of culture and the comprehension and participation in a constructivist-learning
environment. Because Nguyen’s study investigated students who were studying English as a second language rather than Asian international students who were seeking degrees from Australian colleges and universities, his findings are of particular value to understanding the cultural background of Asian students and the challenges of adjusting to constructivist pedagogical practices. Nguyen concluded that Southeastern Asian students focus too much on the method of assessment rather than the learning process; rote learn – they memorize but lack critical thinking skills; tend to view lecturers with extremely high reverence; are passive and they don’t tend to talk in class; do not easily adjust to local conditions.

While the above literature illustrates some of the general challenges that Asian students face in their adjustment to a new pedagogical environment, three distinct but overlapping aspects of adjustment emerged from the literature: Social adaptation, linguistic adaptation, and academic adaptation. These three adaptive categories were reflected in the literature and informed how I analyzed my data, and reported and discussed my findings. The remainder of the section Asian Student Transitions to U.S. Post-Secondary Environments will discuss the literature connected to these three particular aspects of Asian student adjustment.

**Social adaptation.** Studies within the social, or sociocultural, adaptation literature connect to a person’s basic need to fit in socially and negotiate a new cultural environment. According to Tompson and Tompson (1996), international students perceive social adjustment and social isolation to be the most difficult adjustment area. Citing Maslow (1954), Tompson and Tompson offer that until international students are able to meet their basic social and esteem needs, they will be unlikely to engage in “self-actualization activities” such as academic pursuits or intellectual debates (pg. 55).

Within the area of sociocultural adaptation and as it pertains to this study, the following
facets are of particular importance in the literature: Students’ communication confidence (Akazaki, 2010; Andrade, 2006); interaction with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Shurer, 2016; Ying & Han, 2006), and friendship, support, and social networks (Andrade, 2006; Hotta & Ting-Toomey, 2013; Hendrickson et al., 2011; Ying & Han, 2006).

While the three adjustment challenges of academic, social, and linguistics cannot be dealt with in isolated, exclusive terms, the adjustment literature does support the notion that a socially supported and confident student will generally perform better with regard to all other challenges of adaptation – including language and academic adaptation. As is reflected elsewhere in the higher education literature, the validity of psychosocial theories (Chickering & Reisser, 1993) and personal-environmental interactive theories (Astin, 1984, 1993; Kuh, 2001, 2003; Tinto, 1987) is repeatedly confirmed. The same holds true for international student adjustment to U.S. higher education environments.

**Language adaptation.** Language challenges are addressed throughout international student academic adjustment literature in multiple ways. As already indicated, Tompson and Tompson (1996) reflected that social isolation was the greatest challenge to adaptation as perceived by international students. The second most-difficult adjustment area as perceived by international students is in the area of language skills (pg. 55). Some English-speaking faculty on the other hand, perceive the greatest challenges for international students to be English-language proficiency (Trice, 2003). A relatively small number of scholars have attempted to measure English-language proficiency as the principal cause for international student adjustment to U.S. campuses -- or other destinations where English is the medium of instruction (Graham, 1987; Vinke & Jochems, 1993; Woodrow, 2006; Xu, 1991). However, it is worth noting that most of
the studies that concentrated exclusively or largely on English proficiency as an indicator of success were conducted in the 1980s to early 1990s.

The lines between socio-cultural, linguistic, and academic adaptation and the perception reported by faculty and students (or expected of researchers) are not always consistent across the literature. There exists a considerable level of misconception and inconsistent priorities regarding language issues. For example, while non-native English speaking international students in Australia attributed their lack of participation in class to discomfort with the English language, especially within specific subject areas, faculty who were surveyed assumed the students’ lack of participation was due to cultural differences (Robertson, Jones, & Thomas, 2000). This assumption was because the international students came from cultures where instructivist pedagogy was practiced, whereas Australian instruction tends to be more constructivist.

**Academic adaptation.** As reflected in the literature international students studying in a new country can expect certain academic challenges. Cultural divides and expectations might cause heightened anxiety, confusion, and uncertainty for international students (Lee, 2007) in the case of this study, Asian students studying in the U.S. Asian students are generally presumed to be coming from a normative epistemological experience referred to in this study as “instructivist” (Lee, 2007; Lee & Ciftci, 2014; Nguyen, 2011; Porcaro, 2011). Instructivism assumes that everyone shares a similar ontology and epistemology; tends to be highly structured and focused on the transmission of relatively or even highly standardized content; and focuses on preparation for high-stakes exams (Porcaro). Students from instructivist cultures find active, constructivist pedagogy (as typically practiced in the U.S.), collaboration and engagement, and solving “ill-structured” problems, requires entirely different skills than those that were developed through prior instructivist schooling (Choi & Lee, 2009). Furthermore, students from highly
instructivist backgrounds have been accused of lacking self-directedness, working only to “make the grade”, and reluctance with regard to engagement and working collaboratively (Nguyen, 2011; Sarkodie-Mensah, 1998), especially when goals are not aligned with well-structured and obvious academic rewards (Porcaro, p. 45). Furthermore, some stereotypes, if not realities, suggest that students coming more instructivist backgrounds struggle to analyze and logically develop written arguments (Andrade, 2006). Lee and Ciftci’s (2014) quantitative concluded that Asian students struggled more with the drastic pedagogical differences than with language proficiency. The authors concluded that overall Asian students struggle primarily because they lack a multi-cultural personality and exposure to diverse ideas in their educational backgrounds; they lack assertiveness; they have lost their sense of academic self-efficacy in the U.S. higher education environment; and they struggle to find their place in the new social structure.

The literature also reveals that international students in general experience struggles navigating the student-faculty relationship dynamic (Lee, 2007). Instructivist pedagogy is often found within broader cultural settings in which there is greater power-distance between children and adults, youth and elders, and students and teachers; social status plays a more direct role in relationships and overall communication (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006). Studies suggest that culturally grounded academic challenges are based on differing expectations between faculty and the international students whom they teach (Andrade, 2006; Kingston & Forland, 2008; Li et al., 2002; Shurer, 2016).

Faculty and international student expectations are also misaligned when it comes to both identifying the greatest challenges to academic adjustment, and working through possible tactics that might mitigate those challenges. In Tompson and Tompson (1996), faculty reported that
the behaviors causing international students the greatest academic adjustment difficulty were not asking questions about assignments, not participating in class, and sitting and studying with others from their host countries. Robertson, Jones, & Thomas (2000) offer a sociocultural explanation for this behavior whereas Trice (2003) indicated faculty sometimes perceive this behavior to be primarily demonstrative of language inadequacy. The international students themselves, however, report their greatest academic difficulties relate to collectively understanding rules and regulations, becoming familiar with cultural norms and language, and developing a social network (Tompson & Tompson, 1996). While these all may have been adjustment issues, the fact that these lists of critical difficulties were so different represents a larger gap in communication and expectations between international students and host country faculty.

**Overlap of adaptive challenges.** As evidenced in the literature, adjustment of Asian students to U.S. higher education is a substantial topic. Additionally, the challenges related to social, linguistic, and academic adjustment are intertwined, and often confused by students and/or faculty and/or researchers. Many Asian students expect to be challenged with regard to English-language proficiency, yet they are unprepared and ill equipped for the social and academic challenges (Choi & Lee, 2009; Robertson, Jones, & Thomas, 2000; Tompson and Tompson; 1996). Likewise, higher education faculty and staff often overemphasize either the language or the cultural adjustment challenges, failing to account for the broad social challenges that many international students identify as their greatest challenge (Tompson & Tompson, 1996).

Challenges are overlapping and as indicated by Brown and Holloway (2008) international students have stresses that are exacerbated by cultural-academic differences and language
difficulties. Zhang and Goodson (2011) determined that these three adjustment challenges (social, linguistic, and academic) are all connected but that English language proficiency issues were among the most commonly reported challenges. International students who are more confident in their English language proficiency and engage in more communication with American students have a more positive sociocultural adjustment in U.S. higher education overall (Zhang & Goodson).

Inasmuch as the three challenges of social, linguistic, academic adaptation influence Asian student adjustment to U.S. higher education, this study will serve to complement research and literature that covers cultural adaptation. However, the focus of my study is not on adaptation itself—certainly not in broad terms. It instead focused on the efficacy of an immersive service-learning experience to advance Asian international students’ adjustment from instructivist pedagogical backgrounds, to the more-constructivist environments associated with U.S. higher education. By focusing on the service-learning as a sort of gateway rather than on the holistic process of adaptation, I am making a relatively new and valuable connection and investigation between two aspects of higher education that exist on most U.S. campuses: 1) Asian student adjustment to U.S. learning environments; and 2) existing immersive service-learning activities.

**Service-Learning as a High Impact Practice and Potential Threshold Gateway**

The literature discussed above provides insight into the broad set of challenges that many Asian students face in their pedagogical adjustment to U.S. higher education (and other constructivist) learning environments. There is also some evidence gleaned from the literature that as a high impact practice (Kuh, 2008; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005) service-learning might mitigate those challenges by creating a less
formal environment in which Asian, other international, and domestic students exercise many of the learner-centered, engaged practices that also exist within a broader constructivist environment.

In her “real-world” study of service-learning McLaughlin (2010) suggests that education should serve to connect schools and communities, to link theory and practice; “learning occurs through an interaction between the learner and the environment” (p. 110). Through her study, McLaughlin focused on the more practical benefits of service-learning. Namely, hands-on experience, career enhancement, and learning that extended beyond the classroom (p. 113).

Biesta (2011) argues that the dominance of modern science has resulted in a “spectator view of knowledge” (p. 51). As originally conceived, the modern research university was to maintain the dual role of advanced scientific inquiry AND the practical development of democratic societies through the formation of “enlightened citizens” (p. 46). Civic-mindedness is a desired outcome of constructivism (Komalasari, 2009; Scott, 2008) and Cole and Zhou (2014) identified service-learning as having a strong positive association with civic mindedness.

Utilizing Banks’ Multicultural Education Framework, the authors drew key connections between service-learning, diversity experience, and civic outcomes. Similarly, Einfeld & Collins (2008) made positive connections between service-learning, social justice, multicultural competence, and civic engagement.

Similarly, Berv (1998) further supports service-learning as “sound pedagogy intended to maximize the learning and growth of all participants” (p. 122). In addition to the linkage of engagement to the preparation of democratic citizens (119-120), Berv goes on to report that service-learning also provides inclusive pedagogy that for the purposes of my study might support the characteristics of ZPD and threshold concepts. Engagement activities such as
service-learning and in the context of ZPD and threshold concepts stand out for their ability to provide individual development as well as organizational learning strategies (Moore & Mendez, 2014) conducive to adjustment to new learning environments.

**Service-learning and Asian student adaptation.** There is evidence in the literature (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Zhang and Goodson 2011) to suggest that the three areas of adaptation identified in this study (social, linguistic, and academic) can be allayed through participation in service-learning and other forms of engagement found on U.S. campuses of higher education. Hopkins (1999) noted that “intercultural learning programs take many forms, but all share the characteristics that, by their very nature, they provide students with a healthy dose of experiential learning. Immersing oneself in another culture provides new opportunities for learning-by-doing” (p.36).

In a study that explored the effects of a cross-cultural service-learning program on the intercultural competence of its participants, Wang (2011) concluded that service-learning markedly improves intercultural competence across several variables. Using the Cross-Cultural Adaptability Inventory (CCAI), Wang found that in particular, competence improved significantly in the following areas when comparing pre- and post-experience scores: Emotional resilience, flexibility/openness, perceptual acuity, and personal autonomy. Wang’s study supports the assumption that multicultural service-learning allows students to learn through engaging in experiential and reflection-oriented activities, with special reference to its cultural context (Lai, 2009).

Kettle (2011) found that international students at an Australian university demonstrated and reported growth and adaptive experiences through engagement. Some participants in the study observed that they gained confidence in their ability to speak and think in English. Kettle
suggests that engagement allows international students to participate socially in a value-added way and to also adapt to an academic practice that promotes learners – as observed by an international student -- to be “good thinkers”, not just “good students” (p. 7).

Prior empirical research also supports the position that service-learning aids international students’ adjustment to new learning environments. Korobova and Starobin (2015) found that the positive impacts for academic success and academic satisfaction were at statistically significant higher levels for international students than for domestic students. International students, including Asian students, gained confidence in their academic abilities in a constructivist environment as well as their ability to interact within and outside of the classroom because of their participation in campus engagement activities (Kettle, 2011).

In their study of typologies for international student community engagement, Fleischman, Raciti, and Lawley (2014) added to the body of evidence that engagement activities, such as service-learning, instill a value of co-creation among participants. Instead of dictating value, educators aim to create value with rather than for the program participants. As one international student suggested, “it’s not always about the university organizing big events. As students, I think we enjoy smaller, natural occurrences in the community that make us feel part of it” (pg. 7-8). Such a reciprocal exchange and co-creation of value is at the heart of ZPD and communities of practice.

Taken as a whole, the literature supports the position that service-learning as a form of engagement supports international student adjustment and academic success in line with established psychosocial theories (Chickering & Reisser, 1993) and personal-environmental interactive theories (Astin, 1984, 1993; Kuh, 2001, 2003; Tinto, 1987). Service-learning is a high-impact practice (Kuh, 2008). Additionally, the way that the service-learning experience
situated and composed, it may be considered a high-impact practice in other regard as well: First-year experience; common intellectual experience; and diversity/global learning. Service-learning is shown to reduce stereotyping and increase awareness and appreciation for diversity; increase self-efficacy and personal growth; improve interest in and ability to work with others; foster a sense of inclusion within the campus and community environment; and, inter-connect participants with other students and faculty (Eyler and Giles, 1999, p. 54-56).

My study takes the existing literature and studies that explain the adjustment challenges and pedagogical differences, and it advances that material a step further. I investigate a new and potentially valuable way of using service-learning to support a student population that often struggles in it adjustment to the U.S learning environment. My study seeks to investigate three research questions:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

In order to make such an investigation, and in the absence of previous similar studies, I will take a methodological approach that provides me with the greatest possible access to both
the service-learning experience, and the international students who are themselves participants in an immersive service-learning experience.
CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the methodology of the study, including a rationale for the use of qualitative inquiry, an overview of the research design and research questions, site selection and sampling criteria, as well as data collection and analysis. Trustworthiness, propositions, issues, and study limitations are also discussed.

Researcher Paradigm, Role, and Reflexivity

Through this study, I investigated how participation in an immersive, domestic, service-learning experience supported Asian international student adaptation to a constructivist pedagogical environment. As a researcher, I wanted to understand as much detail as possible in connection to Asian students' experiences with service-learning and in what ways that experience might help to bridge the cultural gap to constructivist pedagogies.

This study’s research questions require a broad collection of input and are designed to explore an area where much more can still be learned, while allowing a degree of deeper, analysis to occur regarding some key research objectives:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?
3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

My research questions could potentially be answered using a variety and qualitative, quantitative, or mixed-methods research designs. However, multiple inputs and considerations influenced my decision-making and resulted in the selection of a qualitative case study for my research design. I selected a case study design based on the nature of the problem that I was investigating, my research questions, and in-line with Yin’s (2009) general overview of when a case study design should be considered:

- The focus of the study is to answer “how” and “why” questions
- The behavior of those involved in the study cannot be manipulated
- The researcher wants to cover contextual conditions because he or she believes they are relevant to the phenomenon under study
- The boundaries are not clear between the phenomenon and context

A qualitative approach was selected to provide "rich descriptions and explanations of human processes" (Miles, Huberman, and Saldaña, 2014, p. 4) connected to Asian student experiences in an immersive service-learning trip. While data sets might have been available – or created -- such data would be less useful in an investigation of service-learning as a Zone of Proximal Development, or a threshold gateway that assuages Asian student adjustment.

While Asian students’ adjustment was part of my investigation, it was not the entirety of my investigation. I needed to clearly understand through a qualitative means the ways that Asian students adjusted and the ways that service-learning did, or did not, support Asian students’ adaptations to constructivist educational practices. I selected a bounded case study methodology
because I concluded that for this study such an approach would provide the right balance between prescribed design structure in order to investigate empirical events, while allowing me sufficient flexibility to observe holistic, and “typical” occurrences within a service-learning experience. Through a case study I was able to better observe and understand participants’ stories and views of reality, which enabled me to better understand the participants’ actions within the service-learning environment (Lather, 1992; Robottom & Hart, 1993 & 1995).

A case study is appropriate because within the service-learning experience, the boundaries between the phenomenon and the context are not evident and I utilized multiple forms of data-collection (Yin, 2009): pre-departure questionnaires, pre-departure interviews with participants, post-experience interviews with participants, and observations. Taken as a whole these aspects of data collection and the subsequent methods of recording, analysis, and reporting, provide a thick description that enabled me to better investigate and report on the thinking and intentionality of the students’ behavior (Denzin, 1989; Geertz, 1973; Ponterotto, 2006).

Through this study I use a qualitative case study as an explanatory, descriptive, and instrumental tool (Baxter & Jack, 2008) in the hope of gaining and providing a foundational, exploratory analysis that will serve as a basis for further scholarly studies (Yin, 2009). While simultaneously standing out as a resource to be immediately useful to practitioners and policymakers, my methodological voices also leave open opportunities for further explorations. The rationale for my selected research design and investigation as a case study connects primarily to my desire as a scholar-practitioner to better understand the role and potential re-purposing of service-learning as a resource that assists Asian students in their social, academic, and linguistic adjustment from instructivist to constructivist pedagogy.
**Propositions.** Unlike certain other qualitative options, the bounded case study does permit a certain level of control, or at least influence, over the parameters of the case (Miles & Huberman, 1994; Stake, 1995). In preparation for this study, I formulated several propositions to which I frequently returned during the course of my research. These propositions were in place to either help assure that I collected adequate data to address the purpose of my research, or scale back to manage excessive data collection and analysis. My propositions reflected certain aspects of my case study that I anticipated and of which I needed to be mindful in my preparation, as well as throughout my data collection, analysis, and reporting.

Among the most important considerations was the selection of the site of the study. The institution that I selected needed to be large enough to provide an adequate sample of Asian international students to participate in an immersive service-learning experience. Asian students were recruited for participation in the study in part because of the established, well-researched, and relative behaviorist/instructivist pedagogical backgrounds of many Asian cultures. As such, the selection of an institution that allowed performing my fieldwork with Asian international students was perhaps my most relevant proposition.

Another important proposition related to the potential scope of Asian student adjustment. Due to the holistic nature of cultural adaptation, data collection and analysis, and the associated methodological decisions, I concentrated only on aspects of adaptation that were identified with adjustment to a new learning environment, which included social, academic, and linguistic adjustments. This case study was an investigation of service-learning, more than an investigation of Asian student adjustment issues; the latter was investigated and documented to a degree that was appropriate to explore the service-learning experience.
Another proposition was that the immersive service-learning environment, based on empirical evidence and practical utilization, was assumed to have an overall net positive impact on its participants. There was a proposition that Asian students would find participation in service-learning to be a clear benefit to their social and linguistic adaptation, if not their academic adaptation; the questions of the study sought to find more about the *why* and the *how* – not necessarily about *if* service-learning was to be beneficial.

**Issues.** Whereas Yin (1994) uses “propositions” to guide the research process and decision-making, Stake (1995) instead uses the term “issues.” For Stake, “issues are not simple and clean, but intricately wired to political, social, historical, and especially personal contexts. All these meanings are important in studying cases” (p. 17). An attempt to identify the issues as well as the propositions was made at the outset to both frame the study and return to at times. Issues and Propositions help to make up the thick description afforded by qualitative research (Ponterotto, 2006).

There was also the possible issue that Asian students may tend to “clump” or “cluster” together with familiar students during the service-learning trip. While such interactions might have been counter-productive to my overall research objectives, I had to deliberately stay my hand to allow interactions to unfold relatively free of my influence. As an observer, and while my analysis allowed me to freely report on my findings – both positive and negative -- I had no influence much less responsibility over the structure, preparation, facilitation, or any portion of the service-learning experience.

Students’ experiences with service-learning were a combination of coordinated program objectives, and established methods for meeting learning outcomes, and the spontaneous interpersonal interactions with fellow participants. As a researcher I had to distinguish between
the two in my observations, data collection, analysis, and reporting. I designed my research protocols (Appendices D-F) to get the participants to share their experiences in a way that connected to the overall research questions and the efficacy of the service-learning experience. My interview questions attempted to capture the students’ experience, thinking, and intentionality, but also the ways that service-learning did or did not affect the experience, thinking, and intentionality.

Research Design

I undertook a bounded case study that utilized as a case an immersive, domestic service-learning cohort at a large public university in the eastern United States, henceforth referred to as Praxis University. In cooperation with Praxis University’s Service-Learning Unit leadership and in accordance with the IRB approval, I intended to recruit 8-12 international students from a pool of applicants to a four-day service-learning trip to occur in the mid-Atlantic or south-eastern region of the United States in Fall 2016. Each service-learning cohort generally consists of approximately 30 students and 3-4 Service-Learning Unit faculty/staff leaders.

My primary goal was to recruit Asian international students. Participation of as many Asian students as possible would allow me to identify certain trends and shared experiences within the service-learning experience, while also hearing individual stories and insights regarding the experience. Due to the selected methods of data collection, I anticipated a high volume of data with which to work. A range of 8-12 Asian student participants would have provided a large enough sample and subsequent data to address my research questions.

Site and Sample Selection

Institution selection. From the large pool of institutions, I narrowed my search by identifying public land grant institutions that reported international student populations of
greater than 2200 enrolled international students (Institute of International Education, 2016).

Based on engagement criteria, institution-type, overall institution size, and the size of international population, I surveyed (see Appendix B) 14 institutions in order to ascertain suitability. To make an initial determination I used the following:

- National Survey of Student Engagement (NSSE) (2016) classified as Research Universities (very high research activity); Research Universities (high research activity); or, Doctoral / Research Universities
- Carnegie Classification of Institutions of Higher Education: Elective Classification on Community Engagement (Carnegie Classification) (2015) searching institutions identified as Doctoral Universities Highest Research Activity or Doctoral Universities: High Research Activity
- Institutions roughly within the geographic eastern United States. This search included institutions as far west as Texas and Minnesota, the U.S. Midwest, and the Eastern (Southeastern, mid-Atlantic, and Northeastern) U.S.

Of the 14 large public research institutions, 12 were land grant institutions.

Additionally, based on the reputation of their service-learning programs I selected two non-land grant institutions that met all of my search criteria. All 14 institutions met the criteria of the National Survey of Student Engagement (NSSE) (2016) and the Carnegie Classification of Institutions of Higher Education: Elective Classification on Community Engagement (Carnegie Classification) (2015), possess sufficiently large international student populations, and per the universities’ websites had offices and/or faculty dedicated to academic and/or co-curricular service-learning. Related to this latter point, I searched institutional websites for faculty and staff (and corresponding organizational units) that indicated structured and organized service-
learning activities and I searched for faculty and staff (and corresponding organizational units) that provide services to international student populations.

Based on the institutions’ websites and those institutions’ organizational structure, for all 14 institutions I contacted at least two contacts from at least two separate organization units. I sent contacts at all 14 institutions a brief explanation of my prospective study and they were invited to complete the Site Selection Survey (Appendix B) in order to provide the final cycle of information that I would need for my site selection. Contacts typically were identified through the institutions’ websites as overseeing immersive domestic service-learning activities (typically through campus student life, student affairs, or civic engagement offices) as well as personnel from the institutions’ office of international programs, office of international services, or office of global engagement. Through the responses that I received from the 14 candidate sites, Praxis University was ultimately selected. Praxis provided the greatest likelihood of meeting my participant goal of 8-12 international students it sets. It also set itself apart as the sole institution out of the 14 at which I could gain suitable access in order to recruit participants; administer the pre-departure questionnaire; attend the service-learning trip as a participant-observer; and be provided with conditions to interview study participants both prior to and after the service-learning trip.

Praxis University, a large public research university in the southeastern United States, was selected because it offered a strong co-curricular immersive service-learning program at which I had relative assurance of meeting the conditions necessary to conduct my research. Praxis University offered an immersive, multi-day service-learning trip in mid-Fall semester 2016 through a non-curricular student affairs unit that would (likely) be attended by sufficient
numbers of Asian international students and I was granted access to both recruit and collect data from participants.

The service-learning program leaders at Praxis University already had a practice of recruiting and subsidizing the trip costs for many international and domestic students for their fall domestic service-learning trips. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the student affairs service-learning unit and/or the Office of International Affairs at Praxis University. Program leaders also agreed to make sure that students accepted to participate in the service-learning experience would be roughly evenly divided between domestic and international students. While program leaders were fully aware of my investigation of Asian students specifically, the exclusion of non-Asians from program participation was not discussed. I instead intended to recruit a within-case sample that was "nested" within the service-learning cohort (Miles, Huberman, and Saldaña, p. 33), with a goal of recruiting a sample-size of 8-12 Asian international students.

**Service-learning break format.** Praxis University offers a range of service-learning opportunities throughout the year. Praxis University utilizes a relatively de-centralized co-curricular engagement office for most of its service-learning programs. At the time of writing there is not a cohesive curricular or academic structure that either acts as a hub for credit-bearing service-learning opportunities, or as a unit that vets engagement-centered courses. Praxis University’s Service-Learning Unit is associated largely with campus co-curricular student affairs and is a professional scholar-practitioner lead organization. This contrasts with several other of the campuses that were considered for this study where service-learning units are often associated with academic affairs, they are more closely linked to course instruction, and more often lead by associated faculty members.
The service-learning breaks at Praxis University often take place each fall and Spring Semester during the mid-semester break and during intercessions between academic terms. The service-learning break offerings include domestic trips into several rural and urban areas of the United States that range from 4-7 days in duration. Additionally, there are several international trips during mid-semester, intercession breaks, and often early in the first summer term. Praxis University’s Service-Learning Unit also offers regular half and full-day service-learning opportunities within proximity of campus.

Based on Site Selection Survey (Appendix B) and post-survey follow-up conversations, I selected a service-learning break activity that was four days in duration to the metropolitan Washington, DC area in October 2016. The immersive service-learning trip provided a cohort model from the beginning until the end of the trip with transportation by three 15-passenger vans from Praxis University to Washington, DC.

**Sample population.** I recruited a within-case sample that was "nested" within the service-learning cohort (Miles, Huberman, and Saldaña, p. 33) with a goal of recruiting a sample-size of 8-12 Asian international students. A total of ten Asian students were selected for participation in the service-learning trip. Each student was invited to participate by e-mail and asked to complete a questionnaire administered via Qualtrics (see Appendix C) to assure qualifications for participation would be met – these qualifications reflected requirements that students be Asian and at least 18 years of age. All ten Asian students whom I recruited agreed to participate and all ten remained in the study through the post-experience interview.
Table 1

*Asian Student Participants*

<table>
<thead>
<tr>
<th>Participant Name (Pseudonym)</th>
<th>Home Region in Asia</th>
<th>Educational Level</th>
<th>Relevant Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Addie</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Participated in one-year exchange in U.S. during high school</td>
</tr>
<tr>
<td>Charles</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>George</td>
<td>South Asia</td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>West Asia</td>
<td>3rd-year grad student</td>
<td>Most experienced; well-travelled</td>
</tr>
<tr>
<td>Matt</td>
<td>South Asia</td>
<td>Freshman</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Samuel</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Sofia</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Attended two-years of high school in U.S.</td>
</tr>
<tr>
<td>Tyson</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
</tbody>
</table>

The purposive sampling resulted in ten participants from West, South, and East Asia (see Table 1). Seven of the participants were undergraduates, primarily first semester students. Three were graduate students, two of whom were first semester students and the third was a third-year PhD student. The ten participants represented five different countries across Asia; three of the students were the only students within the sample from their respective countries. To help assure confidentiality and privacy of the participants, I chose to use "Americanized" or "westernized" names as pseudonyms. This was not out of insensitivity to the Asian students' origins but rather a way to neutralize identifiers for participants. Since the students came from five different Asian countries it seemed inappropriate to use nomenclature for one single Asian country over any other when assigning pseudonyms; to use, a naming nomenclature consistent with each
individual country would have undermined confidentiality for the three students who were the sole participants from their given country. For this reason, all participants were assigned westernized names.

**Data Collection**

For this bounded case study, I collected and analyzed data from a relatively traditional, co-curricular, domestic service-learning experience – albeit one that was purposely made internationally more diverse by the service-learning program leaders than what might otherwise be typical. Unlike certain other qualitative options, the bounded case study does permit a certain level of control, or at least influence, over the parameters of the case (Miles & Huberman, 1994; Stake, 1995). With me functioning as the “primary instrument” (Merriam, 1998, p. 22) the data represented and discussed in this study come primarily from pre-experience interviews that took place within one week before the service-learning trip; and, post-experience interviews that took place within one week after the experience. My research design contains several characteristics of a phenomenological study especially inasmuch as it depends so heavily on data collected through interviews (Creswell, 1998; Merriam, 2002). However, my study also included naturalistic observations as a participant-observer.

**General description of the service-learning trip.** I concentrate on how I collected and analyzed the data that I reported in chapters 5-7 of this dissertation. Each chapter reports on findings that were directly or indirectly linked to changes that Asian students experienced during their participation in a domestic service-learning trip. Although I was a participant-observer on the trip, in this dissertation, I selected to report on data that was collected directly from participants. I generally omit reference to my own observations, or to detailed descriptions of the program itself, or thick, rich descriptions of participant interactions with one another, with
domestic students, program leaders, or community members. The decision to concentrate on student data, rather than data that was generated from my own field notes, admittedly, has the result of sterilizing the student experience that I investigated. For the purposes of this dissertation, I concentrated on the voluminous data that was collected from students. However, separate articles that will be produced for publication from this study will report qualitatively on my own observations and descriptions of the experience. For the sake of context for the data reported in this dissertation, a brief description of the overall service-learning trip follows.

The service-learning cohort that comprised of 24 diverse, domestic students, 10 Asian international students, and three program leaders gathered at Praxis University campus on an early Thursday morning in October 2016. It was a very early start for students on their first day of a short Fall Break, following a week of mid-term exams and assignments. While everyone arrived on time, everyone arrived slowly, and most were sipping on or craving coffee. All were clearly out of bed earlier than they wanted. Nonetheless, everyone filed into one of three large passenger vans and got comfortable for the 4-5 hour drive to Washington, DC.

The drive to DC was uneventful. Students made small talk. It could be assumed based on interactions that some of the domestic students knew one another. Some of the international students knew one another. The international and domestic students did not seem familiar with one another. Most students fell asleep on the way and/or were more comfortable in their tired state staring out the window or listening to music on their devices. There was of course general small talk and getting to know one another.

The first stops in DC was to the Jefferson Memorial, the Lincoln Memorial, and the MLK Memorial. These were unguided tours that each student enjoyed at his or her own pace. The short time visiting each memorial seems to set the tone for the service-learning experience overall.
There is a progression of U.S. identity, democracy, and society that connects the eras of Jefferson, Lincoln, and King. It was finally at the MLK Memorial when the group paused to get a sense of our space and to re-connect with the purpose of the service-learning trip.

After visiting the memorials, the group checked into the hostile in downtown DC. Students shared large, common rooms for sleeping. As is the case with hostiles in general, eating, social, and kitchen spaces were common. All but one of the meals during the time in DC were prepared by the group, collaboratively. Lunches were prepared and packed by the group, and brought with us to our worksites. With some prompting and direction, often from one another, most students participated in meal preparation and clean-up. The hostile’s common space had board games, billiards, books, and plenty of space to sit socializing. Most students took advantage of the common spaces at times the group was back in the hostile.

Students were not restricted in where they could go as long as we had nothing scheduled. Student were given guidelines for safety, sticking together, and avoiding trouble. The program prohibited use of alcohol or any controlled substance, though several of the students indulged some drinking in the evenings. The only free times were in the late afternoon and evening on Thursday after we arrived in DC, and then after the days’ service-learning activities. Students took the opportunity to explore the city each evening on Thursday, Friday, and Saturday. Progressively from hour-to-hour, it was observed that domestic and international students socialized with one another more-and-more. Mixed groups went to various parts of DC in the evening, exploring restaurants, neighborhoods and clubs. Most students primarily walked, while some used the Metro or Uber to get around. Everyone was connected using the GroupMe App, which was our on-going social media and way that leaders and students updated each other on whereabouts, and on movement of groups, and the group on the whole.
Friday and Saturday were our core days of service-learning. Friday morning was spent in a large distribution center, where we packed several hundred meal-boxes that were later distributed to community members. Friday afternoon was spent cleaning a family/women’s shelter. The shelter had a policy that barring reasons due to sickness, temporary residents were to spend their days taking care of practical necessities needed to get out of the shelter: healthcare; visits to doctors; job search and interviews. School-aged children were at school. The group of students found it surprising that the shelter was empty; and that we were tasked with cleaning the shelter and leaving before residents started returning at around 4:00pm.

The entire day Saturday was spent at a community center and in the neighborhood surrounding the community center. In contrast to Friday, which was a much more physical service-learning day, Saturday morning was spent learning from and interacting with staff, community volunteers, and former homeless associated with the community center. The afternoon was supposed to be spent distributing food and other materials to a homeless population in a nearby park. However, a mix-up over scheduling and resources resulted in the group taking an extended walking tour of one of DC’s gentrifying neighborhoods.

While Friday left the service-learning cohort a little disappointed at the physical work without the personal interactions with the homeless community, Saturday was a highlight for the students, despite the minimal interactions with homeless, and even despite the actual service on Saturday. Instead, Saturday is best viewed as the day of learning in the service-learning hyphen. Community center associates provided rich discussion, examples, and a tour that illuminated the contributing systemic reasons for homelessness. By giving first-hand accounts and personal stories of former homeless and through tracing the neighborhoods’ history of white flight and
recent gentrification, the service-learning cohort was able to see, discuss, and understand the complexity of America’s homelessness and hunger challenges.

The cohort departed DC early on Sunday morning to make the 4-5 hour drive back to Praxis University. Although the students were as tired on the drive back from DC as they were on the drive to DC three days prior, conversation was lively. Domestic and international students spoke comfortably, fluidly, and amicably. While several students fell asleep in their tiredness, few chose to stare out the window or lose themselves in their personal electronic devices. When awake, students in the front were turned backward in their seats engaging students in rows further back. Students spoke of their experiences, possible plans for getting together and participating in future service-learning, and in general casual ways about the things that college students talk about. For the purposes of this study and the data that at times is dryly reported, the change in tone, friendliness, and apprehension between students was palpable. Boundaries to communication and community-building – whether they were social, cultural, or linguistic – seemed to have been overcome by an intense, positive, shared experience. Domestic students of highly diverse backgrounds and Asian international students all interacted with one another relatively freely, unencumbered, and seemingly as friends.

**Pre-departure Interviews.** Within the week prior to the start of the service-learning experience, I met with each participant on the Praxis University campus in order to conduct a pre-departure interview. Through this initial interview, I collected information pertaining to Asian students’ previous academic experiences and their academic impressions of and experiences at Praxis University. The pre-experience research protocol (see Appendix D) included questions relating to general exposure to service-learning and other engagement activities, and provided socio-historical background regarding past pedagogical experiences. Pre-
experience interviews created a baseline regarding values, socio-historical exposure to education, and expectations. For the purposes of threshold concepts the pre-experience interviews provided a *pre-liminal* (Meyer & Land, 2003, 2005, 2006) starting point in considering service-learning as a threshold gateway. Finally, the pre-experience interviews provided me with the opportunity to meet with students and to begin developing a rapport. In addition to the actual interviews I was able to answer student questions about the nature of my research and to assure them of my role during the trip.

**Post-experience interviews.** Within one week after the service-learning trip I again conducted in-person interviews with all ten Asian student participants. The post-experience interview protocol (see Appendix E) was similar to the pre-departure protocol in the weighting of its questions on social and academic topics. The post-experience interview was intended to ask similar questions (and in some cases, the exact same questions) in order to collect Asian student perspectives following the service-learning experience. In the context of threshold concepts (Meyer & Land), the post-experience interviews provided a *post-liminal* end point for Asian students that I could use for coding purposed and in order to identify, analyze, report, and discuss changes in values, attitudes, and beliefs.

All pre- and post-interviews for all ten students were audio-recorded and immediately saved to a secure, password protected server. Files were saved under the pseudonyms for each participant. The length of all interviews ranged from approximately 30 minutes to 50 minutes. All interviews were transcribed verbatim using a third-party service. Returned transcriptions were also immediately saved to a password-protected server.

**Participant-observation.** The opportunity to witness first-hand the subject(s) under investigation was an extremely important aspect of my qualitative case study (Denzin & Lincoln,
2008; Patton, 2005). Observation, if conducted within the proper scholarly measures for trustworthiness and scholarly rigor, will add significantly to the thick description (Ponterotto, 2006) provided through qualitative study. I took the opportunity to observe and interact with participants seriously, but I also consider it invaluable to the rich findings of my study. I drafted a participant-observer protocol (see Appendix F) that was included in my IRB materials and to which I adhered throughout the study. Specific to this study my observation of the participant interactions and engagement mostly provided me with a means of triangulating and confirming the data that emerged from the pre- and post-interviews. Because of the volume and richness of data through the 20 transcribed interviews, I did not depend or even directly report on my observations in the findings section of each article. However, on occasions during analysis of the data when I was uncertain based on the transcriptions alone, my observations helped me to identify occasions when I needed to member-check with study participants to ascertain the participants’ intended meaning. There were multiple occasions when it seemed that transcripts did not reflect what I observed (or what I thought I observed). My observations helped to trigger member-checking which ultimately served to triangulate my findings. If I was unable to clarify unclear wording or meaning through member-checking, I excluded that data from my analysis in order to avoid potentially misrepresenting the study participants. Instead, my observations played a role and helped inform the discussion and implications sections of each article.

**Researcher journal.** As a best practice of qualitative research (Merriam, 2002), I reflected on my research problem and purpose in a journal before I began data collection and I maintained a journal throughout the data collection and analysis processes. This confidential research journal helped me be mindful of my views in connection to the study overall but in particular connected to my own observations and biases. Bracketing (Creswell, 2007) analytic
memoing (Miles, Huberman, and Saldaña, 2014; Saldaña, 2013), and jottings (Emerson, Fretz, and Shaw, 2011) throughout the entirety of this study were maintained and reflected on within the researcher journal

Evidence Analysis

The data represented and discussed in this study came primarily from pre-experience interviews that took place within one week before the service-learning trip; and post-experience interviews that took place within one week after the experience. All interviews with each of the ten participants were conducted one-on-one, digitally audio-record, and transcribed verbatim through a third party service.

This study explores the research questions:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

To explore research question 1, I had to identify from the data the ways that Asian students changed or adapted during the service-learning trip. I did this by comparing the pre- and post- interview transcripts, scouring for evidence of changes in academic values (including
values, attitudes, and beliefs) (Appendix H). To answer research questions 2 and 3, I depended on the findings related to question 1 (the change in values) as first-cycle coding.

To investigate question two, I re-coded the data connected to Asian student changes (first-cycle coding associated with question 1) using second-cycle a priori process coding (Appendix I) based on eight ZPD scaffolding influences: Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard); and Contingency Management) (Tharp, 2012).

To explore question 3, I analyzed the first-cycle coding results from question 1 linked to Asian students’ changes in academic values and connected that data to a priori patterns codes (Appendix J) based on five possible threshold concept features (Meyers & Land, 2003, 2005, 2006) as they might occur through the service-learning experience (second cycle pattern coding).

**First-cycle values coding.** Reflects “participant’s values, attitudes, and beliefs, representing… perspectives or worldview” (Saldaña, 2013, p. 110-111). A priori codes were initially utilized in order to connect Asian students' values with the adaptive categories of academic, social, and linguistic adjustment (Akazaki, 2010; Andrade, 2006; Lee, 2007; Robertson, Jones, & Thomas, 2000; Shurer, 2016; Tompson & Tompson, 1996). Through the deductive coding process of both the pre- and post-experience interviews, additional codes were established inductively. An analysis of the inductive codes for the pre- and post- experience data demonstrated the changes in Asian students' values, attitudes and beliefs regarding academics, socialization, and language. The changes that were identified served as a starting point for my investigation of service-learning in connection with Asian students’ ZPD (Chapter 6/Article 2), and as a threshold gateway (Chapter 7/Article 3).
**Second-cycle process coding.** To qualitatively investigate my second research question and better understand the possible influences of service-learning on Asian international students' transition to constructivist learning environments, I established a coding protocol that utilized process coding (Miles, Huberman, & Saldana, 2014). This coding was selected in order to identify "observable and conceptual action in the data" (p. 75) and to better investigate influences that affected international students in their ZPD.

I established a priori process codes based on eight "means of influence" (Tharp, 2012, p. 38-53) that can be linked to the "scaffolding" commonly associated with ZPD (Wood, Bruner, & Ross, 1976).

**Task structuring.** The overall structuring and restructuring of activities in a learning situation that incorporates other behavioral and linguistic influences. This influence can be thought of as the "curriculum" or lesson plan of the overall learning situation.

**Propping/nudging.** A behavioral influence that refers to the physical placement of a learner to perform the next desired learning behavior or activity.

**Modeling.** Influencing a learner's behavior by offering a model for imitation. Modeling is a behavioral influence that would ideally be provided by a more experienced peer.

**Instructing.** A linguistic influence that calls for a clear and specific action on the part of the learner. This is not to be confused with lecturing; it instead refers to instructing (telling) a learner to carry out an action.

**Cognitive structuring (explaining).** Explaining in order to help connect other aspects of behavioral and linguistic scaffolding around learning. This linguistic influence explains ideas and context associated with broad worldviews, theories, philosophies, or ethical systems.
**Questioning.** Asks the subject to demonstrate learning, or to demonstrate attempts at mastery of content. Questioning is a linguistic influence that differs from instructing because it does not instruct or present a hard expectation for action but is rather utilized to help learners be influenced primarily through questions of "why?"

**Feeding back (against a standard).** Feedback connects an assessment of learning to other ZPD influences within the scaffolding in an effort to aid improvement on the next attempt.

**Second-cycle pattern coding.** In order to explore my third research question and investigate how a multi-day domestic service-learning trip might serve as a conceptual gateway I adopted pattern coding in order to re-code the finding related to Asian students’ changes. According to Miles, Huberman, and Saldaña (2014, p. 86), pattern codes are “explanatory or inferential codes, ones that identify an emergent theme, configuration, or explanation” that “pull together a lot of material into a more meaningful and parsimonious unit of analysis… they are sort of a meta-code.” The second-cycle coding is used to develop major themes or patterns from the data; search for rules, causes, and explanations in the data; examine social networks and patterns of human relationships; and form fledging theoretical constructs and processes (Miles, Huberman, Saldaña, 2014; Saldaña, 2013).

Relevant to this study, and based on the large volume of coded data that resulted from the values coding, pattern codes were first assigned deductively, based on the five characteristics of threshold concepts (transformative, troublesome, irreversible, integrative, and bounded (Meyer & Land, 2003, 2005, 2006). Data from the transcripts that reflected a change in values – as identified through the first-cycle values coding – were coded again against the deductive pattern codes. The second cycle coding was conducted to identify which characteristics of the service learning experience (as a potential conceptual gateway) were connected to changes in values
associated with students' liminal, epistemological shift away from behaviorism and toward constructivism. It was not assumed in the data analysis or reporting that evidence of all five of the threshold concepts was requisite for the service-learning experience to have value as a threshold gateway. There was not quantitative measurement of the degree to which each of the five threshold concepts was manifested within the service-learning experience. As the researcher, I was using the five threshold characteristics as a guide for me to explore immersive service-learning’s characteristics as a threshold gateway; not as a binary test to prove that service-learning is, or is not, a threshold gateway for Asian student adjustment to a constructivist-learning environment. From and through my analysis of the five a priori codes connected to the threshold concept characteristics, 19 inductive codes emerged (Appendix I). These inductive codes were clustered in order to identify and report patterns.

The first and second-cycle coding decisions and analysis are intended to illuminate process as much as outcome. Referring to the study’s conceptual frameworks of Zone of Proximal Development and threshold concepts, the values (first-cycle) coding will serve to link Asian international students’ socio-historical context and the potential for improved problem-solving, the construction of new knowledge, and collaborative learning within a service-learning environment (assessed as a ZPD and threshold gateway). Second-cycle process and pattern coding will seek to categorize the possible ZPD influences that are reflected in “the changing relations between new-comers and old-timers in the context of a changing shared practice” (Lave and Wenger, 1991, p. 49). The second-cycle pattern coding links to the transformation of values through the service-learning experience and whether that experience is a threshold gateway that opens up Asian students to the overall constructivist learning environment and a "new and previously inaccessible way of thinking about something" (Meyer & Land, 2003, p. 1)
Trustworthiness

Critics of qualitative studies will often find flaws with the potential subjectivity associated with many qualitative methods (Shenton, 2004). In particular, utilizing and reporting on observations, while providing a rich source of material that adds to many qualitative methods, does indeed have the potential to undermine the trustworthiness of the study. Either as a matter of fact, or as a matter of critics’ perceptions, the observation portion of my study required some added measures to assure integrity since. In the absence of data actually provided by the study participants, input related to my observations depends entirely on what I myself observe with my senses and what I choose to record.

In part because of the ample data that I collected through pre- and post-experience interview my observations scarcely make into my reporting of data. However, my observations did play out more in discussions and implications in each article. As such, and in order to provide transparency in this regard, I utilized a researcher journal throughout the entirety of my study – from the initial research design through the final writing of my study. The journal contains jottings (Emerson, Fretz, and Shaw, 2011), analytic memoing (Miles, Huberman, and Saldaña, 2014; Saldaña, 2013) and overall reflections to help check my own biases in particular with how they might affect my perception and how I report my observations. My observations and journal greatly add to the trustworthiness of this study. There were multiple occasions when it seemed that transcripts did not reflect what I observed (or what I thought I observed). Likewise, sometimes language in the transcripts was unclear. My observations helped to trigger member-checking which ultimately served to triangulate my findings. If I was unable to clarify unclear wording or meaning through member-checking, I excluded that data from my analysis in order to avoid potentially misrepresenting the study participants.
In order to maximize, maintain and advance academic scholarship, and to assure the rigor of my own methods, I established clear and consistent measures of trustworthiness. Utilizing Guba as cited by Shenton (2004), and in conjunction other measures outlined within my proposal, I will strive to satisfy four criteria for trustworthiness: Credibility, transferability, dependability, and, confirmability. These strategies can be included as part of an entire stance regarding my standards of practice as a researcher. They are evidenced in my stated propositions and issues, my efforts at triangulating my data, my adherence to a strict protocol with regard to my interactions with study participants, and the manner in which I respectfully and ethically safeguarded the privacy, confidentiality, and anonymity of the study participants. Finally, as viewing my case study as an investigation of the experiences of persons with inherent dignity and worth, and based on the personal nature of this qualitative investigation, I maintained the highest level of sensitivity of my participants and the fact that without their respected participation, my study would not have been achievable.

Credibility. The essence of credibility is to measure, test, or otherwise investigate what was actually intended. With regard to my study explored Asian international students’ experiences within an immersive service-learning trip for the purposes of understanding service-learning as means of advancing adaptation to a broader constructivist environment. In order to help assure credibility I adopted many of the recommended strategies for credibility (Shenton, 2004, p. 64-68): Well-established methods; deliberate steps to gain familiarity with the culture of the participating organization(s); triangulation through multiple methods of data collection; tactics to help assure the honesty of the informants through in-person observations, interviews, and iterative questioning; supervising-advisor and committee scrutiny; member checks; my own
ongoing reflective commentary through bracketing and analytic memoing; examination of previous research findings; and the means to provide a thick description of the case study.

**Transferability.** While properly conducted positivist, quantitative research is generally recognized as being generalizable to another population, qualitative investigations are generally not considered as such or applied outside of the relatively small group under investigation (p. 68). With that said, Shenton suggests that if great care is taken as a qualitative researcher to contextualize the study, that while findings cannot be broadly generalizable, they might be transferable to similar conditions (p. 69). With time, as new qualitative studies from “multiple environments”, provide additional thick descriptions, patterns and a “baseline understanding” for transferability may begin to take form (p. 71).

**Dependability.** While quantitative researchers will expect results to be the same if the same or a similar study were to be completed with the same or a similar population, qualitative researchers do not generally adhere to that logic because of the “changing nature of the phenomena scrutinized by qualitative researchers” (pg. 71). However, while replication may not be an expectation, the dependability of this study was strengthened by using multiple, overlapping methods – as is the case of this study using pre-departure interviews, post-experience participant interviews, observation, and journaling. Furthermore, dependability is furthered through the rich detail that I provide of the planning process, participant selection, the decision-making process, the environment, and the overall explicit details of the case study.

**Confirmability.** Shenton cites Patton when suggesting the “intrusion of a researcher’s biases is inevitable” at any, point that human skill or perception is part of the process (p. 72). The measure of confirmability is that a study’s findings reflect the actual experiences and ideas of the informants rather than of the researcher and Shenton cites Miles and Huberman (p. 72) when he
suggests that the best way to assure confirmability is for the researcher to admit to his or her own predispositions. As is the case with credibility, transferability, and dependability, confirmability is largely provided through a great level of details regarding the entirety of the case study. Superficial aesthetic descriptions are not sufficient. Instead, details must also be provided that provide transparent recognition of propositions and issues at the beginning of the study. Through a research journal I also used bracketing (Creswell, 2007) analytic memoing (Miles, Huberman, and Saldaña, 2014; Saldaña, 2013), and jottings (Emerson, Fretz, and Shaw, 2011) throughout the study. The research journal was essential capturing and reflecting on thoughts and insights that “allows any observer to trace the course of the research step-by-step via the decisions made and procedures described” (Miles and Huberman, p. 72).

Conclusion

This research stands to generate greater understanding about the role of service-learning in the adaptation of Asian international students to constructivist-U.S. learning environments and investigates the following research questions:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?
By addressing my research questions using a qualitative case study I was able to collect, analyze, report, and discuss a wealth of valuable and rich information and experiences. This study explores the *hows* and *whys* of Asian students’ experience with an immersive service-learning trip.
CHAPTER 4

ARTICLE OVERVIEW

This chapter provides an introduction and overview of this three-article dissertation. Included is a rationale for the structure and a preview of each article, including the aspects of the overall dissertation topics that are covered in each article and a brief synopsis of the findings. Each article is based on the broader research problem, literature review, and methodology but concentrates on answering one particular research question.

Article Structure

Rather than report the findings of my research in a traditional five-chapter dissertation format, I chose to present my findings as three separate articles that are in written in preparation for publication. Utilizing an alternative to the five-chapter format offers several potential advantages to me as the researcher and writer. Regarding the identification of a research problem, conducting a complete review of the literature, and addressing all methodological considerations related to data collection, this dissertation follows what would be standard format. However, the analysis and reporting of findings deviates from the traditional format and provided me with an opportunity to explore and report on the data using three separate research questions and generating three separate (but related) articles.

Numerous scholars argue that writing a traditional dissertation is not an authentic experience that prepares scholars for future professional – whether it be within or outside of academia (Duke & Beck, 1999; Tronsgard, 1963). While any act of scholarly writing at the level appropriate for a dissertation is an important exercise, the traditional dissertation generally yields an outcome that is for and likely to be primarily viewed by an internal, institutional audience.
The article format provides better likelihood that a researcher’s work will be better disseminated simply because full dissertations are rarely published in academic journals (Duke & Beck, 1999; Gross, Alhusen, & Jennings, 2012; Robinson & Dracup, 2008). Likewise, since dissertations are often written differently than academic articles, most traditional dissertations would have to be revised and rewritten in order to be of the appropriate format and length for publication (Duke & Beck, 1999).

Writing the last chapters of my dissertation in journal article format meets rigorous research requirements as well as the possibility of published journal articles in a much faster period. Students who complete a multiple article format dissertation gain experience in writing for an audience outside their institution with an increased possibility of publication in scholarly journals (Duke & Beck, 1999; Hartley & Betts, 2009; Hill, Kneale, Nicholson, Waddington, & Ray, 2011; Robinson & Dracup, 2008). Furthermore, the process of writing articles gives students experience with the publication process that requires an application of writing economy and clarity that is more authentic and in-line with academic research standards for which doctoral students are professionally preparing (Robinson & Dracup, 2008; Walkington & Jenkins, 2008).

With the above factors in mind, this study utilized a three-article format in which each article included its own introduction, literature review, methods, results, implications, and conclusions sections. There were similarities and overlap between all three of the articles due to the research problem and research questions. As necessary, some sections (such as the literature review and methodology sections) are paraphrased and adapted to fit the theme of the article and the research question of that article. As such, those sections within each article will potentially sound repetitive but in fact they will be adapted slightly in such a way as to best support the
research question and conceptual framework reported in each article and is consistent with authors who publish multiple articles from one research study.

Article 1 approaches the overall topic through the research question: How do international students’ pedagogical values (including beliefs, attitudes, and values) adapt or change because of their participation in an immersive and diverse service-learning experience? In order to investigate this question, I analyzed the transcripts of the pre- and post-experience interviews through a prism of values coding. Descriptions of previous learning experiences and values provided by student-participants through the pre-experience interviews generally reflected the literature related to rote memorization; preparation for and competition regarding high-stakes exams; greater power distance between teachers and learners; and a generally isolated learning environment in which there is minimal engagement between students and/or with the broader community. On the other hand, the post-service-learning interviews demonstrated three interconnected themes within and across the three adaptive categories, and a general shift and adaptation to the pedagogical methods inherent with educational environments in which constructivist pedagogical practices are found.

The findings demonstrated and discussed in Article 1 suggest that the participants experienced a compressed adaptation with regard to socialization through the service-learning experience. It was generally reported and observed that participants inter-mingled more freely than they would in a typical campus setting and they forged relationships that might not have happened otherwise; or if they were to happen outside of an experience such as service-learning, relationships of such strength would likely take much more time to develop. A common thread that spanned all three themes in the findings suggests that the service-learning trip itself, with its
defined objectives, duration, and schedule became a natural medium for forging relationships, many of which were described after the service-learning experience as burgeoning friendships.

Article 2 explores the research question, how do activities and interactions within an immersive service-learning experience influence international students who are in a Zone of Proximal Development in transition from an instructivist to a constructivist-learning environment? I identified the ways that Asian students changed or adapted during the service-learning trip by comparing the pre- and post- interview transcripts (first-cycle values coding), scouring for evidence of changes in academic values (including values, attitudes, and beliefs). I then analyzed the first-cycle values coding results to investigate how Asian student changes in academic values connect to eight possible ZPD scaffolding influences (Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard); and Contingency Management) as they were evidenced in the service-learning experience (second cycle process coding).

Although the combination of the literature and students' own description of prior learning suggested a level of superficial cognizance of how the U.S. system differs from their previous pedagogical experiences, most of the students themselves had never actually experienced the differences in any immersive sense until the Praxis University service-learning trip. The findings in Article 2 suggest Asian students developed increased comfort with constructivist activities because of participation in an immersive service-learning trip. Taken as a whole, Article 2 explores valuable insights into what influences Asian students who are in their Zone of Proximal Development. Furthermore, the findings suggest that service-learning might lend itself to exercising certain scaffolding influences more than others; and/or, there might be opportunity to better structure service-learning experiences in order to more effectively utilize influences in a
way that maximizes learning for Asian students who are in a Zone of Proximal Development. For example, while the ZPD scaffolding influences of Propping/Nudging and Modeling could be considered influential on Asian student participants in the service-learning experience, the influence of Questioning was less so. Is it because questioning as an influence would have been less efficacious regardless? Or was questioning’s lack of influence the result of that scaffolding means of influence not being utilized effectively and at the best times by program facilitator-leaders so as to influence learning?

Article 3 focuses on the service-learning experience and its impact on Asian students in a third and final way. In this article, and using the five characteristics of threshold concepts, I address the question: How does service-learning serve as a threshold gateway for international students’ transition from an instructivist to a constructivist-learning environment? While Article 2 concentrated on the processes within the service-learning experience, Article 3 takes a closer look at the values codes from Article 1 in order to identify patterns that connect with threshold concepts and draw from Asian students' change and adjustment in values, attitudes, and beliefs.

Values, attitudes, and beliefs reflected in the post-experience portion of data collection generally indicated a shift away from students’ antecedent and relatively static view of academics; and, relatively little to nothing about social (except that students wanted to socialize but many of them felt that they first needed to concentrate on their academics) and linguistic adaptation. Conversely, findings related to the post-experience values coding showed this newfound value placed on the engaged, active-learning environment as a means to learn and problem-solve, and as a place where socialization could occur both as related to their academics and in support of their overall well-being. For this Article, I assigned the data that reflected a change and/or adaptation of values to five a priori pattern codes that reflected the five
characteristic of threshold concepts: *Transformative; troublesome; irreversible; integrative; and bounded*. My two-stage coding process demonstrated: 1) The key areas of adaptation and change related to academic, social, and linguistic adjustment; and, 2) how those adaptations and changes might be attributed to one or more of the five threshold concept characteristics as related to the immersive service-learning experience.

Analysis of the five pattern codes resulted in three themes that could be linked to specific characteristics of threshold concepts, but that also spanned the characteristics within the service-learning experience. These themes reflect Asian student adaptation along academic, social, and linguistic lines as related to the first-cycle values coding, and connect those adaptations to and through the second-cycle pattern coding that reflects the five Threshold Concept characteristics. In many occurrences, aspects of the Asian student attitudes that indicated uncertainty or apprehension in the pre-experience interviews had progressed to enthusiasm and exhilaration by the time of the post-experience interviews. Students excitedly reported a more keen understanding of why students engage with one another, and how that engagement complements the other teaching methods within a constructivist pedagogical environment.

**Final Thoughts**

The three articles represent my exploration of service-learning for its potential role in supporting Asian international students’ adaptation to a constructivist U.S. learning environment by investigating the following research questions:

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?
2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

By addressing my research questions using a qualitative case study I was able to collect, analyze, report, and discuss a wealth of valuable and rich information and experiences. The three articles seek to cast further light not just on the *whats*, but also on the *hows* and *whys* of Asian students’ experience with an immersive service-learning trip.

Through the following three articles, I explore how a relatively standard, multi-day service-learning experience supported Asian students’ adaptation to a constructivist pedagogical environment. Findings indicate that through the service-learning experience, Asian students adopted a more dynamic view of academics and experienced and erosion of many of the barriers that prevented Asian students from integrating socially with their domestic peers – both necessary to and consistent with constructivist pedagogical practices and objectives.

The degree to which the service-learning trip can be directly or exclusively responsible for the Asian students’ changes and progression toward a constructivist learning community cannot be made clear within the parameters of this study. What is clear is that through an immersive service-learning experience Asian students demonstrated adaptations in ways fundamentally linked to constructivist learning. Participants demonstrated that they (at least temporarily) had become part of the system and community of dialogue and engagement through which knowledge is created in a social-constructivist pedagogical environment.
The service-learning experience demonstrated inherent ZPD scaffolding influences that affected Asian students’ adjustment to the types of learning and engagement found within constructivist environments. The bounded frontiers of the service-learning experience and other characteristics of threshold concepts identified within the service-learning trip also suggest the particular immersive, domestic service-learning trip that I investigated served as a gateway to a broader constructivist environment for Asian student participants.
CHAPTER 5
ARTICLE 1: IMMERSIVE SERVICE-LEARNING AND INTERNATIONAL STUDENT ADAPTATION TO A CONSTRUCTIVIST LEARNING ENVIRONMENT

Introduction

Thus far, the 21st century has seen increased diversity in student populations and greater efforts to successfully incorporate students of all backgrounds into campus culture (Banks, 2007; Gurin, Dey, Hurtado, & Gurin, 2002). This diversity is not just a matter of domestic ethnic or racial representation but is also connected to aspects of sexual identity, veteran status, age, part-time/full-time status, and international students (Banks, 2007; Bridges, 2000). Asian international college students who come to the U.S. to pursue their studies may be particularly unfamiliar with and unprepared for the learning environment and culture that is typical of U.S. higher education. Adjustment to a learning environment where diversity, innovation, engagement, pluralistic viewpoints, critical thinking and dialogue are among the academic expectations can be extremely difficult for Asian students. (Zhang & Goodson, 2011).

Acknowledging the growing Asian student population (Institute of International Education, 2016) on U.S. campuses, this study investigates service-learning as a possible means by which Asian students can better comprehend and participate in the type of pedagogical environment common to U.S. university and college campuses. Service-learning is one of numerous forms of research-based, student engagement that are shown to support overall student success and persistence (Astin, 1984, 1993; Tinto, 1987).

Using a multi-day, immersive, domestic service-learning experience offered through a large public research university in the southeastern U.S. as a case study, I investigated the
following research question: How do international students’ pedagogical values (including beliefs, attitudes, and values) change as a result of their participation in an immersive and diverse service-learning experience? I am motivated by my overall interest in learning more about whether domestic service-learning trips can support international student adaptation to constructivist learning environments, while providing domestic students with local, accessible ways to gain high-impact cross-cultural experiences.

**Literature Review**

This case study investigates whether and in what ways an immersive, domestic service-learning experience assists Asian international students in their adjustment to a constructivist-learning environment often associated with U.S. higher education pedagogy. To accomplish this I conducted a review of literature connected to international student adjustment to new learning environments, giving particular attention to investigations of Asian student adaptation. I also review the literature associated with service-learning, highlighting investigations of when service-learning was utilized to bolster international student success. The literature that is addressed here provides a background for the question: How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment? In order to explore that question and through my review of the literature I came to identify adaptation as a shift in pedagogical values (including beliefs, attitudes, and values) that I divided into three adaptive categories: Academic; social; and linguistic.

**Asian Students’ Pedagogical Adjustment to U.S. Higher Education**
On a relative scale, education in the U.S. is considered “constructivist” – which is relatively active, engaged, and learner-based (Bruner, 1996; Jones & Brader-Araje, 2002). Constructivism can be contrasted with behaviorism (“instructivism”), which is relatively more didactic and teacher-based (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). Constructivism suggests theory, practice, and organization by which knowledge is constructed socially and collaboratively (Porcaro, 2011, p. 41); the teacher tutors and facilitates learning. Instructivism seeks to transfer information to students as efficiently and effectively as possible (p. 43); in other words, in the form of an instructor or professor transmitting information to students primarily through lecture.

Populations throughout the world embrace pedagogical and epistemological practices consistent with their cultural values and traditions (Bruner, 1996; Elder-Vass, 2010). Porcaro cites Catterick (2007) when he provides China as an example of a culture that is particularly challenged with regard to accessing constructivist pedagogical practices: “Constructivist pedagogy works poorly in Chinese culture, where many students struggle to reconcile their long held pedagogical beliefs and habits with collaborative learning, the diminished authority of the teacher, and autonomous learning” (p. 47).

Zhang and Goodson (2011) as well found that Asian students might experience greater challenges than domestic students with regard to psychosocial adjustment. Additionally, they also conclude that Asian students may experience greater levels of sociocultural difficulties than international students from other parts of the world who are also studying in the U.S. (p. 614-615). Zhang and Goodson do not make any direct connection with pedagogical factors related to Chinese students’ educational experiences. The authors instead concentrate on psychosocial and sociocultural aspects of adaptation. Smith and Khawaja (2011) similarly suggest that most of the
international students studying in a new country do not just face challenges in pedagogical adjustment. They also experience doubts about the efficacy of the new system, and they have to reconcile their held beliefs and skills with their new environment. Finally, Terrazas-Carrillo, Hong, & Pace (2014) illustrate a process through which learners go through a renegotiation of meanings in order to fulfill specific needs – such as “desire for social interaction, and opportunity for self-expression, and the expression of their own emotional experience” (p. 693).

Lee and Ciftci (2014) found that Asian students struggled more with the drastic pedagogical differences than with language proficiency. The authors suggested that Asian students struggle primarily because they lack a multi-cultural personality and exposure to diverse ideas in their educational backgrounds; they lack assertiveness; they have lost their sense of academic self-efficacy in the U.S. higher education environment; and they struggle to find their place in the new social structure. Lee and Ciftci outline the struggles of Asian student adaptation from a collectivist social structure that supported their identity as a student, to one in which students face the challenges of the new pedagogical expectations, in a new, individualistic culture, without their traditional social support structure. These challenges reflect Asian students’ self-identification firstly as “students” rather than “foreigners” (p. 98) and the unexpected challenges that they face.

Adjustment to new pedagogical environments was also investigated in Lee’s (2007) quantitative research of East Asian students studying in the U.S. Lee’s analysis identified a clear overlap between language and academic challenges, but she identified issues of “power distance” (p. 29) and individual identity as the primary hurdles regarding student performance and adaptation. The communication, vocalization of critical, sometimes even argumentative
opinions, and fear of negative evaluations or responses from instructors and classmates results in Asian students’ heightened anxiety regarding language proficiency and speaking up in class.

In another study of Southeast Asian (Indonesian, Thai, and Vietnamese) students studying at an English-language school in Australia, Nguyen (2011) concluded that culture played a large role in students’ comprehension and participation in a constructivist-learning environment. Nguyen drew several conclusions about the Southeastern Asian students that identified or confirmed several patterns. Asian students tended to focus too much on the method of assessment rather than the learning process; Asian students seemed to prefer rote learning – they memorized but lacked critical thinking skills; Asian students tended to view lecturers with extremely high reverence; Asian students were generally passive and they did not tend to talk in class; Asian students did not easily adjust to local conditions (p. 14-17).

Students from instructivist cultures find constructivist pedagogy, collaboration and engagement, and solving “ill-structured” problems, requires entirely different skills than those that were developed through prior schooling (Choi & Lee, 2009). Furthermore, students from highly instructivist backgrounds have been accused of lacking self-directedness, working only to “make the grade”, and reluctance with regard to engagement and working collaboratively, especially when goals are not aligned with well-structured and obvious academic rewards (Porcaro, p. 45).

Shurer's (2016) study of international student expectations divided the challenges of academic adaptation into two categories (social and cultural). Synthesizing the available literature and in order to concentrate my investigation on the efficacy of service-learning, rather than individual student processes, I identified three adaptive categories: Social; linguistic; and academic. While these three adaptive categories are interlinked, much of the literature suggests
that international student challenges with regard to academic adjustment are often the result of social and/or linguistic adjustment challenges.

**Social adaptation.** Studies within the social, or sociocultural, adaptation literature reflect a person’s basic need to fit in socially and negotiate a new cultural environment. According to Tompson and Tompson (1996), international students perceive social adjustment and social isolation to be the most difficult adjustment area. Citing Maslow (1954), Tompson and Tompson offer that until international students are able to meet their basic social, and esteem needs, they will be unlikely to engage in “self-actualization activities” such as academic pursuits or intellectual debates (pg. 55). The following facets of social adaptation are of particular importance in the literature and to this study: Students’ communication confidence (Akazaki, 2010; Andrade, 2006); interaction with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006), and friendship, support, and social networks (Andrade, 2006; Hotta & Ting-Toomey, 2013; Hendrickson et al., 2011; Ying & Han, 2006).

**Language adaptation.** As already indicated, Tompson and Tompson (1996) reflected that social isolation was the greatest challenge to adaptation as perceived by international students. The second most-difficult adjustment area as perceived by international students is in the area of language skills (pg. 55). Some English-speaking faculty on the other hand, perceive the greatest challenges for international students to be English-language proficiency (Trice, 2003). A relatively small number of scholars have attempted to measure English-language proficiency as the principal cause for international student adjustment to English-speaking campuses (Graham, 1987; Vinke & Jochems, 1993; Woodrow, 2006; Xu, 1991). It is worth noting that most of such studies that concentrated on language adaptation as an indicator of
success were conducted in the 1980s to early 1990s. Studies that are more recent show a trend toward investigating challenges in socio-cultural adaptation.

**Academic adaptation.** Lee (2007) showed that cultural divides and differing expectations cause heightened academic anxiety, confusion, and uncertainty for Asian students studying in the U.S. Some key themes that distinguish these students’ academic experiences from the experiences of their domestic peers include: 1) Pedagogical differences and expectations; and, 2) faculty-student relationships. Tompson & Tompson found that such confusion caused international students to not academically engage, ask questions, or participate with domestic or other students not from their home country. As indicated already, social and language challenges (and resulting lack of participation in the constructivist pedagogical environments) are sometimes attributed to Asian students' challenges with the academic content (Robertson, Jones, & Thomas, 2000). This lack of participation, the misunderstanding about why students might be reticent, and differing expectations within the classroom then contribute to strained student-faculty relations (Andrande, 2006; Kingston & Forland, 2008), which further adds to international students' challenges.

The studies mentioned above provide insight into the broad set of challenges that many Asian students face in their pedagogical adjustment to U.S. higher education (and other constructivist) learning environments. The goal of this study is to explore how participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

**The Role of Service-Learning**

The benefits of involvement and engagement in campus co-curricular activities to student success are largely accepted and supported by scholarly research (Astin, 1984, 1993; Kuh, Kinzi,
Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto, 1987). Research-based campus engagement that supports student and institutional goals connected to retention, persistence, community-building, and overall academic success are grounded in a relatively progressive, democratic, and constructivist paradigm (Fried, 2012). This contrasts instructivist learning that places value on imitation over innovation and a university is a place to attend lectures and gain access to learned professors (Porcaro, 2011); co-curricular activities are often perceived as a distraction from serious scholarship in instructivist/behaviorist learning environments (p. 47).

Service-learning is a common and arguably effective form of student engagement (Cole & Zhou, 2014). Research generally supports the position that service-learning advances the academic goals of student retention and persistence (Astin, 1984, 1993; Tinto, 1987). Research also shows that service-learning helps learners develop softer, personal and on-going skills gained through hands-on experience; supports career enhancement; and promotes critical thinking and habits of mind that extend outside of and beyond time spent on campus (McLaughlin, 2010). Properly planned and facilitated service-learning is an effective method for intra-group learning, inter-group mutuality, delivery of practical outcomes, as well as the development of purposeful, trans-disciplinary civic engagement (Delano-Oriaran, Penick-Parks, & Fondrie, 2015). In short, it represents many of the virtues of constructivist pedagogy.

Another aspect of both domestic and international service-learning connects to the development of cultural competencies. Knutson Miller and Gonzalez (2009) reported that international service-learning in particular raised cultural competencies and caused participants to re-evaluate their prior assumptions regarding culture and their own particular career/professional development (p. 532). Such re-evaluation and reflection that may occur
during service-learning are core goals of constructivist education and are encouraged throughout and beyond the activity (Bruner, 2006, p. 191-192).

Cole and Zhou (2014) identified service-learning as having the largest positive association with civic mindedness when compared to other activities common to constructivism. Utilizing Banks’ Multicultural Education Framework, they drew key connections between service-learning, diversity experience, and civic outcomes. Similarly, Berv (1998) further supports service-learning as “sound pedagogy intended to maximize the learning and growth of all participants” (p. 122). Berv goes on to report that service-learning also provides inclusive pedagogy that supports the desired characteristics of a constructivist-learning environment (119-120). Service-learning stands out for its ability to provide individual development as well as organizational learning strategies (Moore & Mendez, 2014) conducive to adjustment to new learning environments.

There is evidence in the literature (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Zhang and Goodson 2011) to suggest that Asian student adjustment to U.S. higher education can be allayed through participation in service-learning and other forms of engagement found on U.S. campuses of higher education. Hopkins (1999) noted that “intercultural learning programs take many forms” they “provide students with a healthy dose of experiential learning… immersing oneself in another culture provides new opportunities for learning-by-doing” (p.36).

In a study that explored the impact of a cross-cultural service-learning program on intercultural competence, Wang (2011) concluded that service-learning markedly improves intercultural competence across several variables. Using the Cross-Cultural Adaptability Inventory (CCAI), Wang found that in particular, competence improved significantly in the
following areas when comparing pre- and post-experience scores: Emotional resilience, flexibility/openness, perceptual acuity, and personal autonomy. Wang’s study supports the assumption that multicultural service-learning allows students to learn through engaging in experiential and reflection-oriented activities, with special reference to its cultural context (Lai, 2009).

Kettle (2011) found that international students at an Australian university demonstrated positive growth and adaptive experiences through engagement. Some participants observed that they gained confidence in their ability to speak and think in English. Kettle suggests that engagement allows international students to participate socially in a value-added way and to adapt to an academic practice that promotes learners "to be 'good thinkers', not just 'good students'" (p. 7). The overall conclusion drawn is that international students developed a greater understanding that the constructivist-learning environment promotes a deeper learning than what can be gained from classroom learning alone.

Fleischman, Raciti, and Lawley (2014) added to the body of evidence that engagement activities, such as service-learning, instill a value of co-creation among participants. Instead of dictating value, educators aim to create value with rather than for the program participants. As one international student suggested, “it’s not always about the university organizing big events. As students, I think we enjoy smaller, natural occurrences in the community that make us feel part of it” (p. 7-8).

The literature frames the research question, “how does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?” The literature also suggests areas that this study might add to the scholarship connected to international students’ adaptation and service-learning.
Methodology

This study investigates how does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment? A qualitative approach was selected to provide "rich descriptions and explanations of human processes" (Miles, Huberman, and Saldaña, 2014, p. 4) connected to Asian student experiences in an immersive service-learning trip. As a researcher, I wanted to understand as much detail as possible in connection to Asian students' experiences with service-learning and in what ways that experience might help to bridge the cultural gap to constructivist pedagogies.

Research Site and Participants

Praxis University was selected from multiple colleges/universities that were identified and evaluated for their suitability as an institution at which I could conduct this study. To make an initial determination I used the following:

- National Survey of Student Engagement (NSSE) (2016) classified as Research Universities (very high research activity); Research Universities (high research activity); or, Doctoral / Research Universities
- Carnegie Classification of Institutions of Higher Education: Elective Classification on Community Engagement (Carnegie Classification) (2015) searching institutions identified as Doctoral Universities Highest Research Activity or Doctoral Universities: High Research Activity
- Institutions roughly within the geographic eastern United States. This search included institutions as far west as Texas and Minnesota, the U.S. Midwest, and the Eastern (Southeastern, mid-Atlantic, and Northeastern) U.S.
Based on engagement criteria, institution-type, overall institution size, and the size of international population, I surveyed (see Appendix B) 14 institutions in order to ascertain suitability. Praxis University, a large public research university in the southeastern United States, was selected because it offered a strong co-curricular immersive service-learning program at which I had relative assurance of meeting the conditions necessary to conduct my research. Praxis University offered an immersive, multi-day service-learning trip through a non-curricular student affairs unit that would (likely) be attended by sufficient numbers of (Asian) international students and I was granted access to both recruit and collect data from participants.

The service-learning program leaders at Praxis University already had a practice of recruiting and subsidizing the trip costs for many international and domestic students for their fall domestic service-learning trips. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the student affairs service-learning unit and/or the Office of International Affairs at Praxis University. Program leaders also agreed to make sure that students accepted to participate in the service-learning experience would be roughly evenly divided between domestic and international students. While program leaders were fully aware of my investigation of Asian students specifically, the exclusion of non-Asians from program participation was not discussed. I instead intended to recruit a within-case sample that was "nested" within the service-learning cohort (Miles, Huberman, and Saldaña, p. 33), with a goal of recruiting a sample-size of 8-12 Asian international students.

I recruited from the ten Asian students who applied and were selected for participation in the service-learning trip. Each student was invited to participate by e-mail and asked to complete a questionnaire administered via Qualtrics (see Appendix C) to assure qualifications for participation would be met – these qualifications reflected requirements that students be Asian
and at least 18 years of age. All ten Asian students whom I recruited agreed to participate and all 10 remained in the study through the post-experience interview.

The purposive sampling resulted in 10 participants from West, South, and East Asia (see Table 2). Seven of the participants were undergraduates, primarily first semester students. Three were graduate students, two of whom were first semester and the third was a third-year PhD student. The 10 participants were from five different countries across Asia; three of the students were the only students within the sample from their respective countries. In an effort to help assure confidentiality and privacy of the participants, I chose to use "Americanized" or "westernized" names as pseudonyms. This was not out of insensitivity to the Asian students' origins but rather a way to neutralize identifiers for participants. Because the students came from five different Asian countries it seemed inappropriate to use naming nomenclature for one single Asian country over any other. To use a naming nomenclature consistent with each individual country would have undermined confidentiality for the three students who were the sole participants from their given country. For this reason, all participants were assigned westernized names.

Table 2

<table>
<thead>
<tr>
<th>Participant Name (Pseudonym)</th>
<th>Home Region in Asia</th>
<th>Educational Level</th>
<th>Relevant Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Addie</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Participated in one-year exchange in U.S. during high school</td>
</tr>
<tr>
<td>Charles</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>George</td>
<td>South Asia</td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
</tbody>
</table>
Researcher Role and Reflexivity

To investigate how does participation in an immersive, domestic, service-learning experience supports Asian international student adaptation to a constructivist pedagogical environment, I selected a bounded case study methodology. Such an approach would provide the right balance between prescribed design structure in order to investigate empirical events, while allowing me sufficient flexibility to observe holistic, and “typical” occurrences within a service-learning experience. Through a case study and functioning as the “primary instrument” (Merriam, 1998, p. 22) I should be able to better observe and understand participants’ stories and views of reality, which should enable me to better understand the participants’ changes as a result of their participation in the service-learning environment (Lather, 1992; Robottom & Hart, 1993 & 1995).

Data Collection and Analysis

For this single-case study, I collected and analyzed data from a relatively traditional, co-curricular, domestic service-learning experience – albeit one that was purposely made internationally more diverse by the service-learning program leaders than what might otherwise be typical. The data represented and discussed in this study come from pre-experience
interviews that took place within one week before the service-learning trip; and post-experience interviews that took place within one week after the experience. All interviews were conducted one-on-one with each of the ten participants and transcribed verbatim. The service-learning trip itself had no special interventions, activities, or additional influences that would otherwise not be associated with the typical service-learning experience.

For my qualitative investigation into possible Asian student pedagogical adaptations that occurred through the service-learning experience, I started with deductive codes that identified academic, social, and linguistic values. Through collection and continual reading and analysis, additional codes were identified inductively within the three categories of educational values (see Appendix H). Pre- and post-values codes were compared and scoured in order to identify changes and adaptations of values connected to academics, socialization, and language.

**Trustworthiness**

I adhered to principles of credibility; transferability; dependability; and, confirmability (Guba as cited by Shenton, 2004, pg. 64-72). At each step of data collection, I adhered entirely to the protocols of my IRB as well as to my own data collection protocols. At the time of interviews, I was cautious with regard to my interactions with study participants, and carefully and ethically safeguarded their privacy and confidentiality. Finally, as viewing my case study as an investigation of the experiences of persons with inherent dignity and worth, and based on the personal nature of this qualitative investigation, I have assigned pseudonyms (see Table 2) and also guarded participants’ exact countries of origin. On occasions during analysis of the data when I was uncertain based on the transcriptions alone, I used member-checking to ascertain the participant's intended meaning. If I was unable to clarify unclear wording or meaning through
member-checking, I excluded that data from my analysis in order to avoid potentially misrepresenting the study participants.

Limitations and Delimitations

Based on the purpose of this study and as supported by the literature I narrowed the scope of students' adaptation to characteristics associated with pedagogies: Academic, social, and linguistic. The study was designed throughout to limit its scope to pedagogical adjustment to a constructivist-learning environment, which must also consider social and linguistic adaptations.

Psychosocial processes, stages, or the relative strength of influences within the service-learning experience is not the primary emphasis of this study. Personal factors must be given some treatment in the literature review, methodological considerations, and data analysis in order to qualitatively understand what is actually taking place during the adjustment period. However, it is important for the reader to bear in mind constantly that this study concentrates on changes/adaptations in Asian student values and investigates this question: How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

Finally, this study was limited in scope to a relatively traditional domestic service-learning experience – albeit one that was purposely made internationally more diverse by the service-learning program leaders than what might otherwise be typical. The data represented and discussed in this study come from pre-experience interviews that took place within one week before the service-learning trip; and post-experience interviews that took place within one week after the experience. The service-learning trip itself had no special interventions, activities, or additional influences that would otherwise not be associated with the typical service-learning experience.
Findings

Interviews of the participants conducted prior to the service-learning experience showed pedagogical experiences, values, attitudes, and beliefs that were overall consistent with behaviorist/instructivist pedagogy. Tyson, a freshman from East Asia offered this regarding schooling in his home country: "We can do, not anything... It was kind of a highly restricted education environment" and he went on to add that it was a "very competitive" and that he "could not participate in extracurricular activities" because he "had to study for the college exam." Matt, a freshman from South Asia, shared this regarding the role of teachers in his country: "GPA, that's it. That is all they care about. They do not care about how I am going to manage my stress. They just care about getting a nice score and getting into college."

Post-experience data showed significant adaptive shifts that are connected to Asian students' participation in the immersive service-learning trip at Praxis University. Three interconnected themes (Shift Toward More Dynamic View of Academics; Constructivist Learning is a Social Process; and, Erosion of Language Barriers) within and across the three adaptive categories (academic, social, and linguistic) that emerged from the data will be presented below. Within each of the three themes, data from the pre-experience interviews is contrasted with post-experience data in order to support each theme. Also presented in the findings is evidence that Asian students experienced a general shift and adaptation to the pedagogical methods inherent with educational environments in which constructivist pedagogical practices are found.

Shift Toward More Dynamic View of Academics

In the pre-experience interviews, participants were generally able to describe the differences in levels of student-to-student engagement between their prior learning and what they
had already experienced in the U.S. classroom. However, many students were not able to articulate the benefits or reasons for engagement, especially outside of the classroom. Addie shared in her pre-experience interview, "I'd never expect to have benefits from outside of classroom interaction to benefit my academics." It was only in the post-experience interview that students were able truly to articulate a value for such engagement. Data reflects that just prior to the service-learning experience Asian students held traditional views about their academic studies.

**Asian students' traditional view of academics.** Several of the students sited the high level of ethnic and racial diversity in the U.S. as the main pedagogical reason for engagement, suggesting that because the U.S. is so diverse, deliberate engagement is necessary in order for diverse people to be able to get along. Addie and Tyson, both freshmen from East Asia, contrasted this diversity with their own cultures when they respectively observed, “my country is just one race” and “I rarely met people from other countries; there are very few foreigners.”

Pre-experience data suggested that students vaguely understood that education in the U.S. is more active and "hands-on": "You have to get hands on experience in whatever you do and then that will help you grow a lot more than just learning" (Adam). Adam also commented that in his home country "it's a lot of tests." His explanation of what "practical" and "hands-on" meant to him and as he described what he thought it to be in the U.S. was, "it's more labs and going to the lab and doing stuff." He also added, “over here (in the U.S.)… they expect you to do it; you have to get hands-on experience.”

Pre-experience interviews showed that most of the participants were able to juxtapose their previous educational experiences, which per all respondents focused more on the transmission of theory, rote memorization, and exam preparation, with the "hands-on" and
practical nature of learning that was perceived as the norm in the United States. However, none of the participants articulated responses that suggested an understanding of the nuanced and interconnected relationship between academics and meeting the challenges of society; nothing from the pre-experience data suggested that "hands-on" and "practical" might relate to anything to be done outside of campus or outside of a controlled academic environment.

A final aspect of the pre-experience findings that showed an incomplete understanding of and value for academic engagement within a constructivist environment was linked to the general opinion that engagement was a practical aspect of higher education in constructivism for the benefit of future employment. While employability considerations are not to be considered negative or even incorrect, at least two of the participants connected the merits and purpose of engagement almost exclusively to employment consideration. Charles, a freshman from South Asia, made multiple comments regarding the value of connecting with other on campus as being linked almost exclusively to finding a job: "I went to the career fair, just to ask those guys, what do I need? What do you guys want from me?" Charles also offered, as his only example of a time when he sought to connect with a fellow student on campus was when it regarded strategizing for finding a job:

… he's done a few internships, and has got a job right now... he told me his procedure of application... that he used to apply to 20 companies, on a daily basis, or 80 companies, on a daily basis. That is how he found a job

While most of the participants did not limit their evaluations of engagement to being an instrument of future employment, there was evidence from two students who offered employment-related activities (career fairs and profession-specific student associations) as their only form of campus engagement outside the classroom.
Overall, Asian students reported through the pre-experience interviews a strong desire to succeed academically, and a strong focus and work ethic that they perceived as necessary to do so: “My main focus is to get good scores here. I think if I engaged more I would drift from my academics and I don’t want that” (George). Students’ desire to succeed academically coupled with their previous experiences and academic values did present barriers to their participation and engagement on campus. For example, Tyson stated regarding his reason for not engaging outside of the classroom or participating in extracurricular activities: I cannot participate in them because I still do not know how to study English for every classes. I think it might disaster if I could not follow up the classes."

Most students reported similar obstacles to being engaged. Even students such as Adam, who started his first semester actively seeking ways to engage socially with students outside of his graduate program and who were not from his own country, ceased his efforts a couple of weeks into the semester. At the time of the pre-experience interview Adam reported, "I haven't been a part of the club, like I've said, but I did try to be in the club but I'm in academics a lot." Shifts in students’ perspectives were evidenced in the data post their service-learning experience.

**Asian students' shift in academic values.** Asian students’ responses in the post-experiences interviews demonstrated a shift away from relatively simple explanations of their prior academic experiences – or oversimplifications of what they had observed or superficially experienced of the U.S. system. Although questions that were designed to probe academic values appeared in even proportions and in roughly similar formats between the pre- and post-interviews, students in the post-experience interviews seemed enthusiastic about their experience, about their learning, and about the social aspects of that learning. For example, Adam shared: “I never used to talk to everyone. That made me feel nervous when I would go to
my classes. Now I feel more free, that I should interact a lot more with people.” Respondents spoke far more of social connectivity; identifying and connecting with people who are different from them; and the intra and extra campus-community connection.

Data collected after the immersive service-learning trip showed a shift in Asian students' values (or at least a shift in the perceptions that they shared with me) with regard to foundational differences between their prior behaviorist experiences and what they were experiencing in the U.S. The post-experience data demonstrated an accelerated understanding and appreciation for aspects of constructivist pedagogy that were not evidenced in the pre-experience interviews:

- Value of collaboration between students both in and outside of class
- Understanding and adaptation to a U.S. campus as a whole learning environment that was situated in and connected to the broader community
- Increased empathy for fellow students and people overall
- Students, irrespective of their specialization, can benefit from and provide benefit to, community engagement.

Gone in the post-experience data was the singular notion that engagement was for the sole purpose of employment-based networking or the development of practical-social-employment skills. Also absent was the inchoate idea that hands-on and practical learning were limited to lab work or otherwise occurred under carefully controlled environmental conditions.

Such insights were generally manifested in a way that suggested that a university campus and its students could not exist separately from the broader community and society outside of campus. This reflected an overall change in students' attitudes towards engaging with others:
Interaction is the best way to bring the best out of the group. I had this preconceived notion that engineering is better than other studies. When I came on this trip, I met people from political science, art, and other fields. It definitely made me change that perspective. They are smarter than I ever was, even though they are undergraduates and I am a graduate student. It makes you re-think about what your way of thinking is. (Adam)

Connected to Adam’s comment, there was a notable shift in values that placed the challenges of society squarely within the realm of topics that should be integrated into students' own curricula and academic pursuits. Henry (a freshman from East Asia) reported a change in his values regarding education and society when he was able to make the following connections: "Education is for my personal development, and for the greater good and the society. We can help and turn our knowledge – what we have learned – to apply them to useful things." Overall, post-experience responses reflected a shift in students' recognition that what they learn -- and regardless of their academic field -- can be applied for the benefit of society more broadly.

As part of the process of breaking down social-academic barriers between fellow students and between campus and the broader community, most study participants showed increased awareness and empathy for their fellow students and for the challenges that exist within our society – but perhaps which the students were largely buffered from. As with most of the values observed though my study, there is overlap between academic, social, and linguistic challenges and adaptation. From an academic perspective, this increased awareness and empathy helped students to connect their academic lives with challenges that exist both on and off-campus. Regarding the service-learning experience, which focused on hunger and homelessness in the Metropolitan Washington, DC area, Charles made this comment:
I would say all of us were really impacted. Our conversations started getting deeper. I used to think it is their fault if they are homeless. They have given up hope and nothing else affects it. If they would work hard then they can get out of it. I used to think that but then we were introduced to all of the concepts and hear the stories from homeless people. We were introduced to all the structural problems and I really gave a thought about it. Not everyone gets the benefits that we get. I have stress but I am not worried about surviving.

Taking the findings a step further, at the time of this study, all of the Asian student participants were pursuing STEM fields. However, most of them connected what they are studying with the possibilities that they could use their skill set in such a way as to help mitigate some of society's greatest challenges:

Education trains us for the skills we need to survive in society... and that there's something to be changed. You really have to know in what kind of world you are living and what are the people's problems. Those technical skills I am learning can also maybe be used to help with our problems. (George)

In the post-experience interviews, participants demonstrated a connection between service-learning, broader societal challenges, and their own respective curricular paths. Adam commented, on using his "engineering skills to solve the issues that are going on, to solve the issues going on, or the problems in the society." George shared a similar connection between his
academic pursuits, broader societal challenges, and the whole point of university-sponsored service-learning programs:

You really have to know in what kind of world you're living around, and what are the people's problems... the desire isn't to get these scientists and engineers to stop wanting to be engineers...that doesn't help as much as you as an engineer using your skills as an engineer to do your part to contribute.

Through this and similar insights participants demonstrated a far more comprehensive and sophisticated concept of "practical" and "hands-on" learning than what was demonstrated in the pre-experience interviews. In addition to job preparedness and lab work done on campus, students demonstrated an understanding of practical and hands-on.

Asian students' more dynamic view of academics following the service-learning trip was connected to the social experiences during the trip. Students connected the learning that they experienced through the trip with their academic experience in large part because they came to recognize that their learning during the trip was happening in a highly social context. A large part of the adaptation and change in values regarding Asian students' more dynamic view of education was due to their raised awareness that learning in a constructivist environment is a highly social activity.

**Constructivist-Learning is a Social Process**

When comparing the pre- and post-experience data there was considerable evidence that students adapted in a way that broke down many of the barriers between academic, social, and linguistic challenges. The pre- and post-experience interviews were balanced and contained
about the same number of questions that addressed academic and social experiences, values, beliefs, and attitudes. However, despite the interview questions being relatively equal in their treatment of academic and social values, data from the pre-experience interviews overwhelmingly reflected behaviorist academic values (with an emphasis on academic), while post-experience data demonstrated an integration of the academic and social aspects of learning.

**Pre-experience reluctance to engage socially.** Pre-experience interviews provided considerable detail and depth regarding academic values but data was sparse regarding students' social values. Overall, the pre-experience findings show that hypothetically, students want to have social connections and they see the value of exploring new cultures and people. However, the pre-experience interviews demonstrated that with the exception of one participant (Addie), Asian international students reported barriers (that were either self- or externally-imposed) on their ability to follow through and successfully connect socially in a satisfying way with the campus community.

Sometimes stated reasons for not connecting with others outside of scheduled classes were based entirely on lack of motivation. George and Matt, both freshman from South Asia expressed a desire to get involved socially. However, they both referred to their own laziness that prevented them from doing so: "I'm still lazy because I'm like worked out at the end of the day and my schedule says go to gym, but I'm like, 'Nah.' I'll just sit here and watch Big Bang Theory (George). Similarly, Matt stated simply, "I'd rather watch television then go out and play. I'm a lazy guy."

While many of the students (about half), live on-campus, at least one who did not live on-campus mentioned logistical issues for her lack of social involvement outside of class:
I want to try something new in college, but now I'm stuck off-campus and no transportation. So that's probably my problem. I want to do something new in college, like step out of my comfort zone but I'm stuck in that position. (Sofia)

Sofia, however, also mentioned what was a more common reason for Asian students' limited socialization: "I'm too busy with the school stuff. There's lots of things to do, more than like in high school." Sofia, like many other students demonstrated values, attitudes, and beliefs that suggested socialization was something optional that they would pursue only if their academics required it and/or if time allowed for it. Regarding campus recreation trips that he was interested in, but that he forwent, Charles, shared, "I missed out on those. I wanted to go to certain of these events that I miss out on sometimes, because of my classes and all." George too suggested that he was unable to really get involved socially and that the only club he was part of was the Information Technology Club – but he also admitted, "but that's I think a little more academic."

Sofia and Tyson, both from East Asia, provided the strongest evidence of the strict regimentation, competition, and relative academic isolation inherent in their prior pedagogical experiences. Sofia, for example, shared, "you have to go to school at 7:30am until 5:00pm and then you have 'cram' school after that until 9:00 or 10:00 at night." Tyson also referred to a singular emphasis on academics: "I could not participate in any extra-curricular activities beside just academic things because I need to study for the college exam; it's a very competitive environment." Both of these students' experiences were more or less consistent with others' experiences with systems that evaluated academic achievement through high-stakes exams and a more solitary, teacher-based educational environment.
Another social-relational aspect of importance (in addition to relationships between students) is the relationship of learners to and with the teacher/instructor/educator. While there was consistent reference to a relatively high power distance between teacher and learner in students' prior educational experiences, Sofia and Tyson again offer the strongest evidence from their East Asian primary and secondary school experiences:

In middle school and then high school, I was asked not to refute the teachers' ideas. We cannot deny the idea that teachers have. It was a very restrained environment. I just can confirm their ideas; I cannot state my ideas. It was a very restricted environment... we cannot do anything. Well, we can go to the bathroom if we needed to. (Tyson)

Sofia offered this insight:

If you correct a teacher or something like that, they'll say, 'you're disrespectful' or something like that. They probably would get mad about it. So some students will be afraid of asking questions, like when they cite a wrong word, or if there is something confusing in the classroom.

Asian students’ prior learning experiences shaped the way they approached the academic environment at Praxis University in such a way that they struggled to connect the value of discussion to meeting academic objectives.

**Connecting the social and the academic.** The structure of the service-learning trip included:

- Traveling to and from Washington, DC in 15-passenger vans
- Service activities that included some activities that were more physically strenuous than verbally or emotionally engaging
• Activities that were socially and emotionally more impactful, yet physically minimal
• Scheduled opportunities for personal reflection and group discussion
• Time to prepare meals together
• Ample self-directed time each day to explore the city.

Throughout these experiences, students found themselves learning from and bonding over the common cause and their common level of familiarity (or lack of it) with the experience and which they had in common with the American students:

Before, it was really hard for me to interact with American students…After this trip, I feel like… I have more things to talk about…Yeah and more stuff that is related. I feel like as the times go I'm more bonded with other people. (Sofia)

Data following the four-day immersive service-learning trip demonstrate a shift in values following a highly social and engaging experience within a diverse group of students and trip leaders. The service-learning experience seems to have catalyzed a shift toward a value of interactions with other students, faculty, and the overall community. Asian students expressed a newfound understanding and appreciation for working with diverse groups and opinions and they came to view collaboration as the best way to solve problems both within and outside the classroom:
Everybody has a different perspective...I'll make note of everybody speaking and their view... they might have a better solution than I do; they might have a better understanding of what we do with a problem." (Samuel)

Such insight into the learning dynamic of engagement was consistent among most of the respondents in the post-experience interviews. The adaptation to social norms on a U.S. university campus was identified among the majority of participants after the conclusion of the service-learning trip. Students demonstrated a clear advancement in their recognition of the role of social interactions on U.S. campuses in order to be inclusive of cultural and personal differences as part of a deliberate educational model. Matt, for example, while noticing differences between himself and other students, was also able to see many similarities: "We watch similar TV shows and we have the same problems with our parents." On an academic level – and with a combination of relief and good humor – Matt shared that he was able to bond with other students over a mutual hatred on chemistry. Following the trip, he said of socializing with other students, "right now I value it a lot and I want to maximize my interactions with other students who are not from my culture."

Several of the students expressed that the immersive service-learning trip was the first time in their lives that they experienced and interacted with such a diverse group of students. The consensus was overwhelmingly positive with regard to the merits of such cultural interaction and its impact on academics:

This was the first time I met with so many different cultures and after this trip, I have a whole new idea about that. I never used to talk to anyone. That would make me feel nervous when I would go to my classes... On this trip, I learned that I should not be conservative. When I talked to people on this trip, I felt they feel the same, so they helped
me. I think I am a better because of interacting with a lot of people and that is something I should take into my academics. (Adam)

As suggested by Adam, several students showed an awareness of the role of their own values, perceptions, or reticence with regard to their ability (or inability) to connect with other people. The most pronounced example of this came from John, who is an advanced PhD student from West Asia who had expressed in the pre-experience interviews a feeling of being “unwelcome” the in Southeast region of the U.S. where Praxis University is located. Following the service-learning trip John expressed some change in attitude regarding interacting with other students:

They made me feel like I am worth it. Used to be nobody wants to be my friend. I would just walk to class, back and forth. But I feel kind of respected... It made me realize, maybe I should change how I approach people. Before I used to blame it on other people. Maybe now it's because of me to some extent.

All students shared positive experiences and greater value for socializing for the sake of building relationship. Many students also drew connections between the development of social skills and their ability to meet other needs. Seven of ten participants expressed recognition of the role that socialization plays in problem-solving and meeting common challenges together. While it might have been loosely connected with the practical aspects of U.S. learning that was expressed by participants in the pre-experience interviews, the value expanded and took on a more meaningful social aspect by the time the post-experience interviews were conducted.

Henry – a freshman from East Asia – came to realize during the trip that the social aspect is a significant and deliberate part of the U.S. learning environment: "It's very social. More so than new students think. It's hard, but it's also fun. And it's often social even inside the
classroom.” John, the PhD student from West Asia, often expressed initial concern, but then eventual surprise and a positive impression of exactly how well the entire group (both international and Americans) worked together and successfully experienced things together: "I thought the younger students would be overwhelmed...going to a new city, engaging with new people, seeing the homelessness. I thought it might be a big burden to them; but, no, it wasn't. They all added something."

Through social interactions with fellow students and community partners in the service-learning experience, the participants reported gaining a great deal of empathy for one another and for members of the community. Not only did they come to give and receive casual lessons regarding culture (including pop culture), geography, politics, economics, and social studies, participants did so with their peers: "At the end of, they wanted to know a lot about our culture and at the same time we want to know a lot about their culture" (Matt). The findings suggest that participants found value in the fact that while they were new to certain things in the U.S., they were still given the opportunity and the expectation to share about their own experiences, opinions, and reflections. Participants generally reported feeling included and being accepted and treated as equals among the American students. This mutuality and reciprocity between students fostered a multi-directional dialogue that was evidenced strongly in the findings.

Nine of ten students demonstrated beliefs and attitudes that showed that through the immersive service-learning experience they had taken significant steps at overcoming fears and barriers to socialization with others. Adam shared that he, found socializing to be far "less intimidating" after the trip and several students (such as Henry, Sofia, and Tyson) shared feeling more "competent" and "confident". The only student who omitted direct reference to overcoming fears was Addie, who was also the one student who suggested in the pre-experience interview
that she did not have challenges or struggles meeting new people and she had spent one year studying at a public high school in Michigan.

Students to greater or lesser degrees and for varying reasons suggested being in a "shell" or otherwise self-imposing some limitations on their level of engagement. Henry, a freshman from East Asia expressed his fears perhaps most clearly:

When I was getting ready for this group, I was scared about traveling with a bunch of people not from my country. What will we talk about? And will we understand each other? I thought, "oh no, I don't want to do that." But I wanted to try so I signed up and now I feel so good about it. I feel so good that I signed up. The barriers, that's almost gone.

Henry was certainly not alone. He along with most of the other participants came to be more forthright or aware of the barriers that they had espoused prior to the trip – and they overall became more candid that while emphasis on academics was an important deterrent to their social engagement, it was not the only deterrent.

All ten respondents reported on experiences of developing friendships roughly in equal terms between international and domestic students. In many cases, it was expressed as a (pleasant) surprise the ease with which friendships took form while on the service-learning trip. Likewise, it was generally expressed that connections with other international as well as American students developed in a customary fashion – starting out slowly at first, but developing over time and though shared experiences. However, several noted the rapid pace that bonds formed during and associated with the immersive service-learning trip.
On our way to Washington, DC, we didn't talk much. It was kind of silent. But on the way back, we talked a lot. The conversation changed. We talked about the trip but we also talked about a lot of other things but maybe that's because we now knew each other already. (Henry)

The theme of "constructivist learning is a social process" reflected a change in attitudes toward faculty/instructor relationships. As should be recalled, participants reported limited interactions with teachers in their home countries and relationships that generally reflected the unidirectional transmission of information from the teacher to students. Post-experience interviews demonstrated some important examples of the social adjustment that must take place in order for a student fully to utilize an educator who is largely playing the role of a facilitator of learning rather than a transmitter of information. Sofia reported, "before the trip, I felt like if I had a question I won't ask an instructor directly. I'd ask other students." However, she went on to state that "after the trip and connecting with the trip leaders I feel if I have some question I can feel okay asking the professor. It's less intimidating now."

Participants reported through the post-experience interviews both a clearer understanding of the symbiotic relationship between academic and social engagement on campus. Several of the students also noted the need to extend outside of their prior learning in order to balance their social and academic activities. Some of the students went beyond the identification of social and academic activities as contrasts, but rather as associated characteristics of a specific and intentional pedagogical model. As Addie, suggested, "it's all connected. If I do good in my social life, I'd have more encouragement on my academic life, it's all connected." Likewise, Matt observed regarding his interactions with other students that "it's basically social but it did end up in being academic." Henry also made the connection that reflected a change in his own attitudes:
"I'm still getting information and knowledge but socialization helps me to improve; it lets me get more opportunities, make new friends. That's better for my future."

Addie – a freshman from East Asia who had spent a one-year exchange at public high school in Michigan -- was particularly able to observe the relationship between social and academic success:

Clubs, study abroad, and other activities can complement on your major. Make you more educated focus-wise...Too many students are saying, "I'm working hard and I just have to continue working hard." They are really smart and really hard working, but they're not very good students because they're so unhappy. They fail because all they have is study but they're unhappy.

As evidenced in the findings, students came to embrace many of the social aspects as an integrated system of learning in which they share with, learn from, and teach fellow students. The post-experience interviews demonstrated a sharp contrast and an escalated appreciation for other students. This appreciation crosses a spectrum of benefits, all of which are consistent with constructivist pedagogy. Most importantly to this study, the appreciation demonstrates an adaptation to the social aspects of constructivist pedagogy as a means to personalize learning, offer diverse inputs, and allow for inclusion as a stakeholder and participant in the learning process. Perhaps most accurately, the service-learning experience helped Asian students escalate their entrance into a dialogue with their fellow students and as part of the broader learning community. The dialogue that Asian students entered into reflected a change in attitudes toward the social aspects of constructivist learning and the importance of language and self-expression within that dialogue.

Erosion of Language Barriers
The pre-departure interviews did not show language as a challenge for students. Material from the pre-experience interviews that did reference language issues came only from Sofia and Addie – both from East Asia and who both spent some time studying in the U.S. during high school. It was perhaps their earlier experiences that gave them the insight and/or the candor needed to articulate their own concerns regarding self-consciousness with regard to speaking in English and/or the challenges of getting past gaps in tacit cultural knowledge that present barriers and which themselves represent a linguistic challenge.

In the post-experience interviews, six respondents connected use of language and socialization with exploring and bridging both cultural differences, as well as commonalities.

Sometimes there is awkwardness when you don't understand what the other guy is saying; the international-student talk. You don't understand the sense in which the guy is putting it; if it's a joke, or it's a normal phrase. Having conversations with Americans is the only way to improve that understanding and use of language. (Charles)

The data show a connection between understanding the language and understanding the culture. Because of participation in the immersive service-learning trip Asian students, showed increased awareness and candor connected to language acquisition, and gaps in cultural experiences and tacit knowledge:

It's not just language. There's also communication barrier. Like, what are we going to talk about? What are we going to have in common? It's not just language. Maybe Americans don't know anything about my country. Maybe they don't want to sound stupid if they don't know anything about my home country. Like I don't want to sound stupid if I don't know things about America. It's not just language. There's a barrier... but after this, yeah, no more barriers. (Henry)
Some of the students were also impressed by how aware American students were regarding societal challenges, and capable Americans were with regard to sharing their experiences and opinions. As Adam expressed it, "the way they (American students) spoke, I was taken back... they are smarter than I ever was, even though they are undergraduates and I am a graduate student." Observing young American students struggle to express themselves but to do so more freely helped the international students to explore use of language to connect with others across a spectrum of interpersonal topics.

Post-experience data showed that seven of ten participants shared an increased confidence and ability to express themselves and/or a decreased self-consciousness regarding making English-language errors when conversing with native speakers and other international students.

I gained more confidence talking to (students not from my home country)… Now I'm not scared talking to people. I'm not scared going to people or work with them, cooperate with them. Before I was afraid I would lose my word, or I needed to talk slowly and perfectly. But it's okay. I'm not a native speaker so I'm not perfect, but you can understand. It's okay if I make mistakes. (Henry)

Sofia shared a similar relief to her language anxieties:

International students with different background – who are very comfortable with English – they'll be easier to communicate. But I feel like for some students, it's hard to ask us to talk to other, American students because they probably are concerned their English is not good enough... but I still can make friends like I did with (references two Americans whom she connected with).
As demonstrated above, the combination of feeling more free and empowered to speak with fellow students, being relieved of the need to speak perfectly, and the value of social interaction reflects the final aspect of a considerable shift in values that resulted from the service-learning experience. Asian students moved away from a heavy focus on traditional behaviorist-instructivist pedagogy toward the values of social constructivism in which learning occurs through and is largely defined as dialogue. This dialogue reflects changes for Asian students along academic, social, and linguistic lines that culminate to create a learning environment consistent with constructivist practices.

Discussion

Where Were Asian Students in their Adaptation Prior to the Service-Learning Experience?

Pre-experience findings showed that Asian students' impressions of U.S. pedagogy were overall positive. The fact that Asian students had applied, were competitively admitted, and had taken pains to relocate to a foreign country was testament to the value the students and their families placed on studying in the U.S. However, the pre-experience findings also show that while Asian students’ hopes and regard for higher education at Praxis University were high, the students themselves were not able to fully understand, much less access the pedagogical environment. Participants were still viewing constructivism through the lens of their prior instructivist pedagogical experiences and they had not yet adapted to U.S. norms.

Asian students' pre-experience pedagogical values were largely consistent with the literature. Pre-experience data demonstrated an either real or imagined lack of racial, ethnic, or social diversity (Porcaro, 2011; Lee and Ciftci, 2014) in Asian students' home countries; and/or rigid, top-down, often highly-controlled educational content and delivery that bolsters a
monolithic identity and/or viewpoint and which results in a lack of "knowledge democracy" (Biesta, 2011). Participants in the study often reflected the descriptions of Asian students in constructivist environments proved by Nguyen (2011): They demonstrated passivity with regard to engagement and they didn't tend to talk in class.

Asian student accounts of academic experiences in their home countries also described rote memorization; preparation for and competition regarding high-stakes exams; greater power distance between teachers and learners; and a generally isolated learning environment in which there was minimal engagement between students and/or with the broader community (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011).

Pre-experience data was also consistent with literature that suggested that Asian students might face challenges in their interactions with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006). Concepts of “Power distance”, as discussed by Lee (2007), made it difficult for Asian speakers to vocalize (or even see the need to vocalize) their input especially in class. Participants described rigid classroom environments and a pedagogical culture that would make it difficult for them to engage out of fear of being met with differing (or even argumentative) opinions, and fear of negative evaluations or responses from instructors and/or classmates. For students such as Henry, who admitted to having considerable anxiety with regard to English proficiency, the expectation to participate with fellow learners in a constructivist-learning environment might result in particularly heightened stress.

Pre-experience data suggests a level of superficial cognizance of how the U.S. system differs from their previous pedagogical experiences. Charles focused on engagement in the U.S. learning environment as a positive means for job preparedness. Adam, a first-year graduate
student from South Asia, contrasted his prior learning, which he stated, consisted of “a lot of tests” with what he described as "practical" and "hands-on". These are two examples of correct, but incomplete, perceptions of constructivist pedagogy, which is intended to provide hands-on, practical learning, and skills and connections relevant to future employment. However, such descriptions of serve-learning omit many of its other characteristics and certainly overlooks the “whys” of constructivist practices.

Most of the Asian students (most of whom were not yet midway through their first semester of study) had never actually experienced the differences in any immersive way until the Praxis University service-learning trip. Asian student perceptions that were collected prior to the service-learning trip are not offered as negative or incorrect reasons for engagement, but rather as examples of incomplete reasons for the overall purposes of high-impact practices within constructivist pedagogy (Kuh, 2008; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005). Their pre-experience responses demonstrate a general lack of understanding of, adaptation to, or connection with the overall learning environment.

In reality, such incomplete rationale and understanding may not be limited to new Asian students; potentially any freshman or first year graduate student – whether domestic or international and regardless of cultural background -- might have demonstrated similarly limited understanding of, adaptation to, and connection with to their new learning environment. What can be mentioned independently of any interpretation for why, is that prior to the service-learning experience, Asian students were overall not yet connecting to the learning community at Praxis University.

How Did Service-Learning Affect Asian Students’ Adaptation?
This study explored the question, how does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical" environment? Clustering and comparison of changes in student responses between the pre-experience and post-experience interview yielded three distinct, but interrelated themes that were presented in the findings: (1) *Shift Toward More Dynamic View of Academics*; (2) *Constructivist Learning is a Social Process*; and, (3) *Erosion of Language Barriers*. These themes originated from deductive codes that were linked to the adaptive categories of academic, social, and linguistic values across which data shows rapid adjustments that occurred because of participation in the immersive service-learning experience.

Asian students’ shift toward a more dynamic view of academics (Theme 1) through the service-learning experience mirrors the constructivist concept that education should serve to connect schools and communities, to link theory and practice; and that “learning occurs through an interaction between the learner and the environment” (McLaughlin, 2010, p. 110). In contrast to the pre-experience data, Asian students made connections to one another, with domestic students, and the broader community external to the campus environment through the immersive service-learning experience. They also made advances in their understanding of “hands-on” and practical in such a way that it came to encompass real-world problems.

The academic adaptations are perhaps the most difficult to anticipate because unlike linguistic and social challenges there is perhaps an assumption even in U.S. systems that success in academics is overwhelmingly dependent on raw intelligence, work ethic, and/or understanding of the concepts. Asian students admitted to Praxis University generally possess the above traits, yet many struggle academically. This is in line with Lee and Ciftci’s (2014) study that found that Asian students struggled more with pedagogical differences than with language proficiency. The
service-learning experiences seems to have given Asian students experience with multi-cultural personalities and diverse ideas that they may had lacked in their prior educational experiences. Also consistent with Lee and Ciftci’s study is that the service-learning experience seems to have helped Asian students re-find some of their lost academic self-efficacy.

Asian student development of a more dynamic view of academic because of the service-learning trip is also consistent McLaughlin’s (2010) research that shows that service-learning helps learners develop softer, personal and on-going skills gained through hands-on experience; supports career enhancement; and promotes critical thinking and habits of mind that extend outside of and beyond time spent on campus. While such characteristics of

Social and language challenges (and the resulting lack of participation in the constructivist pedagogical environments) are sometimes attributed to Asian students' challenges with the academic content (Robertson, Jones, & Thomas, 2000). This is largely because in the constructivist environment they are connected with one another. Asian students generally came to recognize that through the service-learning experience constructivist learning is a social process (Theme 2). Consistent with Akazaki (2010) and Andrade (2006) Asian students recognized the reciprocal learning that occurred during the service-learning trip that generally was a transfer of cultural and tacit knowledge that participants expressed helped them to feel confident, competent, and included.

Several Asian students reported initial uncertainty about the trip itself, about one another, and about what they might experience. However, participants also reported that as the trip and activities progressed, they developed connections with fellow students and a level of interpersonal inclusion that precipitated broader connection to and with the learning environment overall. This process of interacting socially with host culture faculty and students that progresses
to friendship, support, and social networks is consistent with the literature related to social connectivity and adaptation within constructivist environments (Andrade, 2006; Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006).

It may have been the nature and structure of the service-learning trip that allowed such a rapid adjustment in values and the positive experiences that corresponded to those value changes. As a deliberate, co-curricular, and high-impact (Kuh, 2008) program at Praxis University, the service-learning experience implemented the research-based exercises common to service-learning. As such, it facilitated intra-group learning, inter-group mutuality, self-identification, reflection, and cooperation on delivering practical outcomes, as well as the development of purposeful, trans-disciplinary civic engagement (Delano-Oriaran, Penick-Parks, & Fondrie, 2015). In short, it represents many of the virtues of constructivist pedagogy and Asian students came to connect these characteristics to the overall learning model at Praxis University.

Asian students took in the activities of the service-learning experience and through them made connections with a much broader reality. The post-experience data showed that students came to recognize that their learning within a constructivist environment was more multi-faceted and process-driven than they had previously comprehended; it was largely socialization that kept that process together. As Fleischman, Raciti, and Lawley (2014) argued, Asian students came to realize that they were no longer in an environment where teachers dictated value. Instead, through service-learning, they were engaged with other students and program leaders within a community of learners in the co-creation of value (p. 7-8).

Participants had far more to add regarding language and in fact seem to have experienced an erosion of the language barriers (Theme 3) because of the service-learning trip.
Despite the lack of mention of language concerns in the pre-experience data, Trice (2003) had suggested, and post-experience data supported, that confidence in speaking in English is perceived by both international students and English-speaking faculty as perhaps the most challenging adjustment area. The circumstances that precipitated the rapid change in social values had a similar effect on linguistic values and adaptation. As supported by Kettle (2011), data provides evidence that engagement during the service-learning trip helped students gain more confidence in their ability to speak English. Close quarters of the service-learning trip, a diverse population, the common objectives of the service-learning trip, and perceived reciprocity of cross-cultural learning and sharing seem to have resulted in an environment in which Asian overcame many of their fears.

Whether Asian students’ earlier reticence was the result of unfamiliarity with U.S. conversational norms, differing values, concerns over speaking English, or perceived gaps in cultural references, all but one student expressed some degree of change regarding language and the power or dialogue between students. The consensus was that within the dialogue, and as Henry repeated on a number of occasions, “it’s okay to make mistakes” – this freedom and confidence seem to be the result of participation in the service-learning trip.

Across the clusters and themes of my findings was evidence that students moved away from their earlier instructivist mindset in which traditional academic rigor was of the greatest importance. Students adjusted in ways that recognized that socialization was inextricably connected to academics, and in some cases that their academic success and personal well-being were dependent on healthy social connections. Asian students demonstrated – whether they were aware of it or not – an adaptation that prioritized their need for inclusion and social support above their earlier, traditional value on simple academic success as measured by exams scores.
and marks. The changes and the discussions represent a merging of values across all categories and the whole student experience and were more consistent with the learning/learner-centered practices of constructivism.

**Implications**

This study explored the question: How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment? Findings have numerous implications across the spectrum of educational theories, potential future research considerations, and institutional policy and practice. Dedicated researchers, scholar-practitioners, and administrators may equally find this study useful and informative to their current and future work.

**Implications for Theory**

Findings support and build on theories that recognize that learners are most successful, persistent, and motivated when they are included, involved, and engaged in a learning community (Astin, 1984, 1993; Kuh, 2001, 2003; Tinto, 1987). Findings also support earlier theories and studies that include service-learning as a high-impact practice that supports student success (Kuh, 2008; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005). Asian students felt connected to one another and their domestic student peers as result of participation in the service-learning trip – which in itself reflected an adjustment for the Asian students. Such adjustment along social lines also has implications for the role of engagement theories and high-impact practices with regard to international student adjustment to constructivist learning environments.
Across the clusters and themes of my findings was evidence that students moved away from their earlier instructivist mindset is the which traditional academic rigor was of paramount importance. Students recognized that socialization was inextricably connected to academics, and in some cases that their academic success and personal well-being were dependent on healthy social connections. From a theoretical perspective this supports a basic hierarchy of needs (Maslow, 1943) which in this case suggests that Asian students demonstrated – whether they were aware of it or not – an adaptation that prioritized their need for inclusion and social support above the earlier, traditional value that they'd placed on simple academic success as measured by exams scores and marks.

This study focused on the changes experienced by Asian students but did not explore the processes within the service-learning experience. Connections could have been made, and can be made through additional studies, to theories that could frame a study around the influences within the service-learning experience, through Vygotsky’s Zone of Proximal Development, for example. Additional theories and concepts could concentrate on the transformative aspects of service-learning and investigate deeper into the hows of the process, not just, the “what changed?” about the student-participants.

**Implications for Future Research**

While research connected to international education, cross-cultural interactions, and their relationships to more traditional learning outcomes have increased in recent years, there are still gaps in the research, especially in connection with international student experiences with new learning environments (Smith & Khawaja, 2011; Terrazas-Carrillo, Hong, & Pace, 2014; Zhou, Jindal-Snape, Topping, & To, 2008). Many of the available studies are quantitative and/or focus on either broad populations or overly particular clusters of populations within an international or
campus community and those populations’ general adaptation to their new environment (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Yang, Noels, & Saumure, 2005; Zhang and Goodson 2011; Zhou, Jindal-Snape, Topping, & To, 2008). There is an absence of research that examines Asian students' specific experiences with academic or co-curricular programs (such as service-learning) that might aid their adjustment. While this study builds on prior research and adds new material to the ongoing dialogue, the scope of the study leaves open numerous questions that can be explored through further research. These include, but are not limited to future research that focuses on education psychology; cross-cultural communication; education and policy analysis linked to retention and achievement; and curriculum development.

This study leaves open the possibility of further research that concentrates on the structure and activities of service-learning (or other engagement activities) that yield best results in support of international student adaptation. Additionally, further research could focus on processes within the service-learning experience, rather than so exclusively on outcomes. For example, this study attempted to answer the question, "How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?" I used a comparison of pre- and post-experience pedagogical values that focused on adaptive outcomes in order to identify areas of change. Further research could more deeply explore the process of those changes within the service-learning experience – what was of influence? How? And, why?

Similarly, this study adds to the literature that creates a baseline for the merits of service-learning and its compressed influence on international student adaptation. However, further research could be conducted longitudinally to assess to what degree international
students followed through in action on their perceived shift in values immediately following the service-learning trip. Would Asian students' shift in values persist over time?

Modifications to a traditional service-learning experience in order to benefit international student adaptation, or make the experience more conducive to cross-cultural learning, might result in unintended consequences. If service-learning can be adjusted in such a way as to support international student adaptation, are there any unforeseen factors that might dilute the traditional and already known merits of service-learning? Would added emphasis on a global, international exchange within a domestic service-learning experience carry any political, institutional, or pedagogical collateral that unintentionally undermines the established goals and benefits of service-learning? Further research could investigate the best means of maximizing cross-cultural dialogue without minimizing traditional service-learning goals and perhaps mitigate unintended consequences.

Further research could also investigate the best means of maximizing cross-cultural dialogue without minimizing the traditional service-learning goals that might stand apart from independent student adaptations to U.S. pedagogy. This study reflects my overall interest in learning more about whether domestic service-learning trips can support international student adaptation, while providing domestic students with local, accessible ways to gain high-impact cross-cultural experiences. While study abroad and international service-learning trips are associated with global-learning, re-evaluation of values, and the development of inter-cultural skills, can an internationally and ethnically diverse domestic experience provide similar enrichment? In addition, do so in a way that is more accessible to students for whom study abroad is not a financial or logistical reality.

Implications for Practice and Policy
The overall benefits of involvement and engagement in campus co-curricular activities to student success are supported by scholarly research and widely implemented throughout U.S. institutional of higher education (Astin, 1984, 1993; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto, 1987). This study stands to provide policy-makers and practitioners with material to make potential adjustments to current engagement efforts in such a way as to deliberately and more effectively support their international students’ adaptation to the campus community – and do so without the need to make great financial investments or overwhelming structural and administrative changes.

Based on what is known about first-year students’ challenges and finding of this study, concentrating immersive service-learning opportunities on first-year students is worthwhile for educators to consider. Creating a mandatory (or strongly encouraged), highly accessible, and affordable (subsidized) series of multi-day service-learning trips has the potential to expose international college students to a learning environment that will reflect a more traditional U.S. learning environment. Such a program would both challenge and support international students early in their college career to engage in an activity that supports their adaptation to a new learning environment.

From a practice and policy perspective advocating for and implementing a first-semester immersive service-learning experience may abate greater, prolonged and more costly challenges later on. Due to Asian students' cultural reticence and behaviorist/instructivist pedagogical backgrounds (as presented especially in the pre-experience findings of this study) and reluctance to participate in constructivist learning practices, educators may find that Asian students are especially slow to adapt to the U.S. learning environment.
Praxis University incentivized participation in the immersive service-learning trip by offering generous (but limited in number) mini-grants to many of the participants. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the service-learner provider and/or the Office of International Affairs at Praxis University. Such subsidies may have made the difference for many of the international and domestic students and allowed the service-learning cohort to be as diverse as it was. A broader effort to financially incentivize or require participation in a larger array of multi-day service-learning trips would have to be supported and championed at higher administrative levels of an institution.

From a practice and policy perspective there are implications connected to whether such service-learning be course-based or co-curricular. Praxis University is a large, public research institution with minimal courses that offer a service-learning component. Likewise, unlike some institutions, it does not offer a transcript notation for participation in service-learning. Praxis University's service-learning opportunities are largely offered through a student affairs unit and are independent of academic programs and course curricula. Institutional organization, whether a school is public or private, campus culture, and fiscal/political considerations would all have implications with regard to the implementation of a common first-semester service-learning experience for Asian (and domestic students).

Data collection for this study occurred mid-semester in the fall of 2016 – less than one prior to the U.S. general election. The relevance of practice and policy implications seem even more important in the current climate in the United States. Opportunities to engage diverse students, support international student adaptation to U.S. learning environments, and to do so in cost-effective ways seem particularly important to education policy-makers and practitioners.
Exactly what such a program would like may best be answered through additional research that illuminates the aspects of service-learning that were particularly influential.

**Conclusion**

This study investigated the question: How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment? I qualitatively collected and analyzed data from a domestic, immersive service-learning program offered through a large public research university in the southeastern U.S. I concluded that a relatively standard, multi-day service-learning experience supported Asian students’ adaptation to a constructivist pedagogical environment. Findings indicate that through the service-learning experience Asian students adopted a more dynamic view of academics (that was largely consistent with constructivist pedagogical practices and objectives). Based on the findings of this study, the service-learning experience also seems to have eroded many of the barriers that had existed between Asian students' academic and social values and helped students place new importance on the value of dialogue to further both their academic and their social success simultaneously.

The degree to which the service-learning trip can be directly or exclusively responsible for the articulated change in values is not clear within the parameters of this study. In fact, whether a long-term longitudinal change in behavior resulted from the service-learning experience is not known. The service-learning trip may have given language to Asian students' perceptions and values that were not fully articulated prior to the service-learning experience. With no longitudinal follow-up associated with this study, it is difficult to tell whether changes to students’ values were fleeting, or whether they would endure.
What is clear in the comparison of pre- and post-experience data is that through an immersive service-learning experience Asian students reported an increase in awareness; an ability to express new values across the (linguistic, social, and academic) adaptive categories; and an overall increase in inter-personal connections and confidence gained through the immersive service-learning experience. Asian students demonstrated adaptations in ways fundamentally linked to constructivist learning. Participants demonstrated that they (at least temporarily) had become part of the system and community of dialogue and engagement through which knowledge is created in a social-constructivist pedagogical environment.
CHAPTER 6

ARTICLE 2: INFLUENCES OF IMMERSIVE SERVICE-LEARNING ON INTERNATIONAL STUDENT TRANSITION TO A CONSTRUCTIVIST LEARNING ENVIRONMENT

Introduction

The previous two decades have seen increased diversity in student populations and institutional efforts to incorporate students of all backgrounds into campus culture (Banks, 2007; Gurin, Dey, Hurtado, & Gurin, 2002). Campus diversity is not solely a matter of domestic ethnic or racial diversity. It also includes representative aspects of sexual identity, veteran status, age, part-time/full-time status, and international students (Banks, 2007; Bridges, 2000). Asians made up approximately 2/3 of the international post-secondary students who came to the United States to begin their studies in the 2015/16 academic year (Institute of International Education, 2016).

Asian students add to campus diversity and benefit campus global-learning in many ways (Gurin, Nagda, & Lopez, 2004; Hurtado & Guillermo-Wann, 2013; Milem, 2005), yet Asian students may be particularly unfamiliar with and unprepared for the pedagogical environment and culture that is typical of U.S. higher education. Adjustment to a learning environment where diversity, innovation, engagement, pluralistic viewpoints within and outside of the classroom, critical thinking and dialogue are among the academic expectations that can be particularly unfamiliar to Asian students. (Zhang & Goodson, 2011). In today's political and economic reality, and especially if challenges negatively affect Asian student retention and/or campus diversity, are there steps that institutions can take to build on existing campus resources in such a way as to maximize support for Asian students?
Through this study, I explore how service-learning might play a role in supporting Asian students' transitions to U.S. higher education. It will do so by attempting to answer the following research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment? This case study will concentrate on a relatively standard, immersive, domestic service-learning trip at a large, public research university in the southeastern United States.

Using Vygotsky’s (1978) Zone of Proximal Development (ZPD) framework I will investigate ways the experience might influence adjustment to a U.S. pedagogical environment for the Asian students who participate in the service-learning trip. The objective of this study is to explore potential influences, not to prove the existence or strength of any scaffolding influences that might be linked to Asian student adaptation.

Literature Review & Conceptual Framework

This case study explores how activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment. To consider service-learning in such a context I chose to use Vygotsky’s (1978) Zone of Proximal Development (ZPD) framework. My review of the relevant literature is divided into three sections: Asian Students’ Pedagogical Adjustment to U.S. Higher Education; Zone of Proximal Development (ZPD); and, Potential ZPD Influences Within Service-Learning

Asian Students’ Pedagogical Adjustment to U.S. Higher Education

As a spectrum and on a relative scale education in the U.S. is considered “constructivist” – which is relatively active, engaged, and learner-based (Bruner, 1996; Jones & Brader-Araje,
On the same spectrum constructivism contrasts with behaviorism (“instructivism”), which is more teacher-based and didactic (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). Constructivist pedagogies are based on the theory that knowledge is constructed socially and collaboratively (Porcaro, 2011, p. 41); the teacher tutors and facilitates learning. Instructivism seeks to transfer information to students as efficiently and effectively as possible (p. 43); in other words, in the form of an instructor or professor transmitting information to students primarily through lecture.

Porcaro cites Catterick (2007) when he suggests, “constructivist pedagogy works poorly in Chinese culture, where many students struggle to reconcile their long held pedagogical beliefs and habits with collaborative learning, the diminished authority of the teacher, and autonomous learning” (p. 47). Zhang and Goodson (2011) also found that Asian students experience greater challenges than domestic students do with regard to psychosocial adjustment. Asian students may also experience greater levels of difficulty with sociocultural adjustment than international students from other parts of the world who are also studying in the U.S. (p. 614-615).

In their study of "cultural distances", Lee and Ciftci (2014) suggest that Asian students struggle more with the drastic pedagogical differences than with language proficiency. Constructivist pedagogies are a challenge because Asian students' prior learning environment did not provide opportunities for the development of a multi-cultural personality or exposure to diverse ideas. As Smith and Khawaja (2011) suggest, students struggle to reconcile their held beliefs and skills with their new environment. According to Lee (2007), Asian students may struggle to find their place due to cultural/psycho-social issues of “power distance” (p. 29) and individual identity. Asian students shy away from discussions in which critical (or potentially argumentative) opinions might emerge.
Nguyen (2011) observed that Southeast Asian students studying in Australia focus too much on the method of assessment rather than the learning process; rote learn – they memorize but lack critical thinking skills; tend to view lecturers with extremely high reverence; are passive and they don’t tend to talk in class; and do not easily adjust to local conditions. New students especially struggle with their own academic self-efficacy in the new environment at the exact moment they are anxious about English-language proficiency and are challenged by a pedagogy that expects them to engage with students and faculty within and sometimes outside of the classroom.

Students from instructivist cultures find constructivist pedagogy, collaboration and engagement, and solving “ill-structured” problems, requires entirely different skills than those that were developed through prior schooling (Choi & Lee, 2009). Furthermore, students from highly instructivist backgrounds have been accused of lacking self-directedness, working only to “make the grade”, and reluctance with regard to engagement and working collaboratively, especially when goals are not aligned with well-structured and obvious academic rewards (Porcaro, p. 45).

The studies mentioned above provide insight into challenges that many Asian students face in their pedagogical adjustment to U.S. higher education (and other constructivist) learning environments. However, this study focuses less on the specific adjustment challenges of Asian students and more on the possibility that service-learning can expose Asian students (who are in their Zone of Proximal Development) to influences that will assuage their difficult adaptation to a constructivist-learning environment.

**International Students' Zone Proximal Development (ZPD)**
Zone of Proximal Development (ZPD) for the purposes of this study is understood and roughly utilized to mean the gap in competencies or skills that exist "between what can be done alone and what can be done with the assistance of others" (Tharp, 2012, p. 27). The “zone” within ZPD should not be understood to be common physical space, but rather a zone in which learners are trying to develop skills and understanding within a "specific domain of competence" (p. 27) that is affected by particular relational influences. ZPD can be connected to any aspect of learning through various influences within the learning environment and process.

Within this study ZPD is being linked to the development of competencies that are important to success within constructivist pedagogical environments (Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Watson, Hollister, Stroud, & Babcock, 2011). Likewise, as it pertains to this study, ZPD will be analyzed for the potential development of tacit cultural knowledge and social interactions between "old-timers" and "new-comers" (Lave & Wenger, 1991) within the context of a service-learning experience.

According to Bruner (2006), ZPD can be interpreted as a process by which the learner finds a new, higher order of meaning through particular experiences and under certain learning influences. This higher order of meaning is arrived at both through language and the process of understanding new skills, language, and cultural contexts. The new meaning gained by learners may "incorporate or even displace what existed before" (p. 191). For Vygotsky, and as represented in the theoretical foundations of ZPD, mental life and consciousness first express themselves as interactions with others. Making its way from a social, outward experience, learning starts and is internalized as part of a process of managing culture's symbolic tools and is done so through social interaction (p. 191).
For students within a ZPD, *influence* is of central importance. What external *influences* aid internalization of learning? Tharp (2012) offers eight "means of influence" that can be linked to the "scaffolding" commonly associated with ZPD (Wood, Bruner, & Ross, 1976). According to Wass and Golding (2014), scaffolding is most effectively used to assist learners with the mastery of the most difficult concepts and when influences are beneficial to meet challenges that are difficult or impossible to meet by an individual learner. Some scaffolding influences are based on oratory or linguistic cues and interactions, while some others are based on behavioral interactions. As taken from Tharp (p. 38-53) scaffolding influences are listed and briefly defined as follows:

**Task Structuring.** The overall structuring and restructuring of activities in a learning situation that incorporates other behavioral and linguistic influences. This influence can be thought of as the "curriculum" or lesson plan of the overall learning situation.
**Propping/Nudging.** A behavioral influence that refers to the physical placement of a learner to perform the next desired learning behavior or activity.

**Modeling.** Influencing a learner’s behavior by offering a model for imitation. Modeling is a behavioral influence that would ideally be provided by a more experienced peer.

**Instructing.** A linguistic influence that calls for a clear and specific action on the part of the learner. This is not to be confused with lecturing; it instead refers to instructing (telling) a learner to carry out an action.

**Cognitive Structuring (Explaining).** Explaining in order to help connect other aspects of behavioral and linguistic scaffolding around learning. This linguistic influence explains ideas and context associated with broad worldviews, theories, philosophies, or ethical systems.

**Questioning.** Asks the subject to demonstrate learning, or to demonstrate attempts at mastery of content. Questioning is a linguistic influence that differs from instructing because it does not instruct or present a hard expectation for action but is rather utilized to help learners be influenced primarily through questions of "why?"

**Feeding Back (Against a Standard).** Feedback connects an assessment of learning to other ZPD influences within the scaffolding in an effort to aid improvement on the next attempt.

**Contingency Management (Interventions to "Correct" Behavior).** Influences learners through a system of rewards and/or punishments.

In addition to the connections between scaffolding and ZPD, the literature also suggests three interpretations or modes of ZPD: The literature suggests three interpretations or modes of ZPD:
1- The difference in *problem-solving* abilities when a "new-comer" is working alone versus when working collaboratively with "old-timers" (Greenfield, 1984; Lave & Wenger, 1991; Wood, Bruner, & Ross, 1976).

2- A *cultural* interpretation, which suggests a ZPD is the gap between a theoretical socio-historical context and the learner’s everyday experience between the cultural knowledge provided by the socio-historical context and everyday experiences (Davidov & Markova, 1983; Lave & Wenger, 1991) – or the distance between understood content as provided by instruction, and active knowledge, as owned and performed by individuals (Hedegaard, 1988).

3- A collectivist or *societal* perspective that highlights the distance between individual actions and what can be collectively generated. Connected to this final interpretation of ZPD – societal – is a capacity to influence *social transformation* (Engeström, 1987; Lave & Wenger, 1991).

The literature suggests that Asian students have a particularly difficult time adapting to the social aspects of constructivism. Literature connected with Vygotsky's Zone of Proximal Development suggests that learning might be accelerated when learning is influenced or assisted by others, especially in deliberate ways. This case study explores how activities and interactions within an immersive service-learning experience influence Asian students who are transitioning from an instructivist to a constructivist-learning environment.

**Potential ZPD Influences within Service-Learning**

Participation in campus co-curricular activities may support to student success (Astin, 1984, 1993; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto,
Campus engagement that supports student and institutional goals pertaining to retention, persistence, community-building, and overall academic success -- and the research that assesses and drives engagement efforts -- are grounded within a relatively progressive, democratic, and constructivist paradigm (Fried, 2012). This contrasts with instructivist learning cultures where imitation is often more valued than innovation and a university campus is a place to attend lectures and gain access to the wisdom and knowledge to be professed by scholars; co-curricular activities are often perceived as a distraction from serious scholarship (Porcaro, 2011).

Research generally supports the argument that service-learning advances goals of retention and persistence, but also goals linked to hands-on experience, career enhancement, critical thinking and habits of mind that extend outside of and beyond time spent on campus (McLaughlin, 2010). Service-learning also supports personal and interpersonal development, curiosity, reflective practice, perspective transformation, and citizenship (Eyler and Giles, 1999). Properly planned and facilitated service-learning is one method for intra-group learning, inter-group mutuality, delivery of practical outcomes, as well as the development of purposeful, trans-disciplinary civic engagement (Delano-Oriaran, Penick-Parks, & Fondrie, 2015). In short, it reflects many of the virtues of constructivist pedagogy.

International service-learning in particular may raise cultural competencies and cause participants to re-evaluate their prior assumptions regarding culture and their own particular career/professional development (Knutson Miller & Gonzalez, 2009, p. 532). Re-evaluating one’s own learning, culture and career/professional development is generally not associated with behaviorist pedagogies (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). However, within the context of ZPD re-evaluation and reflection are core
goals within the learning process that are encouraged throughout and beyond the activity

There is literature to suggest that Service-learning may have a positive association with
civic mindedness (Cole and Zhou, 2014) and service-learning may be linked to the preparation of
students to be engaged democratic citizens (Berv, 1998, p. 119-120). Engagement activities such
as service-learning may provide individual development and learning strategies conducive to the
adjustment to new learning environments (Moore & Mendez, 2014).

Re-focusing on cultural and academic adaptation, there is evidence in the literature (Berv,
1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Zhang and Goodson 2011) to suggest that
Asian student adjustment to U.S. higher education can be allayed through participation in
service-learning and other forms of engagement. For example, Kettle suggests that engagement
allows international students to participate socially in a value-added way and to adapt to an
academic practice that promotes learners to be “good thinkers”, not just “good students” (p. 7).
Fleischman, Raciti, and Lawley (2014) suggested that engagement activities, such as service-
learning, instill a value of co-creation among participants. Instead of dictating value, educators
aim to create value with rather than for the program participants (p. 7-8).

There is evidence within the literature that service-learning reflects many of the
characteristics of constructivism and that service-learning might provide ZPD scaffolding
influences to support Asian students' difficult adaptation to the a U.S. learning environment.
Building on the above literature, I adopted a methodology to address the following research
question: How do activities and interactions within an immersive service-learning experience
influence Asian students’ adaptation from an instructivist to a constructivist-learning
environment?
Methodology

Through this study I explore the potential for a domestic, immersive service-learning experience to influence Asian students in their academic adaptation from prior instructivist pedagogies to the relatively constructivist pedagogies found in U.S. higher education. I adopted a qualitative approach to provide "rich descriptions and explanations of human processes" (Miles, Huberman, and Saldaña, 2014, p. 4) connected to Asian student experiences in an immersive service-learning trip. As a researcher, I wanted to understand as much detail as possible in connection to Asian students’ experiences with service-learning and in what ways their learning and adaptation were influenced by particular aspect of the service-learning experience.

Research Site and Participants

Praxis University was selected from multiple colleges/universities that were identified and evaluated (see Appendix A) by me for their suitability as an institution at which I could conduct this study. Based on engagement criteria, institution-type, overall institution size, and the size of international population, I surveyed (see Appendix B) 14 institutions in order to ascertain suitability. Praxis University, a large public research university in the southeastern United States, was selected because it offered a strong co-curricular immersive service-learning program to Washington, DC at which I had relative assurance of meeting the conditions necessary to conduct my research.

The service-learning program at Praxis University already had a practice of recruiting and subsidizing the trip costs for many international and domestic students for their fall domestic service-learning trips. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the student affairs service-learning unit and/or
the office of international affairs at Praxis University. Program leaders agreed to accept students to the service-learning trip in an effort to make the cohort roughly 50% domestic and 50% international students. I intended to recruit a within-case sample that was "nested" within the service-learning cohort (Miles, Huberman, and Saldaña, p. 33), with a goal of recruiting a sample-size of 8-12 Asian international students.

I recruited from 10 Asian students were selected for participation in the service-learning trip. Each student was invited to participate by e-mail and asked to complete a questionnaire administered via Qualtrics (see Appendix C) to collect basic demographic data and primarily to assure qualifications for participation would be met; students were required to be Asian and at least 18 years of age. All ten Asian students whom I recruited agreed to participate and all 10 remained in the study through the post-experience interview.

The purposive sampling resulted in 10 participants from West, South, and East Asia (see Table 3. Seven of the participants were undergraduates, primarily first semester students. Three were graduate students, two of whom were first semester and the third was a third-year PhD student. The 10 participants were from five different countries across Asia; three of the students were the only students within the sample from their respective countries. In an effort to safeguard confidentiality and privacy of the participants, I chose to use "Americanized" or "westernized" names as pseudonyms. This was not out of insensitivity to the Asian students' origins but rather a way to neutralize identifiers for participants. Because the students came from five different Asian countries it seemed inappropriate to use naming nomenclature for one single Asian country over any other. Use of a naming nomenclature consistent with each individual country would have undermined confidentiality for the three students who were the sole participants from their given country. For this reason, all participants were assigned westernized names.
Table 3

Asian Student Participants

<table>
<thead>
<tr>
<th>Participant Name (Pseudonym)</th>
<th>Home Region in Asia</th>
<th>Educational Level</th>
<th>Relevant Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Addie</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Participated in one-year exchange in U.S. during high school</td>
</tr>
<tr>
<td>Charles</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>George</td>
<td>South Asia</td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>West Asia</td>
<td>3rd-year grad student</td>
<td>Most experienced; well-travelled</td>
</tr>
<tr>
<td>Matt</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>Samuel</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Sofia</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Attended two-years of high school in U.S.</td>
</tr>
<tr>
<td>Tyson</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
</tbody>
</table>

Researcher Role and Reflexivity

This study explores how an immersive, multi-day domestic service-learning trip might serve influence Asian students who are in a ZPD transitioning from an instructivist to a constructivist-learning environment. A bounded case study was selected to provide the right balance between prescribed design structure in order to investigate empirical events, while allowing me sufficient flexibility to observe holistic, and “typical” occurrences within a service-learning experience. Through a case study and functioning as the “primary instrument” (Merriam, 1998, p. 22) I should be able to better observe and understand participants’
perspectives and any influences within the service-learning experience that affected their adaptation.

Data Collection and Analysis

For this single-case study of an immersive service-learning experience, data were collected and reported through pre- and post-experience interviews which I conducted one-on-one with each of the ten research participants. All interviews were completed in-person within the one week prior to, and the one week after, the service-learning trip. Each pre and post-experience interview was semi-structured utilizing two separate, but related interview protocols. All interviews were audio-recorded and transcribed verbatim.

This study explores the research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment? To do this I first had to identify from the data the ways that Asian students changed or adapted during the service-learning trip (first-cycle values coding). I did this by comparing the pre- and post- interview transcripts, scouring for evidence of changes in academic values (including values, attitudes, and beliefs). I then analyzed the first-cycle coding results to investigate how Asian student changes in academic values connect to eight possible ZPD scaffolding influences (Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard); and Contingency Management) as they may be evidenced in the service-learning experience (second cycle process coding).

First Cycle Values Coding. Reflects “participant’s values, attitudes, and beliefs, representing… perspectives or worldview” (Saldaña, 2013, p. 110-111). A priori codes were
initially utilized in order to connect Asian students' values with the adaptive categories of **academic, social, and linguistic** adjustment (Akazaki, 2010; Andrade, 2006; Lee, 2007; Robertson, Jones, & Thomas, 2000; Shurer, 2016; Tompson & Tompson, 1996). Through the deductive coding process of both the pre- and post-experience interviews, additional codes were established inductively. An analysis of the inductive codes for the pre- and post- experience data demonstrated the changes in Asian students' values, attitudes and beliefs regarding academics, socialization, and language. This study concentrates on the **influences** of the immersive service-learning trip explored through second-cycle coding and analysis. First-cycle values coding provided me with a reference points for where the participants were as individual learners (who were in their respective ZPDs) prior to the immersive service-learning experience, and changing and learning participants underwent because of the service-learning experience.

**Second-Cycle Process Coding.** In order to qualitatively investigate and better understand the possible influences of service-learning on Asian international students' transition to constructivist learning environments, I established a coding protocol that utilized process coding (Miles, Huberman, & Saldana, 2014). This coding was selected in order to identify "observable and conceptual action in the data" (p. 75) and to better investigate influences that affected international students in their ZPD.

I established a priori process codes based on eight "means of influence" (Tharp, 2012, p. 38-53) that can be linked to the "scaffolding" commonly associated with ZPD (Wood, Bruner, & Ross, 1976). As taken from Tharp (2012) they are listed and briefly defined as follows and can be further referenced in Table 4:
**Task Structuring.** The overall structuring and restructuring of activities in a learning situation that incorporates other behavioral and linguistic influences. This influence can be thought of as the "curriculum" or lesson plan of the overall learning situation.

**Propping/Nudging.** A behavioral influence that refers to the physical placement of a learner to perform the next desired learning behavior or activity.

**Modeling.** Influencing a learner's behavior by offering a model for imitation. Modeling is a behavioral influence that would ideally be provided by a more experienced peer.

**Instructing.** A linguistic influence that calls for a clear and specific action on the part of the learner. This is not to be confused with lecturing; it instead refers to *instructing* (telling) a learner to carry out an action.

**Cognitive Structuring (Explaining).** Explaining in order to help connect other aspects of behavioral and linguistic scaffolding around learning. This linguistic influence explains ideas and context associated with broad worldviews, theories, philosophies, or ethical systems.

**Questioning.** Asks the subject to demonstrate learning, or to demonstrate attempts at mastery of content. Questioning is a linguistic influence that differs from instructing because it does not instruct or present a hard expectation for action but is rather utilized to help learners be influenced primarily through questions of "why?"

**Feeding Back (Against a Standard).** Feedback connects an assessment of learning to other ZPD influences within the scaffolding in an effort to aid improvement on the next attempt.

Although it is secondary my analysis and how findings will be reported and discussed, in my second-cycle coding and analysis I also established sub-codes based on the three potential ZPD interpretations (*problem-solving; cultural;* and *societal*) for a total of 24 codes and sub-
codes (see Appendix I). For the purposes this study, and to simplify reporting and discussion of findings, I place emphasis on how learning and changes (determined through first-cycle values coding) might connect to the eight ZPD scaffolding influences generally (through second-cycle coding).

Using the above two-cycle coding method, I will explore the research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment? The objective is an exploratory one intended to investigate potential influences, rather than prove the existence or strength of any scaffolding influences.

**Trustworthiness**

At each step of data collection, I followed the protocols of my IRB as well as my own data collection protocols. Participant privacy and confidentiality were respected during and since data collection. Finally, based on the personal nature of this qualitative investigation, I have assigned pseudonyms (see Table 3) and guarded participants’ exact countries of origin. Overall, I adhered to principles of credibility; transferability; dependability; and, confirmability (Guba as cited by Shenton, 2004, pg. 64-72). On occasions during analysis of the data when I was uncertain based on the transcriptions alone, I attempted to use member-checking to ascertain the participants’ intended meaning. If I was unable to clarify unclear wording or meaning through member-checking, I excluded that data from my analysis in order to avoid potentially misrepresenting the study participants.

**Limitations and Delimitations**

This study explores the research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist
to a constructivist-learning environment? The objective is to explore potential learning influences, rather than prove the existence or strength of those influences. An itemized listing of Asian students’ learning objectives, mastered skills, or outcomes assessments are outside the scope of this study. Instead, this study seeks to understand better the relational processes within a zone of proximal development and the most relevant influences that might assist Asian students in their transition to social-constructivist learning environments.

Psychosocial processes, stages, or outcomes of international students as they adjust to U.S. higher educational environments are not the primary emphasis of this study. While these personal factors must be given treatment in the literature review, methodological considerations, and data analysis and reporting, it is important for the reader to constantly bear in mind that this study concentrates on the service-learning environment itself. While data was collected from students regarding their experiences, learning, and changes during the service-learning experience, what is being investigated are the influences within the structure of the service-learning trip that might be connect to Asian students’ experiences, learning, and changes.

The study was deliberately limited to an investigation of Asian international students. Selection criteria for the study disqualified any participants who were not from an Asian country. Selection criteria also disqualified domestic students – even if they self-categorized as “Asian-American.” This limited the study to students whose prior educational experiences and cultural identities were Asian. As such, it limited the number of potential participants in the study but it allowed me to focus exclusively on Asian students and their adjustment to a constructivist pedagogical environment.

Finally, this study was limited in scope to a relatively traditional domestic service-learning experience – albeit one that was purposely made more internationally diverse than what
might otherwise be typical. The service-learning trip itself had no special interventions, activities, or additional influences that would otherwise not be associated with the typical service-learning experience.

Findings

This study explores the research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

Findings are reported by first providing a brief Overview of Asian Students’ Pre-Service-Learning Values, Attitudes, and Beliefs (section 1). The purpose of section 1 is to provide a reference point and standard for benchmarking where Asian students were in their ZPD toward adaptation to constructivism prior to the service-learning trip. Learning and changes experienced through the service-learning will be reported by Connecting Learning and Changes Through Service-Learning to ZPD Influences (section 2). Section 2 provides findings related to two themes (Influences on cultural learning; and Influences on transformational learning. Finally, section 3 will present findings connected to the Relevance of Other Scaffolding Influences.

Overview of Asian Students’ Pre-Service-Learning Values, Attitudes, and Beliefs

Pre-experience values are introduced here solely for the purposes of providing a general idea of where Asian students were in their ZPD prior to the immersive service-learning trip. Pre-experience data suggests that Asian students’ behaviorist experiences and values emphasized lecture and memorization in order for students to make good marks and prepare for exams. Charles, a freshman from South Asia, reported:
Teachers, in particular, they wanted me to score on the exams. In my country there is something called board exams… everyone wants to know your score… you have to score in those exams to, like, look good.

Samuel, a first-year graduate student, also from South Asia shared similar experiences:

It's just familiarize the exam, study before the exam, and do well and get good grades. There, it's just a temporary part of what you're trying to do. Every stage is like, you finished up this, you finish get good grades, pass this, and you go to the next grade… It's just study study study…it’s a lot of pressure.

Pre-experience data illustrated a rigid structure and highly controlled educational environment in the Asian students’ home countries. Sofia, a freshman from East Asia, shared that in her home country, “I was just a person. If you told me what to do, then I would do that – just do it.” She also added that because of the rigid controls in her previous academic experiences she and other Asian students “are afraid to ask questions.” Tyson also shared many thoughts about the rigid structure of academics in his home country. He shared that “it was a very competitive environment” and that he “could not participate in any extra-curricular activities” because he “had to study for the college exam.”

Data collected prior to the service-learning showed that there was considerable power distance between teachers and learners. John, from West Asia was critical of his past teachers when he stated, “over there (in Asia), they’re kind of arrogant: ‘I’m a professor; you’re a student’ so there’s always distance.” Likewise, Sofia shared, “if you correct a teacher or something like that… they probably would get mad. So some students are afraid of asking questions, like when they cite a wrong word or something in the classroom.”
While additional interview data could be utilized to illustrate Asian students’ prior learning experiences and resultant values, priority is instead given to exploring ways that service-learning might influence learning and changes that Asian students experience during a service-learning trip. Additional contrasts between pre- and post-experience values will be presented in subsequent sections but in support of the analysis of Asian student change in possible connections with the ZPD scaffolding influences.

**Connecting Learning and Changes through Service-Learning to ZPD Influences**

Through second-cycle a priori process coding I connected occurrences of student learning and change (established through first-cycle values coding) to eight scaffolding influences -- *Task Structuring; Propping/Nudging; Modeling; Instructing; Cognitive Structuring (Explaining); Questioning; Feeding Back (Against a Standard); and Contingency Management* (Tharp, 2012) -- represented in Table 4.

In my second-cycle coding analysis, I also established sub-codes based on the three potential ZPD interpretations (*problem-solving; cultural; and societal*) for each of the eight scaffolding influences. I do not directly report all findings based on all 24 sub-codes. Instead, I report back directly on findings connected to the eight immediate ZPD influences. I used the full coding matrix (see Appendix I) in my analysis to identify themes that potentially intersected the eight principal influences.

The findings from my analysis are reflected in two themes: *Influences on cultural learning* and *Influences on transformational learning*. These two themes detail the Asian students’ experiences and processes during the service-learning trip that progressed them through their ZPD and aided their adaptation to a constructivist pedagogical environment.
Table 4

**ZPD Influences (Process-Coding) and Coding Frequencies**

<table>
<thead>
<tr>
<th>Scaffolding “Means of Influence”</th>
<th>Frequency of Connections of Learning/Change Across All Participants</th>
<th>Behavioral Influence?</th>
<th>Linguistic Influence?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Structuring</td>
<td>33</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Propping/Nudging</td>
<td>47</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Modeling</td>
<td>43</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Instructing</td>
<td>3</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Questioning</td>
<td>6</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Cognitive Structuring (Explaining)</td>
<td>28</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Feeding Back (against a standard)</td>
<td>7</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Contingency Management</td>
<td>1</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Influences on cultural learning.** Findings suggest that "Propping/Nudging" (physical placement of a learner) and "Modeling" (offering a model for imitation) provided the greatest influences across all three ZPD interpretations, but in particular with regard to cultural learning.

In total, of all the 166 matches that fit into the 24-code matrix, 90 fell into the Propping/Nudging or Modeling influences. Of the 88 matches that fit into the cultural-learning interpretation, 66 of those can be attributed to the Propping/Nudging or Modeling influences. The theme of “Behavioral Influences' Impact on Cultural Learning” is broken into three inter-related sub-themes.

**Respect for diverse inputs.** Findings support a wide array of learning associated with diversity and linked directly to the Propping/Nudging and Modeling influences. Some findings suggest that domestic students taught the Asian student participants new things that only could be taught either when modelled, or when it occurred through nudging or propping: "On this trip I
learned that there are a lot of cultures around the world, and they have different systems and different things going on" (George).

While coming to a realization that there are many cultures in the world might not sound like a revolutionary concept, six of the Asian students in the pre-experience interviews suggested that racial/ethnic diversity in their countries does not exist. Both Tyson and Addie – each from separate East Asian countries – reported that in their countries there “is just one race.” Most of the Asian students had never before socialized and so freely conversed with such a culturally diverse population. Similarly, Sam and Adam, who are both first semester graduate students who did their undergraduate studies in their home country in South Asia, commented extensively on the cultural learning that took place within the service-learning cohort. Their responses reflected the first-hand knowledge that was gained through proximity and interaction with American students, and can occur only under the influences of Modeling and Propping/Nudging.

Several students described greatly increased knowledge about U.S. politics (just before the 2016 U.S. general election) as well as learning linked to intra-U.S. cultural, religious, ethnic, and socio-economic differences. The Modeling and Propping/Nudging influences played a tremendous role in Asian students’ development within their ZPD and connected to their exposure to people of diverse backgrounds:

There was a girl who said she's not poor – she's upper middle-class -- and there are people who said that they weren't in a good situation when they were young, and there are people from outside the country (Addie).

Matt stated in the simplest terms what was overwhelming evident in the findings: "I got open to other opinions... and it's helped me break out of my cultural shell." Matt went on to
describe how the service-learning trip was pivotal to helping him open up to and communicate with white, African-American, and Asian-American students.

Several students commented on the impact of the proximity (Propping/Nudging) and the Modeling of domestic students. This exposed Asian students to diverse inputs and demonstrated how students can learn from one-another and make meaningful socio-cultural connections.

**Socio-cultural connections.** Finding show an increase in socio-cultural connectivity among participants. Through the influences of Propping/Nudging and Modeling, Asian participants made meaningful social connections with each other and with American students that went some distance toward satisfying students' basic needs for inclusion in their new environment. Several student expressed the importance of feeling included. John, who went through a process in his own ZPD of initially feeling excluded on campus (prior to the trip) to feeling warmly welcomed during the trip, had this to share: “They made me feel like I'm worth it, I guess. Used to be nobody wants to be my friend, just walk to class back and forth. Now I kind of feel respected.”

Evidence in the findings demonstrates that connections were made over specific-service-learning activities – and there is evidence that the common service activities helped to catalyze relationship building. Students offered evidence that time between activities; time spent in the hostile together; riding in the vans together; exploring Washington, DC together; preparing and eating meals together; and even getting lost together, all added to their sense of inclusion and mutual learning by proximity to, and inclusion with, more capable peers:
During our free time, when we were able to go outside as a group and explore DC not only helped me to see around DC, but also really know each other in a small group of people. (Sofia)

Findings suggest that participants learned to overcome some of their own cultural boundaries and came to recognize a high level of interconnectedness through the Propping/Nudging and Modeling influence. Through the simple proximity and common space with domestic students, Asian students were able to find and bond over similarities. On a purely social level, Matt shared that he learned that most people had the same desires to travel, experience new things, and had similar things on their "bucket list". This helped him to realize that "Americans, Asians... they're just like me. We have a lot of things in common."

John, the oldest student who is an advanced PhD student from West Asia, had indicated in the pre-experience interview that, although he had travelled considerably around the world, and elsewhere in the U.S., he did not feel welcome in the Southeastern United States where Praxis University is located – or on the Praxis University campus specifically. In the post-experience interviews John shared that, even though he had experienced challenges feeling accepted into the Praxis University community, during the immersive service-learning trip, he really connected with the entire group:

On the trip, I connected with other people even though they were younger even though it was difficult for me to connect with other people my own age here on campus. It made me realize, maybe I should change my approach on how I approach people. Before I used to blame it on other people. Here I was struggling because of them. Maybe now, it's because of me to some extent.
Post-experience data suggests that through the influences of Propping/Nudging and Modeling, Asian students came to realize that they could, and they did, make friends with American students. Addie, Sofia, and Henry (all from East Asia) contrasted their experiences at the beginning of the trip with their experiences at the end of the trip. After having spent the previous three days working closely with one another, "we were all playing around as a group"; conversations had all changed because "we knew each other"; and, as Addie phrased it in reference to several of the Americans in the cohort, "you're my new friend!"

**Benefit to academics.** Findings suggest that participants learned skills that would help them in their academic lives. The influences that originated this new learning were Propping/Nudging and Modeling – again in the simple circumstance of close proximity to other students and learning from one another. Henry (a freshman from East Asia) observed, "that's a big part of academics in the U.S. It's very social. More so than students think. It's fun, but it’s also social in the classroom." Likewise, several students commented about the beneficial effects of group interaction. Some went so far as to see that setting up the circumstances in which students could interact was a deliberate measure: "I think they (U.S. educators) understand that interaction is the best way to bring the best out of a group." Such comments from Asian students reflect the presence of influences such as Propping/Nudging, and that Asian students see the intentionality of such influences in constructivism through the very Task Structuring itself.

Pre-experience data showed many values and a culturally grounded emphasis on "academics first". As an example, Tyson, a freshman from East Asia, shared: “I cannot participate in them (non-academic activities) because I still don't know how to study English for every class. I think it might be a disaster if I could not follow up the classes.” Through the
service-learning experience, however, many came to realize the interconnectedness of socialization and academic success within constructivist environments. Addie stated, "if I do good in my social life, I'd have more encouragement of my academic life, it's all connected" and Adam offered:

I think I'm a better person than before the trip... I think that is because of interacting with a lot of people. That is one thing I should take into my academics; I will interact a lot.

Findings generally suggest an increased comfort in the constructivist-learning environment. Henry, for example, shared, "now I am not scared of talking to people. I'm not scared of going to people or work with or cooperate with them." Concerning anxieties over his English-speaking skills, Henry added, "that's okay. I'm not a native speaker so I'm not perfect. But you can understand." The data demonstrated that Modelling and Propping/Nudging influences were largely responsible for this and similar developments.

Findings show a narrowing of the gap that Asian students perceived to exist between them and faculty (and other campus leaders):

Before the trip if I had a question I probably won't ask an instructor. I would probably ask other students what are we going to do now or next. I feel like after this trip if I have a question, I can just go and ask my instructors. (Sofia)

Likewise, Addie came to view campus educators in a different light based on the influences and proximity within the service-learning trip:
I used to have difficulties talking to a professor, or someone who has the position too. But when I spend time with the leaders during this trip, I find out they are cool people and that they make jokes and have relationships with everybody.

Propping/Nudging and Modeling are clear behavioral influences that can originate new behavior and as demonstrated here, cultural learning. Additionally findings suggest that the scaffolding influence of Task Structuring (overall learning situation) of the immersive service-learning experience was significant for Asian students’ adjustment to a constructivist-learning environment. Matt gave a strong endorsement of the service-learning experience and as a result the Task Structuring influence, when he stated:

If I wouldn't have gone to that trip, I would have just, it's like a vacuum around my campus, I go to class and come back, eat sleep and repeat and Service Learning gave me perspective on what is happening outside of my shell.

Connected to Task Structuring, there was a relatively high frequency of coding results (13 of 33) that connected to the social interpretation of ZPD:

This trip changed my perception about things. We got the experience that people and different cultures have different learning styles... introverts might be more interested in learning alone or inside the classroom, and extroverts may be more comfortable outside the classroom. Something works for someone; everything works for someone (George)
Findings show that certain activities during the service-learning trip benefitted particular students more than others. Charles, for example, benefitted and was influenced particularly by interacting directly with the homeless; Henry advanced considerably and socially during free-time with program participants between scheduled activities; Sofia enjoyed exploring the city in the evenings with American and international students; and Adam and John found particular value in the group reflections and discussions. Findings show that the Task Structuring (with its varied service-learning segments, reflections, discussions, free time, common space for eating, sleeping, and socializing, and the duration of the trip) provided influence over social learning processes for students within a ZPD.

**Influences on transformational learning.** The ZPD influences of Task Structuring (overall learning situation) and Cognitive Structuring (Explaining) seemed to connect with the societal (transformational) interpretation of ZPD. Task Structuring and Explaining received a combined 61 code hits out of all 166 hits for all 24 a priori process codes. Of the 66, 33 fell into the coding sub-category that reflected the societal (transformational) interpretation of ZPD. Pre-experience data suggests that Asian students were generally isolated from external, societal factors. As Samuel suggested, “that interaction or that idea where you can transfer the resources or the ideas or the knowledge from the field to the academics. It's there in U.S… but we don't get that in (my home country).”

**What’s the problem? Considering the causes of homelessness.** Through the service-learning experience, students gained an awareness of the problems of homelessness. Consistently, participants reported in the post-experience interviews that they were influenced by the activity that was conducted throughout day two of the service-learning trip. That day’s
activities included hearing from and speaking with associates of a DC community resource center/family shelter. Through the explanations of the community center representative and two formerly-homeless members of the community, students demonstrated learning regarding both the systemic factors that affect homelessness and hunger and heightened sensitivity and respect for people who have struggled, or are struggling, with homelessness.

Charles, a sophomore from South Asia, indicated that prior to the trip he felt that the homeless alone were to blame for their homelessness:

I strongly believed that those people are there because they have given up hope; it's entirely their fault. Period... I used to think that, but then I was introduced to the concepts of structural problems and I really gave thought about it...I learned a lot from those conversations. They were really valuable to me. Yeah, those problems can affect any person (Charles).

After having a detailed explanation of aggregate causes of homelessness, participants reported a drastic change in their outlook based on the new learning. The statistics and neighborhood tour that were provided by the community center representative were strengthened by the personal narratives of two formerly homeless members of the community.

**What's being done? Learning about the resources and challenges.** Data suggests that *Explaining* was a strong influence. Students heard and came to understand through explanation a great deal about the efforts to alleviate homelessness. Data also suggest learning associated with the transformational interpretation of ZPD that was linked to the *Task Structuring* itself. Students
worked in three different facilities located in three different areas of the DC metropolitan area where they received explanations from staff, volunteers, and recipients of assistance. Several students mentioned learning and being greatly influenced by the explanations provided at those locations about the various efforts to address hunger and homelessness:

I learned about the reality of society. Before, I didn't see that side of reality in the community. After this, I learned lots… even though they provide them with a place to live, they will encourage – or even force them – to go to the doctor or look for a job (Sofia).

The combination of physical activities associated with the overall Task Structuring and the Explaining had an impact on students. Several students seem to have been particularly influenced by the events of the second day. Several students credited two speakers, who were formerly homeless themselves, with providing the greatest influence: “I really liked (her) speech, and I think what she said about the power that is within us. Everyone is powerful.” The emotional strength of the Explaining provided by the two speakers – that were deeply personal and relatable – had influence on Asian students understanding of the challenges and commitment to do something about those societal problems. As Sofia commented, “doing the community service, you can learn the reality in the society.”

What can we do? Motivation to address real-world problems. The data I collected from students after the service-learning experience was limited to what was self-reported through the post-experience interviews. Through those interviews, students reported being influenced not just in their beliefs and attitudes, but also toward future actions. John, who is an advanced PhD
student from West Asia, made this observation about the other students (many of whom were ten years his junior):

Going on your own and doing such a thing (service-learning), it's a great experience for that. With first time. Yes. Maybe now they feel strong. They have done it in their first year. Most of them now are going to do other such trips now.

Many students did indeed report an intent to participate in future engagement activities. Reporting on participants' motivation to address real-world problems ranged from a desire and expectation to participate in future Praxis University service-learning activities, to at least three of the students considering how their particular engineering programs might teach them skills that could be used to improve on the resources that were in place to alleviate homelessness and hunger. Adam, a first year graduate student from South Asia shared:

…using my engineering skills to solve the issues that are going on, or the problems in the society. Maybe not for homelessness or hunger, but maybe for the food bank, there was a lot of manual labor going on. Maybe I can use my engineering skills to fasten it up, or reduce the time taken for getting all that food packaged and distributed.

Most of the respondents demonstrated a heightened awareness and call to action. The problem of homelessness had generally moved from being "someone else's problem" to being "our problem". Participants reported a change in attitude toward the challenge of homelessness
(and other common societal challenges) as well as a change in attitude toward people who themselves are homeless:

I realized that homelessness is a real major problem. I never thought about it because it was just like side playing things. I had to focus on my goal. I never cared about homelessness. I got everything because this was provided to me for free from my parents. I never valued most. Then I realized that people are really struggling with this thing… It changed my perception about these things.

(George)

As the findings show, students to some degree had internalized and humanized what had been a problem that was outside of their sphere and that affected “other” people. By the end of the trip, students had generally experienced a change in attitudes that set them up to support efforts to alleviate homelessness. As mentioned by Sofia, most students were “willing to do more other volunteering” following the service-learning trip. Adam shared this sentiment when he said, “this trip, it has given me the idea that I should be here, giving back to society.”

Students generally reported that through this experience, they came to consider the level of the problem in their own country and worldwide, and how it might be fully appreciated, and that they were committed to being part of the solution either in the U.S. or elsewhere. As Samuel suggested, “I saw how they're trying to solve the problem. Probably I can implement those back in (my home country)”. Several students observed that societal challenges and academic endeavors are not mutually exclusive:
The point of this experience is for you as an engineer, to be like wow, there is no reason for me to be a not be good engineer and do these things. In fact, when you do it the right way, it will help you to be a better engineer. These problem-solving issues, that you are working with someone who isn't an engineer, but they still have a lot of non-engineering but smart perspectives. (Adam)

As Adam’s insight also suggests, the Task Structuring of the service-learning trip had a strong transformational influence on Asian students’ understanding of collaboration between disciplines. Findings show that several Asian students were able to identify how their specializations could be utilized to address societal challenges.

This theme suggests that students responded to the linguistic influence of Explaining to a greater extent than other linguistic scaffolding influences and that within the overall learning situation (Task Structuring) of the immersive service-learning experience, it played a particularly influential role.

**Relevance of Other Scaffolding Influences**

The findings demonstrate two relatively clear themes connected to cultural learning and transformational learning. Behavioral influences within the scaffolding (Propping/Nudging and Modeling) affected cultural learning. The linguistic influence of Cognitive Structuring (Explaining) -- and in association with the overall Task Structuring – impacted transformational learning. However, and as can be observed in the raw frequencies from the coding, virtually all other scaffolding influences had some impact on Asian students in their ZPD interpretations. Taken together, influences were typically at play simultaneously and interdependently with regard to influencing student learning. Such a reality is reflected in the number of coding
matches across most of the influences and relative especially to the cultural and transformational
terpretations of the ZPD.

While the data showed impact on learning from several of the influences, there were a
couple of notable outliers among the influences. Instructing and Contingency Management in
particular were relatively absent as influences. The overall Task Structuring of the service-
learning experience is such that there is a minimum amount of “instructing” – nobody was
instructing (which means ordering) participants to do anything. Likewise, Contingency
Management (interventions to correct behavior) directed from program leaders to program
participants is generally incongruous with the service-learning environment, activities, and
objectives and is therefore very rare. Service-learning participants are volunteers and young
adults. They were put in situations to assist and to learn from those around them. The tasks,
learning, and participants generally did not incorporate the influences of Instructing and
Contingency Management.

Through an examination codes connected to eight ZPD scaffolding influences that
occurred during the service-learning trip, I identified two principal themes associated Asian
students’ adjustment to and integration with constructivist practices as a result of their
participation in the immersive service-learning trip: Influences on Cultural Learning and
Influences on Transformational Learning. The data show that behavioral influences
(Propping/Nudging and Modelling) had particular impact on Asian students’ cultural processes
within their ZPD, and the linguistic influence of Explaining was particularly impactful regarding
transformational ZPD processes, especially as the overall Task Structuring provided situations in
which Asian students could be meaningfully influenced by the explanations of staff, volunteers,
and community members.
Discussion

The findings reflect data collected, coded, and analyzed in an effort to explore how activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment. Findings also suggest that some ZPD scaffolding influences were more prominent than others were. The findings also suggest that the eight influences and the learning that actually influenced are layered. Qualitative data collection, analysis, and reporting can sometimes be an overlapping “messy” undertaking (Dawson, 2006; Denzin, 1995). Although two themes emerged in the findings (Influences on Cultural Learning and Influences on Transformational Learning) discussion of those themes will help to address some of the overlap.

Asian Students Prior to the Service-Learning Experience

The pre-experience participant interview data were consistent with the literature regarding the challenges associated with Asian student transition from behaviorist to constructivist pedagogical systems. Among the challenges that were represented in my findings are the behaviorist-pedagogical attributes linked to real or imagined lack of racial, ethnic, or social diversity (Porcaro, 2011; Lee and Ciftci, 2014); and/or rigid, top-down, often highly-controlled educational content and delivery that bolsters a monolithic identity and/or viewpoint and which results in a lack of "knowledge democracy" (Biesta, 2011). Nguyen (2011) suggested that Asian students are often passive, they do not tend to talk in class, and they often do not easily adjust to local conditions. Findings also suggest that Asian students were facing challenges (due both to language and culture) interacting overall with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Lee, 2007; Ying & Han, 2006).
Although the combination of the literature and students' own description of prior learning suggest a level of superficial cognizance of how the U.S. system differs from their previous pedagogical experiences, most of the students themselves had never actually experienced the differences in any immersive way until the Praxis University service-learning trip. Findings suggest that while students knew there were academic and social reasons to better connect, they were anxious and/or otherwise had not adapted in such a way as to be able to do so.

**Asian Students’ ZPD from Instructivism to Constructivism**

Post-experience findings suggest there was a level of *cultural learning* in connection to the scaffolding influences of Propping/Nudging and Modeling; and, *transformational learning* connected to Explaining and the overall Task Structuring (overall learning situation). The proximity and placement (Tharp, p. 44-45) of domestic and Asian students together and the likelihood that Asian students would to some degree imitate (p. 45-47) or follow the lead of American students made the behavioral influences of Propping/Nudging and Modeling not unexpected scaffolding influences.

As described by Astin, et al. (2000) service-learning has the potential to influence students through increased efficacy; leadership (activities; leadership ability, and interpersonal skills); commitment to activism and promotion of racial understanding; increased student-to-student discussions and improved connections with faculty; an increased awareness of one’s personal values; and increased awareness of the world; and an ability to connect the service experience with academic material and increased engagement in the classroom. Findings suggest that Asian students advanced along their ZPD in line with many of the above possible impacts of
service-learning and in connection with the first theme in the findings of, *Influences on Cultural Learning*.

Behavioral scaffolding influences (as contrasted with linguistic influences) seem to have affected cultural learning. The cultural learning was linked to a combination of better social relationships and tacit understanding, greater confidence speaking socially (and presumably in the classroom), and a clearer understanding of why constructivism promotes socialization for both learning and student self-actualization. Cultural learning which was affected particularly by Modelling and Nudging/Propping on the service-learning trip reflected Eyler and Giles’ (1999) study on Asian students’ experiences with service-learning: Reduction stereotyping and increased awareness and appreciation for diversity; increased self-efficacy and personal growth; improved interest in and ability to work with others; a sense of inclusion within the campus and community environment; and, inter-connectedness with other students and faculty (p. 54-56).

As was the case in my study, Jones and Abes (2004) concluded that service-learning helped students to become more open-minded to diverse thoughts, people, and experiences by heightening their self-confidence. Likewise, regarding increased confidence, and as seen within my own findings, students renegotiated their sense of “self” in relation to “the other” (p. 153). Service-learning helped Asian students reflect on their own values and on their own upbringing, and through the process “actually build relationships and communicate” in ways not previously possible (p. 154). Through the immersive service-learning experience, students developed more “community-minded values” (p. 157) and a commitment to “something beyond themselves” (p. 158).

As can be seen from my findings, the Propping/Nudging and Modeling scaffolding influences were particularly efficacious for advancing Asian students along their cultural ZPD.
The effects of the service-learning experience – as reflected in the cultural ZPD sub-themes – are consistent with the literature. The data showed that Asian students experienced similar improvements in self-efficacy, inclusion, understanding and appreciation for diversity, and increased awareness of and willingness to connect with social contexts outside of campus. Additionally, this study demonstrated that most of the eight scaffolding influences played a role; it was the two behavioral influences of Propping/Nudging and Modelling that were most evidenced in Asian students’ process along their cultural ZPD.

The second theme that emerged in my findings was Influence on Transformational Learning. Data from the respondents showed that along their societal (transformational) ZPD, they were greatly influenced by Task Structuring (overall learning situation) and the linguistic influence of Cognitive Structuring (Explaining). Service-learning’s overall impact on the societal (transformational) interpretation of ZPD (Engeström, 1987; Lave & Wenger, 1991) was not surprising. However, that the linguistic influence of Cognitive Structuring (Explaining) emerged as it did from the coding was unexpected.

The impact of Explaining might be linked in part to the means that Asian students would typically learn in a behaviorist environment. As discussed in the literature (Lee, 2007; Porcaro, 2011) and mentioned by Asian students in the pre-experience interviews, behaviorist/instructivist pedagogy depends largely on transmission of information from an informed instructor to attentive listeners. Throughout the four-day service-learning trip, Asian students were immersed in a structure of pedagogical practices that was vastly different from previous experiences. Throughout the experience students were socially engaged with others practically the entire time; performing hands-on learning; experiencing and considering things that were entirely new to them; participating in group and personal reflections; and doing so in their non-native language.
Of all the activities included in the Task Structuring, learning gained through Explaining might have seemed the most familiar to Asian students based on their previous pedagogical experiences.

The Explaining influence might have helped Asian students to understand better the arcane reasons for the struggles of hunger and homelessness (which was the theme of the service-learning trip) and the information was delivered through the transmission of information from an informed "teacher". The Explaining influence might have provided Asian students with much needed input in order to make the connections associated with what we were doing and why, but it inadvertently did so by meeting the Asian students partway with regard to their previously learned and experienced pedagogical norms.

This study provides valuable insights into what influences Asian students who are in their ZPD and engaged in an immersive service-learning experience. Asian students demonstrated mastery (or a move toward mastery) of a higher order of understanding and interaction with constructivist practices (Bruner, 2006). Through the lens of ZPD, the service-learning trip endowed Asian students’ educational experience at Praxis University with “meaning” (p. 191); there is evidence that students’ experiences with service-learning enhanced their understanding and ability to engage in constructivist pedagogical practices and even that there was an epistemological shift. Findings show that certain ZPD influences in particular fostered an internalization of new, constructivist academic structures, practices, and values that were "incorporated" into or even “displaced what existed before" (p. 191).

The thematic findings of this study should by no means be interpreted as an invalidation of the other influences within the scaffolding, or of the role of service-learning as a means of facilitating learning within the problem-solving interpretation of ZPD. Overall, most of the eight
influences are reflected in a mutually symbiotic relationship – in the sense that while some influences played key roles in the processes that Asian students went through during the service-learning trip, others played supporting, yet important roles as well. The relative infrequency of certain influences could represent gaps in overall Task Structuring and the inefficient use of all possible influences during a service-learning experience. Or, the relative absence of the ZPD scaffolding influences of Instructing and Contingency Management might suggest certain scaffolding influences are more (or less) appropriate in certain learning situations.

**Final Thoughts for Discussion**

While efforts could be made to try to connect every aspect of the experience to one or more of the ZPD scaffolding influences, much of the data simply showed that Asian students also “had a good time”. That observation is highly relevant in my opinion. However, I was not collecting and analyzing data related to Asian students’ enjoyment. For many of the Asian students it was the first time they had meaningful, friendly, “real” conversations with American peers – and many of the American and Asian students at least became Facebook friends and several others I know to have gone out socially after the trip. While there was one American student in particular who “scared” several of the Asian students because of her attitude and demeanor, and while relationships did not necessarily blossom flawlessly into lifelong friendships, the simple matter is that in addition to actual learning, Asian students were exhilarated on a purely social level because of the experience. If the research question asks how activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist learning environment, then it is certainly noteworthy to mention that perhaps the greatest influence on Asians students was
entirely outside of the scope of this study – Asian students enjoyed the experience and the company.

This case study investigated the research question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment? While this study was exploratory in nature, it does leave open unanswered questions and implications that potentially warrant further consideration.

**Implications**

This study explored the question: How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment? Findings have numerous implications across the spectrum of educational theories, potential future research considerations, and institutional policy and practice.

**Implications for Theory**

This study sought to investigate whether and in what ways service-learning offers relative "new-comers" to a U.S. learning environment opportunities to be influenced by relative "old-timers" (Lave and Wegner, 1991) and in relation to ZPD scaffolding (Tharp, 2012, p. 38-53). This study adds to the theoretical work connected to ZPD and scaffolding influences in two distinct but inter-related ways: First, it applies ZPD theory to a group of Asian international students (mostly freshman or first-year graduate students). The application of ZPD theory is often associated with the development of younger learners and if often linked to language acquisition and negotiating understanding and meaning of social realities for those young learners (Bruner, 2009, p. 80-89. To use ZPD in some similar ways but for the support of Asian
international students who are new to constructivist, U.S. pedagogical environments offers a new application of common developmental theory.

ZPD concentrates on psychosocial development as associated primarily through language and student progress toward understanding of new social realities (Bruner, p. 81-83). In Vygotsky’s view (p. 191) a learner in a ZPD arrives at mastery (or draws closer to mastery) of a subject or skill not just through the development of language, but by gaining a grasp of the cultural context in which language is used. As many of the South Asian student participants – who have been speaking English their entire lives – language suggested, the technical ability to speak English does not necessarily match up with the cultural context in which language might be utilized.

The second way my study adds to existing ZPD theory is that the learners are (mostly) young adult Asian university students who through an immersive service-learning experience found relative mastery of constructivist learning standards. As such, it demonstrates an expansion of the theory in a specific way to adult learners and adds to the body of evidence that learning is primarily an outside-to-inward process and that indeed “mental life first expresses in interaction with others” (p. 191). That being stated, while ZPD provided a lens through which to investigate influences that affect change within a service-learning experience, using the eight scaffolding influences and the three interpretations of ZPD (problem-solving; cultural; and societal), may have over-complicated the study and analysis of ZPD as a theory relative to Asian student learning through a service-learning experience.

Implications for Future Research

This study leaves open the possibility of further outcomes-oriented research that concentrates on the structure and activities of service-learning (or other engagement activities) in
connection to international student adaptation. Further research could build on the potential of service-learning in order to better understand the parameters (such as duration; task structuring; and balance of interventions) in order to maximize the quality of service-learning programming. Additionally, further research could focus on processes within the service-learning experience, rather than so exclusively on outcomes. While I did use process coding for analysis, further qualitative studies could more deeply explore the students’ experiences and the specifics of the changes they experienced. Similarly, this study adds to the literature that creates a baseline for the merits of service-learning and its compressed effects on international student adaptation. However, further research could be conducted longitudinally to assess to what degree international students followed through in action on their perceived shift in values immediately following the service-learning trip.

Modifications to a traditional service-learning experience in order to benefit international student adaptation, or make the experience more conducive to cross-cultural learning, might result in unintended consequences. If service-learning can be adjusted in such a way as to support international student adaptation, are there any unforeseen factors that might dilute the traditional and already known merits of service-learning? Further research could investigate the best means of maximizing cross-cultural dialogue without minimizing traditional service-learning goals and perhaps as a result mitigate unintended consequences.

My focus and overall interest within this study are on domestic service-learning trips that maximize cross-cultural interactions and international student adaptation, but are concentrated more locally for accessibility as well as connection to the local community's challenges. This study reinforces the idea that further research could investigate how a domestic activity such as the one considered through my study compares with international service-learning trips. Such
future studies could examine a range of topics that include ZPD, developing cross-cultural awareness and skills, productively contributing to addressing society’s greatest challenges, or concentrating comparatively on the impacts on specific specialization.

Finally, this study omitted more than half of the participants from investigation because they were domestic students. Anecdotally I observed that domestic students progressed along their own ZPD. A worthwhile future investigation would be to replicate this study but concentrate on the domestic-student participants in the service-learning experience: What effect does domestic, local, high impact service-learning have on domestic students when the cohort has a relatively high proportion of international students? Does such an experience change domestic students’ perceptions of global learning, diverse cultures, and/or how to be more globally engaged? In much the same way that this study demonstrated a cultural adaptation of international students through the service-learning experience, might research show similar adjustments among domestic students?

**Implications for Practice and Policy**

The overall benefits of involvement and engagement in campus co-curricular activities to student success are generally supported by scholarly research and widely implemented throughout U.S. institutional of higher education (Astin, 1984, 1993; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto, 1987). This study stands to provide policy-makers and practitioners with considerable material to help inform potential adjustments to current engagement efforts in such a way as to more deliberately and more effectively support their international students’ adjustment to and integration into the campus community – and do so without the need to make great financial investments or overwhelming structural and administrative changes.
Praxis University incentivized participation in the immersive service-learning trip by offering generous (but limited in number) mini-grants to many of the participants. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the service-learner provider and/or the Office of International Affairs at Praxis University. Such subsidies may have made the difference for many of the international and domestic students and allowed the service-learning cohort to be as diverse as it was. A broader effort to financially incentivize or require participation in a larger array of multi-day service-learning trips would have to be supported and championed at the higher administrative levels of an institution.

Praxis University is a large, public research institution with minimal courses that offer a service-learning component. Likewise, unlike some institutions, it does not offer a transcript notation for participation in service-learning. Praxis University's service-learning opportunities are largely offered through a student affairs unit and are independent of academic programs and course curricula. Institutional organization, whether a school is public or private, campus culture, and fiscal/political considerations would all have implications with regard to the implementation of a common first-semester service-learning experience for Asian (and domestic students).

Data collection for this study occurred mid-semester in the fall of 2016 – less than one month prior to the U.S. general election. The relevance of practice and policy implications seem even more important in the current climate in the United States. Opportunities to engage diverse students, support international student adaptation to U.S. learning environments, and to do so in cost-effective ways seem particularly important to education policy-makers and practitioners. Exactly what such a program would look like may best be answered through additional research that illuminates the aspects of service-learning that were particularly influential.
Conclusion

This study investigated the merits of an immersive service-learning trip for its ability to influence and support Asian international students’ transition from their instructivist/behaviorist pedagogical backgrounds to the social constructivist pedagogical practices more commonly found at U.S. institutions of higher education. Using the conceptual framework and scaffolding influences associated with Vygotsky’s Zone of Proximal Development (ZPD), I qualitatively collected and analyzed data from an immersive service-learning cohort at a large public research university in the southeastern U.S. I concluded that a relatively standard, multi-day service-learning experience greatly influenced Asian students’ understanding of and ability to engage in the types of constructivist educational practices that exist within and outside of the service-learning experience, but which are vital to academic and social on college/university campuses where constructivism is practiced.

Within the parameters of this study, findings particularly indicate that the ZPD scaffolding (behavioral) influences of Propping/Nudging and Modeling (Tharp, p. 44-48) had strong influence on Asian students’ learning that was consistent with a cultural interpretation of ZPD (Davidov & Markova, 1983; Lave & Wenger, 1991). Findings also demonstrated that the ZPD scaffolding influence of Task Structuring (Tharp, p. 43-44) and the (linguistic) influence of Cognitive Structuring (p. 50-51) impacted Asian students in learning that was consistent with a societal (transformational) interpretation of ZPD (Engeström, 1987; Lave & Wenger, 1991). Taken as a whole, all scaffolding influences and all possible ZPD interpretations were evidenced in the immersive service-learning experience, which provided support and learning for Asian students’ transition to a constructivist pedagogical environment.
CHAPTER 7

ARTICLE 3: SERVICE-LEARNING AS A CONCEPTUAL GATEWAY TO A CONSTRUCTIVIST LEARNING ENVIRONMENT FOR ASIAN STUDENTS STUDYING IN THE UNITED STATES

Introduction

The 21st century has seen increased diversity in student populations and greater efforts to incorporate successfully students of all backgrounds into campus culture (Banks, 2007; Gurin, Dey, Hurtado, & Gurin, 2002). Diversity on U.S. campuses is not just a matter of domestic ethnic or racial representation; it is also connected to aspects of sexual identity, veteran status, age, part-time/full-time status, and international students (Banks, 2007; Bridges, 2000). Asian students make up majority of international students coming to pursue degrees in the U.S. (Institute of International Education, 2016), yet they may be particularly unfamiliar with and unprepared for the learning environment and culture that is typical of U.S. higher education. Adjustment to an environment of active-learning where diversity, engagement, pluralistic viewpoints, critical thinking and dialogue are among the academic expectations can be extremely difficult for Asian students. (Zhang & Goodson, 2011).

This study investigates service-learning as a possible means by which Asian students can come to better comprehend and participate in the type of pedagogical environment common to U.S. higher education. Service-learning is one of numerous forms of research-based, student engagement that are proven to support overall student success and persistence (Astin, 1984, 1993; Tinto, 1987). Using a multi-day, immersive, domestic service-learning experience offered through a large public research university in the southeastern U.S. as a case study, I investigated the following research question: How does an immersive, multi-day domestic service-learning
trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment? To do this I will first investigate the ways that Asian students changed or adapted during the service-learning trip. I will then investigate whether and how those changes possibly connect to five possible characteristics of “threshold concepts” (Meyers & Land, 2003, 2005, 2006) as they might occur or be evident through the service-learning experience.

While not the ultimate objective of this particular study, I am motivated by my overall interest in learning more about whether domestic service-learning trips can support international student adaptation, while providing domestic students with local, accessible ways to gain high-impact cross-cultural experiences. This particular study investigates how participation in a domestic, immersive service-learning experience offered through a U.S. university might advance Asian students' comprehension and skills that are utilized within a constructivist learning environment overall.

**Literature Review**

This case study explores how an immersive, multi-day domestic service-learning trip might serve as a conceptual gateway (Meyers & Land, 2003) for Asian students’ transition from an instructivist to a constructivist-learning environment. To do this I will first need to establish the ways that Asian students changes or adapted during the service-learning trip. I will then attempt to connect those changes to five possible characteristics of threshold concepts as they might occur or be evident through the service-learning experience. To that end, the review of relevant literature is divided into three sections: *Asian Students’ Pedagogical Adjustment to U.S. Higher Education; Threshold Concepts and Liminality;* and *Service-Learning as a Potential Conceptual Gateway.*
Asian Students’ Pedagogical Adjustment to U.S. Higher Education

On a relative scale, education in the U.S. is considered “constructivist” – which is relatively active, engaged, and learner-based (Bruner, 1996; Jones & Brader-Araje, 2002; Meiklejohn, 2005). Constructivism can be contrasted with behaviorism (“instructivism”), which is on a relative scale is more didactic and teacher-based (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). Constructivism espouses the theory, practice, and organization by which knowledge is constructed socially and collaboratively and the educator plays the role of a facilitator of learning (Porcaro, 2011, p. 41). Instructivist pedagogies seek to transfer information to students as efficiently and effectively as possible (p. 43); in other words, in the form of an instructor or professor transmitting information to students primarily through lecture.

Populations throughout the world embrace pedagogical and epistemological practices consistent with their cultural values and traditions (Bruner, 1996; Elder-Vass, 2010). Zhang and Goodson (2011) found that Asian students might experience greater challenges than domestic students with regard to psychosocial adjustment. Additionally, they also conclude that Asian students may experience greater levels of sociocultural difficulties than international students from other parts of the world who are also studying in the U.S. (p. 614-615). Zhang and Goodson do not make any direct connection with pedagogical factors linked to Chinese students’ educational experiences. The authors instead concentrate on psychosocial and sociocultural aspects of adaptation.

Smith and Khawaja (2011) similarly suggest that most of the international students studying in a new country do not just face challenges in pedagogical adjustment. They also experience doubts about the efficacy of the new system, and they have to reconcile their held beliefs and skills with their new environment. Finally, Terrazas-Carrillo, Hong, & Pace (2014)
illustrate a process through which learners go through a renegotiation of meanings in order to fulfill specific needs – such as “desire for social interaction, and opportunity for self-expression, and the expression of their own emotional experience” (p. 693).

Lee and Ciftci (2014) found that Asian students struggled more with the drastic pedagogical differences than with language proficiency. The authors suggested that Asian students struggle primarily because they lack a multi-cultural personality and exposure to diverse ideas in their educational backgrounds; they lack assertiveness; they have lost their sense of academic self-efficacy in the U.S. higher education environment; and they struggle to find their place in the new social structure. Lee and Ciftci outline the struggles of Asian student adaptation from a collectivist social structure that supported their identity as a student, to one in which students face the challenges of the new pedagogical expectations, in a new, individualistic culture, without their traditional social support structure. These challenges reflect Asian students’ self-identification firstly as “students” rather than “foreigners” (p. 98) and the unexpected challenges that they face.

Porcaro cites Catterick (2007) when he provides China as an example of a culture that is particularly challenged with regard to accessing constructivist pedagogical practices: “Constructivist pedagogy works poorly in Chinese culture, where many students struggle to reconcile their long held pedagogical beliefs and habits with collaborative learning, the diminished authority of the teacher, and autonomous learning” (p. 47).

Adjustment to new pedagogical environments was also investigated in Lee’s (2007) quantitative research of East Asian students studying in the U.S. Lee’s analysis identified a clear overlap between language and academic challenges, but she identified issues of “power distance” (p. 29) and individual identity as the primary hurdles regarding student performance
and adaptation. Porcaro cites Catterick (2007) when he provides China as an example of an East Asian culture that is particularly challenged with regard to accessing constructivist pedagogical practices: “Constructivist pedagogy works poorly in Chinese culture, where many students struggle to reconcile their long held pedagogical beliefs and habits with collaborative learning, the diminished authority of the teacher, and autonomous learning” (p. 47).

In a study of Southeast Asian (Indonesian, Thai, and Vietnamese) students studying at an English-language school in Australia, Nguyen (2011) concluded that culture played a large role in students’ comprehension and participation in a constructivist-learning environment. Nguyen drew several conclusions about the Southeastern Asian students that identified or confirmed some of the following patterns: Students focus too much on the method of assessment rather than the learning process; students rote learn – they memorize but lack critical thinking skills; students tend to view lecturers with extremely high reverence; students are passive and they don’t tend to talk in class; students do not easily adjust to local conditions (p. 14-17).

Students from instructivist cultures find constructivist pedagogy, collaboration and engagement, and solving “ill-structured” problems, requires entirely different skills than those that were developed through prior schooling (Choi & Lee, 2009). Furthermore, students from highly instructivist backgrounds have been accused of lacking self-directedness, working only to “make the grade”, and reluctance with regard to engagement and working collaboratively, especially when goals are not aligned with well-structured and obvious academic rewards (Porcaro, p. 45).

Synthesizing the available literature and in order to concentrate my investigation on service-learning as a possible conceptual gateway, I identified three adaptive categories: Social; linguistic; and academic. While these three adaptive categories are interlinked, much of the
literature suggests that international student challenges with regard to academic adjustment are often the result of social and/or linguistic adjustment challenges.

**Social adaptation.** According to Tompson and Tompson (1996), international students perceive social adjustment and social isolation to be the most difficult adjustment area. Citing Maslow (1943, 1954), Tompson and Tompson offer that until international students are able to meet their basic social, and esteem needs, they will be unlikely to engage in “self-actualization activities” such as academic pursuits or intellectual debates (pg. 55). The literature suggests that successful social adaptation is associated with students’ communication confidence (Akazaki, 2010; Andrade, 2006); interaction with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006), and friendship, support, and social networks (Andrade, 2006; Hotta & Ting-Toomey, 2013; Hendrickson et al., 2011; Ying & Han, 2006). Overall, studies within the social, or sociocultural, adaptation literature reflect a person’s basic need to fit in socially and negotiate a new cultural environment.

**Language adaptation.** The second most-difficult adjustment area as perceived by international students is in the area of language skills (Tompson & Tompson, p. 55). Some English-speaking faculty on the other hand, perceive the greatest challenges for international students to be English-language proficiency (Trice, 2003). A relatively small number of scholars have attempted to measure English-language proficiency as the principal cause for international student adjustment to English-speaking campuses (Graham, 1987; Vinke & Jochems, 1993; Woodrow, 2006; Xu, 1991). It is worth noting that most of such studies that concentrated on language adaptation as an indicator of success were conducted in the 1980s to early 1990s.
Studies that are more recent show a trend toward investigating challenges in socio-cultural adaptation.

**Academic adaptation.** Lee (2007) showed that differing cultures and expectations cause heightened academic anxiety and uncertainty. Social and language challenges (and resulting lack of participation in the constructivist pedagogical environments) are sometimes attributed to Asian students' challenges with the academic content (Robertson, Jones, & Thomas, 2000). This lack of participation, the misunderstanding about why students might be reticent, and differing expectations within the classroom then contribute to strained student-faculty relations (Andrande, 2006; Kingston & Forland, 2008), which further adds to international students' challenges.

The studies mentioned above provide insight into the broad set of challenges that many Asian students face in their pedagogical adjustment to U.S. higher education (and other constructivist) learning environments. The goal of this study is to explore whether, and in what ways, service-learning (as a potential conceptual gateway) might mitigate those challenges.

**Threshold Concepts and Liminality**

Threshold concepts (Meyer & Land, 2003, 2005, 2006) are associated with the idea of liminality, liminal space, liminal states, and threshold knowledge, which are terms used within the literature in tandem with threshold concepts. According to Merriam-Webster, *liminal* is derived from the Latin *limin* or *limen* for threshold and means: 1) of or relating to a sensory threshold; 2) barely perceptible; 3) of, or relating to, or being an intermediate state, phase, or condition. The idea of liminal space and the prefixes of pre and post help to illustrate points within a learning and developmental arc at which the learner is faced with challenging, conceptual material.
Meyer, Land, and Baillie (2010) refer to liminality as a “suspended state of partial understanding” or a “stuck place” (p. x). In a liminal state, the best that can be accomplished by a learner is a form of “mimicry” that lacks authenticity (p. x). A conceptual gateway can be viewed as a set of discreet exercises, concepts, or principles that facilitate the transition from a pre-liminal to a post-liminal state of awareness and readiness regarding a much broader system of understanding. This transition is “less about fostering growth in what learners know, than it is about facilitating development of the ways in which they know” (Timmermans, 2010, p. 14).

Threshold concepts may possess five characteristics that help to both instigate disorientation through the introduction of new concepts (troublesome knowledge), while also attempting to limit (bounded frontiers) that disorientation within a specific conceptual space (Mead & Gray, 2010). Perry (as cited in Timmermans, 2010) suggested that the goal of threshold concepts is to create a level of questioning and doubt regarding one's epistemological beliefs in order to facilitate development, but not to instigate an extreme level of self-doubt. Excessive disorientation and self-doubt might cause the learner to "deflect from growth" and defensively experience apathy, anxiety, depression, and even educational cynicism (p. 10).

Threshold concepts may contain the following five characteristics in order to instigate and bound: (Meyer & Land, 2003, p. 4-9):

1. (Likely to be) Transformative – “… potential effect on student learning and behavior is to occasion a significant shift in the perception of subject…”

2. (Potentially and possibly inherently) Troublesome – due to socio-historical experiences or inexperience with “ritual knowledge”, “inert knowledge”, “conceptually difficulty knowledge”, “alien knowledge”, “tacit knowledge”, and “troublesome language”
3. (Probably) Irreversible – “change in perspective… is unlikely to be forgotten, or will be unlearned only by considerable effort.”

4. (Contains the capacity to be) Integrative – “exposes the previously hidden interrelatedness of something.”

5. (Contains the capacity to be) Bounded – “conceptual space will have terminal frontiers, bordering with thresholds into new conceptual areas.”

Conceptual gateways and threshold concepts are best understood from an educational psychology perspective as a means of "opening up" to a "new and previously inaccessible way of thinking about something” (Meyer & Land, 2003, p. 1). However, one criticism of threshold concepts as a pedagogical tool is that the modality that it provides is weak; the five characteristics are each qualified and tentative and they may or may not be present (Rowbottom, 2007; O'Donnell, 2010). When applied to a specific discipline, critics argue that disciplines would need to be reduced to an essential set of tenets of unchanging beliefs (O'Donnell) in order to apply the five threshold concepts to learners – who may or may not be equal in skill. Finally and as potentially applied to the acquisition of specific information, Rowbottom also argues that the evidence of one or more of the threshold concepts does not demonstrate the learner's ability or mastery over an item of troublesome knowledge.

In the context of this study, an immersive service-learning environment is not being investigated in connection to one specific discipline or even mastery of prescribed interdisciplinary skills. Instead, service-learning is investigated for its efficacy as a threshold, or liminal gateway, through which Asian students might progress toward greater and general integration into constructivist learning practices within higher education. The potential catalyzing role that service-learning might play in Asian international students’ advancement
from “mimicry” (Meyer, Land, & Baillie, 2010, p. x) to authentic post-liminal practice within a constructivist environment is the focal point of this study and it is being considered within the framework of the five threshold concepts.

**Service-Learning as a Potential Conceptual Gateway**

Involvement and engagement in campus co-curricular activities are generally accepted and supported by scholarly research as being beneficial to student success (Astin, 1984, 1993; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005; Tinto, 1987). Research-based campus engagement that supports student and institutional goals connected to retention, persistence, community-building, and overall academic success are grounded in a relatively progressive, democratic, and constructivist epistemology (Fried, 2012). In contrast, instructivist learning places value on imitation over innovation and a university is a place to attend lectures and gain access to knowledgeable professors (Porcaro, 2011); within relatively instructivist systems, co-curricular activities are often perceived as a distraction from serious scholarship (p. 47).

Research generally supports the position that service-learning advances the academic goals of student retention and persistence (Astin, 1984, 1993; Tinto, 1987). Service-learning is also a common and arguably effective form of student engagement (Cole & Zhou, 2014). Research also shows that service-learning helps learners develop on-going skills gained through hands-on experience; supports career enhancement; and promotes critical thinking and habits of mind that extend outside of and beyond time spent on campus (McLaughlin, 2010). Well-facilitated service-learning is an effective tool for intra-group learning, inter-group mutuality, delivery of practical outcomes, as well as the development of purposeful, trans-disciplinary civic engagement (Delano-Oriaran, Penick-Parks, & Fondrie, 2015). For the purposes of this study,
immersive service-learning reflects many of the characteristics of constructivist pedagogy overall.

Both domestic and international service-learning connects to the development of cultural competencies (Knutson Miller & Gonzalez, 2009). International service-learning in particular can improve cultural competencies and cause participants to re-evaluate their prior assumptions regarding culture and their own particular career/professional development (p. 532). Such re-evaluation and reflection that may occur during service-learning are core goals of constructivist education and are encouraged throughout and beyond the activity (Bruner, 2006, p. 191-192).

Cole and Zhou (2014) identified service-learning as having the largest positive association with civic mindedness when compared to other activities common to constructivism. Similarly, Berv (1998) further supports service-learning as “sound pedagogy intended to maximize the learning and growth of all participants” (p. 122). Berv goes on to report that service-learning also provides inclusive pedagogy that supports the desired characteristics of a constructivist-learning environment (119-120). Service-learning stands out for its ability to provide individual development as well as organizational learning strategies (Moore & Mendez, 2014) conducive to adjustment to new learning environments.

There is evidence to suggest that Asian student adjustment to U.S. higher education can be allayed through participation in service-learning and other forms of engagement found on U.S. campuses of higher education (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Zhang and Goodson 2011). Hopkins (1999) noted that “intercultural learning programs take many forms” they “provide students with a healthy dose of experiential learning… immersing oneself in another culture provides new opportunities for learning-by-doing” (p.36).
Kettle (2011) found that Asian students at an Australian university demonstrated growth and adaptive experiences through engagement and that participants gained confidence in their ability to speak and think in English. Kettle suggested that engagement allows international students to participate socially and to adapt to an academic practice that promotes learners "to be 'good thinkers', not just 'good students'" (p. 7). The overall conclusion drawn is that international students developed a greater understanding that the constructivist-learning environment promotes a deeper learning than what can be gained from classroom learning alone.

Fleischman, Raciti, and Lawley (2014) added to the body of evidence that engagement activities, such as service-learning, instill a value of co-creation among participants. Instead of dictating value, educators aim to create value with rather than for the program participants. As one international student suggested, “it’s not always about the university organizing big events. As students, I think we enjoy smaller, natural occurrences in the community that make us feel part of it” (p. 7-8).

There is evidence within the literature that service-learning reflects many of the characteristics of constructivism. This study seeks to investigate service-learning as a bounded proxy for constructivism and to answer the research question: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

**Methodology**

This study investigates an immersive, domestic, service-learning experience might serve as a conceptual gateway for Asian students’ transition from an instructivist to a constructivist learning environment. A qualitative approach was selected to provide "rich descriptions and
explanations of human processes" (Miles, Huberman, and Saldaña, 2014, p. 4) connected to Asian student experiences in an immersive service-learning trip. As a researcher, I wanted to understand as much detail as possible in connection to Asian students' experiences with service-learning and in what ways that advanced their liminal progression and transition a constructivist pedagogical environment.

Research Site and Participants

Praxis University was selected from multiple colleges/universities that were identified and evaluated (see Appendix A) by me for their suitability as an institution at which I could conduct this study. Based on engagement criteria, institution-type, overall institution size, and the size of international population, I surveyed (see Appendix B) 14 institutions in order to ascertain suitability. Praxis University, a large public research university in the southeastern United States, was selected because it offered a strong co-curricular immersive service-learning program to Washington, DC at which I had relative assurance of meeting the conditions necessary to conduct my research.

The service-learning program leaders at Praxis University already had a practice of recruiting and subsidizing the trip costs for many international and domestic students for their fall domestic service-learning trips. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the student affairs service-learning unit and/or the office of international affairs at Praxis University. Program leaders also agreed to accept and distribute students to the service-learning trip to be evenly divided between domestic and international students. While program leaders were fully aware of my investigation of Asian students specifically, the exclusion of non-Asians from program participation was not discussed.
I instead intended to recruit a within-case sample that was "nested" within the service-learning cohort (Miles, Huberman, and Saldaña, p. 33), with a goal of recruiting a sample-size of 8-12 Asian international students.

I recruited from 10 Asian students who were selected for participation in the service-learning trip. Each student was invited to participate by e-mail and asked to complete a questionnaire administered via Qualtrics (see Appendix C) to collect basic demographic data and primarily to assure qualifications for participation would be met; students were required to be Asian and at least 18 years of age. All ten Asian students whom I recruited agreed to participate and all 10 remained in the study through the post-experience interview.

The purposive sampling resulted in 10 participants from West, South, and East Asia (see Table 5). Seven of the participants were undergraduates, primarily first semester students. Three were graduate students, two of whom were first semester and the third was a third-year PhD student. The 10 participants were from five different countries across Asia; three of the students were the only students within the sample from their respective countries. In an effort to help assure confidentiality and privacy of the participants, I chose to use "Americanized" or "westernized" names as pseudonyms. This was not out of insensitivity to the Asian students' origins but rather a way to neutralize identifiers for participants. Because the students came from five different Asian countries it seemed inappropriate to use naming nomenclature for one single Asian country over any other. Utilization of a naming nomenclature consistent with each individual country would have undermined confidentiality for the three students who were the sole participants from their given country. For this reason, all participants were assigned westernized names.
Table 5
Asian Student Participants

<table>
<thead>
<tr>
<th>Participant Name (Pseudonym)</th>
<th>Home Region in Asia</th>
<th>Educational Level</th>
<th>Relevant Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Addie</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Participated in one-year exchange in U.S. during high school</td>
</tr>
<tr>
<td>Charles</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>George</td>
<td>South Asia</td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>West Asia</td>
<td>3rd-year grad student</td>
<td>Most experienced; well-travelled</td>
</tr>
<tr>
<td>Matt</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>Samuel</td>
<td>South Asia</td>
<td>1st-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Sofia</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Attended two-years of high school in U.S.</td>
</tr>
<tr>
<td>Tyson</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
</tbody>
</table>

Researcher Role and Reflexivity

This study explores how an immersive, multi-day domestic service-learning trip might serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment. I selected a bounded case study methodology because I concluded that for this study such an approach would provide the right balance between prescribed design structure in order to investigate empirical events, while allowing me sufficient flexibility to observe holistic, and “typical” occurrences within a service-learning experience. Through a case study and functioning as the “primary instrument” (Merriam, 1998, p. 22) I should be able to better observe and understand participants’ stories and views of reality, which
should enable me to better understand the participants’ changes as a result of their participation in the service-learning environment (Lather, 1992; Robottom & Hart, 1993 &1995).

**Data Collection and Analysis**

For this single-case study of an immersive service-learning experience, data were collected and reported though pre- and post-experience interviews which I conducted one-on-one with each of the ten research participants. All interviews were completed in-person within the one week prior to, and the one week after, the service-learning trip. Each pre and post-experience interview was semi-structured utilizing two separate, but related interview protocols. All interviews were audio-recorded and transcribed verbatim.

This study explores the question: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment? To do this I first had to identify from the data the ways that Asian students changed or adapted during the service-learning trip (first-cycle values coding). I did this by comparing the pre- and post- interview transcripts, scouring for evidence of changes in academic values (including values, attitudes, and beliefs). I then analyzed the first-cycle coding results to investigate how Asian student changes in academic values connect to five possible threshold concept features (Meyers & Land, 2003, 2005, 2006) as they might occur through the service-learning experience (second cycle pattern coding).

**First Cycle -- Values Coding:** Reflects “participant’s values, attitudes, and beliefs, representing… perspectives or worldview” (Saldaña, 2013, p. 110-111). A priori codes were initially utilized in order to connect Asian students' values with the adaptive categories of academic, social, and linguistic adjustment (Akazaki, 2010; Andrade, 2006; Lee, 2007; Robertson, Jones, & Thomas, 2000; Shurer, 2016; Tompson & Tompson, 1996). Through the
deductive coding process of both the pre- and post-experience interviews, additional codes were established inductively. An analysis of the inductive codes for the pre- and post-experience data demonstrated the changes in Asian students' values, attitudes and beliefs regarding academics, socialization, and language.

**Second Cycle -- Pattern Coding:** According to Miles, Huberman, and Saldaña (2014, p. 86), Pattern codes are “explanatory or inferential codes, ones that identify an emergent theme, configuration, or explanation” that “pull together a lot of material into a more meaningful and parsimonious unit of analysis… they are sort of a meta-code.” The second-cycle coding used to develop major themes (called patterns here) from the data; search for rules, causes, and explanations in the data; examine social networks and patterns of human relationships; and form fledging theoretical constructs and processes (Miles, Huberman, Saldaña, 2014; Saldaña, 2013).

 Particularly relevant to this study, and based on the large volume of coded data that resulted from the values coding, pattern codes were first assigned deductively, based on the five characteristics of threshold concepts (*transformative, troublesome, irreversible, integrative, and bounded* (Meyer & Land, 2003, 2005, 2006). Data from the transcripts that reflected a change in values – as identified through the first-cycle values coding – were coded again against the deductive pattern codes. The second cycle coding was conducted to identify which characteristics of the service learning experience (as a potential conceptual gateway) were connected to changes in values associated with students' liminal, epistemological shift away from behaviorism and toward constructivism. It was not assumed in the data analysis or reporting that evidence of all five of the threshold concepts was requisite for the service-learning experience to have value as a threshold gateway. There was not quantitative measurement of the degree to which each of the five threshold concepts were manifested within the service-learning
experience. As the researcher, I used the five threshold characteristics as a guide for me to explore immersive service-learning’s characteristics as a threshold gateway; not as a binary test to prove that service-learning is, or is not, a threshold gateway for Asian student adjustment to a constructivist-learning environment. From and through my analysis of the five *a priori* codes connected to the threshold concept characteristics, 19 inductive codes emerged (see Table 6). These inductive codes were clustered in order to identify and report patterns.

**Trustworthiness**

At each step of data collection, I followed the protocols of my IRB as well as my own data collection protocols. Participant privacy and confidentiality were respected during and since data collection. Finally, based on the personal nature of this qualitative investigation, I have assigned pseudonyms (see Table 5) and guarded participants’ exact countries of origin. Overall, I adhered to principles of credibility; transferability; dependability; and, confirmability (Guba as cited by Shenton, 2004, pg. 64-72). On occasions during analysis of the data when I was uncertain based on the transcriptions alone, I attempted to use member-checking to ascertain the participants’ intended meaning. If I was unable to clarify unclear wording or meaning through member-checking, I excluded that data from my analysis in order to avoid potentially misrepresenting the study participants.

**Limitations and Delimitations**

This study investigates how an immersive, multi-day domestic service-learning trip might serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment. Based on the goals of this study and as supported by the literature, I narrowed the depth and breadth of this study. This is particularly important because of the two-cycle analysis process: First cycle values coding and analysis address Asian student
academic, social, and language adaptation associated with the service-learning experience; second-cycle pattern coding considers the adaptations/changes in Asian student values and connects those adaptations/changes to five possible threshold concepts features that might occur within the service-learning experience.

Psychosocial processes, stages, or the relative strength of influences within the service-learning experience is not the primary emphasis of this study. It is important for the reader to bear in mind constantly that while this study does discuss Asian student changes/adaptations that were evidences because of the service-learning experience, those adaptations/changes are not the focal point of the study. Knowing what changes the students experienced is necessary to explore the question of this study: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

The study was deliberately limited to an investigation only of Asian international students. Selection criteria for the study disqualified any potential participants who were not from an Asian country. Selection criteria also disqualified domestic students – even if they self-categorized as “Asian-American.” This limited the study to students whose prior educational experiences and cultural identities were Asian. As such, it limited the number of potential participants in the study but it allowed me to focus exclusively on Asian students and their adjustment to a constructivist pedagogical environment.

Finally, this study was limited in scope to a relatively traditional domestic service-learning experience – albeit one that was purposely made more internationally diverse by the service-learning program leaders than what might otherwise be typical. The service-learning trip
itself had no special interventions, activities, or additional influences that would otherwise not be associated with the typical service-learning experience.

Findings

This study investigates how an immersive, multi-day domestic service-learning trip might serve as a conceptual gateway for Asian international students’ transition from an instructivist to a constructivist-learning environment. The objective of this study is to explore the service-learning experience itself through the lens of threshold concepts. In order to consider service-learning through the five characteristics of threshold concepts (transformative; troublesome; irreversible; integrative; and bounded) I first had to learn more about the actual changes that Asian students experienced as a result of their participation in the service-learning trip.

Findings are reported in two sections: 1) How Did Asian Students Change Through Service-Learning? -- First-Cycle Values Coding: and, 2) Connecting Changes to Threshold Concept Characteristics -- Second-Cycle Pattern Coding. The first section of the findings will provide a very brief and general overview of Asian student academic, social, and linguistic changes/adaptations that were identified and analyzed because of the first-cycle values coding. Much of the actual data and detail will be provided in the second section of the findings, which addresses how the changes experienced by students through the service-learning trip possibly connect to the five features of threshold concepts. Asian student changes were connected to the threshold concept characteristics through a second cycle of coding and analysis using patterns coding. It is the second section of the findings (Connecting Changes to Threshold Concept Characteristics) that demonstrates the data connected to the research question: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?
How Do Asian Students Change Through Service-Learning? -- First-Cycle Values Coding

First-cycle values coding of the pre-experience interviews demonstrated many pedagogical experiences, values, attitudes, and beliefs that were overall consistent with behaviorist/instructivist pedagogy. Data reflected Asian students’ "traditional" academic beliefs; a tepid or inchoate understanding of the role of socialization in U.S. higher education; and a near omission of any discussion regarding the role of language in an educational environment. Tyson, a freshman from East Asia offered this regarding schooling in his home country: "We can do, not anything... It was kind of a highly restricted education environment" and he went on to add that it was a "very competitive" and that he "could not participate in extracurricular activities" because he "had to study for the college exam." Matt, a freshman from South Asia, shared this regarding the role of teachers in his country: "GPA, that's it. That's all they care about. They do not care about how I'm going to manage my stress. They just care about getting a nice score and getting into college."

Values, attitudes, and beliefs reflected in the post-experience portion of data collection generally indicated a shift away from students' antecedent and relatively static view of academics. Post-experience interviews demonstrated a more dynamic view of academics that provided a clearer integration with the social and linguistics aspects of the educational environment. While the pre-experience interviews reflected relatively little to nothing about social (except that students wanted to socialize but many of them felt that they first needed to concentrate on their academics) and linguistic adaptation, the post-experience interviews show that the Asian students had come to place considerable value on the social activities.

Post-experience values coding findings showed this newfound value was not just a means to make friends, but also a means to learn and problem-solve within and outside the classroom;
improve their academic performance; and, their overall happiness. The shift in values was reflected in an increase in confidence:

I'd say that that's a big thing. That's a big part of academics in the US. It's very social. More so than students think. It's fun, but it's also social in the classroom... I gained more confidence talking to (students not from Henry's country). Go to them, talk to them, confidently without any concern. I'm not like 'Oh, you're not (from Henry's home country). I'm scared.' I'm not doing that again (Henry).

Students' views toward the academic environment also changed in such a way as to make the connection not just between students on campus, but also between campus and the broader community. Henry expressed the following sentiment, which was similar to many students whose attitudes came to reflect a positive connection between education and society overall: "Education is for my personal development, and for the greater good and the society. We can help and turn our knowledge – what we have learned – to apply them to useful things."

Several participants discussed in the post-experience interviews specific ways that they might incorporate their particular academic specializations to help alleviate or address some of society's common challenges:

Education trains us for the skills we need to survive in society... and that there's something to be changed. You really have to know in what kind of world you're living and what are the people's problems. Those technical skills I'm learning can also maybe be used to help with our problems. (George)

The before-and-after comparison of Asian student values, attitudes, and beliefs provide evidence of academic, social, and linguistic adaptation in connection with the immersive service-learning trip. However, to investigate how an immersive, multi-day domestic service-learning
trip might serve as a conceptual gateway for Asian international students’ transition from an instructivist to a constructivist-learning environment, it is necessary to connect specific changes to the known features of threshold concepts.

**Connecting Changes to Threshold Concept Characteristics -- Second-Cycle Pattern Coding**

In preparation for second-cycle coding I depended primarily in instances when clear change and/or adaptation along academic, social, or linguistic lines was demonstrated through the first cycle values coding and analysis. I assigned the data from the first-cycle coding to five a priori codes that reflected the five characteristics of threshold concepts: *Transformative, troublesome, irreversible, integrative, and bounded* (Meyer & Land, 2003, 2005, 2006). Within the framework of the five a priori codes and the second-cycle coding process, 19 inductive pattern codes emerged (see Table 6).

Table 6
*Threshold Concept Characteristic Process-Coding and Sub-Codes*

<table>
<thead>
<tr>
<th>Threshold Concept Characteristic / A priori code</th>
<th>Inductive Sub-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Likely to be) Transformative</em></td>
<td></td>
</tr>
<tr>
<td>Education's value to society</td>
<td></td>
</tr>
<tr>
<td>Learner's personal stake in societal problems</td>
<td></td>
</tr>
<tr>
<td>Awareness of cross-cultural / perspectives</td>
<td></td>
</tr>
<tr>
<td>Overcoming educational chauvinism</td>
<td></td>
</tr>
<tr>
<td><em>(Potentially and possibly inherently) Troublesome</em></td>
<td></td>
</tr>
<tr>
<td>Social-cultural gaps</td>
<td></td>
</tr>
<tr>
<td>Language fears</td>
<td></td>
</tr>
<tr>
<td>Study habits that meet needs of U.S. learning</td>
<td></td>
</tr>
<tr>
<td>Participating in discourse</td>
<td></td>
</tr>
</tbody>
</table>
(Probably) Irreversible

| Confidence connecting with other students socially |
| Confidence engaging in English |
| Identifying, discussing, and solving problems within a group |
| Relationships with faculty and other campus leaders |

(Contains the capacity to be) Integrative

| Creating new knowledge together across academic and social boundaries |
| Transfer of knowledge to community/campus-community reciprocity |
| Social-academic relationship |

(Contains the capacity to be) Bounded

| Connect with new people in a contained setting |
| Connects students with real-world problems |
| Develop identity and strength |
| Leader facilitation |

Table 6 (cont): *Threshold Concept Characteristic Process-Coding and Sub-Codes*

After coding using the five deductive codes (reflecting the five threshold concept characteristics) and then 19 emergent inductive codes, results were analyzed and clustered. Three patterns (Table 7) emerged that could be linked to specific characteristics of threshold concepts, but that also spanned the characteristics within the service-learning experience.

Table 7

*Post-Liminal Patterns and Associated Threshold Concept Characteristics*

<table>
<thead>
<tr>
<th>Thematic Change/Adjustment</th>
<th>Prominently Demonstrated Threshold Concept Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prominence of increased and improved social connections</td>
<td>Troublesome; Bounded; Irreversible</td>
</tr>
<tr>
<td>Desegregation of the social and the academic</td>
<td>Integrative; Irreversible</td>
</tr>
</tbody>
</table>
Table 7 (cont.): Post-Liminal Patterns and Associated Threshold Concept Characteristics

These patterns reflect Asian student adaptation along academic, social, and linguistic lines as connected to the first-cycle values coding, and connect those adaptations to and through the second-cycle pattern coding to the five threshold concept characteristics.

**Pattern 1 -- prominence of increased and improved social connections.** The strongest evidence of service-learning's efficacy as a gateway to constructivism is linked to student socialization. In a relatively pure social sense, all five of the threshold concept characteristics were connected in some way to Asian students' liminal progression that brought them a better understanding of and engagement within a constructivist environment. The threshold concept characteristics that were the most pronounced within this pattern and that are emphasized below relate primarily to *troublesome* knowledge, the *bounded* parameters of the service-learning experience, and *irreversibility*.

When comparing the pre- and post-interviews, the greatest evidence of *troublesome* knowledge was linked to Asian students' relative inexperience with the social engagement inherent in constructivist pedagogies, and to the socio-cultural gaps in tacit knowledge, social norms, pop-culture, etc. Henry, a freshman from East Asia shared the concerns he harbored before the trip: "What are we going to talk about? What are we going to have in common? What if I say something stupid and embarrass myself?" George, who is a freshman from South Asia, shared similar concerns: "Am I going to be accepted by them? Am I going to say things that – it's not a language issue -- but am I going to say things that connect with them in a social sense?" Sam, a first-semester graduate student from South Asia provided similar evidence that
socializing was “troublesome” to Asian students in part because of a lack of common cultural experiences:

We don't know what's happening in their (Americans’) mind... When I talk to someone from (my country), I know how, what he's thinking right now. But American culture is so different... I don't know what to talk with American people.

Confidence with speaking English was also a troublesome factor. Sofia, a freshman from East Asia, shared her concerns when she stated, "for some students, it's hard to ask them to talk to other American students because they probably are concerned their English is not good enough." However, findings do suggest that while language proficiency was a factor for many of the students, all of the students demonstrated that the true troublesome aspect of socialization was less about language proficiency than about a gap in cultural experiences and understanding.

Findings suggest that the bounded structure, goals, duration, and close-quarters of the service-learning trip played an important part in the student liminal process. Sofia shared her experience that by spending four days together, "we can bond together" and she added that, "you bond with other people more quickly when you're doing community service." Sam, a first year graduate student from South Asia, offered the insight that, "service-learning... will help to meet new people, learn new cultures" and suggested that the "effort by U.S. universities to put everyone together and learn about each other... is more efficient."

The bounded parameters of the service-learning trip and the fact that students travelled together, prepared meals together, and shared common sleeping space together – all in addition to the service-learning activities – resulted in a natural, but condensed bonding experience:
I would have taken a long time to make a friend like these people. Because I'd be busy with my schedule, I'd be busy with my work. The people I meet, I don't meet people very often, so I think if I meet these guys, I can be friends for a long time. I can chat with them, or get to know them. (Sam)

Findings suggest that the shared objectives and diversity of the cohort (24 students of very representative backgrounds) enabled the Asian students to become comfortable with a wide array of students. Henry commented on his interactions with diverse Americans as well as international students from many other countries: "We are really worldwide. We shared a lot. We share experience... I know a lot. I know about the world." Matt, a freshman from South Asia also commented that through the service-learning experience he learned, "I can make friends, they're just like me. Americans, Asians, they're just like me. We have a lot of things in common."

The bounded aspect of the service-learning trip allowed the Asian students to feel successful with a new group of students and the service-learning leadership. There was evidence that Asian students felt stronger and more certain in their own identity and their place within a diverse academic community. John, an advanced PhD student from West Asia, observed with admiration as the younger international and domestic students worked together and shared experiences throughout the immersive trip:

I thought they would be overwhelmed with the whole thing, going to a new city, engaged with new people. I thought it might be a burden to them, but no... to go to a new place gives you some strength.
Several of the students credited their experience on the service-learning trip for increasing their confidence socially and with becoming more emboldened to explore new things. Adam perhaps summarized it best when he stated simply that, "I think (Praxis University) should not stop doing this service-learning trip." Charles too specifically identified how effective service-learning was for bringing people together:

If you actually get to interact with those people then I think it's more efficient; service learning -- it's more effective… conversations did change, and then they were more meaningful I would say… Service-learning is also from the conversations we have with our peers; what their perspectives are… I would say I did learn a lot from those conversations.

The third threshold concept characteristic that was particularly prevalent within the pattern of *prominence of increased and improved social connections* was that of *irreversibility*. Meyer & Land (2003) suggest that a threshold concept has the capacity to be (probably) *irreversible* and they define this by offering that the “change in perspective… is unlikely to be forgotten, or will be unlearned only by considerable effort” (p. 4-9). In fact, the inductive code of *confidence connecting with other students socially* that originated with the a priori code for irreversible was reflected by every single participant and referenced with the greatest frequency.

As a result of the service-learning trip, Matt, Addie, and Henry all stated directly that they feel "more confident" in their interactions and their ability to extend that confidence into every aspect of their student experience. Adam, a first semester graduate student from South Asia, stated, "I never used to talk to anyone. That made me feel nervous when I would go to my classes. Now I feel more free, that I should interact a lot more with people." Sam, also a first semester graduate student from South Asia, shared this similar seemingly irreversible sentiment:
I'm not sure exactly I can be what they want me to be, but I can somehow manage to have an interaction with them... less difficult for me from now on. I can talk to people more easily – American people... I have better connection with them, to be... more friendly.

The confidence that did emerge for all students had a linguistic aspect, especially for those from East Asia – for whom English was a subject studied in primary and secondary school, but rarely practiced or spoken outside of the classroom in the same way it was for the students from West and South Asia. Henry shared his increased comfort speaking English when he stated, "you know what I'm talking about. You know what I'm saying. You can understand my words... no more barriers." Addie shared similarly irreversible attitudes when she stated simply, "I think I will be more confident and I won't be like, 'I don't know how to talk'".

Pattern 1 showed the prominence of increased and improved social connections for Asian students because of their service-learning experience. Socialization emerged through the coding as an item of troublesome knowledge for Asian students. From the evidence, this appears to be due in part to Asian students’ lack of tacit cultural knowledge, concerns over English proficiency, and lack of understanding of the purpose and importance of socialization to constructivist pedagogies. The bounded nature of service-learning experience provided more controlled and deliberate surrogate for overall constructivist practices, which Asian students were able to open themselves up and experience in positive way. The result appears to have been a newfound understanding and enthusiasm for socialization that might be irreversible.

The final two characteristics of threshold concepts – transformative and integrative – were also associated with the first pattern of prominence of increased and improved social connections. However, these final two characteristics play a more prominent role with the
remaining two patterns -- desegregation of the social and the academic and connections between the individual learner and society.

**Pattern 2 - desegregation of the social and the academic.** Although closely linked to the first pattern, prominence of increased and improved social connections, analysis of the pattern coding revealed that service-learning also played a clear role in breaking down the barriers that existed for Asian students between academic and social activities. While all five of the threshold concept characteristics can be connected with an erosion of the barrier that Asian students had placed between the academic and social aspects of their learning experience, it was the integrative and the irreversible characteristics that were most prominent in the findings.

The inductive pattern code of social-academic relationship emerged in connection to the integrative threshold concept characteristic. Most participants articulated for the first time the connection between their ability to interact effectively with other students and their ability to succeed academically at Praxis University. Matt, a freshman from South Asia pointed out that while the interactions with other students were "basically social" he observed, "it did end up being academic." Similarly, Sam pointed out that being "more active in this social works, I think it will give more sense to my academics than just choosing a subject... or any other field."

Another example drawn from the findings came from Addie – a freshman from East Asia: "You join a club, or you go study abroad and they complement your major... and make you more educated, focus-wise."

Several of the participants made the integrative connection between socializing and their overall sense of inclusion and happiness. These students linked their potential for academic success with the more basic need to feel secure and included in their environment:
Too many students come here saying, "I've worked hard, and I just have to continue working hard." They are really smart and really hard working, but they're not very good students here because they're so unhappy. Then they're bad students. They fail because they're miserable... it's all connected. If I do good in my social life, I'd have more encouragement on my academic life. It's all connected. (Addie)

In the post-experience interview, Henry shared that even after the trip he had met up socially with several of the other international and American students whom he met on the trip. Henry related a story about how his roommate had briefly joined him and a group of other students – some who went on the service-learning trip, some who did not. Henry’s roommate was very uncomfortable and “felt bad” trying to interact. Henry shared that all his roommate does is stay home and study rather than go out with Henry and his new group of friends when he is invited. When reflecting on his roommate’s reticence, which Henry himself admitted he too possessed before the service-learning trip, Henry demonstrated the integrated nature of social and academic when he commented simply, "maybe he (the roommate) should go to more activities."

The other prominent inductive code that emerged in connection to the integrative threshold concept characteristic was, creating new knowledge together across academic and social boundaries. Comparisons of pre-, post-interviews, and the patterns that emerged in the findings indicate that many barriers were eroded – including those that relate to how knowledge or understanding is created:
Inside the classroom, I have desk-mates. They sit beside me. One is from Italy and the other is from Brazil. I love that. We all have different opinions about things. About homework, about questions, about how we can solve it. "I can do it this way; I can do it that way." I love that and I can learn a lot... we share opinions. Not just opinions, but experience. (Henry)

Adam came to realize that his traditional notions of "intelligence" and how learning occurs had changed: "'Smart' doesn't decide how you understand engineering. It's about every discussion, how you perceive the issues." Adam added, "on this trip I learned that I shouldn't be conservative... (before) I refused to talk to different people. I think I'm a better person now. That is one thing I should take into my academics." Finally, Sofia, a freshman from East Asia observed:

In America... they don't want you to just memorize it. You can do some hands-on experience, do interaction with other people. You can learn something through it.

Probably you are really learning through it, not just memorizing.

Such observations bridge with the irreversible characteristic of threshold concepts. The strongest evidence from my analysis emerged in association with an inductive pattern code of identifying, discussing, and solving problems within a group. Some of the data linked to this code included aspects of problem-solving connected to study habits and learning skills that some Asian students perceived would simply better help them manage the learning environment:
I have learned a lot of different approaches to study, which makes my effort better and more effective... it motivated me to work harder, and I felt good interacting with other students... Their values -- I learned how to respect them. (Charles)

Charles also commented, as did other Asian students, how amazed they were at the American students' readiness and ability to perceive and act on things that they, personally, did not, and would not, otherwise see or do: "They (American students) didn't wait for anyone to say it, or, 'okay, let's see if someone else does it or not.' They just did it." Likewise, two of the Asian graduate students learned from American students' insights, ability, and readiness to express themselves. Adam stated, "the way they spoke, I was taken back... everybody had their own input. I felt it definitely changed my perspective about the cross-cultural stuff or discussion." Similarly, John shared, "I was amazed at their ability to articulate and see stuff I didn't see.

The inductive sub-code of identifying, discussing, and solving problems within a group, which was expressed with a degree of enthusiasm as to associate it with the irreversible threshold concept characteristic, was also linked with the students' experience working with the service-learning leaders. Several of the participants recognized their change in attitudes toward campus leaders (including faculty) that resulted from the trip. There was evidence of recognition that the trip leaders acted largely to facilitate many of the activities that took place during the trip, and that students' interactions with the trip leadership differed from any previous experiences they had had with educators or teachers. Sofia commented that, "before the trip, I felt like if I have a question, I probably won't ask the (campus leaders). I would probably ask other students... I feel like after this trip if I have questions, I can ask (campus leaders)."

This second pattern (desegregation of the social and the academic) was also connected with the threshold concept characteristics of transformative, troublesome, and bounded – though
less clearly than the integrative and irreversible characteristics. The troublesome knowledge and bounded characteristics were clearly displayed in the first pattern, prominence of increased and improved social connections. The third and final pattern of connection between the individual learner and society reflected the threshold characteristic of transformative most prominently.

Pattern 2 was associated with the overall desegregation of social and academic in the attitudes of Asian students; a heightened awareness of the connection between social and academic activities in a constructivist environment; that appropriate socialization both within and outside the classroom was not necessarily a distraction from rigorous academic pursuits; and that the constructivist learning environment has fewer barriers and lesser power-distance between fellow students and teachers than what the students were accustomed to in Asia. Pattern 2 reflects evidence that the service-learning experience demonstrated the threshold concepts of integrative and irreversible in regards to students’ adaptation from behaviorist to constructivist learning environments.

**Pattern 3 - connection between the individual learner and society.** The threshold concepts characteristics of Bounded, Integrative, and in particular Transformative were demonstrated through coding and emerged in this pattern.

Asian students had a transformative experience when it came to their own investment in understanding and helping to address broader societal challenges. In the pre-experience interviews few students offered recognition of the relationship between their own academic endeavors and the role it might play with regard to societal problems; in fact, three participants stated with relative certainty prior to the service-learning trip that they did not consider there to be any relationship at all. Post-experience data told a different story. Most participants expressed a development of their own personal stake in addressing societal problems, with the most
dramatic changes in attitude coming from the three Asian students who prior to the trip saw no connection at all.

Charles, a freshman from South Asia, reflected that before the trip:

I wasn't that serious. It wasn't one of my priorities, I would say, to help people out. I was more selfish and I wanted to do stuff for me. I just wanted to be on top of whatever students I deal with... I said at that time that I strongly believe that those people are there, they have given up hope. It's entirely their fault, period. It's their fault because they are homeless... and nothing else affects it,

After the trip, however, Charles had a great deal to say regarding how his attitudes had transformed because of the experience:

I learned a lot of really new things. Firstly, my perception really changed about the structural problems... all of us were really impacted, and our conversations were getting deeper. We did talk about how we might have been close... it might be a problem if we don't get our things done correctly. I have stress, but I'm not worried about surviving. We have to worry about getting grades, which is pretty important, but it's not that important when you compare it with their situation.

Other students acknowledged that they had previously distanced themselves from "unfortunate people". Participants were able to recognize personal changes that resulted from their interactions with homeless and the agencies that work to alleviate hunger and homelessness. George was awakened to the realities of hunger and homelessness in the U.S. -- which came as a
surprise to him: "I got to know a lot about it firsthand. Probably I wouldn't be searching this sort of thing on the internet before if I didn't go on this trip." George went on to state, "it definitely changed my values... we need to work on it to make the world a better place for them as well, not just for us."

Analysis of data through the first- and second-cycle coding processes yielded evidence that students made a liminal advancement regarding their perceived value of education to society in general. Four respondents shared their ideas that a better-educated populace is more likely to make better decisions both individually and collectively. Addie, as an example, stated, "if more people have higher education, they can make better decisions on things that impact society as a whole." Adam shared a similar thought when he suggested, "education is necessary for everyone. When you do higher education, it gives you a broader perspective of the society in general."

Charles had a slightly different perspective regarding education's value to society. He made a link between "development" (undefined) of self and of society and seems to have implied that the development of one is connected to the development of the other:

I would say the role of higher education is development. Humans learned very fast. We developed technology. Higher education is basically individual development I think, the development of the society as well... I'm going to learn and I'm going to help society develop. The environment is going to change around us. It's going to be on a different level than it was before.
The above transformative characteristic codes connected seamlessly with what was identified and coded (see Appendix J) through my analysis as a demonstration of the integrative characteristic, campus-community reciprocity of knowledge. Data were coded as integrative when students identified an interconnectedness that they had previously not seen. Supporting the pattern of connection between the individual learner and society this particular inductive code reflected occurrences when Asian students were able to clearly identify a way that learning within their field of study could benefit from, and be for the benefit of, community and society. As an example, Adam – a first year graduate student from South Asia – considered and discussed how he might use his engineering skills to "solve the issues that are going on, or the problems in society."

Examples of students recognizing the reciprocity of knowledge between themselves and the community occurred in no small part because of the way the service-learning trip was bounded. Several of the students mentioned specifically that it was through the structure and activities of the service-learning trip that they connected with real-world problems that they had previously not considered, or not considered in association with their learned notions of education. George, a freshman from South Asia stated, "we should go more on these trips because this opens up the possibilities to learn something new... there's something to be changed. You really have to know what kind of a world you're living in." After making the connection between himself as the learner and society, George also spent some time in the interview discussing some the ways he might use his skills to address some the real-world problems with which he had come in direct contact: Maybe we can create a website or a campaign online... there are many people who don't even know how to help. They want to help but they don't know how to do it."
Pattern 3 was associated with the disruption of Asian students’ prior barrier between their academic-self and society. This separation was physical, curricular, and epistemological. The connection between the individual learner and society pattern primarily spanned the threshold concept characteristics of transformative, bounded, and integrative. The immersive service-learning experience seems to have exposed Asian students to new ways of thinking. There is evidence that they integrated and synthesized their own educational values, skills, and pursuits in a way that allowed them to connect reciprocally their own academic interests with greater and more general societal challenges.

Discussion

This case study explores how an immersive, multi-day domestic service-learning trip that might serve as a conceptual gateway (Meyers & Land, 2003) for Asian students’ transition from an instructivist to a constructivist learning environment. To do this I first established the ways that Asian students changed or adapted during the service-learning trip. I then attempted to connect those changes to five possible characteristics of threshold concepts (transformative, troublesome, irreversible, integrative, and bounded (Meyer & Land, 2003, 2005, 2006) as they might occur or be evident through the immersive service-learning experience.

The discussion follows a similar organization and progression as the findings section. I begin with an overview of Asian students pre-liminal (pre-experience) academic values. Discussion then addresses the changes/adaptations that were identified through a pre-and post-experience comparison of academic values, attitudes, and beliefs (accomplished through first-cycle values coding) and how those changes connected (or did not connect) with one of more of the five threshold characteristics. Most of the discussion will integrate the changes that were
observed directly into an exploration of how those changes might be connected to the threshold concept characteristics (as coded and analyzed through the second-cycle pattern coding (Miles, Huberman, Saldaña 2014, p. 86-89)).

Asian Students’ Pre-Liminal (Pre-Service-Learning) Values

Asian students’ (pre-liminal) academic values prior to the service-learning experience demonstrated many pedagogical experiences, values, attitudes, and beliefs that were overall consistent with behaviorist/instructivist pedagogy. Asian students' impressions of U.S. pedagogy were overall positive. The fact that Asian students had applied, were competitively admitted, and had taken pains to relocate to a foreign country was testament to the importance the students placed on studying in the U.S. However, the pre-experience findings also show that while Asian students’ impressions of higher education at Praxis University were positive, the students themselves were not able to fully understand, much less integrate into, the overall pedagogical environment. Participants were still approaching constructivism through the paradigm of their prior instructivist pedagogical experiences and they largely had not yet adapted to U.S. norms.

Asian students’ pre-liminal state – prior to the service-learning experience -- reflected much of the available literature connect to behaviorist pedagogies. Asian students expressed an either real or imagined lack of racial, ethnic, or social diversity (Porcaro, 2011; Lee and Ciftci, 2014) in Asian students' home countries; and/or rigid, top-down, often highly controlled educational content and delivery that bolsters a monolithic identity and/or viewpoint and which results in a lack of "knowledge democracy" (Biesta, 2011). Asian student accounts of prior learning experiences also described rote memorization; preparation for and competition regarding high-stakes exams; greater power distance between teachers and learners; and a
generally isolated learning environment in which there was minimal engagement between students and/or with the broader community (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011).

Pre-experience data also suggested that Asian students face challenges in their interactions with host culture students and faculty (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006). Concepts of “power distance”, as discussed by Lee (2007), made it difficult for Asian learners to vocalize (or even see the need to vocalize) their input especially in class. Participants described prior classroom environments as being rigid and a pedagogical culture that would make it difficult for them to engage out of fear of controversy or embarrassment. For some students, who admitted to having anxiety with regard to English proficiency, the expectation to participate with fellow learners in an engaged classroom resulted in particularly heightened stress.

Asian student perceptions of U.S. pedagogy often reflected their attempts to understand the whys and hows of U.S. pedagogical methods. Why is there an expectation for engagement? How does engagement make me a better student? Students often approached socialization as if it was a distraction from rigorous academics (Porcaro, 2011, p. 47) and/or that the only real purpose of active-learning techniques was to improve employability after students complete their academic programs. My observation here is not because I find Asian students’ perception to be negative or incorrect, but rather that Asian students’ pre-liminal understanding of the overall purposes of high-impact practices within constructivist pedagogy (Kuh, 2008; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005) was inchoate prior to the service-learning experience.
In reality, such incomplete rationale and understanding may not be limited to new Asian students; potentially any freshman or first year graduate student – whether domestic or international and regardless of cultural background -- might have demonstrated similarly limited understanding of, adaptation to, and connection to their new learning environment. What can be mentioned independently of any interpretation for why, is that prior to the service-learning experience, Asian students were overall not yet connecting to the learning community at Praxis University.

Connection of Asian Student Academic Values to Threshold Concept Characteristics

Asian students experienced change in their academic values, attitudes, and beliefs because of their experience with Praxis University’s immersive service-learning trip. Concentrating on Asian students’ academic adjustment, I focused my analysis on three adaptive categories that are particularly inter-related in constructivist learning: academics, social, and linguistic.

Properly planned and facilitated service-learning provides inclusive pedagogy that supports the desired characteristics of a constructivist-learning environment (Berv, 1998). This study investigates how the changes experienced by Asian student during the service-learning experience might connect to one of more of the threshold concept characteristics: transformative, troublesome, irreversible, integrative, and bounded. In this way, I investigate whether a domestic service-learning trip might serve as a conceptual gateway for Asian international students’ transition from an instructivist to a constructivist-learning environment.

Following the first-cycle values coding, second-cycle coding yielded three patterns that connected Asian student adaptations to one of more of the threshold concept characteristics: Prominence of increased and improved social connections; Desegregation of the social and the
academic; and *Connection between the individual leaner and society*. Across these three patterns the threshold concept of characteristics of *bounded, irreversible, and integrated* were the most clearly represented, each being connected with two of the three patterns.

**Discussion -- prominence of increased and improved social connections.** Pattern 1 reflected what was identified through this study as perhaps the greatest overall challenge for Asian students in a constructivist environment: Socializing with domestic and other international students within and outside of class. Within this pattern, making social connections was identified as a clear item of *troublesome* knowledge. *Troublesome* knowledge is best thought of as a concept or facet that impedes learning and development; is “disorienting”; and must be overcome “in order for transformation to occur” (Meyer, Land, and Baillie, 2010, p. 9-10).

Findings show that some students -- such as Henry from East Asia -- lacked confidence with their English proficiency, which reflected Tompson and Tompson’s (1996) and Trice’s (2003) studies about Asian student challenges and reticence to express themselves in English. Other students from South Asia, who had been speaking English their whole lives, were inhibited by a lack of cultural understanding (Akazaki, 2010; Hendrickson, Rosen, & Aune, 2011; Hotta & Ting-Toomey, 2013; Ying & Han, 2006). All student seemed worried about being understood – if not linguistically, then culturally.

There was a lack of value (or motivation) for socializing by all Asian students except for Addie. Prior to the service-learning experience Asian students were generally hesitant within the classroom due to a combination of the above factors and the lack of prior experience participating in discussions within the classroom. Outside of the classroom, Asian students approached socialization as an add-on; something they would pursue only if they had time.
Asian students’ difficulty making social connections is presented here as troublesome knowledge that must be mastered in order to succeed in a constructivist environment. Findings associated with the first pattern of prominence of increased and improved social connections indicate that the bounded parameters of the service-learning trip mitigated Asian students’ concerns – or at least put students in a position where they had to engage with other students. Bounded is to be understood as a circumstance or learning point that “both facilitates and limits the production of knowledge about a concept” (Mead & Gray, 2010, p. 109). The fact that students travelled together, prepared meals together, and shared common sleeping space together – all in addition to the service-learning activities – resulted in a natural, but condensed bonding experience. Solving even minor logistical problems such as navigating the metro, preparing meals, and experiencing Washington, DC with their peers all had a valuable impact for students’ sense of inclusion.

Several participants in the study mentioned the inter-personal bonding that occurred through service-learning and the “efficiency” of being on such a trip together. There was sufficient data to support the literature that suggests Asian student adjustment to U.S. higher education can be allayed through participation in service-learning (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Zhang and Goodson 2011). Some students even pointed out specifically the rapid pace at which social connections and even friendships formed during the service-learning experience.

It is also clear that Asian students reevaluated the low priority that they previously placed on socializing. Virtually every student commented about the academic values to socialization and many commented on the need to have social connections for both academic and social success. Such a change in attitudes was expressed with such enthusiasm and heightened
awareness as to be considered *irreversible*. Meyer and Land (2003) offer that if learning of new knowledge is *irreversible* then it is likely to not be forgotten, or will be “unlearned only by considerable effort” (p. 3). Meyer, Land, and Baillie cite Baltas (2007) when they suggest that *irreversible* can only be undone if a learner forsakes the “‘Eureka!’ experience… returning to previous ways of understanding an ‘irreversible achievement’” (p. 76).

The immersive service-learning trip can be considered *bounded* because while it is assumed to share many of the same practices and characteristics of an overall constructivist environment, service-learning is finite and clear in its duration and objectives. Asian students were able to identify the objectives and desired outcomes and trust that the activities (such as discussions, reflections, etc.) were somehow connected to the service and the overall purpose of the program. This appears to have helped Asian students advance along a liminal progression with their overall confidence and desire to socialize. Their reluctance to engage socially changed because of the service-learning experience and appears *potentially* to have changed *irreversibly*. The threshold concept characteristic of *irreversible* was particularly connected to social changes, including in relation to constructivist academic practices.

**Discussion -- desegregation of the social and the academic.** Asian students experienced a liminal progression that was particularly connected to socializing. They were largely able to overcome their fears, realize that that they could make friends, and were allowed to make mistakes and even to “embarrass” themselves a little with regard to both culture and language. The fear of embarrassing themselves – especially among fellow students and professors within an academic setting – seems to have been particularly acute with the Asian students prior to the service-learning trip.
Asian students’ pre-experience attitudes reflect Smith and Khawaja’s (2011) insights that international students studying in a new country do not just face challenges in pedagogical adjustment. They also experience doubts about the efficacy of the new system, and they have to reconcile their held beliefs and skills with their new cultural environment. New international students doubt their own academic self-efficacy (Lee and Ciftci, 2014) at the exact time they are trying to adjust in a broader sense and fulfil other social and emotional needs in an environment where they no longer have their traditional support structure.

Input from participants demonstrated that Asian students wanted to connect socially and academically with Americans, but that they were inhibited prior to the service-learning experience. Asian students wanted the opportunity for self-expression (Terrazas-Carrillo, Hong, & Pace, 2014), but their cultural and psychosocial anxieties outweighed their desire for connection prior to the service-learning experience. Such anxieties were already potentially contributing to strains on Asian students as well as on their relationships with other students and faculty (Andrande, 2006; Kingston & Forland, 2008).

Pattern two highlights that Asian students were able to break down the barriers that separated their social and academic values. Respondents reported and demonstrated to me that exhilaration had largely replaced their anxieties (or the lower priority when compared to their earlier emphasis on pure academics). In this way, the irreversible threshold concept characteristic could be applied to both casual socialization, and a merging of the social and academic skills needed in constructivist environments. Integrative is best understood to mean the “inter-relatedness of the learner’s identity with thinking and language” (Meyer and Land, 2006, p. 21) and the “creation of a coherent way of knowing and being in the world” (Meyer, Land, & Baillie, 2010, p. 13).
Asian students’ new attitudes about academic engagement mirrored Fleischman, Raciti, and Lawley’s (2014) work that suggests engagement activities, such as service-learning, instill a value of co-creation among participants. Through discussions and reflections that occurred during the service-learning trip, Asian students seemed to re-evaluate many of their own beliefs about how they might be able to bridge their own academic abilities into the Praxis University environment and beyond. The experience reflected the threshold concept if integrative in that the activities were both social and academic; personal and inter-personal; and bounded to the activity itself while opening students up to potential greater needs, and broader inputs and applications of their learning. The service-learning experience met some of the core goals of constructivist education that encouraged growth throughout and beyond the activity (Bruner, 2006, p. 191-192).

Findings indicate that through the service-learning experience Asian students were better able to adopt and practice the sorts of engagement that they had previously observed, or at best mimicked (Meyer, Land, and Baillie, 2010, p. x) prior to the service-learning experience. Part of this adaptation is connected to constructivist values reciprocally connecting learning with broader societal needs and challenges.

**Discussion - connection between the individual leaner and society.** The third pattern that emerged through my analysis was also linked to Asian students’ previous, instructivist pedagogical experiences and the challenges adapting to the new environment. Pre-experience data suggested that Asian students were aware that U.S. education valued “critical-thinking”, “hands-on” learning, and practical (rather than theoretical) knowledge. However, Asian students also demonstrated an incomplete understanding of what that meant. As reported in the findings, Asian students often limited their connections with these traits to preparation for employment, or
lab-based experiments within controlled academic environments. Asian students’ prior experiences had isolated teaching and learning from the outside world (Acedo & Hughes, 2014; Bridges, 2000; Higgins, 2014; Porcaro, 2011). As a result, when Asian students were expected to participate in engagement activities within and outside the classroom, their lack of understanding of the social nature of constructivism often left them somewhat confused and hesitant (Zhang and Goodson, 2011).

As has already been discussed, the integrative threshold concept characteristic was evidenced prominently within the service-learning experience – as was the bounded characteristic. Within the context of these two threshold concept characteristics, Asian students gained through the parameters of the service-learning experience a greater understanding of the inter-relatedness of their learning, with other learners around them within an engaged learning environment. However, prior to the service-learning experience, Asian students demonstrated a very limited conceptualization of the connection between education and society. Participants were limited in their ability to identify reciprocal benefits of campus-community programming (such as service-learning), and they essentially omitted any reference to the potential long-term benefits of education on post-graduation civic engagement or advancement of citizenry.

The service-learning experience, however, demonstrated the transformative threshold concept characteristic based on the evidence of Asian students’ liminal progression demonstrated in the post-experience interviews. Transformative is best understood as when troublesome knowledge is mastered and results in “opening up a new and previously inaccessible way of thinking about something” (Meyer & Land, 2003, p. 1). Transformative is most appropriately linked with significant changes in epistemological perspective rather than growth in narrow specializations (Meyer, Land, and Baillie, 2010). In this regard, the transformative threshold
concept characteristic was not-surprisingly found in a study that largely rests on Asian student adaptations to a new culture and learning pedagogy.

Respondents reported and demonstrated a transformed way of perceiving their own privilege and a broadening and deepening of the value they placed on education. Asian students provided insights that their liminal -- and in some cases post-liminal -- understanding no longer sought education for their own personal development exclusively, but that education was also associated with societal development.

Asian students also reflected the transformative characteristic displayed in the service-learning experience through their increased empathy and awareness of the causes of hunger and homelessness. Many of the Asian students were able to articulate that if hunger and homelessness are potentially impacted by societal factors beyond one individual’s control, then perhaps there are other such societal challenges that need to be addressed too. Students demonstrated not only empathy and awareness, but also the ability to connect the potential role of “practical” education to play a part in mitigating societal challenges. Finally, students shared considerably about how their attitudes and specific skills can play a part in mitigating society’s challenges even beyond the parameters of the service-learning trip.

**Putting it all together.** Data could have been coded to assign datum to multiple threshold concept characteristics. I avoided post hoc reasoning that might result in a redistribution of coding results by continually writing, reading, and reflecting on progressive bracketing (Creswell, 2007), analytic memoing (Miles, Huberman, and Saldaña, 2014; Saldaña, 2013), and jottings (Emerson, Fretz, and Shaw, 2011) that I kept in my research journal. This study is not intended to be definitive but is rather an exploration of the research question: How
does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

The three patterns for which findings and discussions have been provided emerged through first-cycle values coding, which compared pre- and post-experience interview data collected from Asian students who participated in an immersive service-learning trip; and second cycle pattern coding which connected Asian student changes to five threshold concept characteristics (*transformative; troublesome; irreversible; integrative; and bounded* (Meyer & Land, 2003, 2005, 2006)). All five of the threshold concept characteristics were displayed in each of the three patterns and as a result within the service-learning experience overall.

This study investigates psychosocial, liminal progressions from one mode of thinking to another. I did not attempt to capture the level of detail that might be expected if service-learning were being investigated for its efficacy in connection to a specific area of learning or academic specialization. This overview does carry with it several implications that warrant discussion and potentially consideration for further exploration.

**Implications**

This study explored the question: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment? Findings have numerous implications across the spectrum of educational theories, potential future research considerations, and institutional policy and practice. Dedicated researchers, scholar-practitioners, and administrators may equally find this study useful and informative to their current and future work.
Implications for Theory

For the purposes of this study, Asian students are generally presumed to be coming from cultures where normative pedagogical experiences would be considered relatively behaviorist—or, as often described in this study, “instructivist” (Lee, 2007; Lee & Ciftci, 2014; Nguyen, 2011; Porcaro, 2011).

Findings connected to Asian student adaptation support and build on theories that recognize that learners are most successful, persistent, and motivated when they are included, involved, and engaged in a learning community (Astin, 1984, 1993; Kuh, 2001, 2003; Tinto, 1987). Findings also support earlier theories and studies that include service-learning as a high-impact practice that supports student success (Kuh, 2008; Kuh, Kinzi, Buckley, Bridges, & Hayek, 2011; Pascarella & Terenzin, 2005). Finally, findings and my discussion further explore service-learning as a threshold gateway for Asian students’ transition from instructivist to constructivist pedagogical environments.

From a theoretical perspective, findings suggest that Asian students’ liminal progression through their adaptation to constructivism largely rests on meeting particular social and emotional needs (Maslow, 1943, 1954). Findings suggest that threshold concepts might be an appropriate prism through which to consider service-learning as a potential conceptual gateway for Asian student adaptation to a constructivist environment.

Implications for Future Research

Research connected to international education, cross-cultural interactions, and their relationships to more traditional learning outcomes have increased in recent years, yet there are still gaps in the research, especially in connection with international student adjustments to new
learning environments (Smith & Khawaja, 2011; Terrazas-Carrillo, Hong, & Pace, 2014; Zhou, Jindal-Snape, Topping, & To, 2008). Many studies focus on either broad populations -- or overly particular clusters of populations within an international or campus community -- and those populations’ general adaptation to their new environment (Berv, 1998; Lee, 2007; Kettle, 2011; Lai 2009; Wang, 2011; Yang, Noels, & Saumure, 2005; Zhang and Goodson 2011; Zhou, Jindal-Snape, Topping, & To, 2008). There is limited research that examines Asian students' specific experiences with academic or co-curricular programs (such as service-learning) that might aid their adjustment. While this study builds on prior research and adds new material to the ongoing dialogue, the scope of the study leaves open numerous questions that can be explored through further research. These include, but are not limited to future research, which focuses on education psychology; cross-cultural communication; education and policy analysis linked to retention and achievement; and curriculum development.

This study leaves open the possibility of further research that could focus on specific processes and influences within the service-learning experience. For example, this study attempted to answer the question, how does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment? Further research could explore to a greater extent the process of those changes within the service-learning experience – what was of influence? How? And, why?

Similarly, this study adds to the literature related to both service-learning and Asian student adaptation within a compressed timeframe. A longitudinal study could re-investigate whether the post-liminal progress that was evidenced immediately after the service-learning experience would be sustained over a prescribed interval of time. Would Asian students' shift in
values persist over time? Would the *irreversible* and *transformative* threshold concept characteristics and associated changes in Asian student values, attitudes, and beliefs stand the test of time?

This study was an exploration with limited scope or advanced conceptions of what might be found. Further studies could investigate whether service-learning can really be considered a microcosm of constructivism at all? Furthermore, this investigation of the service-learning trip itself had no special interventions, activities, or additional influences that otherwise might not be associated with the typical service-learning experience. Furthering this research, additional investigations could consider which, if any, of the service-learning activities had the most influence on student adaptation and/or which best represent the threshold concept characteristics?

Modifications to a traditional service-learning experience in order to benefit international student adaptation, or make the experience more conducive to cross-cultural learning, might result in unintended consequences. If service-learning can be adjusted in such a way as to support international student adaptation, are there any unforeseen factors that might dilute the traditional and already known merits of service-learning? Further research could investigate the best means of maximizing cross-cultural dialogue without minimizing traditional service-learning goals and perhaps as a result mitigate unintended consequences.

Finally, this study reflects my overall interest in in learning more about whether domestic service-learning trips can support international student adaptation, while providing domestic students with local, accessible ways to gain high-impact cross-cultural experiences. While study abroad and international service-learning trips are associated in the literature and institutional practices with global-learning, re-evaluation of values, and the development of inter-cultural
skills, can an internationally and ethnically diverse domestic experience provide similar enrichment? And do so in a way that is more accessible to students for whom study abroad is not a financial or logistical reality?

**Implications for Practice and Policy**

Based on the data of this study and what is already known about first-year student challenges, concentrating immersive service-learning opportunities on first-year students is worthwhile for educators to consider. Creating a mandatory (or strongly encouraged), highly accessible, and affordable (subsidized) series of multi-day service-learning trips has the potential to expose international college students to a *bounded* learning environment that will reflect a more traditional and broader U.S. learning environment. Such a program would both challenge and support international students early in their college career to engage in an activity that supports their adaptation to a new learning environment.

Praxis University incentivized participation in the immersive service-learning trip by offering generous (but limited in number) mini-grants to many of the participants. Roughly, 50% of the $300 fee was paid for many of the program participants through mini-grants offered through the service-learner provider and/or the Office of International Affairs at Praxis University. Such subsidies may have made the difference for many of the international and domestic students and allowed the service-learning cohort to be as diverse as it was. A broader effort to financially incentivize or require participation in a larger array of multi-day service-learning trips would have to be supported and championed at the higher administrative levels of an institution.

Praxis University is a large, public research institution with minimal courses that offer a service-learning component. Likewise, unlike some institutions, it does not offer a transcript
notation for participation in service-learning. Praxis University's service-learning opportunities are largely co-curricular offered through a student affairs unit. Institutional organization, whether a school is public or private, campus culture, and fiscal/political considerations would all have implications with regard to the implementation of a common first-semester service-learning experience for Asian (and domestic students).

Data collection for this study occurred mid-semester in the fall of 2016 – less than one month prior to the U.S. general election. The relevance of practice and policy implications seem even more important in the current climate in the United States. Opportunities to engage diverse students, support international student adaptation to U.S. learning environments, and to do so in cost-effective ways seem particularly important to education policy-makers and practitioners. Exactly what such a program would look like may best be answered through additional research that illuminates the aspects of service-learning that were particularly influential.

**Conclusion**

This study investigated the question: How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment? I qualitatively collected and analyzed data from a domestic, immersive service-learning program offered through a large public research university in the southeastern U.S. I concluded that service-learning possesses many of the threshold concept characteristics associated with Asian students’ liminal progression and adaptation to the new environment. The immersive service-learning experience was particularly beneficial with regard to Asian students’ adjustment to the highly social nature of the institution’s relatively constructivist pedagogical environment.
REFERENCES


doi:10.1016/j.ijintrel.2013.08.009


Appendix A:
Site Selection Criteria

- National Survey of Student Engagement (NSSE) (2016) classified as Research Universities (very high research activity); Research Universities (high research activity); or, Doctoral / Research Universities
- Carnegie Classification of Institutions of Higher Education: Elective Classification on Community Engagement (Carnegie Classification) (2015) searching institutions identified as Doctoral Universities Highest Research Activity or Doctoral Universities: High Research Activity
- Institutions roughly within the geographic eastern United States. This search included institutions as far west as Texas and Minnesota, the U.S. Midwest, and the Eastern (Southeastern, mid-Atlantic, and Northeastern) U.S.
Appendix B:
Site Selection Survey

This survey was distributed as a google form to service-learning and international service unit leaders at 14 institutions for the purposes of identifying suitable sites for this study.

Letter of Introduction.
This brief questionnaire is being distributed to faculty and staff contacts at potential institutional sites for PhD dissertation field work. I, Thomas Greene, am the doctoral student and PI at North Carolina State University who is undertaking my dissertation research. The working title and topic for my research is: "A Case Study of Service-Learning as a Gateway to Constructivist Pedagogy for Asian International Students at a U.S. Institution of Higher Education"
In short, I am undertaking a qualitative study to investigate the impact that service-learning has on international students' (particularly Asian international students at large public research institutions) ability to access and function within an engaged, active, "Constructivist" learning environment such as that typically found in U.S. higher education.
I cordially and respectfully ask for your assistance through a response to this form. Even if your institution is unable to affirmatively respond to the questions, your responses will help me to narrow my search in order to find a suitable and willing site to conduct this research study.
Please note that I have included more than one person from your institution on this message.
While it will do no harm for more than one person from each institution to respond, I do request that as much as possible you coordinate with your institutional colleagues in order to provide the best possible responses. If you feel that there is a more appropriate person at your institution who would better provide a response, please feel free to forward the e-mail in which this form is
provided. All responses provided will be viewed by me and me alone. Even affirmative responses on your part will not be interpreted by me as a commitment of participation on your part. This is the first cycle of site selection. If appropriate, and depending on responses, I would follow-up in order to narrow the site selection and ultimately find a suitable location.

With that stated, the site that is a suitable match and able to serve as a site for my field work will also stand to benefit from the data collection, research, and analysis, and findings of my study. From the perspectives of assessment and continued program development, my full write-up will be shared with the institutional site utilized in this study, which will comply fully with the Institutional Review Board processes and approvals at both your institution and NC State University. Additionally, being an experienced scholar-practitioner and educator in the areas of engagement, international student success and advising, and global education, there stands to be a great deal of reciprocal benefit to be gained.

I thank you in advance for your assistance.

Sincerely,

Thomas Greene

1. Your name: *
2. Your title: *
3. Your email: *
4. Your work phone number:
5. Name of your institution: *
6. Name of your academic, service, or engagement unit: *
7. Does your institution provide immersive, domestic service-learning programs that are offered either through a course or as a noncredit form of student engagement that includes degree seeking international students who are enrolled at your institution? *

Mark only one oval.

Yes
No
Not sure

8. Will such a service-learning program be offered during the Fall 2016 academic term? *

Mark only one oval.

Yes
No
Not sure

9. If so, would such a trip typically attract 8-12 degree-seeking Asian international students? *

Mark only one oval.

Yes
No
Not sure

10. If so, would a responsible service-learning, unit leader, or faculty member be available and able to assist me with the following? Please check all that apply. *

Check all that apply.

- Be available for a leader interview to be conducted either in-person or videoconference?
- Assist with recruitment of 8-12 international students for participation in this study?
- After verifying my credentials and expertise, consider permitting me to attend one of
your unit/institution's Fall 2016 immersive, domestic service-learning trips as a participant-observer?

I would pay all of my own costs, comply with any and all legal-institutional requirements that permit my participation, and adhere to your leadership's parameters for participation and observation.

During the week following the service-learning trip provide me with a an office or space on campus at which I can conduct in-person interviews with the participants?

11. Is there someone else at your institution who was not included in the message that contained this questionnaire whom you recommend that I contact? If so, can you please provide his or her name and email address?

12. Is there any further clarification or information that you feel is relevant?
Appendix C:

Student-Participant Selection Questionnaire

1- Name: First/Last
2- Gender: Male/Female/No answer
3- Age:
4- Country of Citizenship:
5- In what country/countries did you receive most of your primary and secondary education (also referred to as elementary, grade school, k-12)?
6- Current level of study at Praxis University? Undergraduate degree-seeking/Graduate degree-seeking/Study abroad/Other (please explain)
7- What is your current academic major at Praxis University?
8- How long have you been studying in the U.S.? <6 months / 6-12 months / 1-2 years / 2-3 years / more than three years
9- Have you ever participated in an activity through Praxis University’s Service-Learning Unit? If so, please select from the following list:
10- Have you ever participated in any other service-learning during your time at Praxis University? If so, please explain what and when.
11- If any, what other Praxis University programs, organizations, clubs, or activities (outside of your academic program) have you participated in? If any, please list.
Appendix D:

Pre-Departure Interview Protocol

Begin by explaining purpose of study, assurances of confidentiality, how the research will be used, and what the student can expect. Additionally, explain role of researcher and when data will be collected. Explain in particular role as participant-observer throughout the service-learning experience.

1. What were your childhood/pre-college academic experiences like?
2. What do you feel was of the greatest importance or emphasized most (by parents and teachers) when it came to your academics when you were growing up?
3. What do you personally value most as a learner?
4. How do you think the current learning environment at NC State differs from your previous experiences in your home country?
5. Describe the value you put on interactions and engagement with other students of different cultural backgrounds (American and other international students) inside of the classroom and/or related directly to academics outside of the classroom.
6. Why do you feel that U.S. colleges/universities emphasize academic interaction within and outside of the classroom?
7. What types of interactions outside of the classroom (and not directly related to a particular class or course) do you feel provide the most valuable types of interactions that relate directly to your academic priorities?
8. Which, if any, of these interactions have you participated in?
9. For the interactions that you have NOT participated in, what has stopped you?

10. What do you know about service-learning? (Have you heard of it? What do you know about it? How much exposure have you had to it?)

11. Explain three ways (if possible) that think service-learning plays an important role on a college/university campus?
Appendix E:  
Post-Experience Interview Protocol

1- What are your thoughts about the role of higher education and society on a whole?

2- Describe the value you put on interactions and engagement with other students of different cultural backgrounds (American and other international students) inside of the classroom and/or related directly to academics outside of the classroom.

3- Why do you feel that U.S. colleges/universities emphasize academic interaction within and outside of the classroom?

4- Through ASB, how, if at all, has your perception of the role service-learning in an educational environment changed?

5- Explain three ways (if possible) that you think service-learning plays an important role on a college/university campus?

6- How, if at all, do you feel this ASB service-learning trip allows you to better understand the educational reasons for engagement and interaction (outside of the classroom)? Please explain.

7- How, if at all, do you feel this ASB service-learning trip might impact your own academic priorities and values while at NC State? Please explain.

8- Please describe your interactions with other students during your service-learning experience. (What were they like at the beginning of the trip versus the end of the trip? How did the nature/topics of the conversations change over time? Did they become more meaningful and relevant to the things you were experiencing on the trip?)
9- What, if anything, do you feel you learned to do within the ASB group that you would not have been able (or would have been extremely time-consuming) to learn on your own?

10- List three ways – if possible – that you feel you will apply skills that you learned through this ASB service-learning to other aspects of your academic life at NC State.

11- What, if anything, do you find less intimidating or difficult with regard to the NC State academic environment following this ASB service-learning trip?
Appendix F

Participant-Observer Protocol

Observation will be an important aspect of my data collection. The following protocol will be adhered to in order to bracket my experiences as participant-observer and researcher. The purpose overall is to safeguard the integrity of my data collection, analysis, and reporting, while holding in the highest ethical standard the treatment of the informants in the study, as well as the non-informant participants in Praxis University’s service-learning cohort.

Observation procedures

This case study will involvement and interaction of the research as a participant-observer in the field. The researcher will follow Spradley’s (1979) format for capturing notes. Such notes will include detailed descriptions of activities relating to the research participants and their interactions, reactions, and engagement with the environment as well as with the other program participants; additionally, the researcher will depend greatly on reflective field notes taken during, after, and in addition to descriptive field notes. As a participant-observer the researcher will select three instances within the three day service-learning sojourn to conduct deliberate observations: First, during the first service-learning activity on the first day of activity; second, during the final service-learning activity on the final day of activity; and lastly, during the final reflective activity within the entire group setting on the last evening of the service-learning trip.

Name of Observation:
Length of Activity:

<table>
<thead>
<tr>
<th>Descriptive Notes</th>
<th>Reflective Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Through the deliberate period of observation when field notes are to be taken, as well as throughout trip in general, the researcher will be mindful of the stated research questions, making note when informants demonstrate the qualities of interactions within a Zone of Proximal Development or related to threshold concepts.

1- How does participation in an immersive, domestic, service-learning experience support Asian international student adaptation to a constructivist pedagogical environment?

2- How do activities and interactions within an immersive service-learning experience influence Asian students’ adaptation from an instructivist to a constructivist-learning environment?

3- How does an immersive, multi-day domestic service-learning trip serve as a conceptual gateway for international students’ transition from an instructivist to a constructivist-learning environment?

Ethics and Care with Collected Data

Only the observations of the formal study participants will be recorded. In as much as is necessary, details related to other (non-informants) participants will be limited so that no
identifying characteristics will be shared. Reference to non-informants will be non-descriptive and only applied inasmuch as it helps to describe the behaviors of the informants.

A key for study participants with pseudonyms will be kept separately from the researcher’s observations logs and notebook and be available only to the researcher. Throughout the data collection, and transcribing only the pseudonyms that are known only to the researcher will be utilized. Throughout the observations, the notebook and logs will remain with the research at all times. When observations are not taking place (field notes are not being taken) the logs and notebook will remain within a locker for which only the research will have access.

Immediately following the service-learning trip, all field note logs will be transcribed and saved to the researcher’s NC State google drive; original handwritten field notes will be saved in the researcher’s locked desk located on NC State campus.
### Appendix G:
### Asian Participant List

<table>
<thead>
<tr>
<th>Participant Name (Pseudonym)</th>
<th>Home Region in Asia</th>
<th>Educational Level</th>
<th>Relevant Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adam</td>
<td>South Asia</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Addie</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Participated in one-year exchange in U.S. during high school</td>
</tr>
<tr>
<td>Charles</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>George</td>
<td>South Asia</td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>Henry</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>John</td>
<td>West Asia</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;-year grad student</td>
<td>Most experienced; well-travelled</td>
</tr>
<tr>
<td>Matt</td>
<td>South Asia</td>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>Samuel</td>
<td>South Asia</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;-year grad student</td>
<td>Completed undergrad degree in home country</td>
</tr>
<tr>
<td>Sofia</td>
<td>East Asia</td>
<td>Freshman</td>
<td>Attended two-years of high school in U.S.</td>
</tr>
<tr>
<td>Tyson</td>
<td>East Asia</td>
<td>Freshman</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix H: Adjustment Values-Coding Matrix

<table>
<thead>
<tr>
<th>PRE ACADEMIC Inductive codes</th>
<th>POST ACADEMIC Inductive codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic engagement</td>
<td>Learning general skills and knowledge through engagement</td>
</tr>
<tr>
<td>Here to focus on practical application</td>
<td>Academic-learning through engagement with others</td>
</tr>
<tr>
<td>Asia focus on memorization and theory</td>
<td>Practical Application of learning</td>
</tr>
<tr>
<td>Strong focus on marks and exams</td>
<td>Awareness/comfort about cultures</td>
</tr>
<tr>
<td>General comments about Asian schooling</td>
<td>Relations with faculty and staff</td>
</tr>
<tr>
<td>Diversity engagement</td>
<td>Academic/social balance</td>
</tr>
<tr>
<td>Relations with faculty/staff in US</td>
<td>No change in academic/social balance</td>
</tr>
<tr>
<td>Role of Teachers in Asia</td>
<td></td>
</tr>
<tr>
<td>Family pressure and influence</td>
<td></td>
</tr>
<tr>
<td>Engagement – like to explore new things</td>
<td></td>
</tr>
<tr>
<td>Like social engagement</td>
<td></td>
</tr>
<tr>
<td>Engagement to focus on employment prospects</td>
<td></td>
</tr>
<tr>
<td>Focus on study / lack of engagement</td>
<td></td>
</tr>
<tr>
<td>Current mentality Re school – no real engagement</td>
<td></td>
</tr>
<tr>
<td>Don’t like engagement</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRE SOCIAL Inductive codes</th>
<th>POST SOCIAL Inductive codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaboration for employment prep</td>
<td>Engaging/socializing with others of different background and learning through the engagement</td>
</tr>
<tr>
<td>Connecting with society</td>
<td>Engaging/socializing with others of different background and learning through the engagement</td>
</tr>
<tr>
<td>Collaboration with peers for academic benefit</td>
<td>Social aspects of American learning and meeting challenges</td>
</tr>
<tr>
<td>Collaboration with diversity</td>
<td>Interdisciplinary socializing</td>
</tr>
<tr>
<td>Respondent makes connections between social and academics</td>
<td>Bonding over the activity</td>
</tr>
<tr>
<td>Looking for new experiences and to try new things</td>
<td>Overcoming fears and boundaries</td>
</tr>
<tr>
<td>Easy to make new friends</td>
<td>Faculty/staff as part of social support</td>
</tr>
<tr>
<td>Struggles connecting with others</td>
<td>Social development of empathy and awareness</td>
</tr>
<tr>
<td>No time or no emphasis on social because of academics</td>
<td>Relation between social, happiness, and academic success</td>
</tr>
<tr>
<td></td>
<td>Delta in social attitude – need to be open</td>
</tr>
<tr>
<td></td>
<td>Same, same but different – becoming friends</td>
</tr>
<tr>
<td>Struggles with socializing</td>
<td>Commitment to further engagement and socializing</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------------------------</td>
</tr>
</tbody>
</table>

**PRE LANGUAGE Inductive codes** | **POST LANGUAGE Inductive codes**
--- | ---
Mention of challenge | Commonalities – language and ability to bridge culture
Expressing oneself | OK to make mistakes
More confident |
### Appendix I:

**ZPD Influence Process-Coding Matrix**

<table>
<thead>
<tr>
<th>Scaffolding Influence Influence</th>
<th>Sub-code &amp; Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task Structuring</td>
<td>STRUC_PROB SOLV</td>
</tr>
<tr>
<td></td>
<td>STRUC_CULT</td>
</tr>
<tr>
<td></td>
<td>STRUC_TRANS</td>
</tr>
<tr>
<td>Modeling – Behavioral; can originate new behavior</td>
<td>MODEL_PROB SOLV</td>
</tr>
<tr>
<td></td>
<td>MODEL_CULT</td>
</tr>
<tr>
<td></td>
<td>MODEL_TRANS</td>
</tr>
<tr>
<td>Propping/nudging – Behavioral; can originate new behavior</td>
<td>NUDGE_PROB SOLV</td>
</tr>
<tr>
<td></td>
<td>NUDGE_CULT</td>
</tr>
<tr>
<td></td>
<td>NUDGE_TRANS</td>
</tr>
<tr>
<td>Instructing – Linguistic; can originate new behavior</td>
<td>INSTRUCT_PROB SOL</td>
</tr>
<tr>
<td></td>
<td>INSTRUCT_TRANS</td>
</tr>
<tr>
<td>Questioning – Linguistic; can originate new behavior</td>
<td>QUESTION_PROB SOLV</td>
</tr>
<tr>
<td></td>
<td>QUESTION_CULT</td>
</tr>
<tr>
<td></td>
<td>QUESTION_TRANS</td>
</tr>
<tr>
<td>Cognitive Structuring (Explaining) – Linguistic; can originate new</td>
<td>EXPLAIN_PROB SOLV</td>
</tr>
<tr>
<td>behavior</td>
<td>EXPLAIN_CULT</td>
</tr>
<tr>
<td></td>
<td>EXPLAIN_TRANS</td>
</tr>
<tr>
<td>Contingency Management -- Can be behavioral or linguistic;</td>
<td>CONT_CULT</td>
</tr>
<tr>
<td>does not originate new behavior</td>
<td></td>
</tr>
<tr>
<td>Feeding back -- Linguistic; does not originate new behavior</td>
<td>FEEDBACK_CULT</td>
</tr>
<tr>
<td></td>
<td>FEEDBACK_TRANS</td>
</tr>
</tbody>
</table>
Appendix J:
Threshold Concept Characteristic Pattern-Coding Matrix

<table>
<thead>
<tr>
<th>TC Characteristic / A priori code</th>
<th>Inductive Sub-codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Likely to be) <strong>Transformative</strong></td>
<td>Education's value to society</td>
</tr>
<tr>
<td></td>
<td>Learner's personal stake in societal problems</td>
</tr>
<tr>
<td></td>
<td>Awareness of cross-cultural / perspectives</td>
</tr>
<tr>
<td></td>
<td>Overcoming educational chauvinism</td>
</tr>
<tr>
<td>(Potentially) <strong>Troublesome</strong></td>
<td>Social-cultural gaps</td>
</tr>
<tr>
<td></td>
<td>Language fears</td>
</tr>
<tr>
<td></td>
<td>Study habits that meet needs of U.S. learning</td>
</tr>
<tr>
<td></td>
<td>Participating in discourse</td>
</tr>
<tr>
<td>(Probably) <strong>Irreversible</strong></td>
<td>Confidence to connect socially</td>
</tr>
<tr>
<td></td>
<td>Confidence engaging in English</td>
</tr>
<tr>
<td></td>
<td>Identifies, discusses, and solves problems within a group</td>
</tr>
<tr>
<td></td>
<td>Relationships with faculty &amp; leaders</td>
</tr>
<tr>
<td>(Contains the capacity to be) <strong>Integrative</strong></td>
<td>Creating new knowledge together across academic and social boundaries</td>
</tr>
<tr>
<td></td>
<td>Transfer of knowledge to community / campus-community reciprocity</td>
</tr>
<tr>
<td></td>
<td>Social-academic relationship</td>
</tr>
<tr>
<td>(Contains the capacity to be) <strong>Bounded</strong></td>
<td>Connects socially in a contained setting</td>
</tr>
<tr>
<td></td>
<td>Connects students with real-world problems</td>
</tr>
<tr>
<td></td>
<td>Develop identity and strength</td>
</tr>
<tr>
<td></td>
<td>Leader facilitation</td>
</tr>
</tbody>
</table>
Appendix K: 
Zone of Proximal Development

Progressions through the zone of proximal development and beyond from Tharp & Gallimore, 1989, p. 35.