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Exploring Academic Capital Formation of Hmong American Undergraduate College Students

Lou Vang

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EXPLORING ACADEMIC CAPITAL FORMATION OF Hmong American Undergraduate College Students

By

Lou Vang

A Dissertation Proposal Submitted

In Partial Fulfillment of the

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University of the Pacific
Stockton, California

2023
EXPLORING ACADEMIC CAPITAL FORMATION OF HMONG AMERICAN UNDERGRADUATE COLLEGE STUDENTS

By

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EXPLORING ACADEMIC CAPITAL FORMATION OF HMONG AMERICAN UNDERGRADUATE COLLEGE STUDENTS

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By

Lou Vang
Dedication

To my parents, Yang Vang and Mor Her, who are my everyday superheroes. Thank you for the sacrifices that you have made to raise me into who I am today and for supporting me throughout my academic journey.
Acknowledgements

I want to thank the following people for their guidance, feedback, and patience throughout my dissertation journey: Jacquelyn Ollison, Rachelle Kisst Hackett, Xeng Xiong, and Betsy Keithcart. I would never have completed my dissertation without all your support.

Thank you to the participants who took the survey and to those who shared their stories for this study. Your contribution made this dissertation possible.

Thank you to all my grade school teachers and college professors. You inspired and encouraged me to learn.

Thank you to The Best Cohort Ever! The positive energy and supportiveness of the group made this program so memorable.

Thank you to my immediate family and extended family. Your support and words of encouragement pushed me to conquer this dissertation mountain.
EXPLORING ACADEMIC CAPITAL FORMATION OF HMONG AMERICAN UNDERGRADUATE COLLEGE STUDENTS

Abstract

By Lou Vang

University of the Pacific
2023

The purpose of this mixed methods research study was to investigate whether academic capital is associated with student gender, student generation status, and parental education level of Hmong American undergraduate college students. The study also examined the educational experience of Hmong American undergraduate college students to understand the barriers they faced in obtaining academic capital and how they overcame them. The study's first phase collected and analyzed survey responses from 150 Hmong American undergraduate college students. The study's second phase interviewed six students who participated in the survey from the first phase. The first phase yielded quantitative results that suggested student generation status was a significant predictor of academic capital. In addition, after gender was controlled for, the parent's education level was not a significant predictor of academic capital. The second phase yielded qualitative results that revealed two types of themes. The first type of theme consisted of four barriers relating to acquiring academic capital, and the second type of theme included five ways participants overcame barriers. The study concluded with implications for practice based on the findings and recommendations for future research.
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CHAPTER 1: INTRODUCTION

Background

In the United States, Asian American students are often viewed as high achievers. A stereotype of the model minority myth is that Asian Americans have succeeded through hard work and education (Wing, 2007). Therefore, they serve as the ideal role model for minority groups. Regardless of differences in culture and language, Asian Americans are not separated into subgroups but are usually grouped as one large group. The model minority myth and aggregated data of Asian American students often limit understanding of the struggles of students who are invisible because of the success of a larger group. Therefore, examining Asian American students by subgroups is essential to understand their struggles. One invisible Asian American subgroup is Hmong Americans.

Hmong have a history of forced migration that impacted their lives. Hmong is an ethnic minority group that originated in China and fled to Laos to escape persecution from the Chinese government (Lutheran Immigration and Refugee Service, 1979). Stories about Hmong origin revealed a loss of their original written language while escaping from China (Duffy et al., 2004). Prior to the development of a written language, the preferred way of communication in Laos was to pass on knowledge from one generation to the next through oral communication (Duffy et al., 2004; Lutheran Immigration and Refugee Service, 1979). Stories and songs of Hmong life in China reveal a practice of shifting cultivation where farmers clear land to grow crops by burning vegetation and then move on to a different plot of land a few years later (Duffy et al., 2004). With no written language and a semi-migratory way of life from farming, Hmong left China to continue their way of life in Laos.
Historical accounts about Hmong origin in China only mentioned agriculture and war, so nothing was known about the educational experience of Hmong people until their settlement in Laos. Hmong villages in Laos were located in remote mountain regions, where they continued to farm. Access to education in Laos was limited, and no public schools were available in areas where the Hmong lived (Duffy et al., 2004). The literacy rate for isolated Hmong villages was less than one (Lutheran Immigration and Refugee Service, 1979). Public education in Laos was more accessible to elite wealthy families, and minorities like the Hmong people had less opportunity for access (Duffy et al., 2004). Typically, educational opportunities existed only in lowland urban areas, so many Hmong students could not attend (Duffy et al., 2004). Hmong families that could afford to send children to school in towns preferred to send boys (Lutheran Immigration and Refugee Service, 1979).

Educational opportunities and literacy increased in the 1950s and 1960s with the development of the Romanized Popular Alphabet (RPA), “a writing system designed by Western missionary-linguists for the Hmong language” and the creation of schoolhouses in remote Hmong villages (Duffy et al., 2004, p. 27). About 60% of school village teachers were Hmong because only a few Lao teachers could speak Hmong, and only a few were willing to teach in remote areas (Lutheran Immigration and Refugee Service, 1979). School villages taught lessons in Hmong because the primary purpose for creating the RPA was to spread Christianity, which was the language taught in Bible classes (Duffy et al., 2004). As a result, Hmong began learning to read and write in their heritage language. The war in Laos forced the Hmong people to flee to Thailand. However, they continued to use the RPA in Thailand (Duffy et al., 2004).

Hmong lived in refugee camps while they were in Thailand. Almost every Hmong person got a chance to experience some sort of education while in the refugee camps in Thailand.
before coming to the United States (Lutheran Immigration and Refugee Service, 1979). The government made efforts to provide schooling for children. Still, school operations were not stable and had to be reorganized again when all refugee families transferred to a different camp (Lutheran Immigration and Refugee Service, 1979). Children had opportunities to attend Thai and Hmong schools, while adults could receive vocational training (Duffy et al., 2004). Hmong refugees also learned English before coming to the United States (Duffy et al., 2004).

Today Hmong American communities are scattered throughout the United States due to the resettlement, where Hmong war refugees from camps in Thailand were transferred to the Untitled States (Yau, 2005). The primary states, as of 2015, with the highest Hmong populations are California, with 101,096; Minnesota, with 77,575; Wisconsin, with 55,542 Hmong residents. While the Hmong population in the United States in 2013 was 281,000, only 14% earned a bachelor’s degree or higher, and 21% completed a high school diploma (Center for American Progress, 2015). The Hmong college graduation rate is 7.5%, the lowest rate compared to other Asian subgroup graduation rates, such as Chinese at 48.1% and Asian Indian at 63.9% (Museus & Kiang, 2009). Because of a history of forced migration and lack of educational opportunities in Laos and Thailand, many college-going Hmong Americans are first-generation college students.

**Statement of the Problem**

First-generation college students are students whose parents did not graduate with a postsecondary degree (Gibbons & Woodside, 2014). First-generation college students tend to be disadvantaged as they plan for college enrollment and attempt to complete their educational goals like passing their classes and graduating with a degree. The completion rate for first-generation college students is lower than for non-first-generation college students, and they are
also more likely to take longer to obtain their degree (Gibbons & Woodside, 2014; Wilbur & Roscigno, 2016). Research suggests that factors that impact the educational experience and success of first-generation college students include, but are not limited to, their family’s socioeconomic status, parental involvement, and knowledge of the college system (Gibbons & Woodside, 2014; Wilbur & Roscigno, 2016).

Because of the resettlement, many parents had little or no formal education, so many Hmong students are first-generation college students. As a result, many first-generation Hmong American undergraduate college students experience challenges in obtaining a postsecondary degree. Based on the educational history of Hmong people in Laos, males generally had more access to education than females. The timing of immigration waves to the United States created different generations of Hmong American college students currently attending universities across the United States. Since academic capital, defined as social processes that build college knowledge and support, are transferred from generation to generation, students who are the first to attend college tend to lack academic capital compared to their non-first-generation peers (St. John et al., 2011).

St. John et al. (2011) developed the Academic Capital Formation (ACF) framework to clearly communicate the essential components needed for first-generation college students to experience college success. The ACF framework has been used chiefly in qualitative studies to examine how students acquire academic capital (Chiang, Fisher, Collins, & Ting; 2015, Harper, Williams, Perez, & Morgan, 2012). Quantitative studies did not employ the ACF until Winkler (2013) developed the Academic Capital Scale (ACS) to measure academic capital among high-risk college students. Chiang and colleagues (2015) expressed a need to disaggregate data
relating to underrepresented Asian American and Pacific Islander groups, so that their needs could be made visible and able to be addressed.

A gap in the literature reveals the need to explore the perspective of academic capital for Hmong American undergraduate college students. Further studies are needed to explore how Hmong American undergraduate college students seek help and how they use campus resources because there is a lack of research studies on the educational experiences of Hmong American college students (Xiong & Lam, 2013). Xiong and Lee (2011) also expressed the need for further study of Hmong students in higher education, particularly relating to their experiences navigating the educational system.

**Purpose of the Study**

This mixed methods study aimed to examine the differences in the academic capital formation of Hmong American college students based on student generational status, student gender, and parent’s education level. In addition, the study investigates how Hmong American undergraduate college students acquire academic capital, what barriers they encounter, and how they overcome their obstacles.

**Research Questions**

Quantitative Research Questions:

A. Among all Hmong American college students, does generational status (first versus non-first) explain the level of academic capital beyond that accounted for by student gender and parent level of education?

1. Is generational status a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

B. Among first-generation Hmong American college students, does the parent’s education level explain the level of academic capital beyond that accounted for by student gender?
1. Is a parent’s education level a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

Qualitative Research Question:

C. How do students describe their experience in acquiring academic capital? Specifically, what barriers do Hmong American undergraduate college students face when obtaining academic capital, and how do they overcome them?

Mixed Methods Research Questions:
Based on the regression model employing generational status, student gender, and parent education level as predictors.

1. What experiences in acquiring academic capital are described by Hmong American undergraduate college students who report levels of academic capital that are close to predicted levels (i.e., cases with low residuals representing more typical cases in which residual means the difference between the actual outcome and the predicted probability)?
2. What experiences in acquiring academic capital are described by students who report levels of academic capital that are far from predicted levels (i.e., cases with high residuals representing more unique cases)?

Conceptual Framework

This study used Winkler and Sriram’s (2015) revised ACF framework to explore the educational experiences of Hmong American undergraduate college students. St. John et al. (2011) developed the original ACF framework and only included six components derived from theories such as human capital, social capital, and class reproduction. The revised ACF framework added two additional features from the results of Winkler and Sriram’s study (2015) to develop a psychometric instrument. Although the revised ACF was designed for the general college student population, using the components from the revised ACF framework will allow the researcher to understand better how Hmong American undergraduate college students navigate the college system and overcome barriers from a qualitative perspective. The revised ACF framework provided a means to explore differences in academic capital among Hmong
American undergraduate college students. Further exploration of the individual components of the revised ACF framework will be included in the literature review.

**Description of the Study**

This study used a mixed methods approach. Quantitative data was collected through an online survey. Qualitative data was collected via a phenomenological approach based on interviews. According to Creswell and Poth (2018), a phenomenology study is described as a way to capture and to make meaning of a common experience from the perspectives of several participants. This study investigated the differences in the academic capital of Hmong American undergraduate college students based on student generation status, student gender, and parent education level. In addition, this study explored how Hmong American undergraduate college students acquire academic capital, what barriers they face, and how they overcome them. The researcher recruited participants for the quantitative phase by sending emails and posting announcements on social media. The participating students took an online questionnaire containing the ACS, and interview participants were selected based on the quantitative analysis.

Interviews were audio recorded, and transcriptions were analyzed to identify themes. Based on findings from the interviews, I describe how first-generation Hmong American college students navigate through college. The responses to the quantitative research questions were analyzed using sequential multiple linear regression. To determine whether academic capital differs between first and non-first-generation Hmong American undergraduate college students, I examined changes in the proportion of variance explained by subsequent blocks (following the entry of control variables) along with tests of statistical significance. A similar analysis was performed to determine whether academic capital differs by parent’s level of education and whether those differences are moderated by gender.
Significance of the Study

While research studies focused on the college experiences and challenges of first-generation college students and Asian American college students exist, few focus specifically on first-generation Hmong American students. Hmong American college students are minorities, even within the broader Asian American group. Stereotypes relating to Asian American students’ academic achievement do not consider Asian subgroups that struggle academically, such as Hmong (Chiang et al., 2015). Therefore, it is essential to look at Asian American subgroups, such as the Hmong American population, to understand the factors influencing their college success.

The ACF conceptual framework has been utilized through a qualitative lens but is rarely used for a quantitative approach. Drawing inspiration from Winkler and Sriram’s intent to use the ACS to understand the academic capital needs of high-risk college students, this study sought to understand the academic capital formation needs of first-generation Hmong American undergraduates using a revised ACS. This study is significant because studies of the ACF of Hmong American undergraduate college students have not been done before. This study's findings can inform the development of interventions and services to help meet Hmong American students’ needs.
Definitions of Terms

The following section provides the definitions for this study in table 1.

Table 1

Definitions

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<td><strong>Academic Capital:</strong></td>
<td>Social processes that build family knowledge of educational and career options and support navigation through educational systems and professional organizations (St. John et al., 2011, p. 1).</td>
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<td><strong>First-Generation college students:</strong></td>
<td>Undergraduate college students whose parents did not obtain a postsecondary degree (Gibbons &amp; Woodside, 2014).</td>
</tr>
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<td><strong>Model Minority Stereotype:</strong></td>
<td>A belief that Asian Americans have succeeded through hard work and education and therefore serves as the ideal role model for minority groups (Wing, 2007).</td>
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<td><strong>Phenomenology Study Resettlement:</strong></td>
<td>According to Creswell and Poth (2018, p. 75) “a phenomenology study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon.”</td>
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<td><strong>Resettlement:</strong></td>
<td>The transfer of Hmong war refugees from camps in Thailand to the United States (Yau, 2005).</td>
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<td><strong>Residual:</strong></td>
<td>Difference between the actual outcome (0 and 1) and the predicted probability. A small residual (in absolute value) means that the model fits well for a case (Grimm &amp; Yarnold, 2004).</td>
</tr>
<tr>
<td><strong>Romanized Popular Alphabet (RPA):</strong></td>
<td>A writing system designed by Western missionary-linguists for the Hmong language (Duffy et al., 2004, p. 27).</td>
</tr>
<tr>
<td><strong>Shifting Cultivation:</strong></td>
<td>A process of farming where land is clear to grow crops by burning vegetation and then moving on to a different plot of land in a few years to repeat the process (Duffy et al., 2004).</td>
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Organization of Chapters

This section provides an overview of the organization of the study. Chapter one introduced the research problem and the research questions. Chapter two reviews existing
literature relating to the educational experiences of first-generation and Hmong American students from a broad perspective. Chapter 3 explains the research design and describes the Quantitative and Qualitative procedures proposed in this study. Chapter 4 presents the findings. Chapter 5 synthesizes the previous chapters, present the implications of the study, and makes recommendations for further study.

The next chapter is a review of the literature. The literature review explores first-generation college students' educational experience with a focus on their challenges. The literature review also investigates what research knows about the educational experiences of Hmong American students.
CHAPTER 2: REVIEW OF THE LITERATURE

Introduction

The purpose of this literature review is to examine what research suggests about the educational experiences of first-generation college students, Asian American college students, and Hmong American college students. This review of the literature will open by discussing the disadvantages faced by first-generation college students. The second section will then explore the model minority myth to add another layer of complexity to the experience of Hmong American undergraduate college students who may also be first-generation college students. The third section will explore the cultural clash between Hmong American traditional values and the dominant American culture with subsections on gender, cultural language, and parental support. The fourth section will discuss the role of having a sense of belonging in supporting students through college. The fifth and sixth sections address college system navigation, and the final section will explore the Academic Capital Formation (ACF) framework.

First-Generation College Students

For this study, first-generation college students are students from families where both parents did not earn a postsecondary degree (Gibbons & Woodside, 2014; Irlbeck et al., 2014; Pascarella et al., 2004; Terenzini et al., 1996; Wilbur & Roscigno, 2016). One distinction between first-generation and non-first-generation college students is the gap in family income. Research reveals that First-generation college students are more likely to come from homes with low socioeconomic status (Terenzini et al., 1996; Wilbur & Roscigno, 2016). They are more likely to take longer to complete a degree, are unsure about a college major, and need to work more hours in part-time jobs (Terenzini et al., 1996). First-generation college students are also
less likely to enroll in post-secondary institutions and are less likely to continue and complete their degrees after enrollment (Wilbur & Roscigno, 2016).

Research also shows that parental influence plays a part in encouraging first-generation college students to develop career aspirations (Gibbons & Wood, 2014). Parents can influence their children's decision to attend college and to discontinue enrollment. According to Gibbons and Woodside (2014), students may follow their parents' advice to pursue a degree or change majors because of their parents’ involvement. The parents from a study by Irlbeck et al. (2014) recommended their college preferences to their children, such as picking a college campus closer to home. Wilbur and Roscigno (2016) recognized parent involvement as impacting college decisions, particularly towards enrollment.

According to Wilbur and Roscigno (2016) the chances of students enrolling in college increase when parents set aside savings for college. The chances of college enrollment also increase with family discussions about college and preparations, such as taking the American College Test and Scholastic Aptitude Test (ACT/SAT) (Wilbur & Roscigno, 2016). The parents’ limited knowledge of the college system is a disadvantage for first-generation college students, as parents who did not go to college are less informed about the college process and are unaware of the college system (Wilbur & Roscigno, 2016).

There is a correlation between student involvement in community events and college enrollment, as seen in Wilbur and Roscigno’s (2016) study. Students who participated in community events or attended high school theatrical productions and art classes were 80% more likely to enroll in college. Additionally, another disadvantage is the lack of cultural capital, such as not being involved in the arts or holding family discussions about community events. If the
parents are not likely to be involved in such events, first-generation students are less likely to participate, thus diminishing their academic capital (Wilbur & Roscigno, 2016).

According to Terenzini et al. (1996), first-generation students are less likely to experience residential hall life, are less likely to attend cultural awareness workshops, and are less likely to seek guidance from faculty members. Wilbur and Roscigno (2016) found that students are more likely to live at home and work long hours outside of school and therefore have fewer opportunities to be involved in campus life and extracurricular activities. Working long hours during college is related to financial concerns and may have a negative impact on degree completion (Wilbur & Roscigno, 2016). Financial stress and other personal and family stressors may decrease the chance of completion by 17% (Wilbur & Roscigno, 2016). Wilbur and Roscigno (2016) found that first-generation college students’ non-participation in extracurricular activities decreased the chance of college completion by almost 50% (Wilbur & Roscigno, 2016).

A study by Irlbeck et al. (2014) indicated that, when parents could not give their children the guidance needed to transition to college, first-generation college students were referred to a teacher for support and additional information about managing college life. In addition, students who did not have a support person for advice on college matters tended to rely on themselves, reporting self-motivation as a factor for going to college (Irlbeck et al., 2014).

According to Irlbeck et al. (2014), students can develop self-motivation due to family hardships and life events. Hardships, such as being raised by a single mother or a death in the family, are examples of how students become self-motivated to do well in school for a better life. For example, Irlbeck et al.’s study (2014) described the experience of a high school student who,
even though she had a child while in high school, decided to pursue higher education, despite others’ negative views about pregnancy ruining her life.

**Model Minority Stereotype**

The unique experiences of Asian American students add another layer of complexity to understanding first-generation college students' experiences. Educators typically perceive Asian American students as perfect students who are problem-free, hardworking, and successful individuals (Suzuki, 2002). This perception is the model minority stereotype (Lee, 2015). However, such beliefs are a barrier to understanding the struggles of Asian American students in higher education and providing appropriate assistance because of the assumption that all Asian American students are hardworking and will be successful on their own.

Suzuki (2002) experienced a situation where Asian American students were not getting the help they needed from being stereotyped as perfect students. He was in an administrative position at a university where none of the 30 employed counselors were Asian American. The university had a 15% Asian American population, and only a few students reportedly used the counseling service, so the staff believed that the students had no problems.

Upon analyzing the possible reasons for this discrepancy, Suzuki (2002) challenged what appeared to be the model minority stereotype that Asian American students are problem-free, successful, and do not need to seek help. Believing that Asian American students needed the same services as other students, Suzuki (2002) concluded that the university needed to hire an Asian-American counselor. As an outcome of his persistence, eventually, the university did so. Consequently, the number of Asian American students seeking services from the Asian American counselor grew to the point that a second counselor was needed (Suzuki, 2002).
People who hold the model minority stereotype not only perceive Asian American students as problem-free and as not requiring or seeking support and resources but also believe all Asian groups are the same (Chiang et al., 2015; Museus & Kiang, 2009). The socioeconomic disadvantages and the low college graduation rates of subgroups are glossed over in reports in where Asian Americans are viewed as a single group. For example, Hmong American college graduation percentage is the lowest of all Asian American subgroups (Museus & Kiang, 2009). Oversimplified reports that group all Asian subpopulations together tend to mistake all Asian American students as high academic achievers, when in fact students from Asian subgroups like Hmong Americans are performing below average.

**Cultural Clash**

Cultural differences are another source of tension for Asian American students in navigating through higher education. Each generation experiences different conflicts due to acculturation, with first-generation families having more battles than the next generation (Chung, 2001). Research reveals a wide cultural gap between Hmong American youth and their parents (Supple et al., 2010). According to Supple et al. (2010) Hmong American youth struggle to understand their parents’ traditional views as they adapt to the American culture. Chung (2001) found that first-generation students have a higher chance of experiencing parental pressure to learn their ethnic language and to follow traditions.

**Gender Expectations**

In a study by Supple et al. (2010), Hmong American female college students have more conflicts over issues of their individuality and independence in adapting to the dominant culture because of parent expectations and standards from a traditional perspective. There is a cultural preference in the Hmong community to value sons more than daughters since they will carry the
family name (Supple et al., 2010). Daughters must work a little harder, such as getting good grades and living by stricter rules to make parents proud (Supple et al., 2010). However, a cultural shift is changing the way parents view their daughters because of increased academic accomplishments among female Hmong American students compared to male Hmong American students (Supple et al., 2010).

Research reveals that Hmong American sons have pressure and conflicts with adapting to the dominant culture (Supple et al., 2010). Parents expect sons to carry on the family name and follow traditional roles, such as conducting cultural ceremonies, resolving family disputes, and communicating with clan leaders (Supple et al., 2010). Sons felt ill-prepared for leadership roles and expressed the need to learn Hmong traditions to be ready for these responsibilities (Supple et al., 2010).

**Cultural Language**

In Ngo’s study (2015), Hmong community leaders spoke about losing one’s culture through assimilation. According to Wright and Boun’s study (2011), Hmong youths believe assimilation is the quickest way to lose their cultural identity. Hmong youth are positioned between adjusting to the dominant culture and trying to understand the traditional customs of their parents that sometimes do not make sense to them. Research reveals that parents are concerned that their children will lose their cultural identity as they adapt to the American culture (Adler, 2004; Supple et al., 2010). They are worried that their children are losing their language and culture as each generation assimilates gradually into the dominant culture and the culture gap between generations increases (Adler, 2004; Supple et al., 2010).
Parental Support

Language is a barrier for many Hmong American parents with little to no formal education (Adler, 2004; Lor, 2008; Supple, McCoy, & Wang, 2010). Studies show that some parents expressed the challenge of helping their young children with schoolwork because of a language barrier (Adler, 2004; Lor, 2008; Uy, 2015). Parents from Adler’s study (2004) monitor their children’s assignments and progress in grade school even though they cannot help their children. Since Hmong American parents do not completely understand how the educational system works, they often seek a Hmong American person in a position of authority to help address their concerns, such as a counselor or administrator (Adler, 2004; Uy, 2015). According to Adler (2004), Hmong American parents trust what teachers are doing and do not question the school curriculum. They attend parent-and-teacher conferences, and some parents are involved in the Hmong Parent-Teacher Organization (Adler, 2004). Hmong mothers prepare food and assist their children in dressing up for dances at the school’s cultural festival (Adler, 2004).

According to Supple et al. (2010), parents are their children’s primary support through college. The forms of parental support include providing encouragement, finances, and childcare (Lor, 2008). Phone calls are a constant reminder that parents support their students when college becomes difficult and stressful (Lor, 2008). Even though parents may not be familiar with the college system, they know that education is the key to success and thus cementing the concept to their children to attain a degree (Chiang et al., 2015; Lor, 2008, Supple et al., 2010; Xiong & Lam, 2013). Research reveals that parents tell stories of the hardships and the lack of educational opportunities in other countries to motivate and show their children the importance of an education (Lor, 2008; Supple, et al., 2010).
In a study of college students who discussed parental support in interviews, Lor (2008) found that some students contemplated dropping out of college to find a job. In addition, students reported wanting to marry. However, they remembered what their parents said about the difficulties in supporting one’s family without a college education. Further, Lor (2008) found that, on occasion, parents would visit students with encouragement to be diligent in their studies. They might also provide monetary gifts. College-aged students who have children may struggle with balancing home and school responsibilities. Lor’s (2008) findings indicated that these students could concentrate on their studies if their parents looked after the children.

**Supportive Networks**

**Social Support from a Sense of Belonging**

A person’s sense of belonging derives from emotional attachment to being in a group and having similar characteristics with group members (Bruhn, 2009). Being in a group and contributing to the group’s perspective is characterized as perceived cohesion by Bollen and Hoyle (as cited in Bruhn, 2009). The combined perceptions of individual group members influence the entire group (Bruhn, 2009). Relationships and social ties provide different supports and contribute to a sense of belonging (Bruhn, 2009).

Social belonging helps college students face adversity (Walton & Cohen, 2011). Social belonging helps minority students maintain higher happiness (Walton & Cohen, 2011). In addition, sharing experiences helps new students cope with similar challenges (Walton & Cohen, 2011). Interventions that encourage students to develop a sense of belonging improve academic performance and the well-being of students from a minority group (Walton & Cohen, 2011). Social belonging helps ease the college transition for students with a common family background (Ostrove & Long, 2007). Common ancestry helps to create a sense of community.
Students will be more successful in college with a higher sense of happiness if they have positive relationships with friends (Ostrove & Long, 2007). Both of these factors point back to a sense of belonging that helps students to transition to college life. A smooth transition to college indicates a high sense of belonging for all racial/ethnic groups, and there is a significant difference in the sense of belonging between different racial/ethnic groups (Johnson et al., 2007).

According to Johnson (2007), students who have a sense of belonging in college through participating in co-curricular activities are more likely to join culture clubs. For example, Hmong American youths who joined cultural student organizations did so to stay connected with their culture (Ngo, 2015). Identifying with an ethnic group motivates students to strive for success because that success reflects positively on the ethnic community as a whole (Lee, 2015; Supple et al., 2010).

**Student Support and Awareness**

According to Lor (2008), Hmong American college students reported University counselors as a source of support, guidance, and information. Students from Xiong and Lee’s study (2011) reported academic advising as one of the most helpful support services. Academic services such as counseling help students transition into college (Lor, 2008; Xiong & Lee, 2011). Counseling services at the college level include planning a graduation roadmap and informing students of academic opportunities such as scholarships (Lor, 2008). Meetings with counselors were not limited to just educational planning and progress checking. Students can seek counseling to help with school-related situations (Lor, 2008). For example, in Lor’s study (2008), counselors help students to arrange tests and coursework requirements with professors during the student’s first year in college. As part of a supportive environment, counseling services encourage students to attend college (Lor, 2008).
Co-curricular activities such as extramural sports and playing a sport for the school also contribute to building a supportive environment (Lor, 2008). Similarly, joining student organizations creates opportunities and a safe environment to socialize with other students with common interests (Lor, 2008). Furthermore, educational conferences and workshops inspire students to succeed by hearing the success stories of speakers with similar struggles (Lor, 2008; Xiong & Lam, 2013). Students benefit from the many resources offering support services and co-curricular activities. The benefits include:

1. Providing opportunities for students to meet others, who shared similar dreams and goals, outside of the school environment.
2. Underscoring the importance of leadership qualities and opportunities.
3. Reinforcing academics and social skills.
4. Be committed to participants who seek academic and social resources.
5. Providing multicultural services and opportunities.
6. Advancing leadership qualities and independence.
7. Reinforcing their goals and expectations through guest speakers and workshops.
8. Rejuvenating ambition and passion to enroll and graduate from college.
9. Providing leadership opportunities and a sense of accomplishment. (Lor, 2008, pp. 43-44).

Support through financial aid is critical in allowing Hmong students to attend college (Lor, 2008; Xiong & Lee, 2011). In Xiong and Lee’s study (2011) students reported financial assistance as the most helpful service. Students receive financial support from grants, scholarships, work-study programs, and outside-of-school employment (Lor, 2008). These monetary contributions cover the cost of attending college, such as tuition, school supplies, and
living expenses. Students from Lor’s study (2008) expressed gratitude towards financial aid to help them through college because they would not have been able to attend without it.

Teachers, professors, and classmates are another support (Lor, 2008; Xiong & Lam, 2013). Studies revealed how high school teachers' involvement contributes to the awareness of college and enrollment (Chiang et al., 2015; Lor, 2008). For example, Lor’s study (2008) revealed how teachers challenged students and told them they could succeed in college. In addition, getting to know college professors and communicating with them helps students to stay on track and be motivated to graduate (Lor, 2008). For students from Lor’s study (2008), professors are a symbol of wisdom and knowledge, and students seek them for their advice and guidance.

Studies revealed that peers, such as friends and classmates, are sources of support because they share similar struggles and goals (Lor, 2008; Xiong & Lam, 2013). For example, students from Lor’s study (2008) would make friends with those who have school as a top priority. Research shows that encouragement and peer competition were a source of motivation (Lor, 2004; Xiong & Lam, 2013). Therefore, according to Xiong and Lam’s study (2013), it is not a surprise that peer advising is among the top three services that were most helpful to Hmong college students.

Support services are only helpful to the students who are informed and use them. Studies revealed that many Hmong American college students are unaware of the services available or do not utilize them (Xiong & Lam, 2013; Xiong & Lee, 2011). Xiong and Lee’s study (2011) revealed that 27 out of 55 Hmong college students reported not participating in academic support programs. When asked why students did not utilize the services, half of the students reported the lack of information on how to seek help and were not aware of the available services (Xoing &
Lee, 2011). The lack of outreach programs contributed to students not being informed about available support services (Xoing & Lee, 2011).

To reach out to more potential college students, programs like Admission Possible attempt to inform underrepresented minority groups of financial aid assistance, and other college preparations (Goral, 2004). The nonprofit organization has an outreach program that worked with 400 Hmong students for two years, from their junior to senior year of high school to help them enroll in college (Goral, 2004). The programs aim was to narrow the information gap that prevented many students from attending college (Goral, 2004). After school, the students met in groups of 15 to prepare for the SAT and ACTs, apply for scholarships, and file for financial aid (Goral, 2004).

Uy (2015) made some suggestions to help the Hmong community to become more informed of the educational system by recommending schools and staff work together with community-based organizations to understand and respond to the target population in a culturally appropriate manner. More Hmong interpreters and school documents translated into Hmong are needed to communicate with parents (Uy, 2015). Furthermore, Uy (2015) mentioned the need to create programs to teach parents about the school system so that they can participate in leadership roles and further impact their children’s education.

**Academic Capital Formation Framework**

The revised ACF framework (Winkler & Sriram, 2015) is an appropriate lens to explore Hmong American undergraduate college students’ experiences. The revised ACF framework comprises eight components (Winkler & Sriram, 2015). Figure 1 depicts the revised ACF framework. The components describe social processes to help low-income first-generation undergraduate college students attain postsecondary degrees (St. John et al., 2011). The ACF’s
original six components are easing concerns about cost, supportive networks, navigation of the system, trustworthy information, college knowledge, and family uplift (St. John et al., 2011). The two Winkler and Sriram (2015) added are overcoming barriers and family expectations. All eight components contribute to the development of academic capital, defined as “social processes that build family knowledge of educational and career options and support navigation through educational systems and professional organizations” (St. John et al., 2011, p. 1). What follows is a description of each of the eight components of the revised ACF framework.

**Figure 1**

*Revised Academic Capital Formation conceptual framework. Adapted from Winkler and Sriram (2015, p. 577).*
Concern About Costs

The first component, easing concern about costs, is derived from the economic human capital theory and is part of the original reconstructed academic capital formation theory by St. John et al. (2011). This component involves more than just having an awareness of financial support. St. John et al. believe that the challenge of overcoming financial barriers is to decrease the overwhelming concerns that may prevent families from using possible solutions. The challenge to easing the concern of cost involves a three-part process of finding realistic solutions to pay for college, informing people about the solutions, and preparing families to deal with future financial hardships while in college (St. John et al., 2011). Once families overcome financial barriers, they could consider a broader range of options for college (St John et al., 2011).

Supportive Networks

The second component, supportive networks, refers to social and emotional support for students from community members (St. John et al., 2011). Support from people in the community, like mentors and teachers, can help families understand the planning and transition process of going to college (St. John et al., 2011). St. John et al. suggested that students develop trustworthy relationships with peers, professors, and support personnel to help with college transition.

Navigation of the Systems

The third component, navigation of the systems, refers to how students overcome barriers of class and race to acquire knowledge about the college system, usually by participating in mentorships or social networks (St. John et al., 2011). In the context of family engagement, St. John et al. (2011) suggested families find opportunities in communities with a support structure.
For example, families can participate in programs that help reduce college costs (St. John et al., 2011). Regarding student engagement, St. John et al. (2011) suggested that being involved in collegiate organizations would help students to learn how to make educational decisions. Networking allows students to learn about academic and career paths (St. John, et al., 2011).

**Trustworthy Information**

The fourth component, *trustworthy information*, refers to how students are informed about college by their school and the community at critical times to help them succeed (St. John et al., 2011). The program Admission Possible, which aims to provide students from underrepresented minority groups with college preparations (Goral, 2004), is an example of this. College assistance from programs like this helped students prepare for ACT/SAT and apply for financial aid and scholarships.

**College Knowledge**

The fifth component, *college knowledge*, involves understanding various pathways in college that lead to degree attainment and using resources to achieve academic success (St. John et al., 2011). For example, college students can use their understanding of the college system to seek counseling from academic advisors about choosing appropriate classes for their major (Lor, 2004). Knowing how to use resources such as college counselors can help students reduce stress about enrolling in courses (Lor, 2004).

**Family Uplift**

The sixth component, *family uplift*, refers to behaviors that support educational and career attainment and tend to pass across generations (St John et al., 2011). Families of first-generation college students may not have the resources to transfer to their children because they are not familiar with the college system and have not completed a college degree to be able to share a
successful pathway (St John et al., 2011). If a family member has graduated from college and found a career, then the family will have a successful pathway to follow across generations (St John et al., 2011).

**Overcoming Barriers**

The seventh component, *overcoming barriers*, refers to a student’s perseverance in achieving academic success while facing challenges (Winkler & Sriram, 2015). For example, being academically unprepared for college and lacking social support are obstacles for high-risk college students (Winkler & Sriram, 2015). The study by Irlbeck et al. (2014), gives examples of students overcoming barriers who lack social support. The students from Irlbeck et al.’s study (2014) relied on self-motivation to overcome challenges. According to Winkler and Sriram (2015), some students developed coping strategies to overcome personal hardships.

**Family Expectations**

The eighth component, *family expectations*, refers to the involvement of a family in a student’s college experience (Winkler & Sriram, 2015). Winkler and Sriram (2015) cited sources from Horn and Chen (1998) and Perna and Titus (2005) to assert that parental involvement in the form of educational expectations and college discussions promotes college attendance. For example, as they became involved in their children’s college decision-making process and influenced their children’s college choice through discussions, parents made their expectations known to their children (Gibbons & Woodside, 2014).

**Discussion and Conclusion**

The literature shows that Hmong American college students have a lower graduation rate than other Asian subgroups. The model minority stereotype and oversimplifying Asian subgroups’ reports overshadow other Asian minority groups’ struggles, especially Hmong.
Research clearly shows that support from family and social groups positively affects Hmong youths. The literature also revealed that families need information and resources to be informed about going to college. Families are concerned about the cost of college, and first-generation college students, in general, are more likely to not complete their degrees because of financial hardships. Since Hmong American students in higher education are a group that is at risk, it is crucial to understand their college experiences. Therefore, this study explored the barriers that Hmong undergraduate college students experience and how they overcome their obstacles through the ACF lens. Since academic capital involves sharing information across generations that promotes academic success, this study also investigated if academic capital among Hmong American undergraduate college students varies by generation status of the student. In addition, given differential treatment and expectations observed across genders, as well as the logical connection parent education level should have on the transmission of academic capital, both gender and parent education level were factored into the quantitative models.
CHAPTER 3: METHODOLOGY

Research Questions

The researcher used a mixed-method design to investigate questions that examine differences in academic capital between groups of Hmong American college students and explore how academic capital develops. The research questions were:

A. Among all Hmong American college students, does generational status (first versus non-first) explain the level of academic capital beyond that accounted for by student gender and parent level of education?

1. Is generational status a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

B. Among first-generation Hmong American college students, does the parent’s education level explain the level of academic capital beyond that accounted for by student gender?

1. Is a parent’s education level a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

C. How do students describe their experience in acquiring academic capital? Specifically, what barriers do Hmong American undergraduate college students face when obtaining academic capital, and how do they overcome them?

Mixed Methods Research Questions:

Based on the regression model employing generational status, student gender, and parent education level as predictors.

1. What experiences in acquiring academic capital are described by Hmong American undergraduate college students who report levels of academic capital that are close to predicted levels (i.e., cases with low residuals representing more typical cases in which residual means the difference between the actual outcome and the predicted probability)?
2. What experiences in acquiring academic capital are described by students who report levels of academic capital that are far from predicted levels (i.e., cases with high residuals representing more unique cases)?
Design and Methodology

This study used a mixed methods approach to answer the research questions. Mixed methods research is associated with a pragmatist worldview (Creswell & Plano Clark, 2018). A mixed-methods design collects both quantitative and qualitative data (Leavy, 2017). The purpose of gathering diverse data is to better understand the research problem (Creswell, 2003). The process of data collection can be simultaneous or sequential (McMillan & Schumacher, 2014). Based on the order of data collection, a mixed methods research design can be divided into three types, explanatory, exploratory, and triangulation.

In an explanatory mixed methods design, the data collection is sequential (McMillan & Schumacher, 2014). Explanatory mixed methods consist of two phrases (Creswell & Plano Clark, 2018). The first phase is to collect quantitative data and analyze the findings (McMillan & Schumacher, 2014). Based on the quantitative results, the second phase is to collect qualitative data to explain and elaborate on the quantitative findings.

Different emphasis on the second phrase leads to two variants of the explanatory sequential mixed method design (Creswell and Plano Clark, 2007). The Participant Selection Model focuses on choosing participants based on specific criteria. This model aims to select participants who fit a profile and best provide the data that the research seeks (Creswell and Plano Clark, 2007). Figure 2 depicts the steps for the Participation Selection Model. The Participant Selection Model for an explanatory sequential mixed methods design was the best approach to address the qualitative research questions because participants were needed to fit the quantitative data.
The second phase of this study was a phenomenological approach. According to Creswell and Poth (2018, p. 75), “a phenomenology study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon.” For this study, the phenomenon investigated was the academic capital formation of Hmong American undergraduate college students with low standardized residuals and those with high standardized residuals. The researcher chose this study design because it aligned with the research purpose of investigating students' educational experience to understand their barriers and how they overcome them.
Participants

*Quantitative*

The target population for this study consisted of Hmong American undergraduate college students in the United States. The accessible population was Hmong American undergraduate college students in California. Participants were between 18 to 24 years old and attended universities in California. Convenience sampling was used to select participants based on availability. Students from colleges in locations within the Central Valley of California, where Hmong American communities are present, were recruited to ensure that there are potential participants. Social media posts were also used to recruit college students in California.

G*power* software was used to determine an adequate sample size for this proposed research study. The settings for this calculation are as follows: alpha at .05, power at .80, and effect size (between small and medium strength) at .08. The measure tests the set of three predictors (used for the moderating effect of parent education level) in a model with eight predictors. However, parent education level was determined not to be a moderating variable later in the study. Therefore, according to the G*power* calculation, 141 participants were enough for this study. However, the researcher aimed to recruit 400 participants to ensure that the study has an adequate sample. Subgroups for the sample were then formed for this study. Subgroups were separated by student generation status, student gender, and their standardized residual.

To maximize the generalizability of the findings, the researcher recruited participants where there is a Hmong American community present. Hmong American communities span the California central valley. Therefore, to maximize generalizability, the researcher recruited participants from colleges within the central valley. The researcher intended to recruit
participants from four-year and two-year colleges to get a broad range of students. The type of college students attended was not used to analyze the quantitative data.

Four four-year universities granted permission for the researcher to use their student population. Two of those universities, college A and college B, have approximately 1000 and 1400 Hmong American college students, respectively, as reported on their college website. As for two-year colleges, the researcher was unsuccessful in seeking permission from two campuses. Social media posts about the survey were shared with Hmong college student organizations to recruit more participants.

**Qualitative**

For a phenomenological study, Dukes recommends between three to ten participants (as cited in Creswell & Poth, 2018), Moser and Korstjens (2018) suggest less than ten, and Creswell estimates between five to twenty-five (as cited in Mason, 2010). Since the sample size for phenomenological research studies has a wide range, there are suggestions for developing an appropriate sample size. According to Moser and Korstjens (2018), the sample size for a phenomenological research study depends on the number of participants that are “sufficient to provide the information needed for a full understanding of the phenomenon under study” (p. 10). In addition, Mason (2010) suggests using the concept of saturation, which describes a point where new data yields the same information, as a guideline for developing a sample size.

Because this research study is not entirely phenomenological but is also a quantitative study, the researcher chose participants based on specific profiles. The researched derived student profiles from grouping variables such as student gender and student generation status and whether their residual was high or low. Table 2 depicts an example of the eight profiles.
Table 2

Example for Participant Academic Score and Residuals

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Generation Status</th>
<th>Actual AC Score</th>
<th>Predicted AC Score</th>
<th>Unstandardized Residual</th>
<th>Standardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male with high residual</td>
<td>Non-first</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female with high residual</td>
<td>Non-first</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male with low residual</td>
<td>Non-first</td>
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</tr>
<tr>
<td>Female with low residual</td>
<td>Non-first</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Male with high residual</td>
<td>First</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female with high residual</td>
<td>First</td>
<td></td>
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</tr>
<tr>
<td>Male with low residual</td>
<td>First</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female with low residual</td>
<td>First</td>
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</tbody>
</table>

The researcher considered the following sampling technique to develop an appropriate sample size. Criterion sampling was chosen for this study because participants were selected based on predefined criteria. The grouping variables and the residual determined the predefined criteria. Since there are eight student profiles, then the researcher intended to interview eight people. The researcher intended to recruit more than eight participants in case students did not respond.

**Instrumentation**

This section begins with explaining the variables and outcomes for research questions A and B. Next will be a description of the demographic survey within the online questionnaire and
the dummy coding for the grouping variables. Then the Academic Capital Scale (ACS) will be described.

**Variables and Outcomes**

Since the quantitative part of this mixed-methods study used a comparative design, the variables were referred to as “grouping variables” and “outcomes” rather than as independent and dependent variables. The primary grouping variable, student generation status, was used to split the sample into first-generation undergraduate Hmong American college students and non-first-generation undergraduate Hmong American college student subgroups. The outcome was the academic capital score. Student gender served as the control variable, and student generation status and parent education level were moderating variables. Care was exercised in phrasing the results and their interpretation to avoid unwarranted causal conclusions. Where ease of communication makes such wording cumbersome, causal phrasing was accompanied by reminders to the reader that non-experimental designs may suggest but not warrant confidence in inferring any causal connections. For this study, the grouping variable and outcome, student generation status, and academic capital score were not used to draw causal conclusions. Still, they were instead intended to allow for comparisons between groups.

**Demographic Survey**

An online questionnaire was used to survey students for this study. A series of questions to gather participants’ background information (Appendix A) were included at the end of the questionnaire. The questions asked for participant demographics such as gender, age, college of enrollment, parent education level, and the number of siblings with a college degree.

Student gender and student generation status were dummy coded using 0 for male and first-generation status and using 1 for female and non-first-generation status. Parental education
level (no formal education in the US, some high school, high school diploma, and a college degree) were dummy coded for use in the multiple regression analyses. With four parental education levels, to begin with, three dummy variables (Some High School, High School, and College) were created. The correspondence between the original variable and how each group was coded (as 1 versus 0) for the three dummy variables is shown in Table 3. Hence, the group “No formal education in the US” gets coded as 0 on all three dummy variables and serves as the reference group.

Table 3

<table>
<thead>
<tr>
<th>Dummy Coding for Parent Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some HS</td>
</tr>
<tr>
<td>0 No Formal Education in the US</td>
</tr>
<tr>
<td>1 Some HS</td>
</tr>
<tr>
<td>2 HS Diploma</td>
</tr>
<tr>
<td>3 College Degree</td>
</tr>
</tbody>
</table>

Some HS = Some High School, HS = High School, HS Diploma = High School Diploma

Academic Capital Scale

The instrument that was used in the online questionnaire is the Academic Capital Scale (ACS) developed by Winkler and Sriram (2015). The ACS in Appendix B, consists of 28 self-rated questions based on a 6-point-Likert-type scale. Responders specify their level of agreement to statements by choosing one of the following: strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree, and strongly agree. Strongly disagree was assigned one point in value, and each successive statement received a point increase culminating in six
points for strongly agree. As a result, the total points possible for the ACS ranges from 28 to 168 points. Four questions were reverse-scored, including questions 17, 18, 19, and 28. The higher the score the higher the academic capital.

Questions from the ACS were developed based on the six components of the Academic Capital Formation (ACF) conceptual framework by St. John et al. (2011) and two factors that emerged from Winkler and Sriram’s research study (2015). The six components of ACF, easing concerns about costs, supportive networks, navigation of systems, trustworthy information, college knowledge, and family uplift, are subscales of the ACS and consist of 24 questions. The other four questions are from Winkler and Sriram’s two subscales, overcoming barriers and familial expectations.

The ACS was selected for this study because it was developed to measure the academic capital of college students. The ACS gave an appropriate measure because the outcome that the researcher is looking for is academic capital, and that is exactly what the instrument is intended to determine. Reliability measures are acceptable for seven components with a Cronbach’s alpha of .7 or greater (Winkler & Sriram, 2015). Only one component, easing concerns about cost, had a Cronbach’s alpha of .69. The reliability measure for the total ACS meets an acceptable standard of .83 for Cronbach’s alpha. Winkler and Sriram (2015) linked each item in the ACS back to the ACF conceptual framework for content validity. For the two subscales that branched off from the original six components of the ACF conceptual framework, Winkler and Sriram (2015) provided additional conceptual theories such self-authorship and the concept of hope to explain the concept of overcoming barriers, and used parental engagement indicators such as educational expectations and school-related discussions to explain why family expectations was a separate component.
The researcher emailed the author, Winkler, for permission to use the ACS. Permission was granted to use and modify by an email response (C. Winkler, personal communication, November 6, 2019). A screenshot of the email is in Appendix C. In addition, Winkler included the questions from the ACS as an email attachment.

**Quantitative Phase**

**Data Collection Procedures**

The researcher got approval from her university’s Institutional Review Board (IRB) before collecting data. After getting approval, the researcher contacted the IRB office at the other universities to obtain permission to conduct the study with their Hmong American undergraduate student population. The researcher sent a description of the dissertation (Appendix D), a recruitment letter (Appendix E), and the study IRB approval letter by email to inform IRB representatives about the research study during the process of seeking permission.

Once permission has been granted to survey the student population, the researcher sought permission from representatives at each university to obtain student emails or distribute the survey link. The recruitment letter was sent after a list of student email addresses was obtained from college A. College B, college C, and college D had representatives who distributed the recruitment letter via email and shared it on their Hmong student organization's social media pages. A reminder letter (Appendix F) was sent to increase student participation. The invitation email included a survey link that has the informed consent letter (Appendix G) as the first page before participants can proceed. The informed consent letter for the online survey did not need to be signed.

The survey was electronic and online through Google Forms. Participants were able to keep their identities anonymous. The survey did not ask for participants’ names and survey
responses were not linked to participants’ email. However, if participants chose to be invited for a follow-up interview, their identity was no longer anonymous, but their identity was kept confidential. Participants were asked at the end of the questionnaire for a follow-up interview. They were directed to click on a link that forwarded them to a separate Google Form, not connected to their ACS questionnaire responses.

Students who wanted to enter to win a gift card and not participate in the follow-up interview submitted their email addresses on separate Google Forms, not connected to the survey. Five randomly selected participants were contacted by email to accept the gift card. Once they responded, the ten-dollar Amazon digital gift card was distributed using their email address.

Students who wanted to enter to win a gift card and participate in an interview submitted their email address and generated a code to protect their identity by following the instructions (Appendix H) on a separate Google Forms, not connected to the survey. The code was used to identify participants’ survey responses to select students with high and low residuals to be interviewed. Participants received a ten-dollar Amazon digital gift card by email after the interview was conducted.

The online survey was closed once enough students had participated. The researcher used her personal computer, which is password protected, to download the Google Forms responses as a Microsoft Excel Spreadsheet file. The downloaded file was saved on a password-protected USB flash drive as backup. The researcher and her advisors only viewed the quantitative data. The digital files will be deleted after three year of completing the dissertation.
Data Analysis and Presentation

The researcher investigated the first two research questions (A and B) using multiple linear regression because there is more than one predictor and only one outcome. Sequential multiple regression allowed the researcher to enter sets of predictors in separate blocks and test the statistical significance of the individual predictors and the sets. The purpose was to quantify and determine if the proportion of explained variance in the outcome (dependent variable) is significant as each new block is added. Sequential multiple regression was used because the researcher was testing whether gender moderates the associations between (A) generation status and academic capital and (B) parent education level and academic capital. Separate regressions were used for females and males because the researcher was testing whether academic capital varies by gender.

A table displaying the descriptive statistics for academic capital broken down by the combination of student generation status and student gender will aid interpretation (see Table 4). Generation status will explain the difference in academic capital if the result is significant in Table 5 for GS (as indicated in the corresponding cell by RQA-1). The second part of question A will be answered by the $\Delta R^2$ found for Block 2 (as indicated in the cell by RQA-2). Generation status will explain the difference in female and male academic capital separately if the result is significant in Table 6 (as indicated in the cell by RQA-3). The $\Delta R^2$ in Table 6 will quantify the magnitude of the variation. A graph will be displayed if a variation is detected (see Figure 3 as an example).

A table displaying the descriptive statistics for academic capital broken down by the combination of parental education level and student gender will aid interpretation (see Table 7). A similar approach using sequential multiple regression was taken to address research question
B. Parent education level will explain the difference in academic capital if the result is significant in Table 8 for Block 2 (as indicated in the corresponding cell by RQB-1). The $\Delta R^2$ for Block 2 answers the second part of question B (as indicated in the cell by RQB-2). The third part is addressed by the significance of the result in Table 9 (as indicated in the cell by RQB-3). A graph will be displayed if a variation is detected (see Figure 4 for an example).

**Table 4**

*Example for the Descriptive Statistics of Academic Capital Score by Generation Status and Student Gender*

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th></th>
<th></th>
<th>Males</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>First Generation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non First Generation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 5**

*Example for the Summary of Sequential Multiple Regression Results Addressing Question A-1 and A-2*

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>$SE_b$</th>
<th>$\beta$</th>
<th>t</th>
<th>$\Delta R^2$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1: Control Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2: Main Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQA-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>And RQA-2</td>
<td></td>
</tr>
<tr>
<td>GS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Also, RQA-1</td>
<td></td>
</tr>
</tbody>
</table>
Table 5 continued
*p < .05, **p < .01, $\Delta R^2 = .xx$, $F(\#)$ = ####, $p = .##$, GS = Generation Status

Table 6

Example for the Summary of Regression Results Predicting Academic Capital from Generation Status Separately by Gender, Addressing Question A-3

<table>
<thead>
<tr>
<th>Gender</th>
<th>$b$</th>
<th>$SE_b$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQA-3</td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQA-3</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01

Figure 3

Example for the impact of generational status on academic capital moderated by student gender.
Table 7

Example for the Descriptive statistics of Academic Capital level by Parent Education Level and Student gender

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th></th>
<th></th>
<th></th>
<th>Males</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Formal Education in USA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8

Example for the Summary of Sequential Multiple Regression Results Addressing Question B-1 and B-2

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>SEb</th>
<th>β</th>
<th>t</th>
<th>ΔR²</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block 1: Control Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2 : Main Effect (Parent Ed Level)</td>
<td>RQB-1 and RQB-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, ΔR² = .xx, F(#, #) = ##.##, p = .##, Parent Ed Level = Parent Education Level, Some HS = Some High School, HS = High School
**Table 9**

*Example for the Summary of Regression Results Predicting Academic Capital from Parent Education Level Separately by Gender, Addressing Question B-3*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Parent Ed Level</th>
<th>$b$</th>
<th>$SE_b$</th>
<th>$\beta$</th>
<th>$t$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQB-3</td>
</tr>
<tr>
<td>HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQB-3</td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQB-3</td>
</tr>
<tr>
<td>HS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>RQB-3</td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, Parent Ed Level = Parent Education Level, Some HS = Some High School, HS = High School*

**Figure 4**

*Example for the impact of parental education level on academic capital moderated by student gender.*
Qualitative Phase

The qualitative phrase used a phenomenological approach via interviews. The first section will describe the data collection process. The second section will describe the five-step process for analyzing qualitative data.

Data Collection Procedures

Quantitative data were analyzed first before the qualitative data collection process could begin. Results from the quantitative data were used to determine which participants to invite for an interview. Participants were selected to represent students for typical cases (low residuals) and unique cases (high residuals). Residuals are calculated by subtracting the participants actual academic capital (AC) score by their predicted AC score. The actual AC score is the total points that participants received for completing the Academic Capital Scale. The predicted AC score is determined by a regression model that is based on the student’s gender and generation status. Eight lists were created to separate students by gender, generation status, and standardized residual. For example, one list consists of male non-first-generation students who have high standardized residuals. Once potential participants have been identified, a recruitment letter (Appendix I) was sent to their email address from the Google Forms that collected the email addresses of those who agreed to be interviewed.

Once participants agreed to participate in the interview, they were sent an informed consent (Appendix J) to be signed digitally. The signed informed consent was returned by email before an interview was scheduled. Interviews were conducted on Zoom, an online platform for virtual meetings, at a convenient time for the participants. The researcher asked permission to record all interviews. Students received a ten-dollar Amazon gift card as an incentive for participating in the interview. The interview protocol (Appendix K) consists of open-ended
questions to explore the educational experiences of Hmong undergraduate college students to investigate their barriers and how they overcame them.

**Data Analysis and Presentation**

Common qualitative data analysis strategies involve preparing, organizing, and coding the data (Creswell & Poth, 2018). For this study, the data analysis strategy used is the Data Analysis Spiral (Creswell & Poth, 2018). Figure 5 shows the five-step process. What follows is a description of each step.

**Figure 5**

*The data analysis spiral. Adapted from Creswell and Poth (2018, p. 186).*

The first step is to manage and organize data. The researcher audio recorded all interviews through Zoom for this step. In addition, the audio files were transcribed in a Word document. Some interviews were transcribed by Zoom. Edits were made to those transcriptions to match the audio recordings. Other audio files did not have a Zoom transcription and were
transcribed by Rev.com. Edits were also made to match with the audio recordings. The digital files were stored on a personal computer that is password protected. Transcriptions and audio files will be deleted after three years of completing the dissertation. The second step is to read and look for emerging ideas. Creswell and Poth (2018) recommend multiple read through and note-taking in the margin to capture emerging themes. Therefore, the researcher read the interview transcriptions more than once, highlighted sentences, and typed comments in the Word documents. The third step is to classify codes and develop themes. The researcher made comments in Word to code the highlighted sentences for each transcription. Emerging ideas from the comments were transferred to an Excel spreadsheet, where common ideas were combined to form a theme. The fourth step is when the researcher makes interpretations of the data. The researcher compared qualitative findings from this study with relevant literature in chapter five. The fifth and last step is to represent the data. According to Creswell and Poth (2018), this could be done with a visual image or a matrix to display the themes. The researcher used a matrix to present the themes in chapter five. Pseudonymous were used to protect the identity of participants and the colleges they attend. A table of the participant demographics will be in chapter 4.

**Establishing Trustworthiness**

To establish trustworthiness, the researcher audio recorded and transcribed the interviews. In addition, verbatim accounts of the participants' responses were used to explain their experience. The researcher emailed a copy of the analysis chapter to interview participants for member checking. One participant responded and had no corrections for the analysis. To avoid bias in qualitative analysis, the researcher bracketed her experience. In addition, the researcher discussed the qualitative interpretations with a peer debriefer to avoid bias.


**Researcher’s Positionality**

The researcher is a female high school teacher. She is Hmong American and was born in one of Thailand’s refugee camps. She was the first in her family to graduate from college. She learned about higher education from school staff. Since her parents did not have a formal education in the United States, she relied on school staff and the community for college information. School activities such as field trips and presentations gave her opportunities to discover different college campuses.

Her family is supportive of her decision to pursue a college degree. They have expectations for her to graduate and be a role model. She left her hometown to attend college. She stayed with extended family members. Her parents provided emotional and financial support during her college years. In addition, financial aid and summer part-time jobs helped with tuition and living expenses. While in college, she was a member of a student organization. She participated in activities to promote higher education for Hmong American high school students.

She has met and interacts with many first-generation Hmong American college students through her teaching experience and volunteer work. The stories that she has heard from her high school students and college acquaintances are related to access and knowledge of the college system. Her own educational experiences may be similar to many other students who are first-generation college students.

**Integration of Quantitative and Qualitative Data**

Quantitative data allowed the researcher to investigate if there is a difference between academic capital among Hmong American undergraduate college students based on student generation status and parent education level when student gender is control. Qualitative data was
used to understand how Hmong American undergraduate college students acquire academic capital, the barriers that students encounter, and if they overcome their barriers.

Quantitative and qualitative data were used to produce complementary insights. This strategy aimed to comprehensively understand Hmong American undergraduate college students' educational experience. The survey results alone do not explain Hmong American undergraduate college students' challenges. Therefore, the researcher used quantitative data to assist in selecting participants for further investigation. Quantitative data analysis allowed the researcher to generate eight lists of potential participants separated by their student gender, generation status, and standardized residual. The lists were used to recruit participants who have low residuals (typical cases) and high residuals (unique cases). The purpose of recruiting students with different residuals is to investigate the experiences of each group for common themes. Detailed descriptions and direct quotations tell their stories. Stories from the students’ interviews and their survey results provide insights for an in-depth understanding of the barriers they face and the challenges they overcame.

Assumptions and Limitations

Some threats to internal validity may not apply to this study because it is not an experimental design. This study is a correctional design and care was exercised in phrasing the results and their interpretation in an effort to avoid unwarranted causal conclusions. The researcher is aware of selection threats and tried to include control variables. The researcher assumed that the data will have a normal distribution, linear relationship, and equal variance across different groups. The low response rate of email participants is a limitation. Some students may choose not to respond because of motivation or other factors, so this may not be a true representation of the target population if relying only on email responses. Therefore, the
author assumed that reaching out to students through student organizations and social media will increase the representations of the target population. The researcher assumed truthful self-report data and intentionally collected the data anonymously. California is not the only state where there are Hmong American communities. Large Hmong American communities are also present in states like Minnesota and Wisconsin. The geographic location might limit the generalizability to populations in other parts of the United States. Therefore, generalizability may be limited to college students within California. Another limitation of the study is the low number of questions that the Academic Capital Formation Scale has for some subscales. However, the statistical analysis uses only the total score and does not employ subscale scores. The instrument has not been used in many research studies and can still be improved and reviewed in future studies.

**Summary**

These first three chapters provided an overview of the research topic and described the methodology. Chapter one introduced the research problem and the significance of the study. In chapter two, the researcher reviewed the literature to examine what is known about the disadvantages and barriers for first-generation college students, Asian American college students, and Hmong-American college students. Chapter three outlined the design of the mixed methods research study and described the procedures for both quantitative and qualitative phases.
CHAPTER 4: RESULTS

This mixed methods research study aimed to examine the relationship between academic capital formation of Hmong American undergraduate college students and those students’ generational status, parental education level, and gender. In addition, this study analyzed students’ educational experiences to understand the barriers they faced in obtaining academic capital and how they overcame those barriers.

The following sections of this chapter present the research questions, followed by descriptions of how quantitative data was prepared for SPSS and cleaned up. Next, quantitative results are reported. Finally, qualitative findings are reported and discussed after a summary that bridges the two types of data.

Quantitative Findings

Quantitative Research Questions

The quantitative research questions that guided this mixed methods study are as follows:

A. Among all Hmong American college students, does generational status (first versus non-first) explain the level of academic capital beyond that accounted for by student gender and parent level of education?

1. Is generational status a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

B. Among first-generation Hmong American college students, does the parent’s education level explain the level of academic capital beyond that accounted for by student gender?

1. Is a parent’s education level a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?
Preparing and Cleaning Data for SPSS

The survey data was exported from Google Forms as a Microsoft Excel file to be prepared for SPSS. Participants whose demographic responses revealed that they did not meet the criteria for the study were deleted during this process. Since SPSS can only analyze data containing numerical values, the survey responses were replaced with numbers. For example, responses to the ACS questionnaire were given in a Likert scale format. All responses for the ACS questionnaire were replaced with numbers ranging from one to six, where six represents “strongly agree”. Some answers to the demographic questions, such as parent education level, student gender, type of college that the respondent attended, and whether the respondent was Hmong, were replaced with numerical values. The data was ready for SPSS after labels were created for each survey question.

Once the Excel file was transferred to SPSS, values were assigned to the labels. Labels refer to the individual questions from the survey, whereas values are the numbers used to replace the survey’s initial responses. ACS questions 17, 18, 25, and 26 were reverse-scored. Frequency analyses were used to check whether every survey question was answered for all participants. Participant ID codes were checked for duplicates; even if two ID codes were the same, the responses showed that they were different people.

Survey Respondent Demographics

Data were collected from 187 respondents. However, after data cleaning, only 150 respondents met the criteria for this research study. Thirty-seven respondents were removed because they were over the 24-year-old age limit for participating in the study. Demographic questions were included in the online survey in addition to the ACS questionnaire. Table 10 shows the frequency analysis of the respondent demographics. More than half of the
respondents were females. More than 90% of respondents went to a four-year college rather than a two-year college. More than 50% of respondents were first-generation college students and more than 50% had at least one sibling who graduated from college.

Table 10

*Respondent Demographics*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>93</td>
<td>62</td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>38</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>28</td>
<td>18.7</td>
</tr>
<tr>
<td>19</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>20</td>
<td>22</td>
<td>14.7</td>
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<td>21</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td>22</td>
<td>19</td>
<td>12.7</td>
</tr>
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<td>23</td>
<td>13</td>
<td>8.7</td>
</tr>
<tr>
<td>24</td>
<td>8</td>
<td>5.3</td>
</tr>
<tr>
<td><strong>Type of College</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-year</td>
<td>13</td>
<td>8.7</td>
</tr>
<tr>
<td>Four-year</td>
<td>137</td>
<td>91.3</td>
</tr>
<tr>
<td><strong>Generation Status</strong></td>
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<td></td>
</tr>
<tr>
<td>First-generation</td>
<td>100</td>
<td>66.7</td>
</tr>
<tr>
<td>Non-first generation</td>
<td>50</td>
<td>33.3</td>
</tr>
<tr>
<td><strong>Having siblings who are college graduates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>69</td>
<td>46</td>
</tr>
<tr>
<td>1 or more</td>
<td>81</td>
<td>54</td>
</tr>
</tbody>
</table>

**Research Question A Results**

For inferential statistical tests, the researcher employed an alpha level (Type One Error rate) of .05 and used two-tailed tests. Table 11 reports the descriptive analysis of academic capital scores by student generation status and student gender.
Table 11

Descriptive Statistics of Academic Capital Score by Generation Status and Student Gender

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th></th>
<th>Males</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>First Generation</td>
<td>67</td>
<td>125.5</td>
<td>12.3</td>
<td>33</td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-First Generation</td>
<td>26</td>
<td>133.7</td>
<td>15.7</td>
<td>24</td>
</tr>
<tr>
<td>College Student</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A sequential multiple regression was used to answer research questions A-1 and A-2 based on the sample (n=150). The first block, student gender, was the control variable. The second block, student generation status, was the predictor variable. Table 12 shows the analysis of the sequential multiple regression. Once gender is controlled, the student generation status is associated with the academic capital score (b = -5.568, β = -.196, t= -2.401, p = .018). On average, first-generation participants scored about five and a half points lower on the ACS than those not first-generation. Generational status explained 3.8% of the variance in academic capital, ΔR² = .038, F(1,147) = 5.767, p = .018.
Table 12

Summary of Sequential Multiple Regression Results Addressing Questions A-1 and A-2

<table>
<thead>
<tr>
<th>Block 1: Control Variable</th>
<th>b</th>
<th>SEb</th>
<th>β</th>
<th>t</th>
<th>ΔR²</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-1.280</td>
<td>2.252</td>
<td>-.046</td>
<td>-.568</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block 2: Main Effect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.038*</td>
<td>.043</td>
</tr>
<tr>
<td>GS</td>
<td>-5.568</td>
<td>2.319</td>
<td>-.196</td>
<td>-2.401*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p < .05, ** p < .01, ΔR² = .038, F(1, 147) = 5.767, p = .018, GS = Generation Status

To answer research question A-3, separate regressions were run by gender. Results from the two regressions are shown in Table 13. For females, student generation status was associated with the academic capital score, (b = -8.215, β = -.269, t = -2.665, p = .009). On average, first-generation females scored more than 8 points lower on the ACS than females who were not first-generation. Generational status explained 7.2% of the variance in academic capital among females. For males, student generation status was not associated with the academic capital score, (b = -2.000, β = -.077, t = -0.574, p = .568). Student generational status explained less than 1% of the variance in academic capital among males.

Table 13

Summary of Regression Results Predicting Academic Capital from Generation Status Separately by Gender, Addressing Question A-3

<table>
<thead>
<tr>
<th>Gender</th>
<th>b</th>
<th>SEb</th>
<th>β</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>-8.215</td>
<td>3.082</td>
<td>-.269</td>
<td>-2.665**</td>
<td>.072</td>
</tr>
<tr>
<td>Males</td>
<td>-2.000</td>
<td>3.485</td>
<td>-.077</td>
<td>-.574</td>
<td>.006</td>
</tr>
</tbody>
</table>

*p < .05, ** p < .01
Figure 6 reports respondents' average academic capital score by their student generation status and gender. A difference of 9 for female respondents helps explain why there was statistical significance for females, but not for males.

**Figure 6**

*The impact of generational status on academic capital, moderated by student gender.*

![Graph showing the impact of generational status on academic capital, moderated by student gender.](image)

**Research Question B Results**

Table 14 reports the descriptive analysis of academic capital score by parent education level and student gender. After removing participants with college graduate parents, the sample size decreased to n=100.
Table 14

Descriptive Statistics of Academic Capital Score by Parent Education Level and Student Gender

<table>
<thead>
<tr>
<th></th>
<th>Females</th>
<th></th>
<th></th>
<th>Males</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>No Formal Education in USA</td>
<td>34</td>
<td>126.9</td>
<td>11.2</td>
<td>9</td>
<td>125.7</td>
<td>16</td>
</tr>
<tr>
<td>Some HS</td>
<td>7</td>
<td>125.1</td>
<td>13.1</td>
<td>5</td>
<td>131.4</td>
<td>19.9</td>
</tr>
<tr>
<td>High School</td>
<td>26</td>
<td>123.7</td>
<td>13.7</td>
<td>19</td>
<td>130</td>
<td>11.9</td>
</tr>
</tbody>
</table>

A sequential multiple regression was used to answer research questions B-1 and B-2 based on the sample \( n=100 \). The first block, student gender, was the control variable. The second block, parent education level, was the predictor variable. Table 15 shows the analysis of the sequential multiple regression. Controlled for gender, the study did not find parent education level to be associated with academic capital score. Parent education level explained .2\% of the variance in academic capital score, \( \Delta R^2 = .002 \), \( F(2,96) = .102 \), \( p = .903 \).

Table 15

Summary of Sequential Multiple Regression Results Addressing Question B-1 and B-2

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>SEb</td>
<td>( \beta )</td>
<td>( t )</td>
<td>( \Delta R^2 )</td>
</tr>
<tr>
<td>Block 1: Control Variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>-3.715</td>
<td>2.842</td>
<td>-.136</td>
<td>-1.307</td>
<td>.017</td>
</tr>
<tr>
<td>Block 2: Main Effect (Parent Ed Level)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some HS</td>
<td>.328</td>
<td>4.294</td>
<td>.008</td>
<td>.076</td>
<td>.002</td>
</tr>
<tr>
<td>HS</td>
<td>-1.109</td>
<td>2.843</td>
<td>-.043</td>
<td>-.390</td>
<td></td>
</tr>
</tbody>
</table>
Table 15 continued
*p < .05, **p < .01, ΔR² = .002, F(2, 96) = .102, p = .903, Parent Ed Level = Parent Education Level, Some HS = Some High School, HS = High School

To answer research question B-3, separate regressions were run by gender. Results from the two regressions are shown in Table 16. Parent education level is not associated with the academic capital score for females F(2,64) = .498, p = .610 nor for males F(2,30) = .355, p = .704.

Table 16

<table>
<thead>
<tr>
<th>Gender</th>
<th>Parent Ed Level</th>
<th>b</th>
<th>SEb</th>
<th>β</th>
<th>t</th>
<th>R²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Females</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some HS</td>
<td>-1.769</td>
<td>5.154</td>
<td>-.044</td>
<td>-.343</td>
<td>0.015</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>-3.219</td>
<td>3.235</td>
<td>-.128</td>
<td>-.995</td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Some HS</td>
<td>5.733</td>
<td>7.993</td>
<td>.149</td>
<td>.717</td>
<td>0.023</td>
</tr>
<tr>
<td></td>
<td>HS</td>
<td>4.281</td>
<td>5.799</td>
<td>.153</td>
<td>.738</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05, **p < .01, Parent Ed Level = Parent Education Level, Some HS = Some High School, HS = High School
Figure 7 shows respondents' average academic capital score by parent education level and student gender.

**Figure 7**

*The impact of parental education level on academic capital moderated by student gender.*

Summary of Quantitative Results

Results from the quantitative data suggested that student generation status is associated with academic capital scores and explains the 3.8% variance in academic capital scores. Results were significant for female respondents but not for male respondents. Parent education level was found not to have an association with academic capital scores and explains .2% of the variance in academic capital scores. In order to have a deeper understanding of how Hmong American
undergraduate college students acquire academic capital, qualitative data was collected via interviews and analyzed.

During an interview, a female participant’s generation status was revealed to be different than her survey response. After correcting her generation status and her parent’s education level, regression tests were run again. Statistical significance did not change. Therefore, the following sections will describe the qualitative research questions and report the results.

**Qualitative Findings**

**Qualitative Research Questions**

The qualitative research questions that guided this mixed methods study were as follows. How do students describe their experience in acquiring academic capital? Specifically, what barriers do Hmong American undergraduate college students face when obtaining academic capital, and how do they overcome them? Based on the regression model employing generational status, student gender, and parent education level as predictors.

1. What experiences in acquiring academic capital are described by Hmong American undergraduate college students who report levels of academic capital that are close to predicted levels (i.e., cases with low residuals representing more typical cases in which residual means the difference between the actual outcome and the predicted probability)?

2. What experiences in acquiring academic capital are described by students who report levels of academic capital that are far from predicted levels (i.e., cases with high residuals representing more unique cases)?

Interviews were conducted to answer the qualitative research questions. The interviewees were selected from lists that were generated using SPSS. Their placement on the
list was based on their standardized residuals. There were eight lists determined by student gender, student generation status, and their standardized residual. The researcher reached out to potential participants to get a diverse group of students. Six participants responded to the recruitment email. The following section will report the participants’ demographics and give a description of each participant.

Description of Participants

Participants answered demographic questions on the online survey for the first phase of this research study. From that questionnaire, and through checking with the participants in the interview, participants’ demographic data were gathered and are shown on table 8 below. Pseudonyms were used and reflect the characteristics of the participants. Each pseudonym is spelled in the Hmong language, and the names’ meanings are explained in Table 17.
Table 17

Demographics of Participants

<table>
<thead>
<tr>
<th>Pseudonym (names are in Hmong)</th>
<th>The Hmong meaning of each name</th>
<th>Gender</th>
<th>Age</th>
<th>Generation Status</th>
<th>College graduate siblings</th>
<th>Type of college</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phooj</td>
<td>“Phooj” means friends.</td>
<td>Male</td>
<td>21</td>
<td>Non-first</td>
<td>1</td>
<td>Four-year</td>
</tr>
<tr>
<td>Tub</td>
<td>“Tub” means son.</td>
<td>Male</td>
<td>19</td>
<td>Non-first</td>
<td>0</td>
<td>Four-year</td>
</tr>
<tr>
<td>Qhia</td>
<td>“Qhia” means to teach.</td>
<td>Female</td>
<td>21</td>
<td>Non-first</td>
<td>1</td>
<td>Four-year</td>
</tr>
<tr>
<td>Tau</td>
<td>“Tau” comes from the phrase “mob siab ua kom tau,” which means determination.</td>
<td>Male</td>
<td>24</td>
<td>First</td>
<td>0</td>
<td>Four-year</td>
</tr>
<tr>
<td>Lej</td>
<td>“Lej” means numbers.</td>
<td>Female</td>
<td>18</td>
<td>First</td>
<td>3+</td>
<td>Four-year</td>
</tr>
<tr>
<td>Npau</td>
<td>“Npau” comes from the phrase “npau sau,” which means to dream.</td>
<td>Female</td>
<td>18</td>
<td>First</td>
<td>0</td>
<td>Four-year</td>
</tr>
</tbody>
</table>

Table 18 reports the actual academic capital score of each participant. The actual academic score is the total points that was calculated from combining points from the 28 questions on the Academic Capital Scale. In addition, the predicted academic score and both the unstandardized and standardized residuals were calculated for each participant. The predicted levels are essential because they can be used as a baseline to compare with the actual AC score participants received for completing the Academic Capital Scale. Using regression analysis, predicted levels are what participants’ academic capital (AC) score should be based on student gender and student generation status. The model also includes a score boost for a student who is male and/or a student who is non-first generation. An unstandardized residual is calculated by
subtracting the actual AC score by the predicted AC score. A positive residual means that the actual AC score is higher than the predicted AC score. In contrast, a negative residual means that the actual AC score is lower than the predicted AC score. A large residual means that the actual AC score is far from the predicted AC score, and a low residual means the actual AC score is closer to the predicted AC score. For example, Table 18 reports that Phooj is a male non-first generation student, whose unstandardized residual is 18.93 as a result of subtracting his actual AC score from the predicted AC score. His unstandardized residual indicates that his actual AC score is higher than the predicted AC score and is farther away from the predicted AC score. His AC score is high and not an outlier since his standardized residual does not exceed 2.

The sections following Table 18 give a description of each participant.

**Table 18**

*Participant Academic Score and Residuals*

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Gender</th>
<th>Generation Status</th>
<th>Actual AC Score</th>
<th>Predicted AC Score</th>
<th>Unstandardized Residual</th>
<th>Standardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phooj</td>
<td>Male</td>
<td>Non-first</td>
<td>152</td>
<td>133.07</td>
<td>18.93</td>
<td>1.43</td>
</tr>
<tr>
<td>Tub</td>
<td>Male</td>
<td>Non-first</td>
<td>138</td>
<td>133.07</td>
<td>4.93</td>
<td>0.37</td>
</tr>
<tr>
<td>Qhia</td>
<td>Female</td>
<td>Non-first</td>
<td>153</td>
<td>131.79</td>
<td>21.21</td>
<td>1.60</td>
</tr>
<tr>
<td>Tau</td>
<td>Male</td>
<td>First</td>
<td>120</td>
<td>127.50</td>
<td>-7.50</td>
<td>-0.57</td>
</tr>
<tr>
<td>Lej</td>
<td>Female</td>
<td>First</td>
<td>150</td>
<td>126.22</td>
<td>23.78</td>
<td>1.80</td>
</tr>
<tr>
<td>Npau</td>
<td>Female</td>
<td>Non-First (later indicated first)</td>
<td>138</td>
<td>131.79</td>
<td>6.21</td>
<td>0.47</td>
</tr>
</tbody>
</table>
Phooj

Phooj is a male non-first-generation college student who received a score of 152 on the ACS and has an unstandardized residual of 18.93. He is attending a four-year university with an older brother who graduated from college. Phooj had lived in his hometown all his life and was afraid of leaving town after high school. He decided to attend a university closer to home for his bachelor’s degree but plans to enroll in another college for his graduate studies. His major is biology, and he wants to pursue dental school after graduation. Phooj tried to get out of his comfort zone by putting himself out there and making new friends. Finding friends, forming study groups, and socializing were challenging when he started college. He advises future college students to get out of your comfort zone, explore other interests, and connect with people.

Lej

Lej is a female first-generation college student, who received a score of 150 on the ACS and has a unstandardized residual of 23.78. She is attending a four-year college and decided to enroll at her university because of its reputation. Her decision is partly influenced by her brother-in-law, who is an alumnus. She is interested in studying mathematics and intends to be a math teacher after completing her college degree. At the time of the interview, she was in her first-year of college and was studying for her finals. Her first-year college experience involved becoming more independent and taking all her classes through Zoom. She has six sisters that have graduated from college. She is the youngest daughter in her family and wants to graduate from college and be successful like her older sisters. Her advice for future college students is to seek help, make friends, establish study groups, and use a planner to stay organized.
Npau

Npau is a female, first-generation college student who received a score of 138 on the ACS and has an unstandardized residual of 6.21. She attends a four-year college because she got accepted into the nursing program, and the university campus is relatively close to her family. She has an older brother currently attending a different college in another city. Getting a college degree will be a step closer to achieving the American dream for her and her family. Her parents and grandparents made sacrifices during the Vietnam war and escaped to give their children opportunities to experience a better life and become successful in the United States. Her advice for future college students is to follow their dreams, stay focused on education, and set goals.

Tub

Tub is a male non-first generation college student, who received a score of 138 on the ACS and has a unstandardized residual of 4.93. Tub is attending a four-year college and initially enrolled in his university for the criminal justice program, but later changed his major to computer science. He debated between joining the military or pursuing higher education. His parents were a major influence in his decision to attend college. Both graduated from college, so he wants to follow in their footsteps. He is the eldest son and has no siblings who have graduated from college. His advice for future college students is to enjoy life and live with moderation, whether studying or having fun.

Tau

Tau is a first-generation male college student, who received a score of 120 on the ACS and has a unstandardized residual of -7.50. He is attending a four-year university. He decided to continue his pursuit of higher education after dropping out of a two-year college. His past college experience and his plans for a better future drive his commitment and determination to
obtain his college degree. His major is English, and his career interests are becoming a script
writer or an English teacher. Tau is the youngest son in his family and does not have siblings
that have graduated from college yet. His advice for future college students is not to be afraid to
ask for help, seek guidance from relatives who graduated from college, and explore other
interests or hobbies that may not relate to school.

Qhia

Qhia is a female non-first-generation college student, who received a score of 153 on the
ACS and has a unstandardized residual of 21.21. When the survey was given, she was a student
in the last semester at a four-year university majoring in English. She aspired to be an English
teacher while in high school, and she plans to teach English in other countries. Qhia enrolled in
her university since it was convenient and the least expensive option. She has an older brother
who has already graduated from college. Her advice for future college students is to pick a
major early, get to know their professors, and reach out to them for help.

Theme Summary

Figure 8 presents nine themes that emerged to answer the qualitative questions. The nine
themes are separated into two different categories. The first type of theme consists of the four
barriers students face in acquiring academic capital, and the second type of theme consists of five
ways to overcome those barriers. A total of nine individual themes from the two types will be
explained in the following sections.
Barriers Related to Acquiring Academic Capital

The first type of theme includes four barriers relating to acquiring academic capital. The following sections will explain the four barriers.

Financial Barrier

The participants mentioned having financial concerns and experiencing financial hardships due to going to college. All participants were concerned about housing and living expenses. Lej expressed her concerns for next school year when she would have to attend college in person and secure housing:

Living in Southern California, it's a little bit more expensive. That is something that I fear for my future a little bit, because I'm not even sure if the dorms will be open for me, because I will be a second year. So, me having to find an apartment by myself. Me
wondering if my financial [aid] will still support me on that, or if I would have to be a working college student.

Compared to Lej’s housing concerns, Npau experienced financial hardships while living in the dorms. She explained how much she had to pay for the dorms and how that led to her decision to seek new accommodations:

I lived on campus for like a semester… I got almost like 14 k for just one semester. And I was like, ah, that's a lot of money. I'm not gonna live there. I'm not going to live here next semester.

For Lej, Tub, Phooj, Qhia, and Tau, the decision for them to enroll at their college was partly influenced by financial considerations. Phooj decided to stay in town for college “to save money” because he was concerned about living expenses if he left home. Qhia said she “didn’t want to pay rent.” Therefore, she stayed with her family and attended college close to home. Tub explained the reason why he did not attend a UC or another university from out of town:

The biggest reason was largely financial, because I couldn't quite afford a UC. I was planning to go to [a] UC, but I couldn't quite afford to go to [a] UC. I couldn't afford the cost of living to go to another state or to go down [California]… or anything like that. I just didn't quite have the funds for that.

Tub ultimately decided to stay closer to home and attend a state university in his hometown. Similarly, Tau chose to attend a college in his hometown to save money. Tau considered living and attending college in his hometown “the best financial choice.” Although Tau believed he made a sound financial decision to stay in town, it did not prevent him from experiencing financial hardships. He suffered financial difficulties at his two-year college
following issues with his financial aid paperwork. He described his experience and what he had to sacrifice when he could not get financial aid:

So, I have to kind of struggle financially. So, I sold my own personal car to fund for my education. And then once that fund, like kind of ran out after my second year... I was so close to giving up just because of money you know. So, you know, once I got to that point of my life right there, I was just gonna drop out of school and work again.

**Academic Barrier**

A theme that emerged from the study is the prevalence of academic barriers, which describes the experiences where participants needed assistance to help them with their classes. For example, Tau needed assistance writing essays. He mentioned not getting support and guidance during his first year of college and how he struggled writing essays for an English class. He did not get support from the instructor and instead received a recommendation to drop the class. Similarly, Qhia needed assistance with writing English essays. She elaborated on her lack of experience with classical English literature and how that contributed to her academic difficulties:

I had to write essays that were based on articulating old literature. And then that was difficult for me to do just because I've never done it before, and there's nothing that I've ever experienced in life that could relate to old English literature... I don't think I've ever been a great writer or reader... the things I was learning, it was just hard. It was hard to like make my own ideas. That's why I had a hard time in college.

Like Tau and Qhia, Npau also needed academic assistance with writing essays, particularly for his major core classes as they became more difficult. Npau typically studied with a group of friends, but none of them were majoring in computer science like him. Therefore, he
could not ask them for their help, as he needed assistance from people who understand computer science.

Another academic barrier is the lack of academic focus and guidance. Tau explained how lacking guidance to navigate college and focus in his studies led him to drop out after his first year of college. Tau enrolled in college because his friends went to college, but he could not stay focused and ended up skipping some classes. Tau expressed multiple times in his interview that he lacked a mentor to help him throughout his first year. He needed guidance to navigate the system and stay focused. Similarly, Tub also struggled with staying focused on his studies. His “biggest obstacle” after he finished a class and before attending another class hours later was “finding a way to use that time to study rather than hangout with friends of just kind of play video games.”

**Stress Management**

All participants had to deal with stress management. Academic barriers created stress for Tau, Qhia, and Lej. For example, Lej accumulated stress from midterms and final exams. She knows the expectations are high: she has paid a lot of money for college, and so there is pressure to succeed. Tau, Qhia, and Npau stressed about writing essays in their English classes. Other participants, such as Tau and Npau, have issues with their financial aid documents.

Meanwhile, time management difficulties created stress for participants like Phooj. For example, Phooj’s sleep schedule was disrupted by the stress he experienced from balancing school, work, and home life. He described his experience with balancing work, school, and home:

I just needed time for myself. I was putting too much time into that work, into student government, and my grades were falling, and just mental health was not good. Sleep
schedule is not good. And so, during that time, it was very hard, I guess. And again, bringing back my dog where things at home weren't the best either, just trying to support my parents, but also trying to get my dog every time she got out, and then trying to keep up with the amount of work from school, and just from my jobs too. There was a lot of things that I had to let go.

Some participants may experience stress from multiple sources. For example, time management, academic needs, and financial aid worries contributed to stress for Tub. Tub had financial concerns because he did not get financial aid from the school and his parents were also supporting his sister at the same time. He had a lot of time between classes, and although he knew he should be using that time to study, he was having difficulty focusing because he wanted to hang out with friends. The friends that he hangs out with do not share the same major as him, so he cannot ask them for help with academic work.

**COVID-19 Implications**

A surprising theme that came up related to COVID-19. Since interviews were conducted during the pandemic, the implications of COVID-19 naturally arose when participants described their current educational experiences. For example, Npau wanted to attend a university in southern California, but the pandemic influenced her decision to stay closer to home instead. She also mentioned how it was hard to learn about her school because of the pandemic. She was surprised when she noticed how large her school campus really is. In addition, she had a hard time meeting people and making friends because of social distancing guidelines.

Like Npau, Lej was a college freshman. Her first-year college experience was entirely on Zoom. She revealed that the transition to digital learning was difficult.
Qhia and Phooj explained how the pandemic impacted stress for them. Qhia was managing her stress level well by prioritizing certain classes over others. However, the pandemic affected her ability to manage her stress. Similarly, Phooj had difficulties balancing his school, work, and home life. His dog kept getting out of the house, which interrupted his school time while taking part in distance learning.

Strategies Used to Overcome Barriers to Acquiring Academic Capital

Five themes emerge to present five ways participants overcame barriers to acquiring academic capital. The following sections will explain the support system and strategies that helped participants overcome.

Family Influence, Expectations, and Support

All participants revealed that their parents value education and pressure them to do well in school. Both of Tub’s parents graduated from college while starting a family at a young age. Tub revealed that he must at least graduate from college because of his parents’ achievements. He must follow in their “footsteps.” Similarly, Phooj’s parents and older brother have a college degree, so he felt pressure “to get to that level as well, to graduate with [a] bachelor's.” By comparison, neither of Npau’s parents graduated from college, so they want her older brother and her “to exceed them.”

Besides graduating from college, participants revealed other expectations their families have for them. For example, Tau described himself as “the face of the family.” His role requires him to participate in family gatherings. Tau explained the expectations that he has for being the youngest son in a traditional Hmong family:

Being the youngest son, I [have] the expectation [of] taking care of both my parents when I'm able to. So, you know that's kind of like I guess anyway like a really, really big
responsibility. So, I do have to do that and then being still traditional Hmong, you know I still have to attend the gatherings you know or occasions and yeah. Like now that my dad, he doesn't attend those anymore. I have to be the one that shows up in his position, in his spot, and it's sometimes, you know, the clan elders or the elders of the clan you know, they don't recognize me as that because to them I'm still a child.

Compared to Tau’s family expectations, Qhia’s family does not expect much from her because she is a middle child and a daughter. She described her parents’ expectations between her and her older brother in the following way:

Because I have an older brother, there's a lot of expectations on him. On me, there isn't any and I think it's because I'm the daughter. I'm going to get married and I'm going to leave the family. It's kind of like that. So, a lot of it's on my oldest brother. None of it's really on me.

Tub, who has younger sisters, revealed a similar perspective. He noted a difference in expectations and that his parents “hold [him] to a higher standard.”

Participants said their families supported them financially and emotionally. For example, both Tau and Npau revealed that they received financial assistance from their parents until they could resolve the issues with their financial aid documents. Tau’s parents encouraged him to keep attending college and eased his financial burden by helping him pay for textbooks and lending him their truck because he sold his car to pay for college. While some participants received support from their parents, others leaned more on their siblings, with whom they are closer. For example, Lej revealed that “there is a major language barrier” between her and her mother. Therefore, she is closer to her older sisters who graduated from college. She sought emotional support from a sister who lives with her during difficult times. Other students, like
Tub, whose academic capital score is close to the predicted level, are more comfortable overcoming obstacles and try not to involve other people if possible. Tub tries to contain his emotions and stress and keeps it to himself as much as possible. This may explain why his academic capital score is close to the predicted level: because he is less likely to seek help from others.

Participants revealed that, in addition to their parents, they have role models in their families who encourage them to pursue a college degree and support them through college. For example, Tau looks up to his cousin—who graduated from college—as a role model. Lej has her brother-in-law and older sisters. Tub has seen his uncles achieve success and looks up to them as examples for his college and career aspirations. Some participants, such as Qhia, Npau, Phooj, and Tub, revealed that they are expected to be role models for their younger siblings.

**Community Support and Influence**

Participants explained that in addition to the support that they get from their families, they also have support from people in the community and others who are influenced by them to pursue higher education. For example, Tau was encouraged by a coworker, an older Hmong woman, to go back to school and stop working at a job that would get him nowhere. The Hmong woman’s words of encouragement were the catalyst that he needed to “reassess” his life before deciding to return to college. Similarly, Lej was inspired by a math teacher in high school to pursue a degree in mathematics so she could become a teacher herself. She “really like the idea of impacting students’ lives.”

A Hmong counselor showed Npau resources that she used to decide her college and major. Npau believed the Hmong counselor was a source of support for many of the Hmong students attending her high school. Qhia has a supportive partner and friends. She carpooled
with her partner to college. Tub has supportive coworkers from his internship who can assist
him with any questions about his career aspirations. Phooj’s support system consists of members
from student organizations and members from online social groups. These social communities
are where Phooj can express himself and find emotional support.

*College Services and Resources*

Another kind of support that helps participants throughout their college experience is
services and resources that their university provides. These services and resources that
participants are aware of or have used can be separated into four categories: financial services,
academic services, health services, and informational resources. Financial services help
participants with college-related expenses such as tuition, textbooks, housing, etc. Academic
services assist participants in understanding their class content or assignments. Health services
help to maintain participants’ mental and physical wellbeing. Informational resources are ways
participants are informed about new opportunities.

Participants described the services and resources that helped them in college. For
example, financial aid, services that provided free groceries, and classes that offered free
textbooks helped ease financial pressures. For academic services, participants revealed that
tutorials, professors’ office hours, the university writing center, and study groups helped them to
understand their class content and assignments. Health services such as counseling and clinics
helped with students’ mental and physical wellbeing. Finally, participants’ informational
resources included the school website, social media pages such as Instagram, school emails, and
flyers.

Lej, who has a high academic capital score (high residual), revealed that she used many
services and resources to navigate her first year. Financial aid helped her pay for college tuition,
and some of her classes gave out textbooks to their students. Those two services eased her financial concerns. In addition, she used counseling services to help with stress. She followed her college’s Instagram page to stay informed and used the group chat feature to connect with peers and to create study groups. The groups that she is part of help her emotionally and academically. At her college, she joined the Educational Opportunity Program (EOP), where she is informed of many opportunities. Lej also regularly checks her school email and notices the opportunities that interest her. The fact that Lej used a variety of services and resources to respond to various situations may partly explain why her academic capital is high.

In contrast, Tau knew about the EOP program during his first year but never applied. Although Npau was in the program, she did not take advantage of the scholarship opportunities. Both participants experienced financial struggles, and Tau lacked guidance during his first year in college. Not using all available resources may explain why their academic capital scores are close to the predicted level or have a low residual.

**College Preparedness**

Some of the ways participants became informed about their college’s services, and resources included information shared by their professors, advisors, classmates, alumni, coworkers, friends, or family members. There are even programs that help freshmen transition to college life. For example, Lej was in a week-long summer program that introduced her to planning her class schedule and attending sample classes. Similarly, Npau was in a program included in one of her classes. She was informed about the college’s services, resources, and student organizations. A peer counselor was also part of the program to assist her with class schedules and suggest services and resources to address her needs. Other participants, such as Phooj and Qhia, revealed that first-year orientation helped them learn about their college.
Phooj, who has a high academic capital score and a high residual, revealed that he is involved in many school activities. He worked as a teaching assistant and had to learn about the school’s services and resources to teach incoming first-year students. He was also part of student government and other student organizations. His college experience of being involved in school activities and being well informed because of his roles may explain his high academic capital score.

Qhia is another participant with a high academic capital score and a high residual. She mentioned talking “to everyone,” which includes her friends, classmates, professors, and the English department chair when she needs help. Her friends would tell her what resources they have used, and then she would try them out. She emailed many college professors, and they always emailed her back. She became acquainted with the English department chair because she sought assistance. Since Qhia has many sources for information and support and uses them effectively, her academic capital is high, as expected.

**Self-Motivation**

A theme that describes the participants’ willingness to strive for success is self-motivation. All participants display self-motivation. Participants with self-motivation have goals and the determination to accomplish the goals. For example, Tau returned to college because he wanted a better future for himself:

I always say to myself like, you know my parents are getting older. Not going to be here with me like for long. So, I have to prepare myself for when the time comes. So that I don't feel sorry for myself. Like man, I should’ve went to college and whatnot. So, I'm just for now preparing for myself in the future.
Similarly, Npau believes people should set goals, and he dreams of success. Her perspective is summarized by the following:

Pull yourself together. Think about your family, think about all the support they're trying to give you, and even though they don't. Some of them may not support you. It's up to you to do your thing. It’s your life.

Phooj, who is involved in many school activities, was determined to meet new people and make friends when he first enrolled in college. In the following excerpt, he described his process and the motivation that led him to overcome his obstacle:

I graduated just a class ahead. I kind of left my class behind and I kind of went in alone into [college] and it was difficult to find new friends, find a group… One of the first things I thought of was joining the Hmong Club [a student organization] and just taking small steps to go out of my comfort zone, to meet new people and put myself out there.

Lej also had a hard time socializing with new people, partly because her first year in college required remote learning. She was successful at forming study groups because she utilized various social media resources and was motivated to find peers from a class list and make efforts to reach out to them. Qhia displayed self-motivation when she continued to speak to as many people as needed to receive help. Tub specifically mentioned that his “driving motivation” is to prove to his younger siblings and family that he can be successful and do what he likes.

**Summary of Qualitative Results**

Four themes emerged to describe the barriers Hmong American undergraduate college students face while navigating college. The four themes are academic barriers, financial barriers, stress management, and COVID-19 implications. Five themes emerged to describe how participants navigated college and responded to their obstacles. The five themes are family
support, community support, college resources and services, college preparedness, and self-motivation. The participants with a high academic capital score shared experiences that may explain their academic scores beyond their gender and generational status. Participants took a survey to record their academic capital score, and some participants shared experiences that showcased their struggles and strategies. In chapter five, I will share recommendations to support Hmong American undergraduate college students, Hmong American students at the K-12 level, and refugees.
CHAPTER 5: SUMMARY AND DISCUSSION

This mixed methods research study aimed to investigate whether academic capital is associated with Hmong American undergraduate college students' gender, generation status, and their parent’s education level. This study also examined the educational experience of Hmong American undergraduate college students to understand the barriers they faced in obtaining academic capital and how they overcame them.

Quantitative Research Questions

The following quantitative research questions guided this research study.

A. Among all Hmong American college students, does generational status (first versus non-first) explain the level of academic capital beyond that accounted for by student gender and parent level of education?

1. Is generational status a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

B. Among first-generation Hmong American college students, does the parent’s education level explain the level of academic capital beyond that accounted for by student gender?

1. Is a parent’s education level a significant predictor?
2. What proportion of variance in academic capital does it explain?
3. Do the results vary by student gender?

Hmong American undergraduate students from California were recruited via social media and from four universities to answer these questions. Sequential regressions were used to analyze the data and the following section summarizes the findings.

Summary of Quantitative Results and Interpretations

For question A, once gender was controlled, the student generation status is a significant predictor of academic capital and it explains 3.8% of the variance. The results vary by student gender, more so for female participants. On average, first-generation females scored more than 8
points lower on the ACS than females who are not first generation. Generational status explained 7.2% of the variance in academic capital among females. For male participants, generation status is not associated with academic capital score, which explains less than 1% of the variance.

For question B, controlling for gender, the parent’s education level was not a significant predictor of academic capital, and it explains 0.2% of the variance. The results do not vary by gender either.

According to the regression analysis for this study, non-first-generation Hmong American undergraduate students are expected to have more academic capital than first-generation students. In addition, male students that are non-first generation will be expected to have higher academic capital than other students.

A surprising outcome of this study is the higher number of female respondents compared to males, 93 and 57, respectively. This outcome cannot be used to conclude that more Hmong American females attend college than males. What is shown is that Hmong American female undergraduate college students are trying to achieve academic goals and that the expectations of Hmong daughters may be changing as a result (Supple et al., 2010).

**Qualitative Research Questions**

The qualitative research questions that guided this mixed methods study are as follows. How do students describe their experience in acquiring academic capital? Specifically, what barriers do Hmong American undergraduate college students face when obtaining academic capital, and how do they overcome them? Based on the regression model employing generational status, student gender, and parent education level as predictors.
1. What experiences in acquiring academic capital are described by Hmong American undergraduate college students who report levels of academic capital that are close to predicted levels (i.e., cases with low residuals representing more typical cases in which residual means the difference between the actual outcome and the predicted probability)?

2. What experiences in acquiring academic capital are described by students who report levels of academic capital that are far from predicted levels (i.e., cases with high residuals representing more unique cases)?

To answer these questions, six students were interviewed. Audio recordings were transcribed, and the transcriptions were analyzed for common themes. The following sections will summarize the findings and interpretations. Then implications of the study, limitations, and recommendations for further studies will be discussed.

**Findings and Interpretation of Qualitative Themes**

Two types of themes emerged from the qualitative data to reveal the barriers Hmong American undergraduate college students face and how they overcome them. Four of the themes relate to the barriers that students face: academic, financial, stress management, and COVID-19 implications. Five themes emerged to describe how students overcame their obstacles. The five overcoming barrier themes are family support, community support, college resources and services, college preparedness, and self-motivation. The following summarizes the findings and interpretations.

**Barriers**

Financial concern is a barrier for Hmong American undergraduate college students as it is for other college students (Wilbur & Roscigno, 2016), especially if they do not get financial
assistance from their university. Financial concerns may negatively impact degree completion (Wilbur & Roscigno, 2016). In addition, financial concerns may cause stress (Wilbur & Roscigno, 2016), and leads to other health problems such as sleep deprivation, as seen in this study.

Therefore, stress management is another barrier for Hmong American undergraduate college students as it is for other students. Financial stress and other personal and family stressors may decrease the chance of college completion (Wilbur & Roscigno, 2016).

Academic difficulties contribute to stress and can also be a barrier. Academic barriers can be the need for assistance with writing, for understanding class content, or for staying focused on academic studies. Some students may know how to get the academic support they need, and others may not, similar to a study by Xiong and Lee (2011).

COVID-19 implications emerged as a surprising theme because the interviews were conducted during the pandemic. During the pandemic social distancing was implemented to avoid having high cases of people contracting the coronavirus. Therefore, students transitioned to college life at home and through online learning. COVID-19 not only impacted the health of students and their family, but also affected their entire daily life. For example, social interactions and learning were limited to online environments. Therefore, first-year college students did not get to experience college life on their school campus, making it difficult for students to connect with peers, to make new friends, to learn and understand class content, and learn about their college campus.

**Overcoming Obstacles**

The study suggests that Hmong American undergraduate college students can overcome barriers by relying on support from their family, community, college resources and services,
college preparedness, and self-motivation. Parents are the primary source of support for finance and encouragement, similar to a study by Lor (2008). The pressure to graduate from college is common for many families. The expectations are high and there are other family obligations that students have to balance. Similar to a study by Supple and colleagues (2010), sons may have to care for their parents when they are old and may have to attend family gatherings as head of the household (2010). The expectations are not the same for daughters because they will be part of their husband’s family when they marry.

Students with parents who have graduated from college have an advantage because they can follow in their parents' footsteps. They have a pathway to follow, while other students have to find guidance from other family members. Therefore, siblings and relatives are another source of family support. Those who have graduated from college become the role models for younger generations to look up to. Besides family members and members of the community can also influence the college choice and career aspirations of students, functioning as part of a “supportive network” for students (St. John et al., 2011).

Using the resources and services at their universities is also a way for students to overcome obstacles. Financial aid was widely mentioned as the most helpful service to ease financial concerns, similar to Xiong and Lee’s study (2011). Other services helped with academic difficulties, such as getting assistance from the writing center, tutorial services, or college professors. To maintain a healthy body and mind, other services such as counseling and health clinics were widely mentioned by participants.

College preparedness also helps students navigate through college. Students are prepared when they are informed of their college resources and services. They are informed by programs and workshops that help them transition to college. In addition, college professors were widely
mentioned as a source of information about college resources and services, which is similar to Lor’s study (2008). Students also learned about resources and services from speaking to friends, classmates, alumni, advisors, and family members. Communicating with acquaintances allowed students to be prepared because they know how to access resources and utilize services. Knowing what the services and resources are and utilizing them help students overcome their obstacles.

The last factor to student success is self-motivation. Self-motivation from family hardships and life events drives many students to pursue college (Irlbeck et al., 2014). Some Hmong American students are the first generation to attend college. They want a better life for themselves and their family. They want to achieve the American dream because their families are survivors of the Vietnam War. They see the opportunities in what education can help obtain. Others see it as a family obligation to support their aging parents and to be a role models for younger generations.

**Integration of Quantitative and Qualitative Findings**

Findings from the study suggested that students with low or negative residuals have difficulty trying to overcome barriers. They described experiences that involved overwhelming challenges. For example, all participants had financial concerns, but some could ease their concerns without much difficulty. Whereas two of the participants, Npau and Tau, who have low and negative residual, respectively, gave detailed descriptions of the hardships that they went through while trying to overcome financial barriers. Tub, who also has a low residual is still struggling to overcome his barriers. He has financial concerns because he does not get financial aid and still has difficulty balancing school with his social life.
Experiences that help students who reported levels of academic capital close to the predicted level (or low residual) tend to be experiences where students rely more on themselves rather than seeking help. For example, Tub would rather keep his struggles to himself than to involve others as much as possible. Students are not as comfortable seeking help from someone else like in Tub’s case, or they may have experiences where help was not available, for example, like Tau, who sought help but was rejected. There may be resources and services that students know about, but do not use, which is similar to findings from studies by Xiong and Lam (2013) and Xiong and Lee (2011). In the case of Npau and Tau, they both knew about EOP but did not use the service.

The study's findings suggested that participants with a high residual have strategies and utilize many services and resources. They are more successful at overcoming their barriers. Phooj, Qhia, and Lej, who all have high residuals, share resources that they used to overcome their barriers. For example, Phooj was involved in many school activities when he joined student government and other student organizations. He was also a teaching assistant. His various positions taught him about college resources and how to navigate the college system. He communicated with different groups on campus and online for support as needed.

Similarly, both Lej and Qhia also communicated with many people. Lej used social media to connect with peers for academic and emotional support. She checks her email regularly, follows the university's social media page, and joined UOP to be informed of opportunities and resources. Qhia also sought assistance and communicated with multiple sources such as her friends, classmates, professors, and department chair.

The students that reported levels of academic capital far from the predicted level (or a high residual) have experiences that involve communication with various people to seek the
assistance they needed. Those students have a vast knowledge of their university resources and services, and they use them. They were not afraid to go out of their comfort zone and sought help more than once and from different sources. Components of academic capital formation are social processes (St. John et al., 2011). Therefore, students more involved in social activities can gather more resources and navigate the college system. The findings suggest that those students tend to have a higher academic capital.

**Implications for Action**

The findings from this study suggested that students benefited from social interaction. Students learn about resources and services and navigate through college by interacting with various people. Therefore, to ensure that students have opportunities to interact with classmates at the college level, professors should consider activities that facilitate meetings between students. In addition, an online platform for all courses should be created to allow students to communicate with everyone in the same class. Students should be encouraged to form study groups and attend professor office hours. Professors should be aware that students come from various cultural backgrounds and experiences and provide an environment where students feel a sense of belonging and support by promoting “equity and inclusion in their classroom” (Warriner et al., 2020, p. 38).

This study also revealed that financial difficulties, academic difficulties, and personal difficulties induce stress in students. These challenges contributed to students struggle with managing stress. Students may not know how to manage stress or be unwilling to seek assistance. I recommend universities check student stress by having students complete a survey. In addition, students should be contacted with information and assistance by email to manage stress. Universities can hire individuals that represent the student population culturally to
encourage them to seek support (Suzuki, 2002). For example, Hmong counselors, professors, teaching assistants, etc., can be hired to encourage more Hmong undergraduate college students to seek support. Hmong mentors can be hired specifically to guide and check with Hmong undergraduate college students throughout their college program.

Universities should develop mentor programs for specific populations, such as first-generation college students or students from specific minority groups. The mentors will be role models for students and should be someone they can relate to. This person could be another college student or someone who is from the same ethnic group as the students that they are mentoring. Mentors should communicate with their students often to check their progress. Students should be in groups in the mentor programs and be exposed to opportunities that allow them to get involved in activities at their college.

This study showed that participants were inspired by school staff and were given resources that allowed them to learn about different colleges before they attended higher educational institutions. Therefore, teachers, counselors, and administrators at the K-12 level should create opportunities to inspire students and opportunities for students to gather resources about college. Some examples could be a day of the week for staff to wear college shirts, students going on college campus field trips, hosting college or career fair night, having college informational presentations, assigning projects for students to research and plan for college, etc.

Additionally, Teachers have the most opportunities to influence students since they spend the most time with students at the K-12 level. Several research participants still utilized tools they received from their high school teachers and counselors in college. I recommend that teachers build on this inspiration and provide students with resources that help develop skills for success. Here are a few suggestions for teachers on how to do that:
1. Promote a supportive and culturally responsive environment.

2. Share resources and opportunities about college.

3. Share personal experiences about college and connect with students.

4. Learn about your students—for example, their hobbies, career interests, cultural background, etc.

5. Use the knowledge about students to implement activities or lessons that are relevant and meaningful to students (Warriner et al., 2020).

6. Help the student develop 21st-century skills, such as critical thinking, problem-solving, collaboration, self-management, and communication (National Research Council, 2012).

7. Encourage students to work in teams by facilitating collaboration activities.

8. Encourage the use of technologies for the student to communicate with students for collaboration.

9. Encourage students to use agenda or another resource to manage time.

10. Encourage students to seek help outside the classroom and be available to support students.

11. Be the person that students can talk to and ask for advice.

12. Be a role model and inspiration for students.

Hmong American students are just one of the many groups of refugees resettled in the United States. Students from refugee families have “unique situations and experiences” (Warriner et al., 2020, p. 38). Students may have experienced trauma, and displacement, and have limited or interrupted school experiences (Warriner et al., 2020). They are not familiar with the school system in the United States. Therefore, leaders and educators should be more
culturally aware of Hmong culture, including the unique needs of Hmong students and other refugees, and prepare to help the students transition. I recommend the following critical strategies for school site leaders, teachers, and counselors to consider:

1. Learn about the refugee group’s situation and educational history (Warriner et al., 2020).
2. Invite the parents to school to learn about their rights and responsibilities (Rubinstein-Avila, 2017).
3. Hire interpreters.
4. Hire a community liaison to communicate and work with students and families.
5. Translate school documents in different languages.
6. Devise a plan to transition students into schools so they can become familiar with schools in the United States before putting them in the general classrooms.
7. Promote an inclusive and supportive environment (Warriner et al., 2020).
8. Celebrate cultural diversity to promote a sense of belonging, e.g. a school carnival with different cultural food, a school performance of different cultural dances and music, etc.
9. Survey the refugee students and parents and use the data to develop support systems.
10. Help students adapt to a new culture while keeping their traditions and beliefs (Rubinstein-Avila, 2017).

Limitations of the Study

The limitations of this study were the survey population, misunderstanding of survey questions, and relatively few two-year college respondents, male respondents, and interview participants with low academic capital. The survey population is only within California, so the
findings did not represent the whole Hmong American undergraduate student population in the United States. Since survey data are student-reported, there may be mistakes. Incorrectly reported survey responses cannot be corrected because not all survey participants were interviewed. Few two-year college students and few male students participated in the survey, so they may not be well represented in this study. Not many participants with low academic capital were interviewed, so college experiences that are common for that group may not have been captured in this study.

**Recommendations for Future Studies**

Future studies could recruit Hmong American students from different states, recruit more two-year college students, and recruit more male students to have a broader representation. More students with low academic capital scores (low or negative residuals) need to be interviewed because the findings of this study suggested that students with low residual or negative residuals have barriers they have not overcome yet. They have challenges that are difficult to overcome, which may be why they will not graduate.

Conducting this study with different Asian subgroups given that not all Asian subgroups have the same college graduation rates could also be illuminating. In addition, many refugee groups such as Ukrainians, Syrians, etc. are still being resettled in the United States and other countries. There are differences in the educational history and culture of those groups. Therefore, more studies need to be conducted to understand how their culture and the dominant culture will impact their educational experience.

Futures studies need to be conducted to learn more about the impact of COVID-19 because it was a surprising theme that emerged. COVID-19 impacted students' learning
environments and social interactions. Therefore, more studies need to be conducted to understand the impact of COVID-19 through the lens of academic capital formation.

**Summary**

This study concludes with a discussion of both quantitative and qualitative findings and its relation to existing literature. Findings from this study revealed strategies that reflect the components of the Academic Capital Formation conceptual framework, and helped students to be more successful in overcoming barriers in college. Recommendations were given to guide students through college and inform them of resources and services. Future studies may increase the understanding of students' struggles from Asian American subgroups and other refugee groups, so that the perspectives of students like Phooj, Tub, Qhia, Tau, Lej, and Npau will be represented and not overshadowed when Asian students are viewed as a whole.

In concluding this study, I am reminded of my educational experiences, how I was informed about college, and what my teachers did to inspire me to pursue a college degree. Speaking from my experience, I remember my first school experiences where I did not understand English because I was a war refugee from Thailand and did not know English before coming to the United States. The days I spent in a transitional program with less than twenty students and with more than one teacher helped me understand the expectations of being a student. The program introduced me to the structure of a typical classroom, such as a variety of activities involving group participation and other activities that I must complete on my own. The program was successful in getting me to become comfortable with the school environment and made it less intimidating when I joined a general classroom.

Another key educational experience was when I discovered the existence of higher educational institutions and particularly my alma mater, because of two school field trips. My
third-grade teacher took my class to a literary event at the college in my hometown. That was the first time I learned about the existence of a university. Later, in ninth grade, I revisited the same college campus when my high school teacher brought my class to connect with Hmong undergraduate college students and learn about higher education. These are two of the very first experiences that introduced me to the existence of college and the concept of going to college after grade school. Inspiring students and giving them resources to learn more about attending college at a young age is important for preparing students for college. This study is important to me and should be important to others who need to be informed, inspired, and supported.


Museus, S. D., & Kiang, P. N. (2009). Deconstructing the model minority myth and how it contributes to the invisible minority reality in higher education research. *New Directions for Institutional Research, 142*, 5-15. doi: 10.1002/ir.292


Appendix A

The demographic questions below are at the end of the survey.

1. Are you Hmong?
   - Yes
   - No

2. What is your gender?
   - Female
   - Male

3. What is your age?
   - Under 18
   - 18
   - 19
   - 20
   - 21
   - 22
   - 23
   - 24
   - Over 24

4. Do you attend a college in the state of California?
   - Yes
   - No

5. Are you an undergraduate student?
   - Yes
   - No

6. What type of college do you attend?
   - Two-year college
   - Four-year college

7. What is your parent’s highest education level? Consider the parent with the highest education.
   - No formal education in the United States
   - Some high school
   - High school diploma
   - BA/BS/college degree graduate

8. How many of your siblings have graduated from college?
   - 0
- 1
- 2
- 3+
Appendix B

The researcher received permission in an email from Winkler to use and modify the Academic Capital Scale.

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Slightly Disagree</th>
<th>Slightly Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
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<tbody>
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<td><strong>Navigation of Systems</strong></td>
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<tr>
<td>1. People on my campus have reached out to me to offer support.</td>
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<tr>
<td>2. When I struggle in college, I know that I have someone to turn to for help.</td>
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<td>3. I know how to use the different support services offered by my college.</td>
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<td>4. I am aware of the resources at my school that can help me to be a more successful student.</td>
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<td>5. I feel comfortable seeking information from those who work at my college.</td>
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<tr>
<td><strong>Family Uplift</strong></td>
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<td>6. I am expected to get a better education than previous generations of my family.</td>
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<td>7. I want to get a better education than previous generations of my family.</td>
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<td>8. I hope to achieve more in life than previous generations of my family.</td>
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<td>9. My parents want me to achieve more in school than they did.</td>
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<td><strong>Supportive Networks</strong></td>
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<td>10. I have people in my life who support my decision to attend college.</td>
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<td>11. I have people in my life who encourage me to succeed in college.</td>
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<td>12. I have the emotional support that I need to get through college.</td>
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<td>13. There are people I trust who support me in finishing college.</td>
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<td><strong>Concern About Costs</strong></td>
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<td>14. I can continue to attend my college without financial aid.</td>
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<td>15. I am confident that I can financially afford to finish my college degree.</td>
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<td>16. I am more focused on my</td>
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17. I feel discouraged from continuing in college due to financial constraints.  
*Reverse scored item

18. My concerns about college costs limit what colleges I can attend.  
*Reverse scored item

**Trustworthy Information**

19. I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my family.

20. I am more trusting of information about my education that I receive from my college than of information about my education that I receive from my friends.

21. I view people who work at my college as trustworthy sources of information.

**Overcoming Barriers**
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<td>22.</td>
<td>I am confident that I can overcome any barriers to my success in college.</td>
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<td>23.</td>
<td>Despite any obstacles that I face, I am confident that I can continue attending college.</td>
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<td>24.</td>
<td>I have overcome the obstacles that would prevent me from being a successful student.</td>
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<td><strong>Family Expectations</strong></td>
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<td>25.</td>
<td>My family encouraged me to consider other paths in life than attending college. <em>Reverse scored item</em></td>
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<td>26.</td>
<td>My family expected me to pursue other paths in life than attending college. <em>Reverse scored item</em></td>
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<td><strong>College Knowledge</strong></td>
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<td>27.</td>
<td>I have role models in my family who attended college.</td>
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<td>28.</td>
<td>I have role models in my community who attended college.</td>
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Winkler, Christa E. <winkler.99@buckeyemail.osu.edu> Wed, Nov 6, 2019, 2:42 PM
to me

Good evening Lou,

Thanks so much for your email and your interest in the academic capital scale. Yes, you are more than
welcome to use and modify the scale (attached) for your purposes. I would love to hear if you have any
interesting findings emerge!

Thanks again,

Christa
Appendix D

Lou Vang
University of the Pacific (Doctoral Candidate)
Dissertation Co-Chairs: Jacquelyn Ollison, Ed.D. and Rachelle Kisst Hackett, Ph.D

Exploring Academic Capital Formation of Hmong American Undergraduate College Students
(Working Title)

Problem Statement:
There is a need to disaggregate data relating to Asian American and Pacific Islander groups so that the needs of underrepresented groups could be addressed. Since Hmong American is a subgroup of Asian Americans that are not widely studied then there is a need for more studies of Hmong students in higher education, particularly in relating to their experiences in navigating through the educational system. The Academic Capital Formation framework has components to help understand the college experiences of this group. More studies will help to understand how Hmong American college students acquire academic capital and how they use academic capital.

Brief Overview & Inquiry questions:
The purpose of this study is to examine the differences in the academic capital formation of Hmong American college students based on the student generational status, student gender, and their parent’s education level. This study will investigate how Hmong American undergraduate college students acquire academic capital, what barriers they encounter in obtaining academic capital, and how they overcome their barriers.

Quantitative Research Questions:
A. Among all Hmong American college students, does generational status (first versus non-first) explain level of academic capital beyond that accounted for by student gender and parent level of education?
   1. Is generational status a significant predictor?
   2. What proportion of variance in academic capital does it explain?
   3. Do the results vary by student gender?
B. Among first-generation Hmong American college students, does parent’s education level explain level of academic capital beyond that accounted for by student gender?
   1. Is parent’s education level a significant predictor?
   2. What proportion of variance in academic capital does it explain?
   3. Do the results vary by student gender?

Qualitative Research Question:
C. How do students describe their experience in acquiring academic capital? Specifically, what barriers do Hmong American undergraduate college students face when trying to obtain academic capital, and how do they overcome them?

Mixed Methods Research Question:
Based on the regression model employing generational status, student gender, and parent education level as predictors:

1. What experiences in acquiring academic capital are described by Hmong American undergraduate college students who report levels of academic capital that are close to predicted levels (i.e., cases with low residuals representing more typical cases)?
2. What experiences in acquiring academic capital are described by students who report levels of academic capital that are far from predicted levels (i.e., cases with high residuals representing more unique cases)?

Conceptual Framework
The revised ACF framework (Winkler & Sriram, 2015) is an appropriate lens with which to explore the experiences of Hmong American undergraduate college students because its components will help to organize information. The revised ACF framework consists of eight components (Winkler & Sriram, 2015). The components describes social processes to help low income first-generation undergraduate college students towards postsecondary degree attainment (St. John et al., 2011). The original six components of the ACF are easing concerns about cost, supportive networks, navigation of the system, trustworthy information, college knowledge, and family uplift (St. John et al., 2011). The two added by Winkler and Sriram (2015) are overcoming barriers and family expectations.

Overall Methodology
The research design for this dissertation is mixed methods. The type of mixed methods that will be used to conduct this study is a sequential explanatory design. The participant selection model describes the two phrases of data collection. Quantitative data is collected and analyzed first. Then based on the quantitative results, participations will be selected for the qualitative phrase. Quantitative data will be collected via an online survey, using Google Forms. Qualitative data will be collected via interviews, using Zoom for an online meeting.

Figure 2. Explanatory design: Participant selection model. Adapted from Creswell and Plano Clark (2007, p. 73).
Integration of Quantitative and Qualitative Data

Quantitative data and qualitative data will give complementary insights to understanding the barriers and challenges of academic capital formation for Hmong American undergraduate college students. Survey results alone do not explain the challenges that Hmong American undergraduate college students faces. Qualitative data will give voices to individual students who are selected for interviews. Direct quote gives them a voice and detailed descriptions tells their stories. The stories from the students’ interview paired with their result from the survey gives insights to a in-depth understanding of the barriers they face and the challenges they overcame.
Appendix E

Dear Student,

You are invited to participate in Lou Vang’s doctoral research study. The research study will examine the educational experience of undergraduate Hmong American college students. If you are a Hmong American undergraduate college student attending a college in California, then you meet the requirements for this questionnaire. The online questionnaire will take approximately 10 minutes. You may enter for a chance to win one of five $10 Amazon gift cards at the completion of the questionnaire. In addition, you can choose to be invited for a follow-up interview. All selected participants for an interview will receive a $10 Amazon gift card. Please consider taking this questionnaire and click on the link below to read the consent form before you start the survey.

https://forms.gle/jV9NTb6mmzM27zKq5

Thank you,

Lou Vang
Appendix F

Dear Student,

You have previously received an email invitation to participate in Lou Vang’s doctoral research study. The research study will examine the educational experience of undergraduate Hmong American college students. If you have already completed the survey, thank you! If you have not yet participated, then please use the link below to take the survey.

Once again, if you are a Hmong American undergraduate college student attending a university in California, then you meet the requirements for this questionnaire. Your survey responses will be anonymous. If you choose to be invited for an interview then your responses from the survey and the interview will be kept confidential. The online questionnaire will take approximately 10 to 15 minutes. You may enter for a chance to win one of five $10 Amazon gift card at the completion of the questionnaire. Please consider taking this questionnaire and click on the link below to read the consent form before you start the survey.

Click on this link to take the survey.

https://forms.gle/jV9NTb6mmzM27zKq5

Thank you,

Lou Vang
Appendix G

You are invited to participate in a doctoral research study conducted by Lou Vang from the University of the Pacific to examine the educational experience of undergraduate Hmong American college students as they navigate through college. Additionally, the research study will explore the challenges they may encounter. The aim of this survey is not to judge individuals, but to understand. The results of this study may lead to recommendations for college services and programs to support Hmong American undergraduate college students through college. There are two levels of participation available: (A) completion of an anonymous survey only, or (B) completion of the survey plus an individual interview.

Level A participation: Your participation is entirely voluntary and you may stop anytime during the survey if you wish to withdraw from the study. Your refusal to participate or to discontinue the survey at any time will involve no penalty or loss of benefits to which you are otherwise entitled. If you agreed to participate then you will be asked to complete an anonymous online survey that may take approximately 10 minutes. You can enter the prize drawing at the completion of the survey for a chance to win one of five $10 Amazon gift cards by submitting your email address to a form that is unconnected to the survey itself.

Level A participation risks: There are minimal risks in answering the survey questions and are not greater than the risks experience in daily life. You may feel psychological stress from recalling educational experiences. For those who do not volunteer to be interviewed, the responses to the survey are anonymous. The responses will be aggregated and will not be reported individually.

Level B participation: Towards the end of the survey you are given an opportunity to participate in a follow up interview. If you choose to volunteer to be interviewed, then you will generate a code. You will provide this same code at the conclusion of the survey and again on a separate form where your email address is given. This allows the researcher to contact those willing to be interviewed and to link responses between the interview and survey. All participants who are selected for the follow up interview will receive a $10 Amazon gift card.

Level B participation risks: If you submit your self-generated code to be invited for an interview then your survey data will no longer be anonymous. Instead, it will be considered confidential information and procedures will be used to maintain confidentiality. The risks of participation in the interview are still considered to be minimal, but the lack of anonymity means that, although unlikely, a breach of confidentiality is possible.

If you have any questions, please contact me, Lou Vang at (209) 981-8199 or one of my advisors, Dr. Ollison at (916) 426-6781 or Dr. Hackett at (209) 946-2678. For more information about the participation’s rights, please contact the IRB Administrator, Research & Graduate Studies Office, the University of the Pacific at (209) 946-3903.

Selection criteria: In order to participate in this research study you must be:
1. Between 18-24 years old
2. An undergraduate college student attending a college in the state of California
3. Of Hmong ethnicity

If you have read and understand the information above, and voluntarily agree to complete the survey, then proceed to the next page to begin the survey. You may print a copy of this consent form for your record. If you do not meet the requirements or you do not want to participate, then simply close your internet browser.
Appendix H

Note: The following directions comes after the demographic questions and is on a separate page of the survey.

Optional Follow Up Interview

Please follow the directions below to generate a code if you are interested in being invited for an interview.

If you do not want to be interviewed, then simply go on to the next page.

Follow the directions below to generate your code.

Your code will consist of the following:
1. The first two letters of your mother’s name.
2. The last four digits of your cell phone number.

For example my code will be “mo8199.” The first two letters of my mother’s name are “mo” and the last four digits of my cell phone number are “8199.”

What is your self-generated code?
(fill in the blank)

Note: The following directions are on a separate Google Form and is not attach to the survey.

This Google Form is not connected to your survey responses. Input your email below to enter the prize drawing. You do not need to input a self-generated code if you are not interested in participating in an interview.

If you are interested in being interviewed, then you must submit your self-generated code. The purpose of the code is to allow the researcher to select interviewees who are likely to have experiences that will help the researcher better understand the findings based on survey responses. By submitting the same self-generated code you gave when finishing the first longer survey, please understand that your survey responses will no longer be anonymous. Your responses will be linked to your email address; however, all your data will be treated confidentially.

Input your email below to enter the prize drawing.
(fill in the blank)
Appendix I

Dear Student,

Thank you for participating in Lou Vang’s doctoral research study by taking the online survey. The research study will continue to examine the educational experience of undergraduate Hmong American college students. You have responded with interest in a follow-up interview and have been selected. I would like to schedule a meeting with you through Zoom. The interview will be audio-recorded and may take between 45 to 60 minutes. You will get a $10 Amazon gift card for your participation. Please consider participating in this interview. You may respond to this email if you agree to participate.

Thank you,

Lou Vang
Appendix J

You are invited to participate in a doctoral research study conducted by Lou Vang from the University of the Pacific to examine the educational experience of undergraduate Hmong American college students as they navigate through college. In addition, the research study will explore the challenges they may encounter. The aim of this survey is not to judge individuals, but to understand. The results of this study may lead to recommendations for college services and programs to support Hmong American undergraduate college students through college.

Your participation is entirely voluntary, and you may stop anytime during the interview if you wish to withdraw from the study. Your refusal to participate or to discontinue the interview at any time will involve no penalty or loss of benefits to which you are otherwise entitled. If you agree for an interview, then a meeting will be set up through Zoom. The interview may last a minimum of 30 minutes and 60 minutes at maximum. You can skip questions if you do not want to answer. I am asking for your permission to audio record our conversation to gather detailed information.

There are minimal risks in answering the interview questions and are not greater than the experience of the risk in daily life. You may feel psychological stress from recalling educational experiences. Your responses will be held confidential, and your name will not be used. If you agreed to this interview, you must be honest and truthful because the results of this interview may be used to make recommendations to help assist college students. All interviewees will receive a $10 Amazon gift card.

If you have any questions, please contact me, Lou Vang at (209) 981-8199 or one of my advisors, Dr. Ollison at (###) ###-#### or Dr. Hackett at (###) ###-####. For more information about the participant’s rights, please contact the IRB Administrator, Research & Graduate Studies Office, the University of the Pacific at (209) 946-3903..

To participate in this study you must be:
1. Between ages 18-24
2. An undergraduate college student attending a university in the state of California
3. Your ethnicity is Hmong

If you have read and understood the information above, then please print and sign your name below. You may print this consent form for your record.

Research Study Participant (Print Name): ________________________________

Signed: _________________________ Date:______________________________
Appendix K

Note: This interview protocol seeks to answer the following research questions.

- What barriers do Hmong American undergraduate college students face when trying to obtain academic capital, and how do they overcome them?
- How do students who fall in the predicted level and those who do not, describe their experience in acquiring academic capital?

Tell me a little about yourself.
- When and why did you decide to go to college?
- How did you end up attending your current college?
- Did you have any difficulties transitioning into college? Which difficulties?
- Do you have any difficulties attending college? Which difficulties?

1. Overcoming Obstacles
- Tell me about how you responded to a time when you found college to be difficult?
- Do you have any strategies to cope with college difficulties? Which difficulties?
- What kind of experiences help you to solve problems in college?

2. Concerns about Cost
- What kind of financial concerns do you have associated with college?
- How do you respond to financial hardships associated with college?

3. Supportive Networks
- Think of a time when you felt like you wanted social or emotional support. What did you do to gain it?

4. Navigation of the System
- What kind of college resources on your campus or online do you know of or use?
- How do you know about those college resources?

5. Trustworthy Information
- What would you do if you want to know more about a college-related topic?
- Who are your sources for college information?

6. College Knowledge
- Tell me about how you decide on a college major and their class requirements.
- Tell me about how you know what kind of job requires your desired college degree.
7. Familial Expectations
   - What kind of expectations does your family have?
   - How does your family get involved in your education?
   - What kind of discussions do you have with your family that relates to college?

8. Family Uplift
   - What impact does your family think by earning a college degree will have on the extended family?
   - Do you have anything you would share with younger generations to improve their college experience?

Ending Question
   - Is there anything else you’d like to share that I haven’t asked?

To seek further information or redirect a conversation, the researcher may ask:

Please tell me more about..

Thank you for your explanation. What about...

For the questions about difficulties, the researcher can follow up with how did you respond to...